29 Jay Street Environmental Assessment Statement

CEQR # 18DCP150K



Lead Agency:
New York City Planning Commission (CPC)

Prepared for:
Forman Ferry, LLC

Prepared by:
Philip Habib & Associates

Jun 22, 2018

29 Jay Street

Environmental Assessment Statement

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EAS FORM

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 29 Jay Street

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP150K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
180344 ZMK, N 180345 ZRK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Planning Commission			**Forman Ferry, LLC**		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin			**Peter Forman**		
ADDRESS **120 Broadway**			ADDRESS **130 Shore Road, Suite 124**		
CITY **New York**	STATE **NY**	ZIP **10271**	CITY **Port Washington**	STATE **NY**	ZIP **11050**
TELEPHONE **212-720-3420**	EMAIL **rdobrus@planning.nyc.gov**		TELEPHONE **516-717-0000**	EMAIL **peter@forman.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): **NYCRR §617.4(b)(9) & NYC Executive Order 91 §6-15(a)(2)**

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, Forman Ferry, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) and New York City Council (the "Proposed Actions") that would affect Brooklyn Block 20, Lots 1 and 6 in the DUMBO neighborhood of Brooklyn Community District (CD) 2 (the "Rezoning Area"). Specifically, the applicant is seeking (1) a zoning map amendment to rezone the Rezoning Area from M1-4/R8A to M1-6/R8X; (2) a zoning text amendment to ZR Section 123-63 to add R8X to the list of residential districts mapped within the MX-2 Special Mixed-Use District; and (3) a zoning text amendment to ZR Section 123-66 to allow streetwall heights of developments in the Rezoning Area to be increased based on the streetwall heights of buildings in the surrounding context.

Under the RWCDS, the Proposed Actions would facilitate the development of a 10.0 FAR, 155-foot-tall approximately 224,935 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "Proposed Development Site"). The Proposed Project would include approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail. In addition, as the proposed development site is located within a New York City Landmarks Preservation Commission- (LPC-) designated historic district, the proposed project requires a Certificate of Appropriateness ("C of A") from LPC.

The Proposed Project is expected to be completed and occupied by 2021. In the absence of the proposed actions, the Proposed Development Site would be redeveloped as-of-right with a 145-foot-tall predominantly residential building comprising 141 dwelling units (DUs), 15,164 gsf of local retail, and 45 accessory parking spaces.

Project Location

BOROUGH **Brooklyn**	COMMUNITY DISTRICT(S) **2**	STREET ADDRESS **25 and 29 Jay Street**
TAX BLOCK(S) AND LOT(S) **Block 20, Lots 1 and 6**		ZIP CODE **11201**

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS **Westernmost 150 feet of the block bounded by Plymouth Street to the south, Jay Street to the west, John Street to the north, and Bridge Street to the east, with 190 feet of frontage on the east side of Jay Street, 150 feet of frontage on the south side of John Street, and 150 feet of frontage on the north side of Plymouth Street.**

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY **M1-4/R8A (MX-2)**

ZONING SECTIONAL MAP NUMBER **12d**

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): **28,500 sf**

Roads, buildings, and other paved surfaces (sq. ft.): **28,500 sf**

Waterbody area (sq. ft.) and type: **0**

Other, describe (sq. ft.): **N/A**

7. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): **224,935 gsf**

NUMBER OF BUILDINGS: **1**

HEIGHT OF EACH BUILDING (ft.): **While the applicant is proposing a maximum building height of 148', the RWCDS assumes a maximum building height of 155' and also analyzes an Alternate RWCDS with a maximum building height of 175' (the maximum residential building height under the proposed zoning)**

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): **224,935 gsf**

NUMBER OF STORIES OF EACH BUILDING: **11 stories**

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO

If "yes," specify: The total square feet owned or controlled by the applicant: **18,955 sf**

The total square feet not owned or controlled by the applicant: **9,545 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: **18,955** sq. ft. (width x length) VOLUME OF DISTURBANCE: **Approximately 227,460** cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: **18,955** sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): **2021**

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: **20-24 months**

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: **N/A**

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

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



29 Jay Street

Figure 1
Project Location

Figure 2
Study Area Zoning

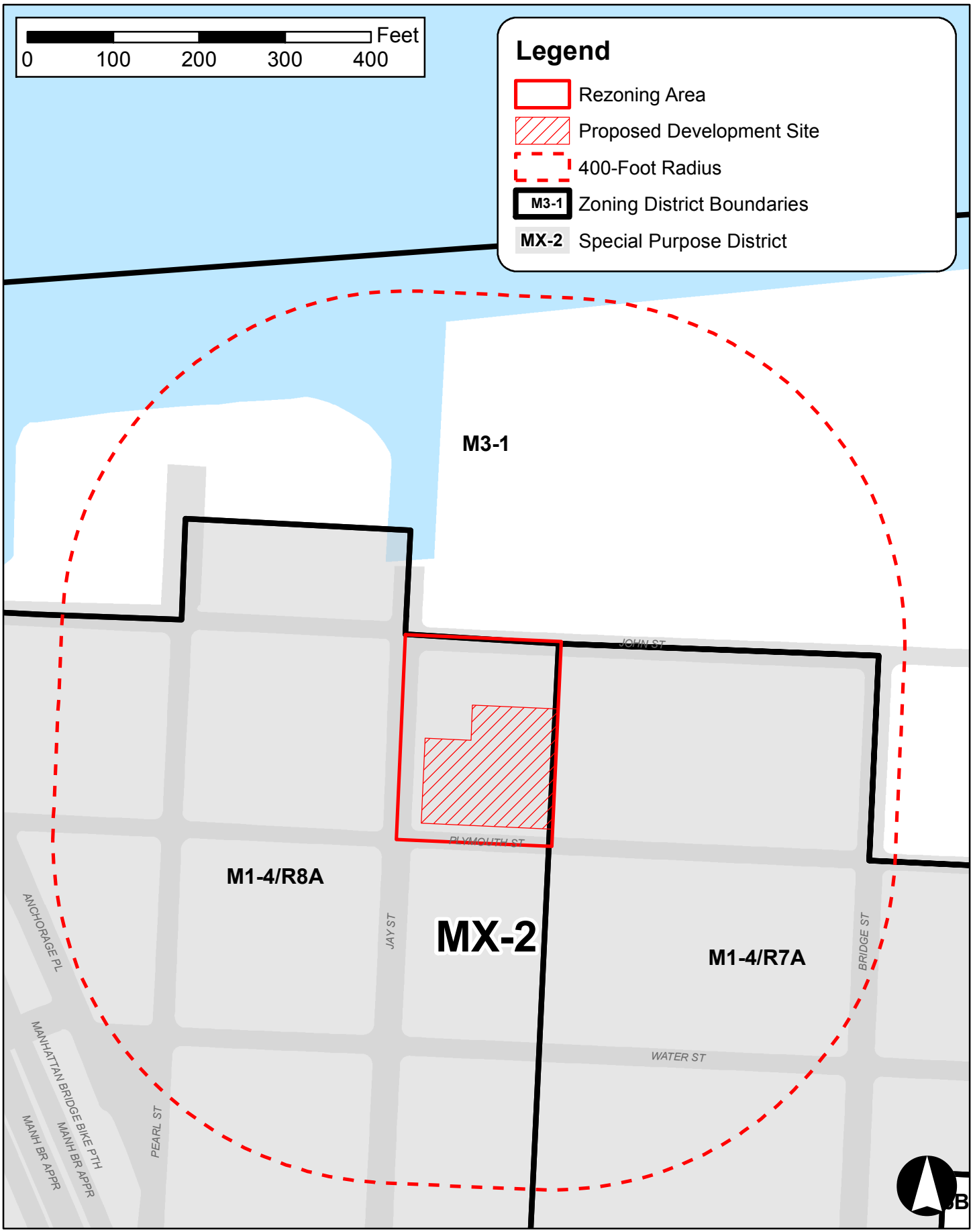
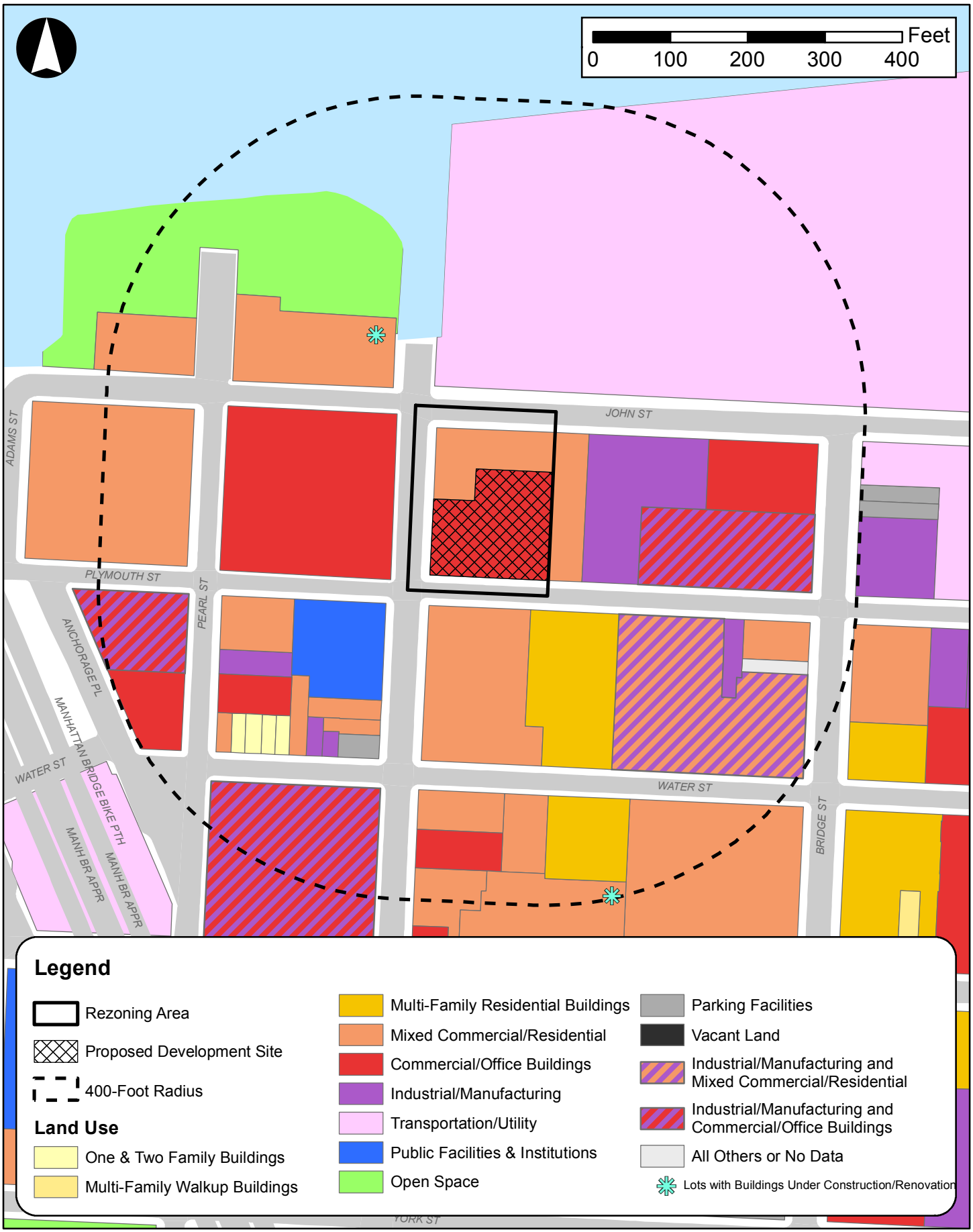
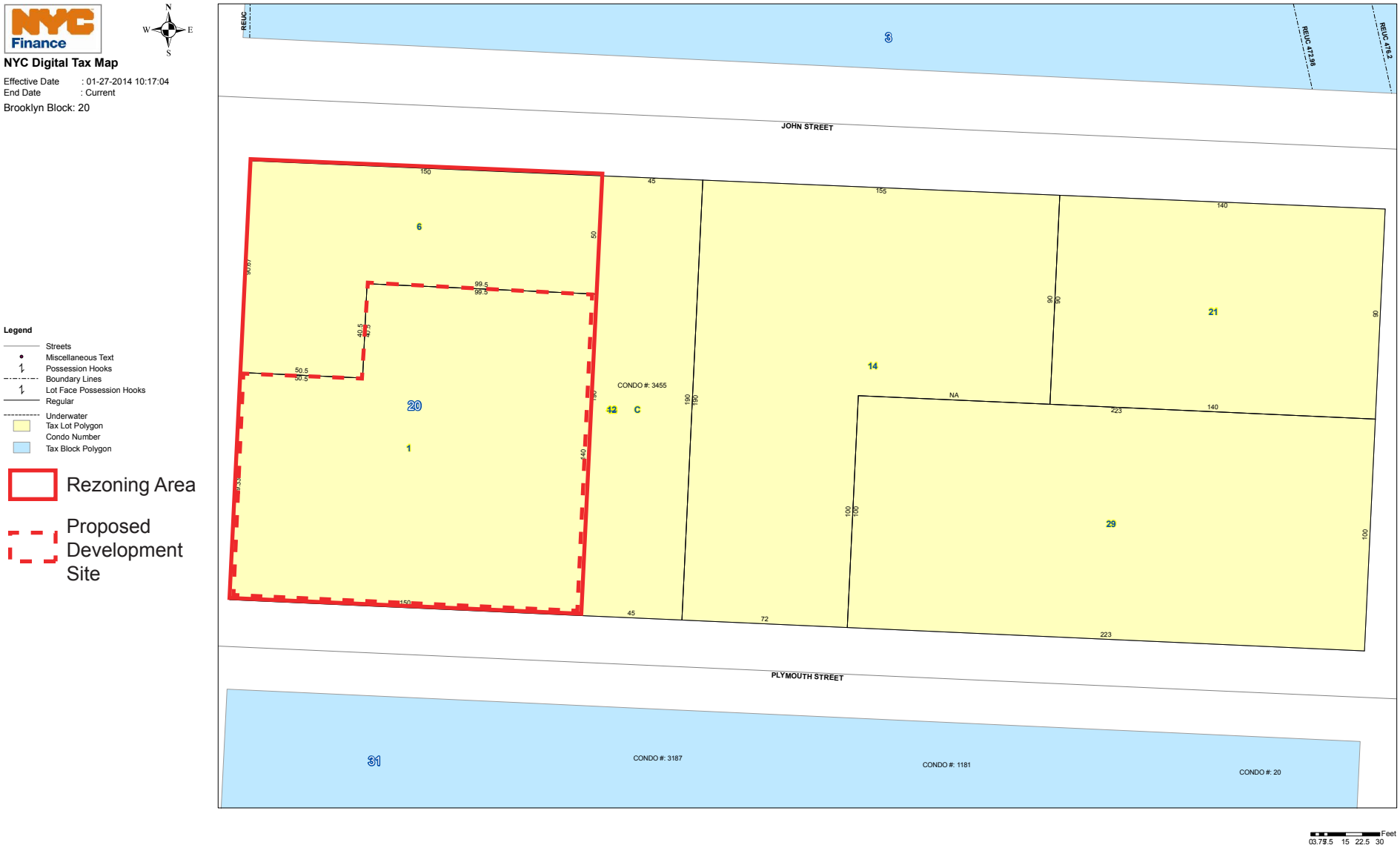


Figure 3
Study Area Land Use





29 Jay Street

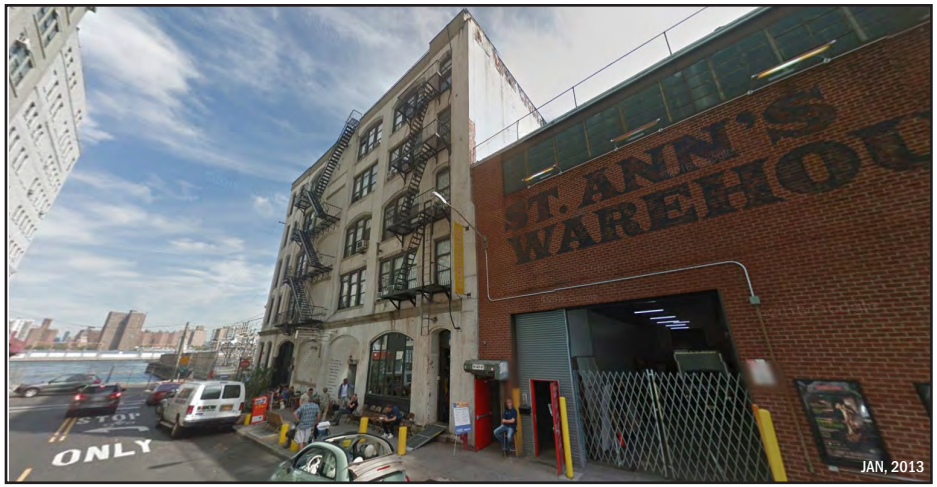
Figure 4
Tax Map



1. View northeast from the corner of Plymouth and Jay streets with the proposed development site visible in the center and the outparcel to the left.



2. View southeast from Jay Street (midblock between Plymouth and John streets) with the outparcel on the left and the proposed development site in the center.



3. View northeast from Jay Street (midblock between Plymouth and John streets) with the outparcel in the center and the proposed development site to the right.



4. View east along Plymouth Street with the southern facade of the existing proposed development site building visible on the left.

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 residential apartments (on Lot 6)**	**Multi-family residential apartments (on Lots 1 and 6)**	**Multi-family residential apartments (on Lot 6)**	**Multi-family residential apartments**
No. of dwelling units	**23 (on Lot 6)**	**144 (inc. 23 on Lot 6 and 121 on Lot 1)**	**23 (on Lot 6)**	**-121 (on Lot 1)**
No. of low- to moderate-income units	**0**	**24 (on Lot 1)**	**0**	**-24 (on Lot 1)**
Gross floor area (sq. ft.)	**Approx. 30,000 (on Lot 6)**	**151,312 gsf (inc. approx. 30,000 on Lot 6 and 121,312 sf on Lot 1)**	**Approx. 30,000**	**-121,312 gsf (on Lot 1)**
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	**UG 8 Dance Studio on Lot 1 and Use Groups 6 Eating & Drinking Establishment, 9 Arts Organization, and 17 Commercial Space on Lot 6**	**UG 6 Local Retail on Lot 1 and Use Groups 6 Eating & Drinking Establishment, 9 Arts Organization, and 17 Commercial Space on Lot 6**	**UG 6 Office and UG 6 Local Retail on Lot 1 and Use Groups 6 Eating & Drinking Establishment, 9 Arts Organization, and 17 Commercial Space on Lot 6**	**+ UG 6 Office; - UG 6 Local Retail (on Lot 1)**
Gross floor area (sq. ft.)	**39,470 gsf (inc. approx. 17,735 sf on Lot 6 and 21,735 sf on Lot 1)**	**32,899 gsf (inc. approx. 17,735 sf on Lot 6 and 15,164 on Lot 1)**	**242,670 gsf (inc. approx. 17,735 sf on Lot 6 and 212,710 gsf UG 6 Office & 12,225 gsf UG 6 Retail on Lot 1)**	**+209,771 gsf on Lot 1 (inc. +212,701 gsf UG 6 Office & -2,939 gsf UG 6 Retail)**
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
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		**0**	**0**	**0**
No. of accessory spaces		**45**	**0**	**-45 (on Lot 1)**

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Operating hours		**24/7**	**N/A**	
Attended or non-attended		**Unknown**	**N/A**	
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:	**46 (on Lot 6)**	**329 (inc. 46 on Lot 6 and 283 on Lot 1)**	**46 (on Lot 6)**	**-283 (on Lot 1)**
Briefly explain how the number of residents was calculated:	**Based on 2.01 residents per household (average household size for Brooklyn CD 2, 2010 Census)**			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	**1 dance studio on Lot 1; 1 eating & drinking establishment and multiple office/non-profit businesses on Lot 6**	**1 or more local retailers**	**1 or more local retailers; 1 or more office tenant**	**Businesses added to Lot 1**
No. and type of workers by business	**75 (inc. approx. 71 on Lot 6 and 4 on Lot 1)**	**122 (inc. approx. 71 on Lot 6 and 51 on Lot 1)**	**958 (inc. approx. 71 on Lot 6 and 887 on Lot 1)**	**+836**
No. and type of non-residents who are not workers	**Retail patrons; number not available**	**Retail patrons; number not available**	**Retail patrons; number not available**	**Retail patrons added to Lot 1**
Briefly explain how the number of businesses was calculated:	**Existing employee numbers for Lot 6 assume one employee per 250 sf and existing employee numbers for Lot 1 provided by the applicant. Estimate of No-Action and With-Action workers for Lot 1 based on standard rates used in prior EIS documents and are as follows: 3 employees per 1,000 sf of retail floor area; one employee per 250 sf of office space; one employee per 25 DUs; one employee per 50 parking spaces**			
Other (students, visitors, concert-goers, *etc.*)	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:	**Students of the exiting dance studio; number not available**			
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	**M1-4/R8A (MX-2)**	**M1-4/R8A (MX-2)**	**M1-6/R8X (MX-2)**	**M1-4/R8A replaced with M1-6/R8X**
Maximum amount of floor area that can be developed	**Residential: 7.2 FAR (within IH) Community Facility: 6.5 FAR Commercial: 2.0 FAR Manufacturing: 2.0 FAR**	**Residential: 7.2 FAR (within IH) Community Facility: 6.5 FAR Commercial: 2.0 FAR Manufacturing: 2.0 FAR**	**Residential: 7.2 FAR (within IH) Community Facility: 6.5 FAR Commercial: 10.0 FAR Manufacturing: 10.0 FAR**	**Commercial: +8.0 FAR Manufacturing: +8.0 FAR**
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	**Land uses: residential, commercial, and manufacturing; Zoning: M1-4/R8A (MX-2), M1-4/R7A (MX-2), and M3-1**	**Land uses: residential & commercial; Zoning: M1-4/R8A (MX-2), M1-4/R7A (MX-2), and M3-1**	**Land uses: residential & commercial; Zoning: M1-4/R8A (MX-2), M1-4/R7A (MX-2), and M3-1**	**No change**
Attach any additional information that may be needed to describe the project.				

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
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?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☒	☐
○ If "yes," complete the Consistency Assessment Form		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of more than 200 residential units *or* 200,000 square feet of commercial space?	☒	☐
▪ If "yes," answer *both* questions 2(b)(ii) and 2(b)(iv) below.		
○ Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
○ Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
○ Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
○ If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
○ If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
○ Would expected average incomes of the new population exceed the average incomes of study area populations?	☐	☒
○ If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☐
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☐
○ If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☐
iii. Direct Business Displacement		
○ Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☐

	YES	NO
○ Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?	☐	☐
iv. Indirect Business Displacement		
○ Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
○ Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☒
v. Effects on Industry		
○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☐
○ Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☐
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
○ Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Libraries		
○ Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
○ If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. Public Schools		
○ Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
○ If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iv. Health Care Facilities		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☐	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
○ If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐

	YES	NO
○ 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 percent?	☒	☐
○ If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify: **See Attachment B, "Supplemental Screening."**	☒	☐
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. **Refer to Attachment B, "Supplemental Screening."**		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. **See Attachment D, "Historic and Cultural 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 **See Attachment E, "Urban Design and Visual Resources."**		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☒	☐
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☒	☐
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: **See Attachment B, "Supplemental Screening."**	☒	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		

	YES	NO
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☒	☐
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation. **See Attachment G, "Water and Sewer Infrastructure."**		
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): **13,973 lbs/week**		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): **48,653,440.5 MBtus**		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☒	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☒
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) **See Attachment H, "Air Quality."**	☒	☐
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. **See Attachment H, "Air Quality."**		

	YES	NO
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?	☐	☐
○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. **See Attachment B, "Supplemental Screening."**		
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? **See Attachment B, "Supplemental Screening."**	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. **See Attachment B, "Supplemental Screening."**		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☒	☐
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☒	☐
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. **See Attachment B, "Supplemental Screening."**		

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.		
APPLICANT/REPRESENTATIVE NAME **Philip Habib, P.E.**	SIGNATURE	DATE **June 22, 2018**

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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME	**DATE**
Robert Dobruskin, AICP	June 22, 2018

SIGNATURE Robert Dobruskin

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

1. Historic and Cultural Resources

The proposed actions are designated as Type I per SEQRA 617.4 (b)(9), since the project site is within the LPC-designated DUMBO Historic District, and the S/NR-listed DUMBO Industrial District. This EAS includes a detailed Historic and Cultural Resources analysis that accounts for the potential effects of the proposed actions on resources within the nearby historic districts. In a memo dated May 17, 2018 LPC accepted the historic and cultural resources assessment. All new construction on the development site must obtain a Certificate of Appropriateness from LPC before construction can commence. In addition, 25 Jay Street (Block 20, Lot 6) which is part of the project area, is not expected to redevelop as a result of the proposed actions, as the building on the site is identified as a contributing resource to the DUMBO Historic District. For these reasons, no significant adverse impacts related to Historic and Cultural Resources are foreseeable as a result of the proposed actions.

2. Air Quality
An (E) designation (E-487) has been incorporated into the proposed project, restricting HVAC stack height and location for the proposed development. The requirements under E-487 are noted below. This (E) Designation for Air Quality would ensure that the proposed actions would not result in significant adverse impacts.

Residential Use- Any new residential use on Block 20, Lot 1 must exclusively use natural gas as the type of fuel for HVAC systems, and ensure that the heating, ventilating, and air conditioning stack(s) is located at the highest tier or at least 181 feet above grade to avoid any significant adverse air quality impacts.

Commercial Use- Any new commercial development on Block 20, Lot 1 must exclusively use natural gas as the type of fuel for HVAC systems, and ensure that the heating, ventilating, and air conditioning stack(s) is located at the highest tier or at least 151 feet above grade and at least 20 feet from the lot line facing Jay Street to avoid any potential significant adverse air quality impacts.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA).

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME Robert Dobruskin, AICP	DATE 6/22/2018
SIGNATURE Robert Dobruskin	

TITLE	
Chair, Department of City Planning	
NAME Marisa Lago	DATE 6/25/2018
SIGNATURE	

ATTACHMENT A

PROJECT DESCRIPTION

I. INTRODUCTION

The Applicant, Forman Ferry, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) to facilitate the development of an approximately 224,935-gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "Proposed Development Site") in the DUMBO neighborhood of Brooklyn Community District (CD) 2 (see **Figure A-1**). The Proposed Project would comprise approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail.

This attachment provides a summary and description of the Proposed Actions, including Rezoning Area location, existing conditions of the Rezoning Area, project purpose and need, project description, reasonable worst-cast development scenario (RWCDS) under No-Action and With-Action conditions, and the governmental approvals required. The attached supplemental screenings examine the potential for the Proposed Actions to result in impacts in any City Environmental Quality Review (CEQR) technical areas, including separate attachments with detailed analyses of land use, zoning, and public policy; historic and cultural resources; urban design and visual resources; transportation; and air quality in **Attachments C** through **H**, respectively. All other preliminary screening assessments are summarized in **Attachment B, "Supplemental Screening."**

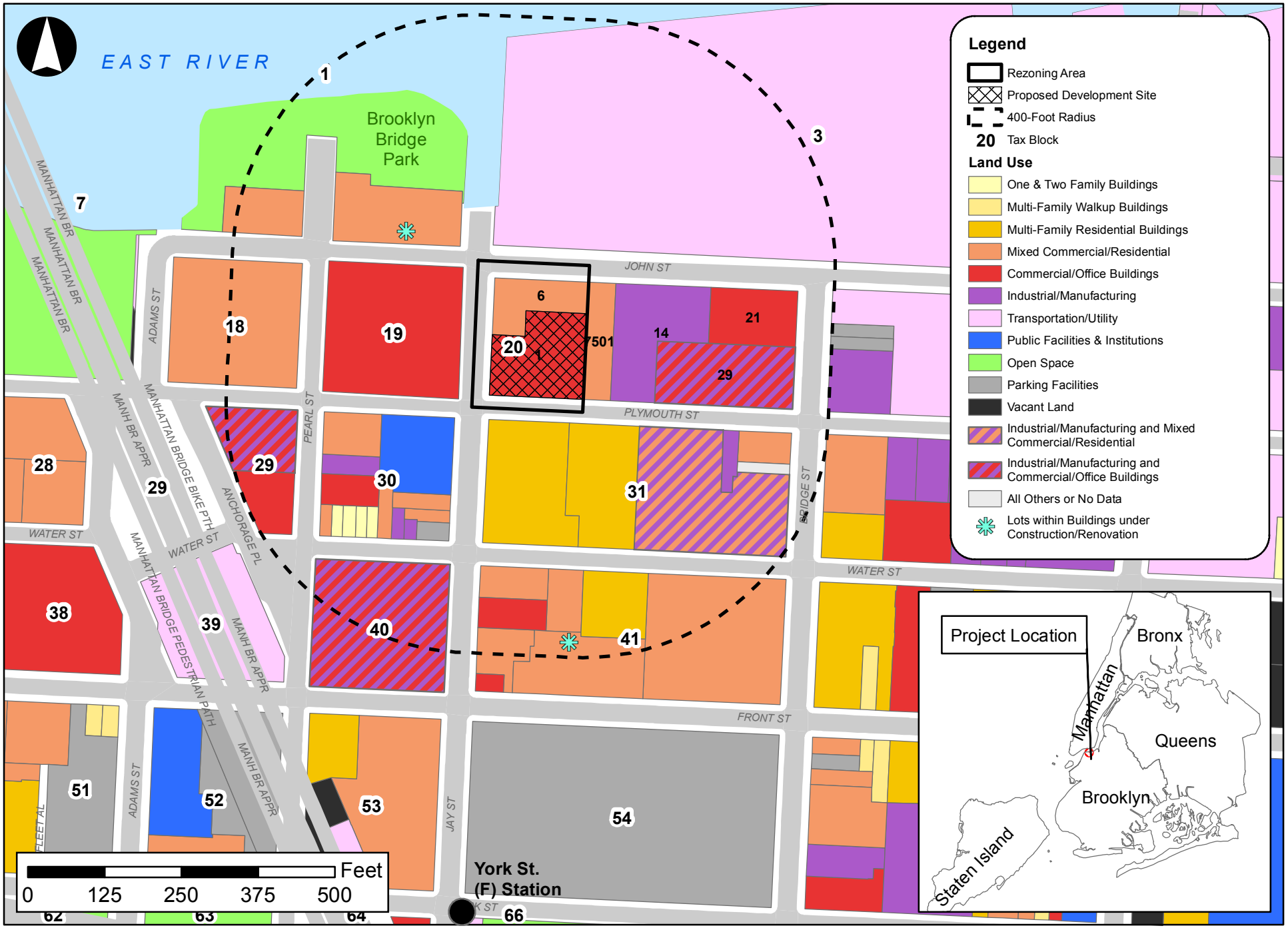
II. BACKGROUND AND EXISTING CONDITIONS

Rezoning Area

As presented in **Figure A-1**, the Rezoning Area comprises the entirety of the Applicant-owned Proposed Development Site (Block 20, Lot 1), in addition to the entirety of the adjacent non-Applicant-owned Block 20, Lot 6. In total, the Rezoning Area comprises 28,500 sf, with 190 feet of frontage on the east side of Jay Street, 150 feet of frontage on the south side of John Street, and 150 feet of frontage on the north side of Plymouth Street.

The Rezoning Area was rezoned from M3-1 to M1-4/R8A as part of the 2009 DUMBO Rezoning (ULURP No. 090309ZRK and 090310ZMK and CEQR No. 09DCP053K), a City-initiated rezoning of 12 blocks in the eastern section of the DUMBO neighborhood. The DUMBO Rezoning, which also expanded the boundaries of the MX-2 Special Mixed-Use District and designated the area as an Inclusionary Housing (IH) area, was intended to: (1) allow for the residential conversion of existing loft buildings at appropriate densities; (2) protect and preserve neighborhood scale and character; (3) provide opportunities and incentives for affordable housing development; and (4) reinforce the Jay Street corridor as a public transit connection and gateway to a reactivated waterfront.

Under the Rezoning Area's existing M1-4/R8A zoning designation, residential (Use Groups 1 and 2), select community facility (Use Group 4), most commercial (Use Groups 5-14 and 16) and select manufacturing



29 Jay Street

Figure A-1
Project Location

(Use Group 17) uses are permitted as-of-right. With the provision of Inclusionary Housing pursuant to the IH Program, residential uses are permitted up to a maximum FAR of 7.2, with lower maximum FARs for community facility (6.5 FAR) and commercial and manufacturing uses (2.0 FAR). Residential uses in M1-4/R8A districts are subject to R8A bulk controls, while commercial, industrial, and community facility uses are subject to M1-4 bulk controls. Specifically, pursuant to R8A contextual residential zoning district bulk controls, above a base height of 60 to 85 feet, the building must set back to a depth of ten feet on a wide street and 15 feet on a narrow street before rising to a maximum building height of 120 feet. Pursuant to the City's 2016 Zoning for Quality and Affordability (ZQA) text amendments (ULURP No. N 160049 ZRY), the maximum building height for residential developments in R8A districts is increased to 145 feet with the provision of Inclusionary Housing and a qualifying ground floor commercial or community facility use. Building height and setback controls of commercial, community facility, and manufacturing developments in M1-4/R8A districts, which are governed by M1-4 bulk controls, are controlled by a sky exposure plane, which begins 60 feet above the street line.

The entirety of the Rezoning Area is also located within the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, established in 2007 and 2000, respectively (refer to **Figure A-2**). As discussed in greater detail below, while the existing building on the non-Applicant-owned Lot 6 is a contributing resource of the historic district, the existing building on the Applicant-owned Lot 1 is a non-contributing building.

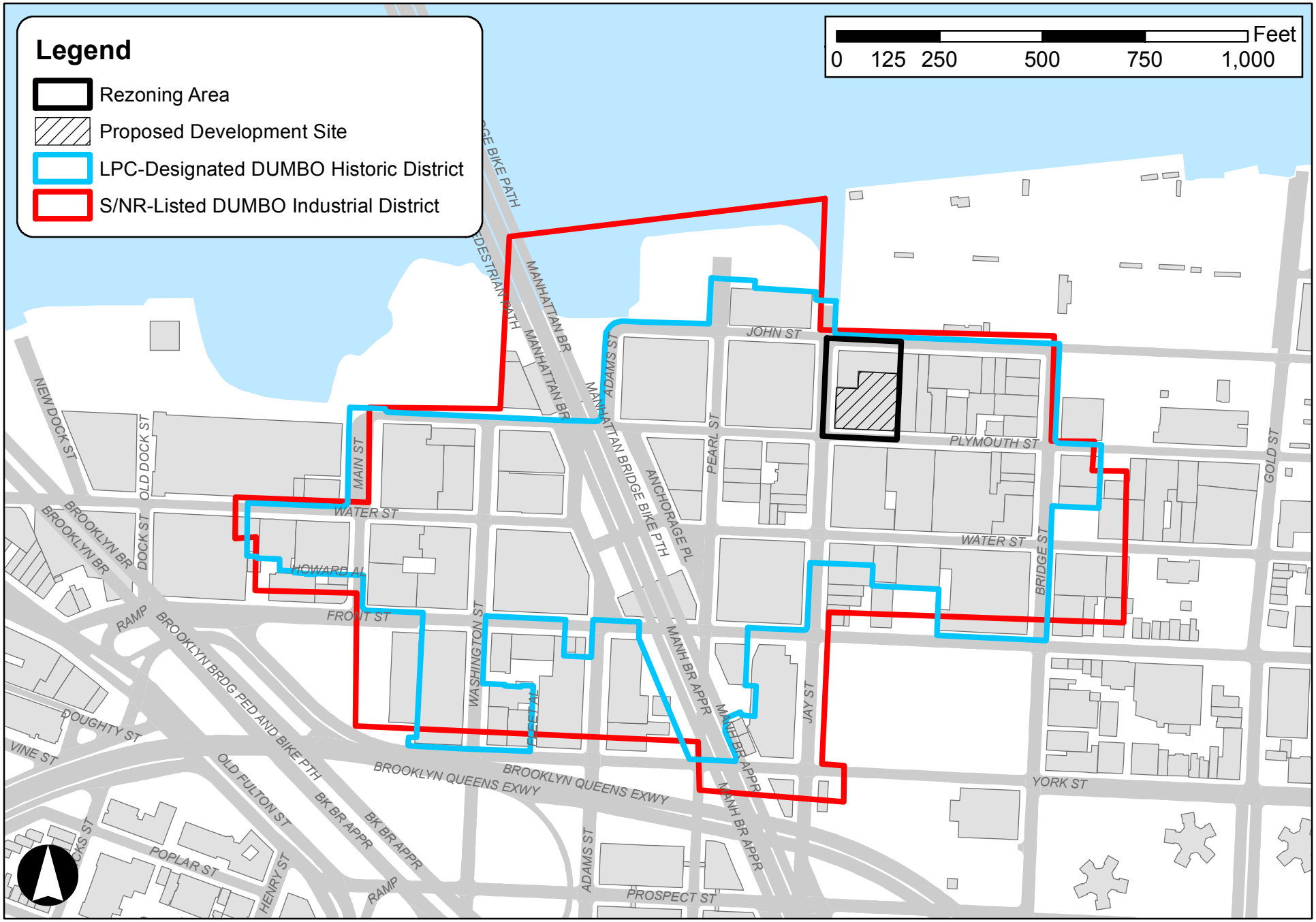
It should also be noted that the Rezoning Area falls within the boundaries of the City's Coastal Zone and is therefore subject to a Waterfront Revitalization Program (WRP) consistency assessment, as well as falling partially within the 100-year floodplain, as defined by the Federal Emergency Management Agency's (FEMA's) 2015 Preliminary Flood Insurance Rate Map (PFIRM), considered the best available flood hazard data. Specifically, as indicated in the PFIRM (provided in **Figure A-3**), the northwestern portion of the Rezoning Area is located within the 100-year floodplain has a base flood elevation (BFE) of +11 NAVD (North American Vertical Datum of 1988). Most of the remaining area is within a "shaded X" zone, indicating an area of moderate to low risk flood hazard with an annual probability of flooding of 0.2 percent to one percent (i.e., within the 500-year floodplain).

More detailed descriptions of the Proposed Development Site and the adjacent non-Applicant-owned site are provided below.

Proposed Development Site

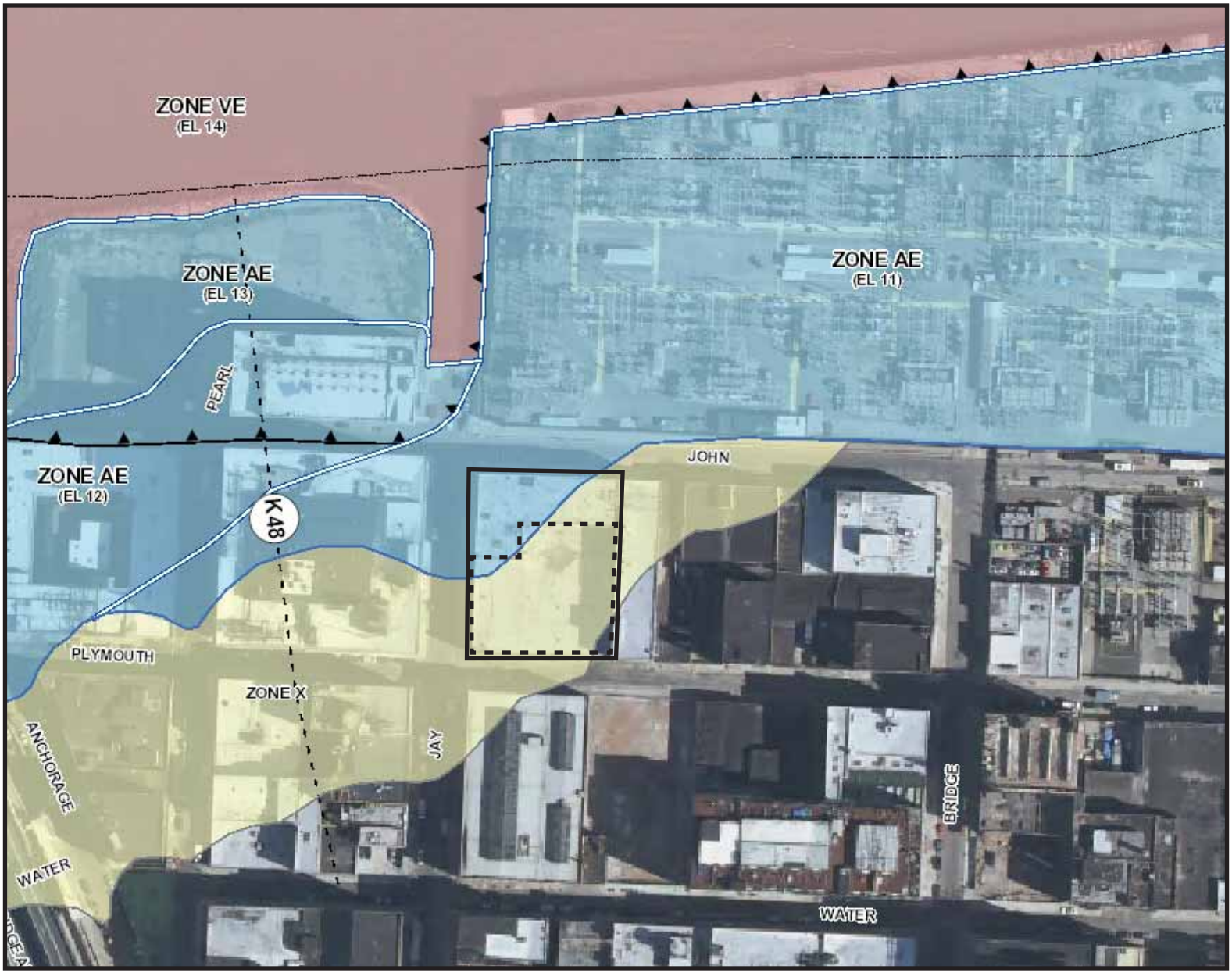
The Applicant-owned Proposed Development Site comprises Lot 1 of Brooklyn Block 20, a 18,955-sf irregularly-shaped lot at the northeast corner of Jay and Plymouth streets with approximately 99 feet of frontage on the east side of Jay Street and 150 feet of frontage on the north side of Plymouth Street. The Proposed Development Site has a sloped topography, increasing from elevation +8.75 to +10.08 (north to south) along the site's Jay Street frontage and from +10.08 to +13.87 (west to east) along the site's Plymouth Street frontage.

As indicated in **Figure A-4**, the Proposed Development Site is currently occupied by a one-story 33-foot-tall approximately 18,955-gsf building constructed in 1977. The existing Proposed Development Site building is currently occupied by Gelsey Kirkland Academy, a Use Group 8 classical ballet academy. Prior to Gelsey Kirkland Academy leasing the space, the Proposed Development Site was tenanted by the St. Ann's Warehouse theater company, which occupied the space from the fall of 2012 to June 2015, before



29 Jay Street

Figure A-2
DUMBO Historic District



Rezoning Area Proposed Development Site

29 Jay Street

Figure A-3

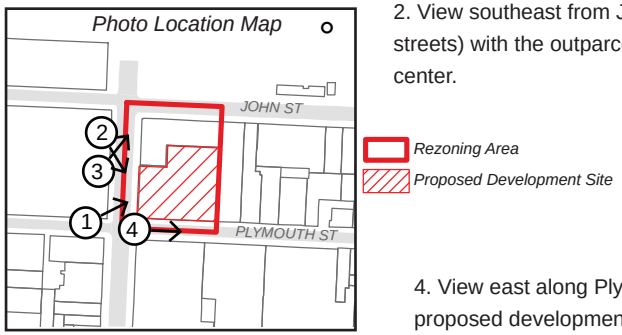
Preliminary Flood Insurance Rate Map (PFIRM)



1. View northeast from the corner of Plymouth and Jay streets with the proposed development site visible in the center and the outparcel to the left.



2. View southeast from Jay Street (midblock between Plymouth and John streets) with the outparcel on the left and the proposed development site in the center.



3. View northeast from Jay Street (midblock between Plymouth and John streets) with the outparcel in the center and the proposed development site to the right.



4. View east along Plymouth Street with the southern facade of the existing proposed development site building visible on the left.



relocating approximately five blocks west (to 45 Water Street), in addition to a furniture retailer (Baxter & Liebchen). Other previous building occupants include industrial/warehouse tenants.

While located within both the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, the existing building on the Proposed Development Site is not a contributing resource. The existing building is constructed of brick with minimal articulation, apart from a ribbon band of metal, multi-pane, fixed and pivot windows beneath the roofline. Vehicular entrances are located on the north end of the building's Jay Street façade and the east end of the building's Plymouth Street façade, with associated curb cuts. Small pedestrian entrances are located on the south end of the Jay Street façade and in the center of the Plymouth Street façade.

As noted above, the Proposed Development Site was rezoned from M3-1 to M1-4/R8A as part of the 2009 DUMBO Rezoning. With a built FAR of 1.0, the Proposed Development Site is currently underbuilt pursuant to the site's existing M1-4/R8A zoning. As such, the 2009 *DUMBO Rezoning EAS* identified the Proposed Development Site as a site likely to be redeveloped by 2018 as a result of the rezoning. As outlined in the EAS, the Proposed Development Site ("Projected Development Site 3" in the EAS) was expected to be developed with a new 120-foot-tall apartment building containing 121 DUs (including the potential for 24 affordable DUs under the IH program) occupying 121,312 sf (for an average unit size of approximately 1,000 gsf), 15,164 sf of local retail space, and 45 accessory parking spaces by 2018; despite this projection, the Proposed Development Site–apart from changing tenancies—has remained in its existing conditions since the 2009 DUMBO Rezoning.

Non-Applicant-Owned Site

The non-Applicant-owned Brooklyn Block 20, Lot 6 is a 9,545-sf irregularly shaped lot located at the southeast corner of Jay and John streets. The lot has approximately 91 feet of frontage on the east side of Jay Street and 150 feet of frontage on the south side of John Street. The non-Applicant-owned site is occupied by a mixed-use five-story (73-foot-tall) building comprised of 23 residential units and five commercial tenants, including the Brooklyn Roasting Company (a Use Group 6 eating and drinking establishment), Use Group 9 arts organizations, and Use Group 17 commercial spaces (a jewelry designer studio and a photography production company). The existing non-Applicant-owned building totals 47,735 zoning square feet (zsf; including approximately 30,000 zsf of residential floor area and approximately 17,735 zsf of commercial floor area), with a built FAR of just over 5.0, and, therefore, complies with the site's existing M1-4/R8A bulk regulations.

The residential units in the non-Applicant-owned building include market-rate units and Interim Multiple Dwelling (IMD)/Loft Law tenants that are renting below market-rate; the building has been registered with the Loft Board since 2000. The Loft Law (also known as the "Multiple Dwelling Law") was established in 1982 and created the IMD building classification. Generally, this classification encompasses formerly commercial and manufacturing loft spaces that were used as residences by at least three independent families during the period of April 1, 1980 through December 1, 1981. The Loft Law established the Loft Board with the mission of coordinating the legal conversion of these spaces to safe residential uses.

The non-Applicant-owned building (shown in **Figure A-4**) was constructed in 1892 and is a contributing resource of both the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The building was constructed in the Romanesque Revival style, with a simple brick façade articulated by segmental openings, and was originally occupied by uses associated with the Arbuckle Brothers, a prominent Brooklyn manufacturing firm. LPC's 2007 *DUMBO Historic District Designation Report* notes

that the building is "representative of American factor architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District." The *Designation Report* also stated that "the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history."

While rezoned in 2009 as part of the DUMBO Rezoning, the non-Applicant-owned site was not identified as a projected or potential development site in the 2009 *DUMBO Rezoning EAS.* It should also be noted that properties that are designated NYCLs or contributing buildings of LPC-designated historic districts (such as the non-Applicant-owned building) are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition of those resources can occur. Additionally, historic resources that are listed on the S/NR (such as the non-Applicant-owned building) are given a measure of protection from the effects of federally-sponsored, or federally-assisted projects under Section 106 of the National Historic Preservation Act, and are similarly protected against impacts resulting from state-sponsored or state-assisted projects under the New York State Historic Preservation Act.

Surrounding Area

The Rezoning Area is located within the DUMBO (short for "Down Under the Manhattan Bridge Overpass") neighborhood of Brooklyn CD 2. As shown in **Figure A-2**, much of the surrounding area is located within the LPC-designated DUMBO Historic District and/or the S/NR-listed DUMBO Industrial District, which both generally extend from west of Main Street to the west, to Brooklyn Bridge Park/The East River to the north, to Bridge Street/east of Bridge Street to the east, and to York Street to the south. In the immediate vicinity of the Rezoning Area the following buildings are contributing resources of the historic district: the 164-foot-tall 20 Jay Street (directly west of the Rezoning Area), the 96-foot-tall 183 Plymouth Street and 43-foot-tall 64 John Street (directly east of the Rezoning Area), the 72-foot-tall 51 Jay Street and 98-foot-tall 205 Water Street (directly south of the Rezoning Area), the 110-foot-tall 50 Jay Street (directly southwest of the Rezoning Area), and the 129-foot-tall 10 Jay Street (directly northwest of the Rezoning Area).

As noted above, 12 blocks of the eastern portion of the DUMBO neighborhood (including the lots affected by the proposed rezoning action) were rezoned in 2009. Notably, new developments or conversions have been undertaken on all or portions of seven of the 17 projected development sites and three of the six potential development sites identified in the 2009 *DUMBO Rezoning EAS.* In addition, new development is currently planned or underway on three additional projected development sites and one additional potential development site identified in the EAS. These new developments and conversions have introduced a significant amount of new residential and commercial uses in the area, continuing a trend that emerged beginning in the 1980s, which was a primary impetus for the 2009 DUMBO Rezoning.

As presented in **Figure A-2**, much of the area immediately surrounding the Rezoning Area is within the MX-2 Special Mixed-Use District; the Rezoning Area's existing M1-4/R8A zoning extends to blocks to the west and south (to a depth of 150 feet east of Jay Street) and an M1-4/R7A zoning district is mapped on the blocks to the east and south (beginning 150 feet east of Jay Street). While both districts have the same maximum commercial and manufacturing FARs (2.0), within the M1-4/R7A district, residential and community facility uses have lower maximum permitted FARs (4.6 (with IH) and 4.0, respectively). As noted above, reflective of the area's mixed-use zoning designation, a mix of uses are present in the area, including residential, commercial, light manufacturing, and community facility uses. The area north of John Street, which was not included in the 2009 DUMBO Rezoning is zoned M3-1 and is occupied by a Con Edison substation.

There are several public transportation options in the surrounding area, including the York Street (F) subway station (located three blocks south of the Rezoning Area), the B67 bus route (which runs along portions of Jay, Front, and York Streets in the vicinity of the Rezoning Area), and the Brooklyn Bridge Park/DUMBO East River Ferry landing (located approximately 0.5 miles west of the Rezoning Area).

Multiple parks are also located near the Rezoning Area, just outside the MX-2 Special Mixed-Use District. Brooklyn Bridge Park stretches along the waterfront from Pier 6 to its easternmost terminus of Jay Street, which is a planned entrance to the park. Bridge Park and Trinity Park are located four blocks south of the Rezoning Area, between York and Nassau streets.

III. THE PROPOSED ACTIONS

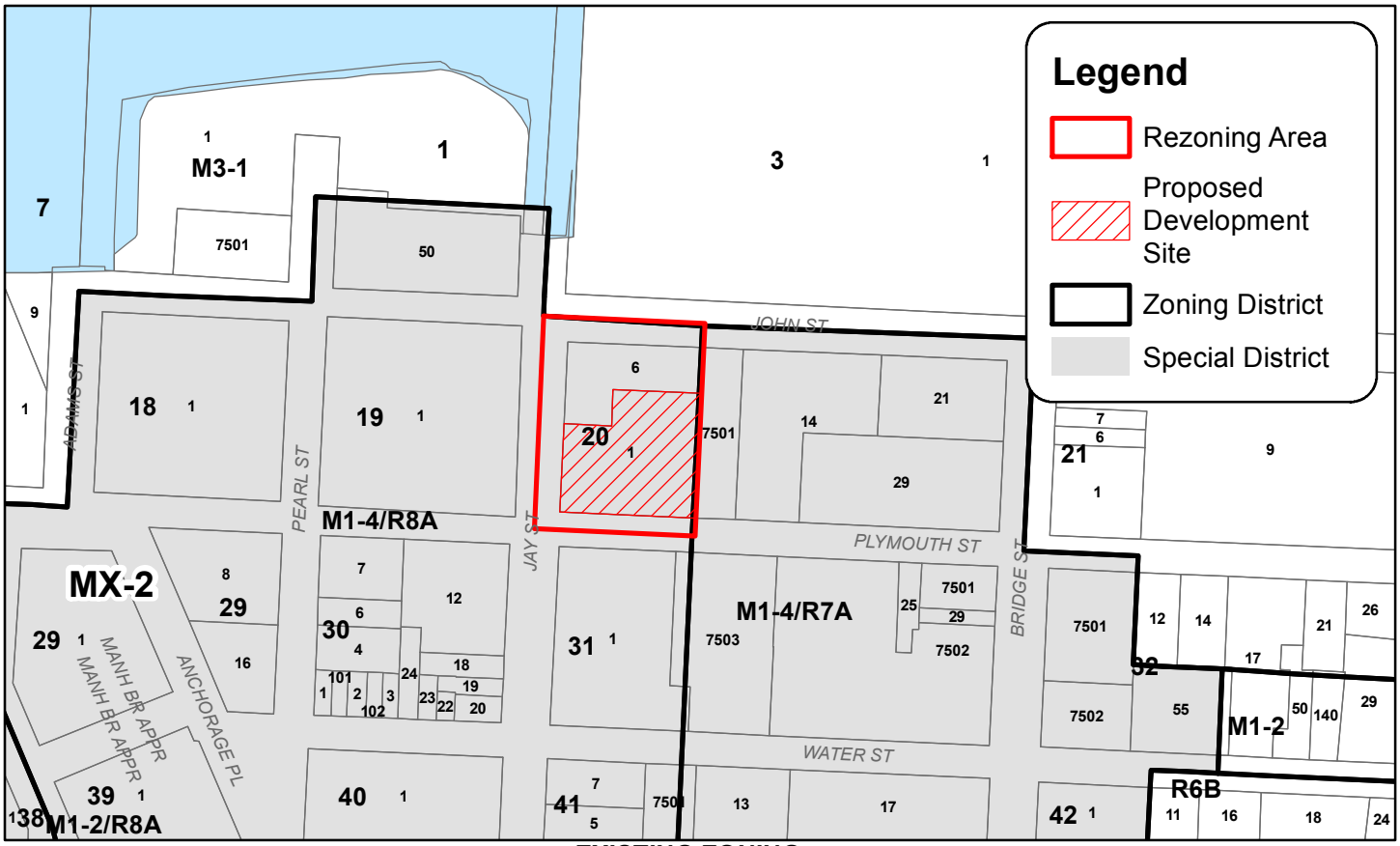
To facilitate the Proposed Project, the Applicant is seeking zoning map and text amendments, as discussed in greater detail below.

Zoning Map Amendment

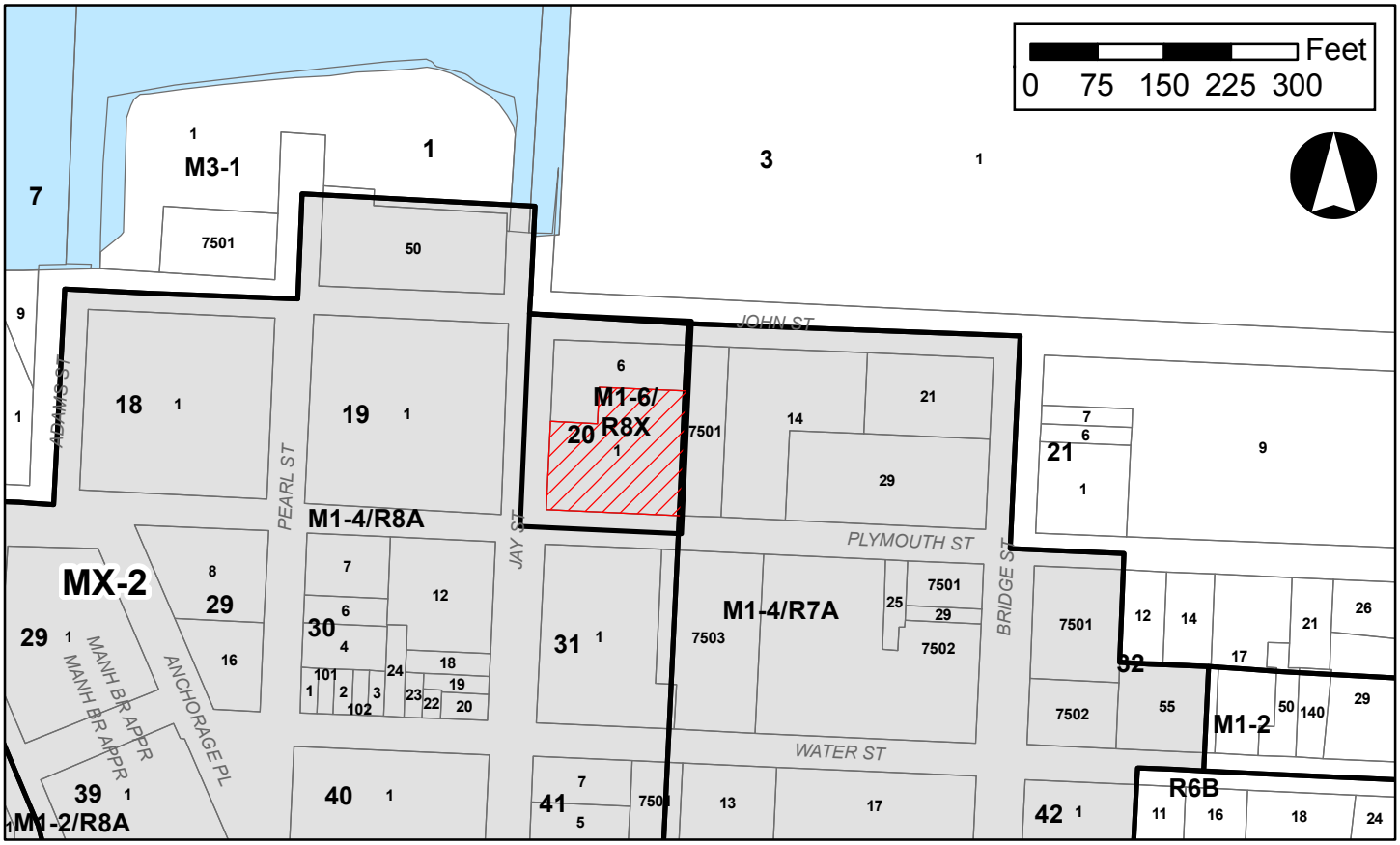
The Applicant is proposing to rezone the westernmost 150 feet of the block bounded by Plymouth Street to the south, Jay Street to the west, John Street to the north, and Bridge Street to the east (Lots 1 and 6 of Brooklyn Block 20; the Rezoning Area) from M1-4/R8A to M1-6/R8X (refer to **Figure A-5**). **Table A-1**, below, compares the use and bulk requirements under the existing and proposed zoning districts. In MX districts, the maximum permitted residential and community facility FARs are governed by the residential zoning designation, whereas the maximum permitted commercial and manufacturing FARs are governed by the manufacturing zoning designation. As presented in **Table A-1**, under the proposed rezoning, the maximum commercial and manufacturing FARs would increase from 2.0 to 10.0, with no change in the maximum permitted residential and community facility FARs, the permitted Use Groups, or parking regulations.

Pursuant to ZR Section 123-662 (All Buildings in Special Mixed Use Districts with R6, R7, R8, R9, and R10 District designations), in MX districts with medium and high density contextual residential districts (e.g., R6A through R10X) the bulk of all buildings or other structures (i.e., building height, base height, and setbacks) are governed by the residential zoning designation, regardless of use. As presented in **Table A-1** (and outlined in ZR Sections 23-662 (Maximum height of buildings and setback regulations), with the change from R8A to R8X, the maximum permitted building height would also increase from 120 feet to 150 feet for buildings not constructed pursuant to the IH program (and from 125 feet to 155 feet for non-IH buildings with qualifying ground floors); for buildings constructed pursuant to the IH Program with qualifying ground floors, the maximum permitted building height would increase from 145 feet to 175 feet (as outlined in ZR Section 23-664 (Modified height and setback regulations for certain Inclusionary Housing buildings or Affordable Independent Residences for Seniors)). The maximum streetwall height (60 to 85 feet for buildings that do not provide inclusionary housing or qualifying ground floors) would not change under the proposed zoning map amendment.

Proposed Zoning Map Change



EXISTING ZONING



PROPOSED ZONING

Table A-1: Comparison of Existing and Proposed Zoning

	Existing M1-4/R8A		Proposed M1-6/R8X	
	M1-4	**R8A**	**M1-6**	**R8X**
Use Groups	4-14, 16, 17	1-4	4-14, 16, 17	1-4
Maximum FAR				
Residential	0.0	7.2[1,*]	0.0	7.2[1,*]
Community Facility	6.5	6.5*	10.0	6.0*
Commercial	2.0*	0.0	10.0*	0.0
Manufacturing	2.0*	0.0	10.0*	0.0
Bulk Regulations				
Maximum Building Height	Governed by Sky Exposure Plane	120 Feet[2,3,*]	Governed by Sky Exposure Plane[5]	150 Feet[3,4,*]
Maximum Streetwall Height	60 Feet	60-85 Feet[6,*]	85 Feet	60-85 Feet[6,*]
Parking Regulations				
Parking	None	40% of DU[7]	None	40% of DU[7]

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

Notes:

[1] 7.2 FAR with provision of Inclusionary Housing pursuant to the IH Program (ZR Section 23-90 (Inclusionary Housing)); maximum permitted FAR without IH 5.4 under both R8A and R8X zoning.

[2] Increased to 125 feet for a Quality Housing building with a qualifying ground floor and to 145 feet with the provision of IH and a qualifying ground floor.

[3] Additional five feet permitted for community facility buildings constructed outside of the Manhattan Core.

[4] Increased to 155 feet for a Quality Housing building with a qualifying ground floor and to 175 feet with the provision of IH and a qualifying ground floor.

[5] Tower can penetrate sky exposure plane provided it is set back at least 10' from a wide street and 15' from a narrow street.

[6] Increased to 95 feet for a Quality Housing building with a qualifying ground floor and to 105 feet with the provision of IH and a qualifying ground floor.

[7] Decreased to 12 percent for income-restricted DUs.

* Indicates governing FAR and bulk regulations in MX districts.

Zoning Text Amendment

In addition, the Applicant is seeking a zoning text amendment to ZR Section 123-63 (Maximum Floor Area Ratios and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts) to add R8X to the list of residential districts mapped in the MX2 Special Mixed-Use District; and a zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) to allow the streetwall height of developments in the Rezoning Area (i.e., developments in MX districts that are located in an LPC-designated historic district, where the designated residence district is an R8X district) to allow the base height to be raised based on the surrounding context. Specifically, under the proposed zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) the maximum permitted streetwall height could be increased from the maximum permitted pursuant to the underlying M1-6/R8X zoning (60 to 85 feet; see **Table A-1**) to a height up to that of a building adjacent to or across the street from the development site. In the context of the Proposed Development Site, 20 Jay Street (located directly across the street from the site) has a streetwall height of approximately 153.5 feet; the remaining existing adjacent buildings have lower streetwalls. As the streetwall height cannot exceed the maximum building height (155 feet pursuant to the proposed M1-6/R8X zoning for non-IH buildings with qualifying ground floors; refer to **Table A-1**), the maximum streetwall height that would be permitted pursuant to the proposed zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) would be

153.5 feet. The proposed zoning text amendments would only affect the Rezoning Area. (Refer to Appendix I for the draft text amendment.)

The proposed zoning map and text amendments are discretionary public actions that are subject to both the Uniform Land Use Review Procedure (ULURP) and City Environmental Quality Review (CEQR) processes.

(E) Designations

As described in greater detail in **Attachment B, "Supplemental Screening,"** and **Attachment G, "Air Quality,"** of this document, the Proposed Actions include the placement of an air quality (E) designation (E-487) on Block 20, Lot 1. The (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed action because of steps that would be undertaken prior to development of rezoned site. The air quality (E) designation that would be assigned to Block 20, Lot 1 as part of the Proposed Actions would require the fuel type and stack locations for the Proposed Project's heating, ventilation, and air conditioning (HVAC) systems to ensure that there would be no significant adverse air quality impacts.

Additional Actions Not Subject to ULURP

As the Proposed Development Site is located within an LPC-designated historic district, the Proposed Project requires a Certificate of Appropriateness ("C of A") from LPC.

IV. PURPOSE AND NEED FOR PROPOSED ACTIONS

The Proposed Actions are intended to facilitate a new commercial development on the Proposed Development Site, creating many new jobs in the district. Under the current M1-4/R8A zoning, commercial and light industrial uses are only permitted up to a maximum FAR of 2.0. The proposed M1-6/R8X zoning would increase the maximum permitted commercial and light industrial FAR to 10.0 (through the change from an M1-4 to M1-6 manufacturing district) and increase the maximum permitted building height from 120 to 150 feet for non-IH buildings[1] (through the change from R8A to R8X). The R8X zoning would allow for the same FAR for residential use as allowed by the existing R8A zoning, but, according to the Applicant, would allow for a base development envelope that would be consistent with the taller loft buildings characteristic of the DUMBO area. The M1-6 zoning designation would also, according to the Applicant, be in keeping with the FAR of the neighboring loft buildings, and would allow for the larger floor plates needed by commercial uses while respecting the maximum height limitations set by the R8X zoning. The proposed rezoning would allow for the development of a commercial building of a scale similar to the built fabric that exists to the west, north, and south of the Rezoning Area today.

The proposed zoning map amendment and zoning text amendments would, combined, increase the maximum building height to 150 feet[2], and allow flexibility in the maximum streetwall height to conform

[1] The maximum building height for non-IH buildings with qualifying ground floors would increase from 125 feet to 155 feet.

[2] For Inclusionary Housing residential buildings that provide a Qualifying ground floor, the maximum building height would be 175 feet. The maximum building height for non-IH buildings with qualifying ground floors would increase from 125 feet to 155 feet.

with the surrounding historic built context. The zoning text amendment would allow buildings to be built with streetwalls reflective of the surrounding building context, conforming aesthetically to the surrounding loft buildings.

According to the Applicant, the Proposed Actions would conform the Rezoning Area to the existing built fabric of DUMBO, which is characterized by large residential loft buildings. Allowing the streetwall height to rise to the height of surrounding developments would incentivize commercial development on the Proposed Development Site, which would, in turn, create new employment opportunities and bolster economic growth in the district.

V. DESCRIPTION OF THE PROPOSED PROJECT

The Applicant, Forman Ferry, LLC, is proposing the redevelopment of the Proposed Development Site (Brooklyn Block 20, Lot 1) with an approximately 224,935 gsf (189,500 zsf) commercial building comprised of approximately 212,710 gsf (179,200 zsf) of office floor area and approximately 12,225 gsf (10,300 zsf) of ground floor local retail. The Proposed Project would not include accessory parking. The Proposed Project would have a total commercial FAR of 10.0, and, therefore, would maximize the permitted base FAR pursuant to the proposed M1-6/R8X zoning.

As presented in **Figures A-6** and **A-7**, the Proposed Project would be built to the lot line along the Proposed Development Site's Jay Street and Plymouth Street frontages and would rise to a maximum building height of 148 feet with no setback. The building's bulkhead, which would be setback from the streetwall, would rise an additional 30 feet above the roofline. The primary office entrance would be located on the western portion of the building's Plymouth Street frontage, with entrances to the Proposed Project's ground floor retail component located on both Jay and Plymouth streets. One loading dock would also be provided at the easternmost edge of the Proposed Project's Plymouth Street frontage, which would have an associated 12-foot-wide curb cut at this location (at the location of the existing building's Plymouth Street curb cut).

The Proposed Project would conform with the bulk and use requirements of the proposed M1-6/R8X district, as modified by the proposed zoning text amendments. As the Proposed Development Site is partially located within the 100-year floodplain, the Proposed Project would be constructed in accordance with the applicable flood protection requirements of the New York City Building Code.

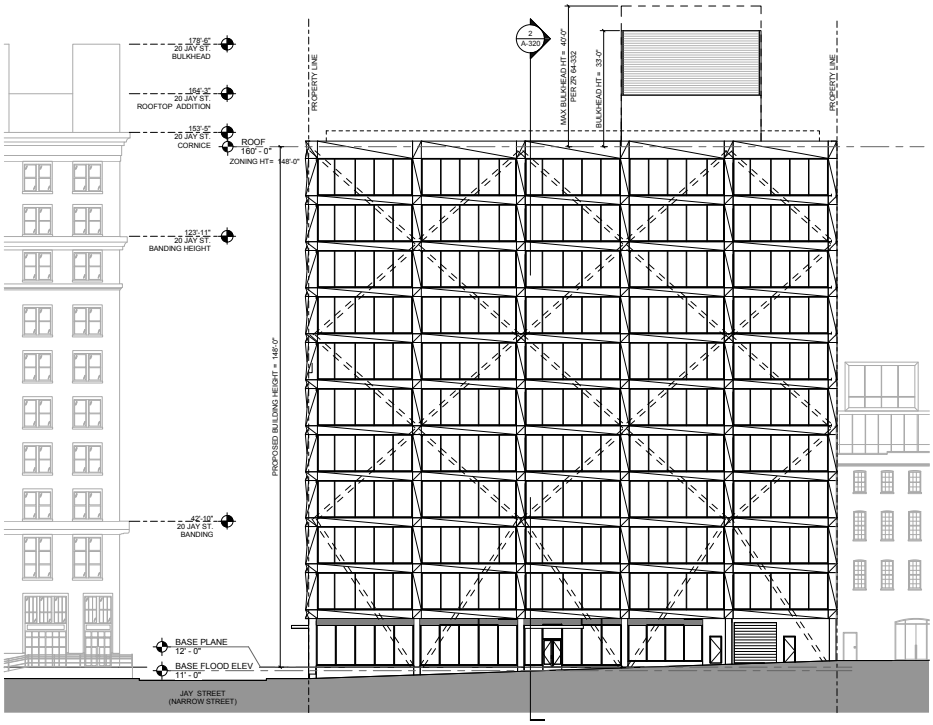
VI. ANALYSIS FRAMEWORK AND RWCDS

Build Year

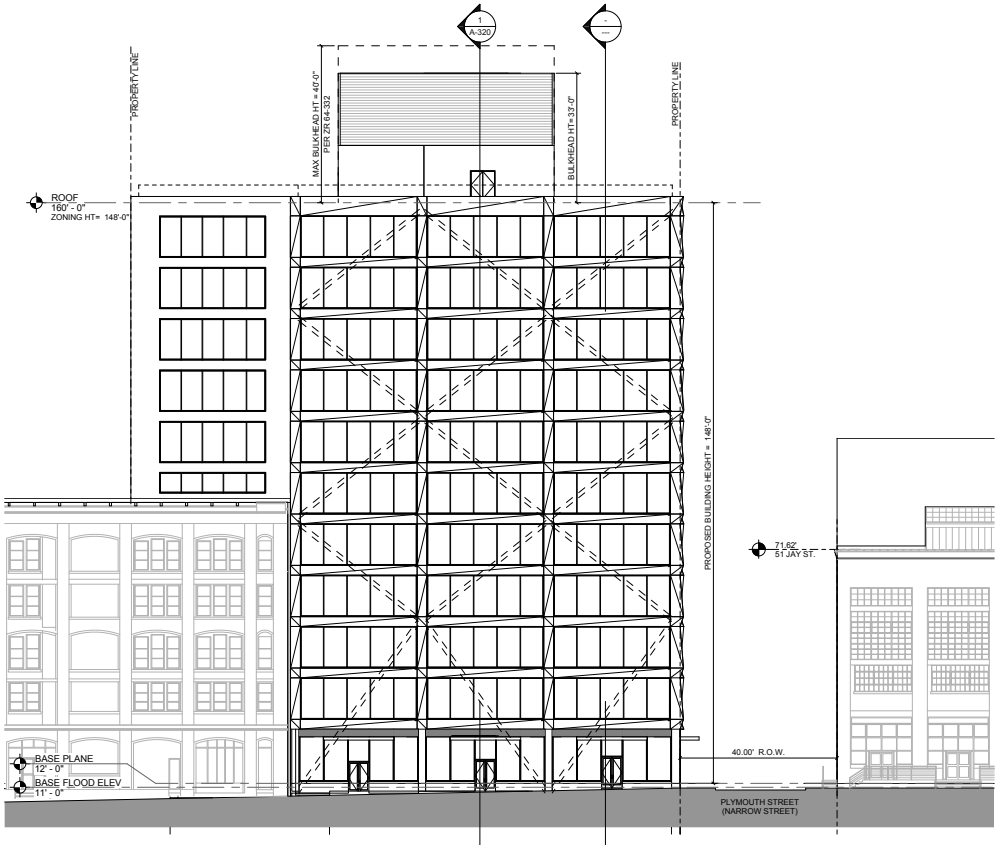
Accounting for New York City Department of City Planning (DCP) Pre-Application and Pre-Certification review time and public review under ULURP (approximately seven months) and the Proposed Project's anticipated construction schedule (approximately 24-months), it is anticipated that the Proposed Project would be built and occupied by 2021. Accordingly, the RWCDS would use a 2021 Build Year for analysis purposes.

Proposed Project

FOR ILLUSTRATIVE PURPOSES ONLY



South Elevation



West Elevation



FOR ILLUSTRATIVE PURPOSES ONLY

29 Jay Street

Figure A-7
Illustrative Renderings

Identification of Development Sites

According to the *CEQR Technical Manual*, the following factors, commonly referred to as "soft site criteria," are generally considered when evaluating whether some amount of development would likely be construction by the built year as a result of the proposed action:

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

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

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

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

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

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

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

- Residential buildings with six or more units constructed before 1974. These building are likely to be rent-stabilized and difficult to legally demolish due to tenant relocation requirements.

Proposed Development Site

The Proposed Development Site at 29 Jay Street (Block 20, Lot 1) currently has a built FAR of approximately 1.15, which is approximately 12 percent of the maximum commercial/manufacturing FAR under the proposed M1-6/R8X zoning. As detailed in Section V, above, the Applicant intends to redevelop Lot 1.

Therefore, the Applicant-owned site is considered a projected development site for environmental analysis purposes.

Non-Applicant-Owned Site

In addition to the Applicant's property, the Rezoning Area includes one privately-owned tax lot that is not controlled by the Applicant (Lot 6, the "non-Applicant-owned site"). Under the Proposed Actions, the non-Applicant-owned site would be rezoned from M1-4/R8A to M1-6/R8X. As described above, this lot is currently occupied by a five-story mixed-use building with a built FAR of just over 5.0 that is a contributing resource of the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. Unlike the Proposed Development Site, the non-Applicant-owned site was not identified as a projected or potential development site in the 2009 *DUMBO Rezoning EAS.* The non-Applicant-owned site's existing FAR represents approximately 69 percent of the maximum existing residential FAR and just over 50 percent of the maximum commercial/manufacturing FAR of 10.0 under the proposed zoning. As noted above, the building's 23 residential units include IMD/Loft Law tenants that are renting below market-rate, and the building has been registered with the Loft Board since 2000.

The non-Applicant-owned Lot 6 building comprises 47,735 zsf (just over 5.0 FAR), including approximately 30,000 zsf (3.14 FAR) of residential floor area and approximately 17,735 zsf (1.86 FAR) of commercial floor area. Under the site's existing M1-2/R6A zoning, the maximum permitted residential FAR is 7.2 (with the provision of Inclusionary Housing), and the maximum permitted commercial/manufacturing FAR is 2.0 FAR. Therefore, under existing conditions, the building could be enlarged; however, any alteration or enlargement of the building would require a C of A from the LPC. As the Proposed Actions would not increase the maximum permitted residential FAR, the Proposed Actions would not facilitate the enlargement of the existing structure with additional residential floor area. While the Proposed Actions would increase the maximum permitted commercial FAR (from 2.0 to 10.0), a commercial enlargement of the building (i.e., the construction of additional floors) could not occur as-of-right due to location of use zoning restrictions. Specifically, as outlined in ZR Section 123-31 (Provisions Regulating Location of Uses in Mixed Use Buildings), commercial uses may be located only on a story below the lowest story occupied by dwelling units.

As the non-Applicant-owned site (1) does not satisfy the soft site criteria of being built to substantially less than the maximum allowable FAR under the existing zoning; (2) the building is a contributing resource of the LPC-designated Historic District and any changes to the building would require a C of A from the LPC; (3) the building contains more than six residential units, including IMD regulated units; and (4) an enlargement of the building with new commercial uses is not feasible given location of use zoning restrictions, the non-Applicant-owned site does not meet the soft site criteria and the Proposed Actions are not expected to induce new as-of-right development on the site.

As such, the RWCDS will evaluate changes anticipated on the Applicant-owned Proposed Development Site (Block 20, Lot 1) only.

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

As noted above, the Proposed Development Site, which is currently occupied by a one-story building, was rezoned from M3-1 to M1-4/R8A as part of the City's 2009 DUMBO Rezoning. In the future without the Proposed Actions, this existing zoning designation would remain, allowing residential uses up to

7.2 FAR (with the provision of affordable housing), community facility uses up to 6.5 FAR, and commercial and light industrial uses up to 2.0 FAR. In the future without the Proposed Actions, it is assumed that the Applicant will retain ownership of the Proposed Development Site and that the site would be redeveloped with an as-of-right residential building with ground floor commercial in the 2021 No-Action condition.

As noted above, the 2009 *DUMBO Rezoning EAS* identified the Proposed Development Site as a site likely to be redeveloped as a result of the rezoning. As outlined in the EAS, the Proposed Development Site ("Projected Development Site 3" in the EAS) was expected to be developed with a new 120-foot-tall apartment building containing 121 DUs (including the potential for 24 affordable DUs under the IH program) 15,164 sf of local retail space, and 45 accessory parking spaces. Since the 2009 DUMBO Rezoning, the neighborhood has experienced substantial growth. As noted above, new developments or conversions have been undertaken on all or portions of seven of the 17 projected development sites and three of the six potential development sites identified in the 2009 *DUMBO Rezoning EAS*, most of which have been predominantly residential developments. In addition, new development is currently planned or underway on three additional projected development sites and one additional potential development site identified in the EAS. With the revival of the 421-a program in April 2017, the development of residential buildings with affordable housing has become more financially feasible, and is further incentivized by the FAR bonus provided in IH-designated areas, such as the DUMBO Rezoning Area.

Consistent with the 2009 *DUMBO Rezoning EAS* and with development trends in the area, it is assumed that the Proposed Development Site would be redeveloped with a new mixed-use building containing 121 DUs occupying 121,312 sf (for an average unit size of approximately 1,000 gsf), 15,164 sf of local retail, and 45 accessory parking spaces. However, as the maximum building height for buildings in R8A district with qualifying ground floors and that provide Inclusionary Housing was increased from 120 feet to 145 feet under the 2016 ZQA text amendments, it is assumed that the No-Action building would have a maximum building height of 145 feet above a 105-foot-tall streetwall (the maximum streetwall height for residential buildings with the provision of IH and a qualifying ground floor).

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

With the proposed zoning map change from M1-4/R8A to M1-6/R8X, the maximum permitted commercial and manufacturing FAR would increase from 2.0 to 10.0, with no changes to the maximum permitted residential and community facility FARs. The proposed zoning map amendment would also increase the maximum permitted building height for predominantly commercial buildings in M1-6/R8X districts with a qualifying ground floor to 155 feet (the maximum building height for predominantly commercial buildings without a qualifying ground floor would be 150 feet). Lastly, the proposed zoning text amendment would allow the maximum permitted streetwall height to be increased to the streetwall height of a building adjacent to, or across the street from, a development site.

By 2021 under the With-Action condition, it is expected that the Applicant would complete the Proposed Project, which would be facilitated by the Proposed Actions, as previously stated. The Proposed Project would consist of an approximately 224,935 gsf (189,500 zsf) commercial building comprised of approximately 212,710 gsf (179,200 zsf) of office floor area and approximately 12,225 gsf (10,300 zsf) of ground floor local retail. The Proposed Project would not include accessory parking. One loading dock would also be provided (at the westernmost edge of the Proposed Project's Plymouth Street frontage), which would have an associated 12-foot-wide curb cut at this location (at the location of the existing

building's Plymouth Street curb cut), in accordance with the proposed M1-6/R8X zoning. The Proposed Project would have a total commercial FAR of 10.0, and, therefore, would maximize the permitted FAR pursuant to the proposed M1-6/R8X zoning. The Proposed Project would conform with the bulk and use requirements of the proposed M1-6/R8X district, as modified by the proposed zoning text amendments.

As the Proposed Actions would not increase the maximum permitted residential or community facility FAR, compared to No-Action conditions, the Proposed Project, which would comprise a 10.0 FAR commercial building represents the RWCDS for environmental review purposes. The proposed commercial office uses represent the worst-case commercial use from an environmental review perspective; while other commercial uses would also be permitted up to 1.0 FAR, office uses generate more peak hour person trips than other commercial uses, such as hotel uses. In addition, while the proposed rezoning would also increase the maximum permitted manufacturing FAR to 10.0, as (1) office uses generate more peak hour trips than industrial uses; and (2) any industrial uses would be subject to the strict MX performance standards, the proposed commercial office use represents the RWCDS for environmental review purposes.

Under the proposed zoning text amendment, commercial development would be limited to a maximum height of 155 feet with qualifying retail space. Development to this height is questionable given the inclusion of the Proposed Development Site in the DUMBO Historic District and the need to obtain a C of A from the LPC and the scale of buildings in the surrounding context; however, as a conservative measure, the RWCDS will assume this maximum building height (refer to **Figure A-8**). Taller commercial development would not be allowed by zoning.

In addition, while (1) the Applicant is not proposing a residential development, (2) the proposed zoning map and text amendments would not increase the maximum permitted residential FAR, and (3) taller residential development would, according to the Applicant, be out of context with the Historic District as it would be taller than all the neighboring contributing resources of the DUMBO Historic District and is a less likely development scenario, as the Proposed Actions would increase the maximum permitted residential building height (from 145 feet to 175 feet with the provision of IH and a qualifying ground floor), for environmental review purposes an alternate RWCDS will also be assessed for the massing-related technical areas of shadows, urban design, and air quality (refer to **Figure A-8**).

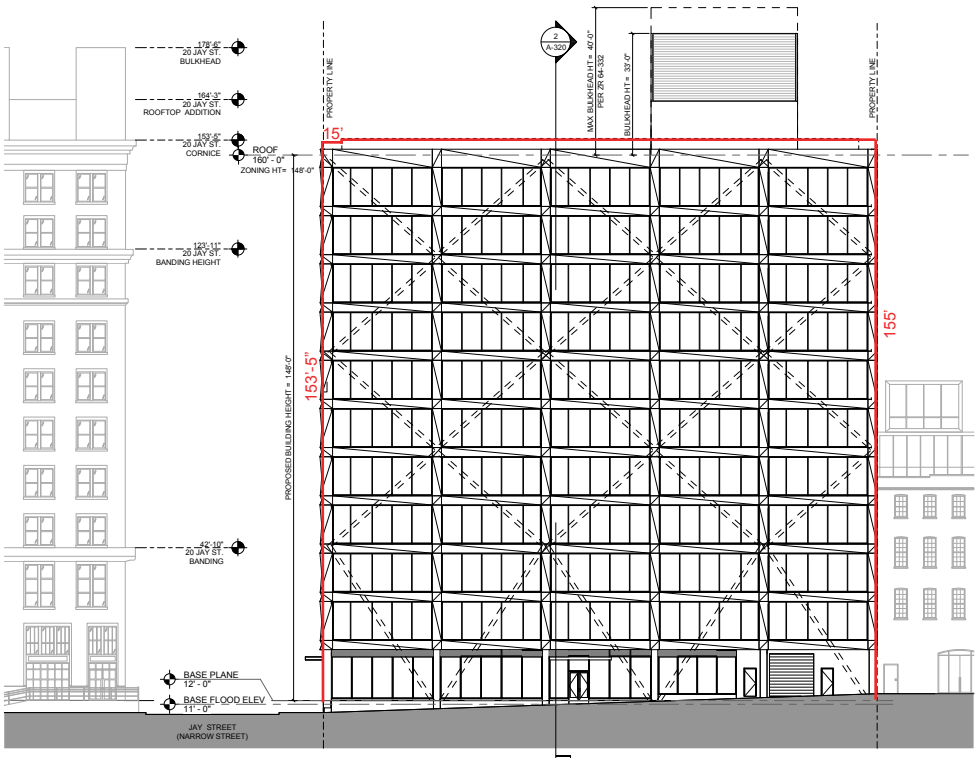
The environmental assessment statement will assess the incremental difference between the No-Action condition—assuming a primarily residential project, as analyzed in the 2009 *DUMBO Rezoning EAS*—and the With-Action condition, with construction of the RWCDS development.

Project Increment

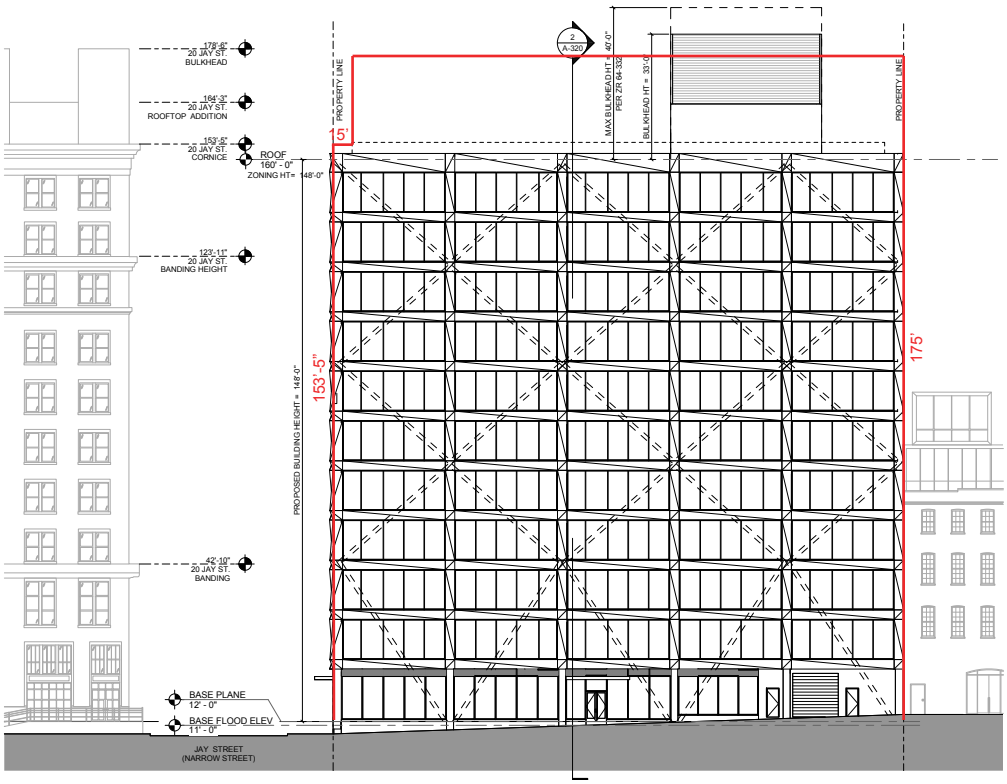
Based on the RWCDS for No-Action scenario and With-Action scenario conditions identified above, the net incremental change in development that would occur as a result of the Proposed Actions is identified in **Table A-2**, below. As presented in **Table A-2**, the Proposed Actions would result in the incremental development of 212,710 gsf of commercial office floor area, as well as a net reduction of 121 DUs, 2,939 gsf of local retail, and 45 accessory parking spaces.

RWCDS Massings

FOR ILLUSTRATIVE PURPOSES ONLY



RWCDS



Alternate RWCDS

Table A-2: Comparison of Existing, No-Action, and With-Action Conditions

	Existing Condition	No-Action Condition	With-Action Condition	Increment
LAND USE				
Residential	☐ YES **X** NO	**X** YES ☐ NO	☐ YES **X** NO	
If "yes," specify the following:				
Describe type of residential structure	None	Multi-unit apartment building	None	Multi-unit apartment building
No. of dwelling units	0	121	0	-121 units
No. of low- to moderate-income units	0	24	0	-24 units
Gross floor area (sf)	0	121,312 gsf	0	-121,312 gsf
Commercial	**X** YES ☐NO	**X** YES ☐ NO	**X** YES ☐ NO	
If "yes," specify the following:				
Type of use	UG 8 Dance Studio	UG 6 Retail	UG 6 Office; UG 6 Retail	+Use Group 6 Office -UG 6 Retail
Gross floor area (sf)	18,995 sf	15,164 sf	224,935 gsf (inc. 212,710 gsf UG 6 Office & 12,225 gsf UG 6 Retail)	+209,771 sf (inc. +212,710 gsf UG 6 Office & -2,939 gsf UG 6 Retail)
Manufacturing/Industrial	☐ YES **X** NO	☐ YES **X** NO	☐ YES **X** NO	N/A
If "yes," specify the following:				
Type of use	N/A	N/A	N/A	N/A
Gross floor area (sf)	N/A	N/A	N/A	N/A
Open storage area (sf)	N/A	N/A	N/A	N/A
If any unenclosed activities, specify:	None	N/A	N/A	N/A
Community Facility	☐ YES **X** NO	☐ YES **X** NO	☐ YES **X** NO	N/A
If "yes," specify the following:				
Type	N/A	N/A	N/A	N/A
Gross floor area (sf)	N/A	N/A	N/A	N/A
Vacant Land	☐ YES **X** NO	☐ YES **X** NO	☐ YES **X** NO	N/A
If "yes," describe:	N/A	N/A	N/A	N/A
Other Land Uses	☐ YES **X** NO	☐ YES **X** NO	☐ YES **X** NO	
If "yes," describe:	N/A	N/A	N/A	N/A
PARKING				
Garages	☐ YES **X** NO	**X** YES ☐ NO	☐ YES **X** NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	0
No. of accessory spaces	0	45	0	-45
Lots	☐ YES **X** NO	☐ YES **X** NO	☐ YES **X** NO	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	N/A
No. of accessory spaces	N/A	N/A	N/A	N/A
ZONING				
Zoning classification	M1-4/R8A	M1-4/R8A	M1-6/R8X	Change from M1-4/R8A to M1-6/R8X
Maximum amount of floor area that can be developed	Manufacturing/ Commercial: 2.0 Community Facility: 5.6 Residential: 7.2 (with IH)	Manufacturing/ Commercial: 2.0 Community Facility: 5.6 Residential: 7.2 (with IH)	Manufacturing/ Commercial: 10.0 Community Facility: 5.6 Residential: 7.2 (with IH)	Increase in maximum manufacturing/ commercial FAR from 2.0 to 10.0
Predominant land use and zoning classifications within the land use study area(s) or a 400 ft. radius of Proposed Project	Land use: Mix of residential, commercial, & light industrial Zoning: M1-4/R8A, M1-4/R7A, and M3-1	Land use: Mix of residential, commercial, & light industrial Zoning: M1-4/R8A, M1-4/R7A, and M3-1	Land use: Mix of residential, commercial, & light industrial Zoning: M1-4/R8A, M1-4/R7A, and M3-1	No change
POPULATION[1]				
Residents	0	283	0	-283
Workers	4	51	887	+836

VII. REQUIRED APPROVALS

The Applicant requires zoning map and text amendments, as well as a C of A from the LPC, to implement the Proposed Project. The proposed zoning map and text amendments are discretionary public actions that are subject to both the Uniform Land Use Review Procedure (ULURP) and CEQR.

The City's ULURP process, mandated by Sections 197-c and 197-d of the New York City Charter, is designed to allow public review of ULURP applications at four levels: Community Board, Borough President, the CPC, and the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of approximately seven months. The process begins with certification by DCP that the ULURP application is complete. The application is then referred to the relevant Community Board (in this case Brooklyn Community Board 2). The Community Board has up to 60 days to review and discuss the proposal, hold a public hearing, and adopt an advisory resolution on the ULURP application. The Borough President then has up to 30 days to review the application. CPC then has up to 60 days, during which time a public hearing is held on the ULURP application. If CPC approved, the application is then referred to the City Council, which has 50 days to review the ULURP application.

CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The City of New York established CEQR regulations in accordance with the New York State Environmental Quality Review Act (SEQRA). In addition, the City has published a guidance manual for environmental review, the *CEQR Technical Manual*. CEQR rules guide environmental review through the following steps:

- *Establish a Lead Agency*. Under CEQR, the "lead agency" is the public entity responsible for conducting environmental review. DCP serving as the lead agency for this project.
- *Environmental Review*. The lead agency will determine whether the Proposed Actions may have a significant impact on the environmental. To do so, an EAS must be prepared. This EAS will be reviewed by the lead agency, which will determine if the Proposed Actions and development would result in any significant adverse impacts on the environment.
- *Determination of Significance*. Based on the EAS, the lead agency must make one of three possible determinations of significance: (a) a Negative Declaration, if, for each technical area, the lead agency determines that either the screening or detailed analyses show that no significant adverse impacts on the environment would occur; (b) a Conditional Negative Declaration, if the lead agency determines that an Unlisted actions proposed by a private applicant may have a significant impact on the environment, but that any such effect can be eliminated or avoided by incorporating mitigation or specific changes in the project; or (c) a Positive Declaration, if the lead agency determines that the project may have one or more significant adverse impacts and a Conditional Negative Declaration is inappropriate.

ATTACHMENT B

SUPPLEMENTAL SCREENING

I. INTRODUCTION

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidelines and methodologies presented in the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual*. For each technical area, thresholds are defined, which, if met or exceeded, require that a detailed technical analysis be undertaken. Using these guidelines, preliminary analyses were conducted for all aspects of the Proposed Actions to determine whether detailed analyses of any technical areas would be appropriate.

Part II of the EAS Form identifies those technical areas that warrant additional assessments. The technical areas that included a "Yes" answer in Part II of the EAS form were: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Hazardous Materials; Water and Sewer Infrastructure; Transportation; Air Quality; Noise; Public Health; Neighborhood Character; and Construction. As such, a supplemental screening assessment for each of the aforementioned analysis areas is provided in this attachment. In addition, while the Proposed Actions would not result in a net building height increase of 50 feet or more, as the Proposed Development Site is located adjacent to and across from historic resources, a supplemental screening is provided herein to determine whether the nearby historic resources are sunlight-sensitive, as defined in the *CEQR Technical Manual.* All remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening, as they do not trigger initial CEQR thresholds and are unlikely to result in significant adverse impacts.

The supplemental screening assessment contained herein identified that detailed assessments are required in the areas of: Land Use, Zoning, and Public Policy; Historic and Cultural Resources; Urban Design and Visual Resources; Water and Sewer Infrastructure; Transportation; and Air Quality. These analyses are provided in **Attachments C** through **H**, and are summarized below. **Table B-1** identifies for each CEQR technical area whether (a) the potential for impacts can be screened out based on the EAS Form, Part II, Technical Analyses; (b) the potential for impacts can be screened out based on a supplemental screening provided herein per the *CEQR Technical Manual*; or (c) a more detailed assessment is required to make an impact determination.

II. LAND USE, ZONING, AND PUBLIC POLICY

A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the Proposed Actions include zoning map and text amendments, a detailed land use, zoning, and public policy is warranted and is provided in **Attachment C, "Land Use, Zoning, and Public Policy."** In addition, as the Rezoning Area is located within the Coastal Zone, an assessment of the Proposed Actions' consistency with the City's Waterfront Revitalization Program (WRP) is required.

Table B-1: Summary of CEQR Technical Areas Screening

Technical Area	Screened out per EAS Form	Screened out per Supplemental Screening	Detailed Analysis Required
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions		X	
Community Facilities	X		
Open Space		X	
Shadows		X[1]	
Historic & Cultural Resources			X
Urban Design & Visual Resources			X
Natural Resources	X		
Hazardous Materials		X	
Water & Sewer Infrastructure			X
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation			X
Air Quality			X
Greenhouse Gas Emissions and Climate Change	X		
Noise		X	
Public Health		X	
Neighborhood Character		X	
Construction		X	

Notes:

[1] While the Proposed Actions would not result in a net building height increase of 50 feet or more, as the Proposed Development Site is located adjacent to and across from historic resources, a supplemental screening is provided herein to determine whether the nearby historic resources are sunlight-sensitive, as defined in the *CEQR Technical Manual.*

As presented in **Attachment C**, no significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the 2020 future with the Proposed Actions in the primary and secondary study areas. Compared to the future without the Proposed Actions, the Proposed Actions would introduce new commercial uses in the Rezoning Area that would be compatible with adjacent land uses. The Proposed Actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would the Proposed Actions generate land uses that would be incompatible with land use, zoning, or public policy in the secondary study area, or cause a substantial number of existing structures to become nonconforming. The Proposed Actions would not result in land uses that conflict with public policies applicable to the primary or secondary study areas. The Proposed Actions would facilitate new commercial development in an appropriate location within the New York City Coastal Zone that is well-served by public facilities and infrastructure and characterized by similar uses under existing conditions.

III. SOCIOECONOMIC CONDITIONS

Socioeconomic impacts may occur when an action directly or indirectly changes population, housing stock, or economic activities in an area. In some cases, these changes may be substantial, but not significantly adverse. In other cases, these changes may be beneficial to some groups and adverse to others. The purpose of a socioeconomic assessment is to disclose potentially adverse changes that would be created by an action and identify whether they rise to the level of significance. According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if an action may be reasonably expected to create socioeconomic changes in the area affected by the action that would not be expected to occur in the absence of the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

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

The Proposed Actions would facilitate the redevelopment of Brooklyn Block 20, Lot 1 (the Proposed Development Site). As the Proposed Development Site does not contain any existing residential units, the Proposed Project would not directly displace any residents. Therefore, an assessment of direct residential displacement is not warranted.

2. **Direct Business Displacement: Would the project directly displace more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate.**

The Proposed Actions would facilitate the redevelopment of Brooklyn Block 20, Lot 1, a one-story building occupied by the Gelsey Kirkland Academy of Classical Ballet. As the Proposed Development Site would be redeveloped with a predominately residential building in the future without the Proposed Actions, the Proposed Project would not result in direct business displacement, and no further analysis is warranted.

3. **Direct Business Displacement: Would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location? If so, an assessment of direct business displacement is warranted.**

As noted above, there is one existing business on the Proposed Development Site: the Gelsey Kirkland Academy of Classical Ballet. As the Proposed Development Site would be redeveloped with a predominately residential building in the future without the Proposed Actions, the Proposed Project would not result in direct business displacement, and no further analysis is warranted.

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

The Proposed Actions would result in the incremental development of 209,771 gsf of commercial uses (compared to No-Action conditions) and, therefore, would exceed the preliminary screening assessment threshold of 200,000 sf warranting a preliminary assessment of indirect business displacement, which is provided in the following section. As the Proposed Project would not include a residential component, the Proposed Actions would not result in significant adverse impacts due to indirect residential displacement.

5. **Indirect Business Displacement due to Retail Market Saturation: Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites? This type of development may have the potential to draw a substantial amount of sales from existing businesses within the study area, resulting in indirect business displacement due to market saturation.**

The Proposed Project would include less than 200,000 sf of retail and therefore does not warrant an assessment of indirect business displacement due to market saturation.

6. **Adverse Effects on Specific Industries: Is the project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods and services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the City.**

As the Proposed Development Site would be redeveloped in the future without the Proposed Actions, the Proposed Project would not result in adverse effects on specific industries, and no further analysis is warranted.

Preliminary Assessment – Indirect Business Displacement

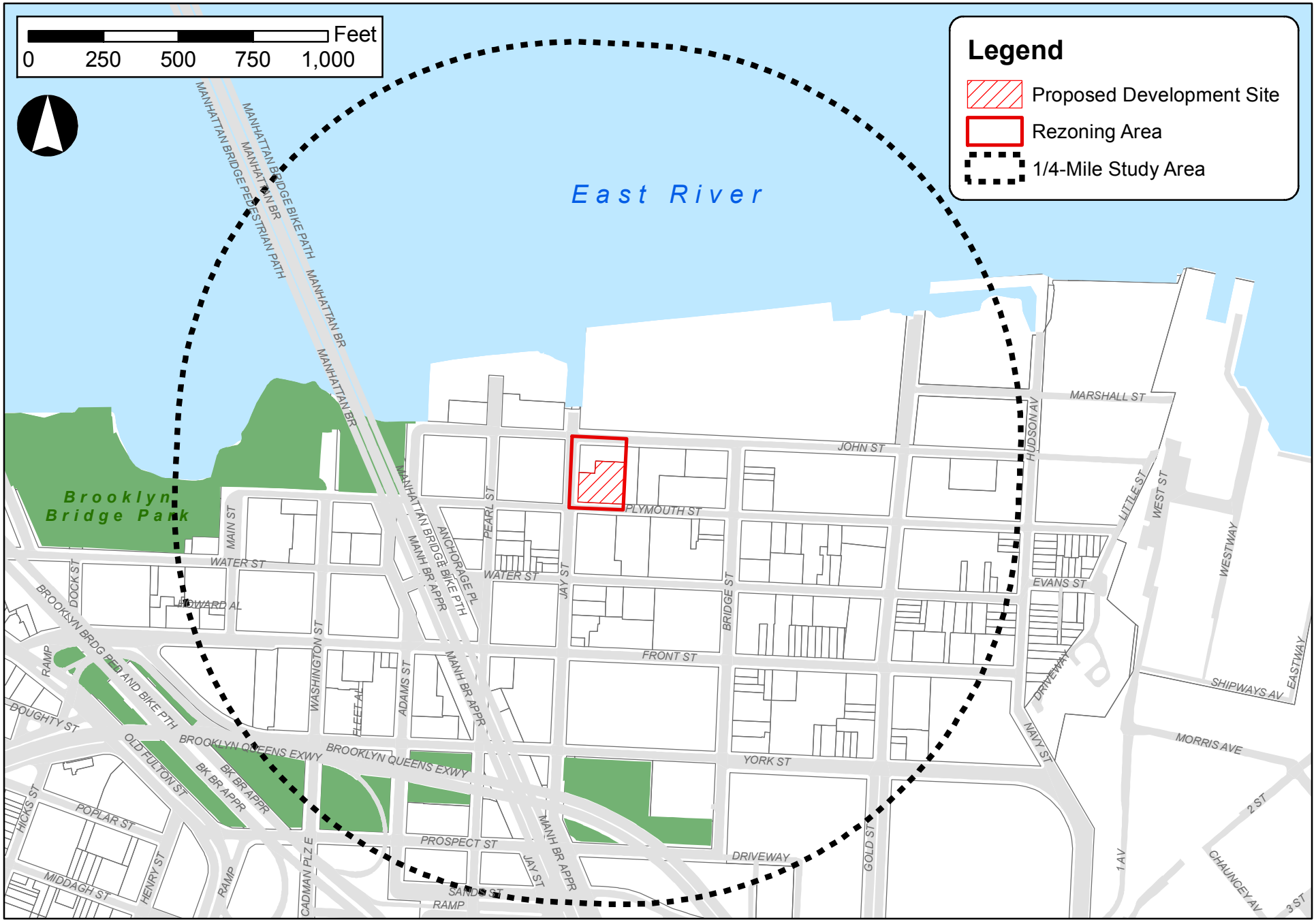
Following *CEQR Technical Manual* guidelines, the socioeconomic analysis of indirect business displacement begins with a preliminary assessment. The purpose of the preliminary assessment is to learn enough about the effects of the Proposed Project to either rule out the possibility of significant adverse impacts or to determine that a more detailed analysis is required to resolve the issue. As discussed below, a preliminary assessment was sufficient to conclude that the Proposed Actions would not result in any significant adverse impacts to due indirect business displacement due to increased rents.

Study Area Definition

Typically, the socioeconomic study area boundaries are similar to those of the land use study area. The study area encompasses the Rezoning Area and the adjacent area within 400 feet, 0.25 miles, or 0.5 miles, depending on project size and area characteristics. As the Rezoning Area comprises a total of 28,500 sf on the western portion of a single block, the study area used for the socioeconomic preliminary assessment is a roughly ¼-mile area (see **Figure B-1**).

Data Sources

For the indirect business displacement preliminary assessment, employment data for the ¼-mile study area were obtained from Environmental Systems Research Institute ("ESRI")—a private data provider—



29 Jay Street

Figure B-1
Socioeconomic Study Area

to perform the analysis. ESRI is a tool used to gather geographically specific business and demographic data from a variety of public sources, including the U.S. Census Bureau. Rent data was obtained from CBRE's market reports for Brooklyn, and the New York City Department of City Planning's (DCP's) Primary Land Use Tax Lot Output (PLUTO) data and PHA site visits were used for land use data. Employment data for the borough of Brooklyn and New York City as a whole were obtained from the New York State Department of Labor (NYSDOL) Quarterly Census of Employment and Wages (QCEW).

Preliminary Assessment

As noted above, the preliminary assessment of indirect business displacement focuses on whether the Proposed Project could markedly increase commercial property values and rents within a ¼-mile study area, so that it would become difficult for some categories of businesses to remain in the area. The following three questions (shown in italics, below) address the potential for significant adverse indirect business displacement impacts, per the *CEQR Technical Manual.*

> *Would the proposed project introduce a trend that increases commercial property values, making it difficult for businesses essential to the local economy—or a business that is the subject of regulations of publicly adopted plans to preserve, enhance, or otherwise protect it—to remain in the study area.*

As shown in **Table B-2**, there are an estimated 4,798 employees in the ¼-mile study area, representing approximately 0.7 percent of employment in Brooklyn. Within the study area, the professional, scientific, and technical services sector accounted for the largest share of total employment (22.5 percent, or 1,079 employees), followed by retail trade (13.8 percent, or 663 employees) and accommodation and food services (9.6 percent, or 459 employees). Combined, these three sectors represent more than 45 percent of employment in the study area. The prevalence of employment in these three sectors is reflective of the changes that have occurred in the greater DUMBO neighborhood since the last quarter of the 20th century, as the formerly industrial neighborhood has transitioned into a significant office hub for the borough of Brooklyn and the City as a whole. Office workers (finance and insurance; professional, scientific, and technical services; and management of companies and enterprises) comprised about a quarter of the workforce within the study area in 2016, as compared to office workers in Brooklyn, which comprised less than six percent of the borough's total workforce in 2016 (refer to **Table B-2**).

The Proposed Actions are not expected to alter existing economic patterns in the primary or secondary study areas. As described in **Attachment C, "Land Use, Zoning, and Public Policy,"** the area surrounding the Rezoning Area is an established mixed-use community, with an emerging office market. In recent years, Brooklyn has experienced significant office development, as areas like DUMBO have been converted and redeveloped, and investment has transitioned buildings from back office space to preferred Class A office space. In the second quarter of 2017, office space in the DUMBO submarket (encompassing the Rezoning Area and surrounding study area) had average asking rents of approximately $60 per square foot, well above other office submarkets in Brooklyn (the average asking rent for Brooklyn's overall office market was approximately $37.73 per square foot in the second quarter of 2017).[1]

[1] CBRE's "Brooklyn Office Market Report, Q2 2017" (July 18, 2017), page 3.

Table B-2: 2016 Employment within the ¼-Mile Study Area, Brooklyn, and New York City

NAICS Industry Title	¼-Mile Study Area		Brooklyn		New York City	
	Employees	Percentage (%)	Employees	Percentage (%)	Employees	Percentage (%)
Agriculture, Forestry, Fishing, & Hunting	4	0.1	104	<0.1	287	<0.1
Mining	0	0.0	0	0.0	145	<0.1
Utilities	17	0.4	4,189	0.6	6,944	0.2
Construction	201	4.2	29,860	4.3	141,242	3.4
Manufacturing	370	7.7	20,358	3.0	75,024	1.8
Wholesale Trade	133	2.8	24,245	3.5	134,380	3.2
Retail Trade	663	13.8	74,786	10.9	342,783	8.2
Transportation & Warehousing	28	0.6	20,160	2.9	115,886	2.8
Information	443	9.2	9,754	1.4	176,488	4.2
Finance & Insurance	107	2.2	16,275	2.4	327,353	7.9
Real Estate, Rental, & Leasing	217	4.5	17,303	2.5	126,907	3.1
Professional, Scientific, & Technical Service	1,079	22.5	21,340	3.1	392,225	9.4
Management of Companies & Enterprises	3	0.1	3,023	0.4	66,435	1.6
Administrative Support & Waste Management	74	1.5	29,422	4.3	223,513	5.4
Educational Services	152	3.2	29,466	4.3	178,338	4.3
Health Care & Social Assistance	93	1.9	193,204	28.1	670,562	16.1
Arts, Entertainment, & Recreation	199	4.1	8,241	1.2	84,441	2.0
Accommodation & Food Services	459	9.6	45,621	6.6	347,625	8.4
Other Services	262	5.5	29,084	4.2	171,074	4.1
Public Administration	186	3.9	99,366	14.5	538,861	13.0
Unclassified	108	2.3	11,404	1.7	35,869	0.9
Total	***4,798***	***100.0***	***687,216***	***100.0***	***4,156,382***	***100.0***

Sources: Study area employment data obtained from ESRI and Dun and Bradstreet, Business Analyst Online, Business Summary Report, 2017, and employment data for the borough of Brooklyn and New York City obtained from NYSDOL, QCEW, 2016 (Annual).

As detailed in **Section V, "Detailed Assessment"** of **Attachment C**, the Rezoning Area and surrounding study area are located within a mapped Special Mixed-Use District, which was established to encourage mixed-use communities with residential, commercial, community facility, and light industrial uses permitted as-of-right, side-by-side. Approximately 19.4 percent of the ¼-mile study area is occupied by office space (approximately 1,758,091 sf, as shown in **Table B-3**). Examples of office buildings in close proximity to the Rezoning Area include 20 Jay Street (immediately across the street to the west), which comprises an approximately 460,000 sf commercial office building, and 195 Plymouth Street (to the east of the Rezoning Area), which is an approximately 55,100-sf commercial office and industrial/manufacturing building.

It is expected that in the future without the Proposed Actions, commercial office development would continue in the study area. As presented in **Table C-2** of **Attachment C**, there are five sites in the ¼-mile study area that are expected to be redeveloped with a total of 287,943 sf of office space by 2020. As discussed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of approximately 212,710 gsf of commercial office space on the Proposed Development Site, as compared to No-Action conditions (refer to **Table B-3**), increasing the total amount of office space in the ¼-mile study area to approximately 2,258,744 sf by 2020.

Table B-3: Office Space Trends in the ¼-Mile Study Area

	Existing Conditions[1]	2020 No-Action Condition[2]	2020 With-Action Condition[3]
Office Space (sf)	1,758,091	2,046,034	2,258,744

Notes:
[1] Per 2016 PLUTO data and 2017 PHA site visits.
[2] Including No-Action developments detailed in **Table C-2** of **Attachment C**.
[3] Including development facilitated by the Proposed Actions.

As the ¼-mile study area contains established office space with rents much higher than other Brooklyn office submarkets, and more office buildings are expected to be completed in the study area under No-Action conditions, the Proposed Actions would not introduce new economic activities to the study area that would alter existing or emerging economic patterns. The Proposed Actions would not introduce a trend that increases commercial property values in the study area, making it difficult for businesses essential to the local economy to remain in the study area. Any upward rent pressures experienced by businesses in the area would already be present in the future without the Proposed Actions. There are also currently no regulations or plans to preserve, enhance, or protect any office categories in the study area.

Would the proposed project directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses?

The Proposed Actions would not result in any direct displacement of businesses. As discussed in **Attachment A, "Project Description,"** in the future without the Proposed Actions, the Proposed Development Site would be redeveloped with a predominately residential building with ground floor commercial space. Therefore, no further analysis is warranted.

Would the proposed project directly or indirectly displace residents, workers, or visitors who form a customer base for local businesses?

As described previously, the Proposed Actions would not result in any direct business or residential displacement, and the Proposed Actions are not expected to indirectly displace a substantial number of residents or workers who form a customer base for local businesses. The Proposed Actions are not expected to result in significant indirect business displacement that would negatively affect the customer base of any existing businesses in the study area. Therefore, no further analysis is warranted.

Conclusion

The preliminary assessment of socioeconomic conditions finds that the Proposed Actions would not result in significant adverse impacts due to indirect business displacement. The Proposed Actions would not introduce new uses into the ¼-mile study area, or markedly increase commercial property values and rents within the study area so that it would become difficult for businesses to remain in the area. Additionally, the Proposed Actions would not directly displace uses that directly support businesses in the area or bring people to the area that form a customer base for local businesses. Therefore, a detailed assessment of indirect business displacement is not warranted for the Proposed Actions.

IV. OPEN SPACE

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *CEQR Technical Manual*, if a project is not located within an area that is "underserved" or "well-served" by open space, a project that would generate fewer than 200 residents or 500 employees is typically not considered to have indirect effects on open space.

Direct Effects

The Proposed Actions would not have a direct effect on any study area publicly-accessible open spaces. Construction and operation of the Proposed Project would not cause the physical loss of public open space because of encroachment or displacement of the space; would not change the use of an open space so that it no longer serves the same user population; and would not limit public access to an open space. In addition, as discussed in other chapters of this EAS, the Proposed Actions would not significantly affect the usefulness or utilization of any study area open spaces due to increased noise or air pollutant emissions, odors, or shadows.

Indirect Effects

The Proposed Actions would generate a net 836 employees and, therefore, requires further assessment pursuant to *CEQR Technical Manual* guidelines. As the Proposed Project would not include a residential component, an analysis of residential indirect open space impacts is not warranted and the analysis focuses solely on the potential for non-residential study area indirect open space impacts.

Preliminary Screening Assessment

As outlined in the *CEQR Technical Manual*, a preliminary assessment is useful when the open space assessment can be targeted to a particular user group, or if it is not clear whether a full, detailed open space analysis is necessary.

Methodology

The following methodology examines the change in total population relative to total open space in the study area to determine whether the increase in user population would significantly reduce the amount of available open space for the area's population:

- *Calculate the total population in the study area at the time of the most recent decennial census, with a population adjustment based on subsequent population estimates.* As the Proposed Project would not include a residential component, the population for purposes of the indirect open space impact screening assessment is the non-residential population. Pursuant to *CEQR Technical Manual* methodology, the study area is defined as all census tracts that have at least 50 percent of their area located within a quarter mile of the Rezoning Area. As shown in **Figure B-2**, the ¼-mile open space study area comprises Brooklyn Census Tract 21, which is generally bounded by



29 Jay Street

Figure B-2
Open Space Study Area

the East River to the north, Little Street to the east, York and Prospect streets to the south, and Old Fulton Street to the west

- *Calculate the total open space in the study area.* As the Proposed Project would not include a residential component, passive open space is the focus of the analysis, pursuant to *CEQR Technical Manual* methodology. Only publicly accessible open space is included in the analysis.
- *Determine the open space ratio in the study area.* The open space ratio is expressed as the amount of open space acreage per 1,000 population. As the Proposed Project would not include a residential component, the population used in the open space ratio calculation is the study area non-residential population.
- *Add the population expected with the Proposed Project to the total existing population.*
- *Calculate any changes in the acreage of open space in the future With-Action (accounting for increases and/or decreases resulting from the Proposed Project).*
- *Calculate the With-Action open space ratio.*

Pursuant to *CEQR Technical Manual* methodology, if the open space ratio would increase or remain substantially the same in the With-Action condition, no further analysis of open space is needed (unless direct, qualitative changes to an open space may occur because of the project). Generally, if the decrease in the open space ratio approaches or exceeds five percent, it is considered to be substantial change warranting more detailed analysis. However, the closer the ratio is to 2.5 acres per 1,000 residents, or when the open space in the area exceeds this ratio, a greater percentage of change (more than five percent) may be tolerated.

Results

The open space study area has experienced substantial increase in open space acreage in recent years, most notably with the continued development of Brooklyn Bridge Park. As presented in **Table B-4** and **Figure B-2**, there are six publicly-accessible open spaces located within the non-residential open space (quarter-mile) study area, which provide a combined 21.46 acres of open space (including 15.16 acres of passive open space). The study area also contains approximately 9,735 existing workers. With the Proposed Project, there would be approximately 836 new workers added to the study area.

Table B-5 compares the study area open space ratios under the existing, No-Action, and With-Action conditions and shows that the passive open space ratio between the No-Action and With-Action conditions would be reduced from 1.33 to 1.23 acres per 1,000 non-residents. As noted above, while, generally, if the decrease in the open space ratio approaches or exceeds five percent, a more detailed analysis is warranted; however, if the open space ratio approaches or exceeds the guideline ratios (2.5 acres per 1,000 residents or 0.15 passive acres per 1,000 non-residents), a greater percentage of change (more than five percent) may be tolerated. As shown in **Table B-5**, while, under the preliminary assessment, the non-residential passive open space ratio would decrease by 6.8 percent compared to No-Action conditions, the non-residential passive open space ratio would remain well above the City's planning goal of 0.15 acres of open space per 1,000 non-residents, at 1.23 acres of passive open space per 1,000 residents. Therefore, while the Proposed Project would reduce the non-residential study area's passive open space ratio, the study area would continue to be well-served by open space, and a detailed open space assessment is not warranted in accordance with CEQR. The Proposed Project would not result in any significant adverse impacts on open space resources.

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

Map No.[1]	Name	Location	Owner/ Agency	Features	Total Acres	Passive Acres	Passive %	Active Acres	Active %
1	Brooklyn Bridge Park	East River waterfront between Atlantic Avenue and Jay Street	BBPC	Open lawns, plantings, rock climbing wall, dog run, restrooms, cafes, environmental education center, beach, playground, historic carousel, picnic tables, benches, seating, paths, theater	14.98	10.48	70	4.49	30
2	Anchorage Plaza	Bounded by Front, York, Prospect, and Old Fulton streets	DPR	Plantings, paths, public art	2.20	2.20	100	0.00	0
3	Bridge Park	Bounded by York, Bridge, Prospect, and Jay streets	DPR	Basketball court, public art, seating, trees plantings	2.01	0.20	10	1.81	90
4	Bar & Grill Park	Adams and Pearl streets between York and Prospect streets	DPR	Plantings, lawns, benches	0.49	0.49	100	0.00	0
5	Clumber Corner	Prospect Street between Washington and Adams streets	DPR	Lawns, art installation, trees	0.95	0.95	100	0.00	0
6	Pearl Street Triangle	Bounded by Water and Pearl streets and Anchorage Place	DOT	Seating, tables, plantings, public art	0.83	0.83	100	0.00	0
				Totals	*21.46*	*15.16*	*70.6*	*6.31*	*29.4*

Notes:
[1] Refer to **Figure B-2**.

Table B-5: Preliminary Assessment of the Study Area's Public Open Space Adequacy

	Existing Conditions	No-Action Condition	With-Action Condition
Study Area Worker Population	9,735	11,438	12,274
Open Space Acreage[1]			
Total	21.46	21.46	21.46
Passive	15.16	15.16	15.16
Active	6.31	6.31	6.31
Open Space Ratio (acres per 1,000 non-residents)			
Total	N/A	N/A	N/A
Passive	1.56	1.33	1.23
Active	N/A	N/A	N/A
Passive Open Space Ratio Percent Change (No-Action to With-Action)			*-6.8*

Notes:
[1] Based on 2006-2010 ACS data for Brooklyn Census tract 21 (Census Transportation Planning Products).
[2] Population adjustment for the No-Action condition reflects increase in worker population generated by known and anticipated developments in the ¼-mile study area, as well as the No-Action redevelopment of the Proposed Development Site.
[3] See **Table B-4** and **Figure B-2**.

V. SHADOWS

As outlined in the *CEQR Technical Manual*, a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is only required if the project would either (a) result in new structures (or additions to existing structures, including the addition of rooftop mechanical equipment) of 50 feet or more; or (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. As presented in **Attachment A, "Project Description,"** the Alternate RWCDS would rise to a maximum building height of 175, 30 feet taller than the RWCDS No-Action building height of 145 feet. While the Proposed Actions would not result in a net building height increase of 50 feet or more, as the Proposed Development Site is located adjacent to and across from historic resources, a supplemental screening is provided herein to determine whether the nearby historic resources are sunlight-sensitive, as defined in the *CEQR Technical Manual.*

The longest shadow radius for a structure is 4.3 times its height and occurs on December 21, the winter solstice (the "Tier 1 screening assessment"). As such, the Alternate RWCDS would have a maximum shadow radius of 752.5 feet, versus a maximum shadow radius of 623.5 feet under the RWCDS No-Action condition. As also outlined in the *CEQR Technical Manual,* because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site; in New York City, this area lies between -108 and +108 degrees from true north (the "Tier 2 screening assessment"). Based on a comparison of the RWCDS No-Action and With-Action maximum shadow radii, and accounting for the areas between -108 and +108 degrees from true north that could not be cast in shadow by the Proposed Development Site, one contributing resource of the New York City Landmarks Preservation Commission- (LPC-) designated DUMBO Historic District and State/National Register- (S/NR-) listed DUMBO Industrial District has the potential to be cast in incremental shadows from the Alternate RWCDS: 18 Adams Street (located at the southwest corner of Adams and Plymouth streets). In addition, additional portions of the S/NR-listed Manhattan Bridge (west of Adams Street approximately between the westerly prolongation of John and Plymouth streets) have the potential to be cast in incremental shadows from the Alternate RWCDS.

The *CEQR Technical Manual* states that a shadow impact assessment assesses whether new structures may cast shadows on "sunlight-sensitive" resources. In terms of historic resources, only those features of architectural resources identified in the historic and cultural resources assessment that depend on direct sunlight for their enjoyment by the public are included in the shadow impact assessment. These include:

- Buildings containing design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements (e.g., deep recesses or voids, such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication);
- Buildings distinguished by elaborate, highly carved ornamentation;
- Buildings with stained glass windows;
- Exterior materials and color that depend on direct sunlight for visual character (e.g., the polychromy (multicolored) features found on Victorian Gothic Revival or Art Deco facades);
- Historic landscapes, such as scenic landmarks, including vegetation recognized as an historic feature of the landscape (e.g., weeping beeches or pansy beds); and
- Features in structures where the effect of direct sunlight is described as playing a significant role in the structure's significance as an historic landmark.

LPC reviewed the two above-listed historic resources that could be cast in incremental shadows from the Alternate RWCDS and determined that neither meet the CEQR criteria of "sunlight-sensitive" resources. As such, no further assessment is warranted, and no significant adverse impacts are anticipated.

VI. HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration for designation as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places; and National Historic Landmarks. An assessment of architectural and/or archaeological resources is usually needed for projects that are locationally adjacent to historic or landmark structures or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by proposed actions and in the area surrounding identified development sites. The historic resources study area is therefore defined as the Rezoning Area, as well as an approximately 400-foot radius around the Rezoning Area. Archaeological resources are considered only in those areas where new excavation or ground disturbance is likely and would result in new in-ground disturbance, as compared to No-Action conditions (the Proposed Development Site).

As part of the 2009 *DUMBO Rezoning EAS*, which identified the Proposed Development Site as a site likely to be developed, the site does not have the potential to contain archaeological resources. As such, no further assessment of archaeological resources is warranted, and no significant adverse impacts are anticipated. As the Rezoning Area is located within the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, an assessment of the potential for the Proposed Actions to result in significant adverse impacts on historic architectural resources is warranted and is provided in **Attachment E, "Historic and Cultural Resources."** As presented in **Attachment E**, the Proposed Actions

would not result in significant adverse impacts on historic architectural resources. The Proposed Actions would facilitate the development of a new building on the Proposed Development Site that the Applicant feels would reflect and complement the aesthetics of the surrounding LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The proposed new building would not eliminate or substantially obstruct significant public views of architectural resources, or introduce incompatible elements to any historic resource's setting. The Proposed Actions would not result in direct impacts, as the existing Proposed Development Site building has been identified as non-contributing to the historic district, nor would the Proposed Actions result in construction-related impacts to historic resources, as construction of the Proposed Project would be subject to DOB'S TPPN #10/88. Lastly, as none of the surrounding historic resources in the LPC-designated and S/NR-listed DUMBO Historic District contain sunlight-sensitive features, such as stained-glass or polychromatic detailing, the limited incremental shadows generated by the Proposed Project would not result in any significant adverse impacts on historic resources.

VII. URBAN DESIGN AND VISUAL RESOURCES

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

An analysis of urban design and visual resources is appropriate if a proposed action would (a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use, or arrangement than exists in an area; (b) change block form, demap an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or streetscape elements; or (c) would result in above-ground development in an area that includes significant visual resources.

As the Proposed Actions include zoning map and text amendments that would change the permitted bulk allowed in the Rezoning Area, an urban design analysis is required and is provided in **Attachment F, "Urban Design and Visual Resources."** As discussed therein, the Proposed Actions and subsequent development, while resulting in a notable change in the urban design of the study area, would not result in a significant adverse impact on the area's urban design and visual resources, as defined by the *CEQR Technical Manual*. Under the RWCDS, the Proposed Actions would facilitate the construction of a new 11-story, 155-foot tall building comprised of commercial office space and local retail uses on the ground floor. The Proposed Project would have a comparable maximum building height to the development anticipated on the projected development site in the No-Action (an as-of-right predominantly residential building rising to a maximum building height 145 feet). While the Proposed Project would have a higher streetwall than the as-of-right No-Action development (153.5 feet under the RWCDS With-Action condition, versus up to 105 feet), the tall streetwall would be more consistent with the historic urban design fabric of the neighborhood, which includes a substantial number of former industrial buildings that are built to the lot line and rise without a setback. In addition, the Proposed Project would fill an existing void by replacing existing underutilized land with active pedestrian-oriented uses that would complement those found in the primary and secondary study areas. While the Proposed Development Site is located in the LPC-

designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, the Proposed Project would replace an existing non-contributing building with a building reflecting the loft character of the area and that will be subject to the approval of the LPC. The Proposed Project would not obstruct or alter views of any visual resources from existing public thoroughfares. Therefore, the Proposed Actions would not result in significant adverse impacts on urban design and visual resources.

VIII. HAZARDOUS MATERIALS

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds (VOCs and SVOCs), methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic. According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous materials exist on a site and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials. The Proposed Project would result in new construction on Block 20, Lot 1, a site which was formerly occupied by industrial uses. As such, a hazardous materials assessment is warranted.

(E) Designation

As described in **Attachment A, "Project Description,"** the Proposed Development Site was identified as projected development site 3 in the 2009 *DUMBO Rezoning EAS.* As part of the hazardous materials assessment for the 2009 EAS, the potential for hazardous materials on Block 20, Lot 1 was disclosed. To avoid the potential for hazardous materials impacts, as part of the rezoning, an (E) designation was assigned to the Proposed Development Site (E-231). Specifically, E-231 requires the fee owner of the site to conduct a testing and sampling protocol and remediation, where appropriate, to the satisfaction of the New York City Department of Environmental Protection (DEP) before the issuance of a building permit by the New York City Department of Buildings (DOB). The (E) designation also includes a mandatory construction-related health and safety plan (CHASP), which must also be approved by DEP.

Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment (ESA) was prepared for the Proposed Development Site (Block 20, Lot 1) by Hydro Tech Environmental Corp. in Jun 2014. The Phase I ESA was based upon a site reconnaissance and interview(s) with site contacts, as well as a review of historical fire insurance maps, City directory records, local, state, and federal databases, and DOB, DCP, and New York City Department of Housing Preservation and Development (HPD) records. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- The presence suspect fuel oil heating underground storage tanks;
- The presence of a hazardous materials (E) designation;
- The presence of fill material beneath the site;
- The historic use of the site as an industrial facility for the manufacturing of metal products;
- The presence of a 5,000-gallon No. 2 fuel oil underground storage tank (UST) that is closed in place along the southern portion of the site;

- The presence of open New York State Department of Environmental Conservation (NYSDEC) Spill No. 0913068, located on an adjacent parcel to the south;
- The presence of open NYSDEC spill #9013330, located beneath Plymouth Street to the south; and
- The presence of closed NYSDEC spill #9705464, related to gasoline release at an adjacent property to the southeast that has no records of groundwater remediation.

Subsequent Subsurface Investigation and OER Coordination

Subsequent to the preparation of the Phase I ESA (described above), Hydro Tech Environmental Corp. conducted a subsurface investigation in coordination with the New York City Mayor's Office of Environmental Remediation (OER). The investigation consisted of the performance of a Ground Penetrating Radar (GPR) survey and the installation and sampling of ten soil probes and four monitoring wells. The scope of work of the subsurface investigation was based on a pre-application meeting with OER held on March 20, 2015. All field work was conducted in early June 2015, with the findings summarized in a report dated June 17, 2015 (refer to Appendix III). As outlined in the report: (1) an individual gasoline VOC marginally exceeding its regulatory standard is present in deep soil beneath the northeastern portion of the site; no specific source of VOCs is present at this location; (2) historic fill material impacts with polycyclic aromatic hydrocarbons (PAHs) and metals is present in soil throughout the site to a depth of 12 feet; and (3) PAHs are also present in groundwater beneath the northwestern upgradient portion of the site, which are likely to be related to off-site sources. Based on the findings of the subsurface investigation, Hydro Tech recommended that, during any future site redevelopment activities, all impacts soil/fill material with elevated levels of PAHs and metals should be properly disposed of at a licensed disposal facility in accordance with local, state, and federal regulations.

Assessment

The (E) designation assigned to the Proposed Development Site requires the fee owner of the site to conduct remediation, where appropriate, to the satisfaction of DEP before the issuance of a building permit by DOB, in addition to a CHASP, which must also be approved by DEP. With adherence to the requirements of E-231, the Proposed Actions would not result in significant adverse hazardous materials impacts, and no further analysis is required.

IX. WATER AND SEWER INFRASTRUCTURE

For assessment purposes, the City's "infrastructure" comprises the physical systems supporting its population, including: water supply, wastewater treatment, and stormwater management. Other infrastructure components are addressed separately per CEQR guidelines. Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressure, few actions have the potential to cause significant impacts on this system. Therefore, only very large developments or actions having exceptionally large water demands (e.g., more than one million gallons per day) would warrant a detailed water supply assessment. For wastewater and stormwater conveyance and treatment, the *CEQR Technical Manual* indicates that a preliminary assessment is needed if a project is located in a combined sewer area and would exceed the following incremental development of residential units or commercial space thresholds above the predicted No-Action scenario: (a) 1,000 residential units or 250,000 sf of commercial space or more in Manhattan; or (b) 400 residential units or 150,000 sf of commercial space or more in the Bronx, Brooklyn, Staten Island, or Queens.

The Proposed Project would result in the incremental development of 209,771 gsf of commercial floor area and, therefore, would exceed the CEQR analysis threshold for wastewater and stormwater conveyance and treatment. As presented in **Attachment F, "Water and Sewer Infrastructure,"** the Proposed Actions would not result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure. The Proposed Project is expected to generate approximately 24,204 gallons per day (gpd) of sanitary sewage. This would represent a decrease of 7,735 gpd compared to No-Action conditions and would not result in an exceedance of the plant's permitted capacity. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the Proposed Project; sewer improvements and/or an amended drainage plan may also be required to support the house or site connection proposal. Therefore, the Proposed Actions would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.00 and 0.05 million gallons per day (mgd). Compared to existing conditions, this would represent an increase in combined sewer flows of up to 0.02 mgd, depending on rainfall intensities. With the incorporation of selected stormwater source control best management practices (BMPs) that would be required as part of the site connection approval process, subject to the review and approval of DEP, the peaks stormwater runoff rates would be reduced. In addition, as noted above, as part of the site connection proposal process, sewer improvements and/or an amended drainage plan would be prepared may be required, if determined warranted by DEP. Overall, the Proposed Project would not result in significant adverse impacts on the City's sewage conveyance and treatment systems.

X. TRANSPORTATION

The objective of the transportation analysis is to determine whether a proposed action may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists, and vehicles), on- and off-street parking, or goods movement.

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to traffic conditions and therefore require a detailed traffic analysis. As shown in Table 16-1 of the *CEQR Technical Manual*, actions with a single or multiple land use(s) that would result in fewer than fifty peak hour vehicle trips are generally unlikely to cause significant adverse impacts. As the Proposed Project would exceed the Level 1 screening threshold, a detailed transportation analysis was prepared, which is included in **Attachment G, "Transportation."**

As presented in **Attachment G**, the Proposed Actions would generate additional vehicular, transit, and pedestrian trips in the surrounding area. As incremental project-generated vehicle and transit trips would not exceed *City Environmental Quality Review* (CEQR) *Technical Manual* analysis thresholds, a detailed analysis of traffic, parking, and transit conditions is not provided in this EAS. Because the incremental increase in pedestrian trips would exceed the CEQR threshold, a detailed analysis of operating conditions is provided for one sidewalk adjacent to the Proposed Development Site. As this sidewalk is expected to

operate at level of service (LOS) B under the 2021 With-Action condition, the Proposed Actions are not expected to result in significant adverse pedestrian impacts.

XI. AIR QUALITY

Stationary Sources

Heating and Hot Water Systems

Actions can result in stationary source air quality impacts when they create new stationary sources of pollutants that can affect surrounding uses (such as emission stacks from industrial plants or exhaust from boiler stack(s) used for heating/hot water, ventilation, or air conditioning [HVAC] systems of a building); or when they locate new sensitive uses (schools, hospitals, residences) near such stationary sources. Air quality impacts from HVAC sources are unlikely at distances of 400 feet or more, but a large or major emission source within 1,000 feet warrants further evaluation.

The Proposed Project would use fossil fuels for HVAC purposes. Emissions from the HVAC system of the Proposed Project may affect air quality levels at other nearby existing land uses. According to *CEQR Technical Manual* guidelines, the impacts of these emissions would be a function of fuel type, stack height, building size, and location of each emissions source relative to nearby sensitive land uses. Based on the RWCDS, the potential for significant adverse HVAC air quality impacts on the nearest building of similar or greater height (20 Jay Street) could not be ruled out based on the nomograph screening, and a detailed analysis was prepared, which is provided in **Attachment H, "Air Quality."** As presented in **Attachment H**, with the incorporation of an (E) designation to be assigned to the Proposed Development Site, which would restrict both fuel type and stack location, no significant adverse air quality impacts would result.

Air Toxins

To assess air quality impacts on the Proposed Project associated with emission from nearby industrial and major sources, an investigation of potential sources of concern (as defined in the *CEQR Technical Manual*) was carried. Based on a review of area land uses and a DEP permit search for buildings within a 400-foot radius of the Rezoning Area, multiple sites with existing air toxins permits were identified. As such, an air toxins analysis was prepared, which is provided in **Attachment H, "Air Quality."** As presented in **Attachment H**, the emissions released from the nearby existing industrial source are not predicted to significantly impact the Proposed Project.

Mobile Sources

As stated in the *CEQR Technical Manual*, a project—whether site-specific or generic—may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic, create any other mobile sources of pollutants, or add new users near mobile sources. According to the *CEQR Technical Manual* screening threshold criteria for the City, if 170 or more project-generated vehicles pass through an intersection in any given peak period or if a project would result in a substantial number of local or regional diesel vehicle trips, there is the potential for mobile air quality impacts and a detailed analysis is required.

As discussed above, the Proposed Actions would generate a maximum of 28 incremental vehicle trips in any peak hour, and, as such, would not exceed the *CEQR Technical Manual* mobile source air quality screening threshold of 170 vehicles. In addition, the Proposed Actions are not expected to generate a substantial number of diesel vehicle trips, with a maximum of eight truck trips in any peak hour. As such, a mobile source air quality analysis is not warranted and the Proposed Project would not result in significant adverse mobile source air quality impact.

Parking Facilities

As stated in the *CEQR Technical Manual*, projects that would result in parking facilities may require a microscale air quality analysis. As the Proposed Project would not include parking, a detailed mobile source parking garage analysis is not warranted.

XII. NOISE

A noise analysis examines an action for its potential effects on sensitive noise receptors (which can be both indoors and outdoors), including the effects on the interior noise levels of residential, commercial, and certain community facility uses, such as hospitals, schools, and libraries. The principal types of noise sources affecting the City are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building HVAC systems) and construction noise (e.g., trucks, bulldozers, power tools, etc.). An initial impact screening would consider whether a proposed action would generate any mobile or stationary source noise, or would be located in an area with high ambient noise levels.

Per the EAS Part II Form, further analysis of stationary noise sources has been screened out in accordance with *CEQR Technical Manual* assessment screening thresholds. In terms of potential impacts from existing area noise sources, a noise analysis was conducted for the site as part of the 2009 *DUMBO Rezoning EAS*, which determined that no additional attenuation would be required for the site beyond the 35 dBA of attenuation required for residential uses in MX districts. Commercial uses are considered less sensitive to noise, and typically require an interior noise level of 50 dBA, as compared to the 45 dBA interior noise level required for residential and community facility uses. As the Proposed Actions would not introduce new or additional receptors (as defined in Section 124 of Chapter 19 of the *CEQR Technical Manual*) beyond those permitted as-of-right under existing conditions, and the proposed commercial uses would be less sensitive to area noise sources than the residential uses analyzed in the 2009 *DUMBO Rezoning EAS*, further assessment of potential impacts from existing area noise sources on the Proposed Project are not warranted. However, as the Proposed Project would generate traffic, a preliminary screening assessment is warranted to determine whether the Proposed Project would result in significant adverse mobile source noise impacts.

The *CEQR Technical Manual* indicates that if existing noise passenger car equivalents (PCEs) are not increased by 100 percent or more (which is equivalent to an increase of three dBA or more), it is likely that a proposed project would not cause a significant adverse vehicular noise impact, and, therefore, no further vehicular noise analysis is needed. As discussed in **Attachment G, "Transportation,"** the Proposed Actions are expected to generate a maximum of 28 vehicle trips in any peak hour. As the Proposed Project would not include on-site parking, these peak incremental trips would not be concentrated at any one location, and, rather, would be dispersed to area on- and off-street public parking facilities. As such, the

net number of peak hour vehicle trips generated by the Proposed Project are not expected to double traffic volumes. The Proposed Development Site is located in a well-developed area, and the incremental traffic from the Proposed Project would not have the potential to result in significant adverse mobile source noise impacts.

XIII. PUBLIC HEALTH

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

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if a project results in (a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; (b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect groundwater to be used as a source of drinking water; (c) solid waste management practices that could attract vermin and result in an increase in pest populations; (d) potential significant adverse impacts to sensitive receptors from noise and odors; (e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; (f) exceedances of accepted federal, state, or local standards; or (g) other actions that might not exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

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

XIV. NEIGHBORHOOD CHARACTER

A supplemental screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted in accordance with *CEQR Technical Manual* methodology, because the Proposed Actions required analyses of land use, zoning, and public policy, urban design and visual resources, historic and cultural resources, and transportation.

The DUMBO neighborhood is defined, in part, by its historic character, its waterfront location, and its proximity to the Manhattan Bridge. The Proposed Actions would be part of ongoing development trends and would support the continued growth of the neighborhood. The Proposed Actions would not adversely affect any component of the surrounding area's neighborhood character. The DUMBO neighborhood has historically been characterized by a mix of uses, and the Proposed Actions would not alter land use patterns. Nor would the v introduce new uses into the area or markedly increase commercial property values and rents within the study area so that it would become difficult for businesses to remain in the area. The DUMBO neighborhood is an established mixed-use community, with an emerging office market that has transitioned buildings from back office space to preferred Class A office space. While resulting in a notable change in the urban design of the study area, the Proposed Project would fill an existing void by

replacing existing underutilized land with active pedestrian-oriented uses that would complement those found in the surrounding neighborhood. The Proposed Actions would facilitate the development of a new building on the Proposed Development Site that reflects and complements the aesthetics of the surrounding LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The Proposed Project would introduce new workers and an associated increase in pedestrian traffic in the area, enlivening the local streets. Moreover, the Proposed Actions are not expected to result in any significant adverse impacts on the technical areas related to neighborhood character, including land use, socioeconomic conditions, open space, urban design and visual resources, historic and cultural resources, transportation, and noise. Therefore, the Proposed Actions and the resultant Proposed Project would not result in a significant adverse impact on neighborhood character.

XV. CONSTRUCTION

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

Construction of the Proposed Project is expected to occur over a 24-month period, with construction completed in 2020. As the Proposed Development Site would be redeveloped under both No-Action and With-Action conditions with buildings of similar density, 24 months of construction activities would occur on the site under both future conditions.

Most construction activity would take place Monday through Friday, although the delivery and installation of certain equipment could occur on weekend days. Hours of construction are regulated by the DOB and apply in all areas of the City. In accordance with those regulations, almost all work would occur between 7 AM and 6 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7 AM. Occasionally, Saturday or overtime hours could be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from DEP under the New York City Noise Code.

Construction activities may result in short-term disruption of both traffic and pedestrian movements in the vicinity of the Proposed Development Site. This would occur primarily due to the potential temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the project site. Most construction traffic would take place outside of the AM and PM traffic peak hours in vicinity of the project site due to typical construction hours. Additionally, construction may at times result in temporary closings of sidewalks adjacent to the project site in order to accommodate construction vehicles, equipment, and supplies. The construction site would be surrounded by construction fencing and barriers as required by DOB. While it is anticipated that some sidewalks immediately adjacent to the construction site would be closed to accommodate heavy loading areas for at least several months of the construction period for the site, detailed Maintenance and Protection of Traffic (MPT) plans for the construction site would need to be submitted for approval to the DOT Office of Construction Mitigation and Coordination (OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. In addition, as the Proposed Development Site would be developed with buildings of similar density in both the No-Action and With-Action conditions, the Proposed Actions would not result in

significantly greater construction-period transportation impacts, as compared to the No-Action condition. Given the limited duration of any obstructions and the negligible incremental effects, these conditions would not result in significant adverse impacts on traffic and transportation conditions.

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

In addition, as seven contributing resources of the LPC-listed DUMBO Historic District and S/NR-listed DUMBO Industrial District are located within 90 feet of the Proposed Development Site, they would be subject to DOB'S TPPN #10/88 during the proposed building's construction, as described in greater detail in **Attachment E, "Historic and Cultural Resources."** Under the TPPN, a construction protection plan must be provided to the LPC for review and approval prior to any demolition and construction on the project site. The construction protection plan would take into account the guidance provided in the *CEQR Technical Manual*, Chapter 9, Section 523, "Construction Protection Plan." With the implementation of the appropriate construction protection measures mandated by TPPN #10/88, no construction-related impacts on historic resources would be anticipated as a result of the Proposed Actions.

In addition, as presented in Section VII, "Hazardous Materials," above, an (E) designation was assigned to the Proposed Development Site (Block 20, Lot 1) in conjunction with the 2009 DUMBO Rezoning, which would require the applicant to prepare a CHASP, which must be reviewed and approved by DEP. As such, no significant adverse hazardous materials impacts would occur during construction of the Proposed Project. Lastly, as construction of the Proposed Project would not be considered long-term (more than two years), would be comparable to construction activities anticipated on the Proposed Development Site in the No-Action condition, and would not directly affect a technical area (such as impeding the operation of a community facility), further assessment is not warranted for other technical areas, and no significant adverse impacts would result.

While construction of the Proposed Project would result in temporary disruption in some of the surrounding area, including noise, dust, and traffic associated with the delivery of materials and arrival of workers on the project site, the incremental effects of construction of the Proposed Project, if any, would be negligible. Therefore, no impacts from construction are expected under the RWCDS.

ATTACHMENT C

LAND USE, ZONING, AND PUBLIC POLICY

I. INTRODUCTION

The applicant, Forman Ferry, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) to facilitate the development of an approximately 224,935 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "Proposed Development Site") in the DUMBO neighborhood of Brooklyn Community District (CD) 2. The Proposed Project would include approximately 212,701 gsf of office floor area and approximately 12,225 gsf of ground floor local retail. In addition, as the Proposed Development Site is located within a New York City Landmarks Preservation Commission- (LPC) designated historic district, the Proposed Project requires a Certificate of Appropriateness ("C of A") from LPC.

A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the Proposed Actions include zoning map and text amendments, a detailed assessment of land use, zoning, and public policy is warranted and is provided in this attachment. In addition, the northwest portion of the Proposed Development Site is located within the 100-year floodplain with an elevation of +11 North American Vertical Datum (NAVD); as the Proposed Development Site is located within the New York City Coastal Zone, an assessment of the Proposed Actions' consistency with the Waterfront Revitalization Program (WRP) is warranted. The assessment considers the effects of the Proposed Actions on the land use study area, as well as the Proposed Actions' potential effects on zoning and public policy in the study area.

II. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the 2021 future with the Proposed Actions in the primary and secondary study areas. Compared to the future without the Proposed Actions, the Proposed Actions would introduce new commercial uses in the Rezoning Area that would be compatible with adjacent land uses. The Proposed Actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would the Proposed Actions generate land uses that would be incompatible with land use, zoning, or public policy in the secondary study area, or cause a substantial number of existing structures to become nonconforming. The Proposed Actions would not result in land uses that conflict with public policies applicable to the primary or secondary study areas. The Proposed Actions would facilitate new commercial development in an appropriate location within the New York City Coastal Zone that is well-served by public facilities and infrastructure and characterized by similar uses under existing conditions.

III. METHODOLOGY

The Proposed Actions include zoning map and text amendments, which would affect land use, zoning, and public policy. Land use, zoning, and public policy are addressed and analyzed for two geographical areas for the proposed action. For the purpose of this assessment, the primary study area encompasses the Rezoning Area (Brooklyn Block 20, Lots 1 and 6), which is located on the east side of Jay Street between Plymouth and John streets. The secondary study area encompasses areas that have the potential to experience indirect impacts as a result of the proposed action. Both the primary and secondary study areas have been established in accordance with *City Environmental Quality Review* (CEQR) *Technical Manual* guidelines and can be seen in **Figure C-1**.

The analysis of land use, zoning, and public policy first provides a description of the existing land use, zoning, and public policy conditions in the study areas. Existing land uses in the primary and secondary study area were determined based on the New York City Primary Land Use Tax Lot Output (PLUTO) data files and 2017 field visits. New York City Zoning and Land Use (ZoLa), New York City Zoning maps, and the *Zoning Resolution of the City of New York* were consulted to describe existing zoning districts in the study areas. Relevant public policy recognized by the New York City Department of City Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the primary and secondary study areas.

The analysis then projects land use, zoning, and public policy conditions in the 2021 analysis year without the Proposed Actions. This is the "No-Action" or "future without the Proposed Actions" condition, which is developed by identifying proposed developments and other relevant changes anticipated to occur in the primary and secondary study areas within this time frame. The No-Action condition describes the baseline conditions in the study areas against which the Proposed Actions' incremental changes are measured. Finally, the analysis projects land use, zoning, and public policy conditions in 2021 with the completion of the Proposed Project. This is the "With-Action" or "future with the Proposed Actions" condition.

IV. PRELIMINARY ASSESSMENT

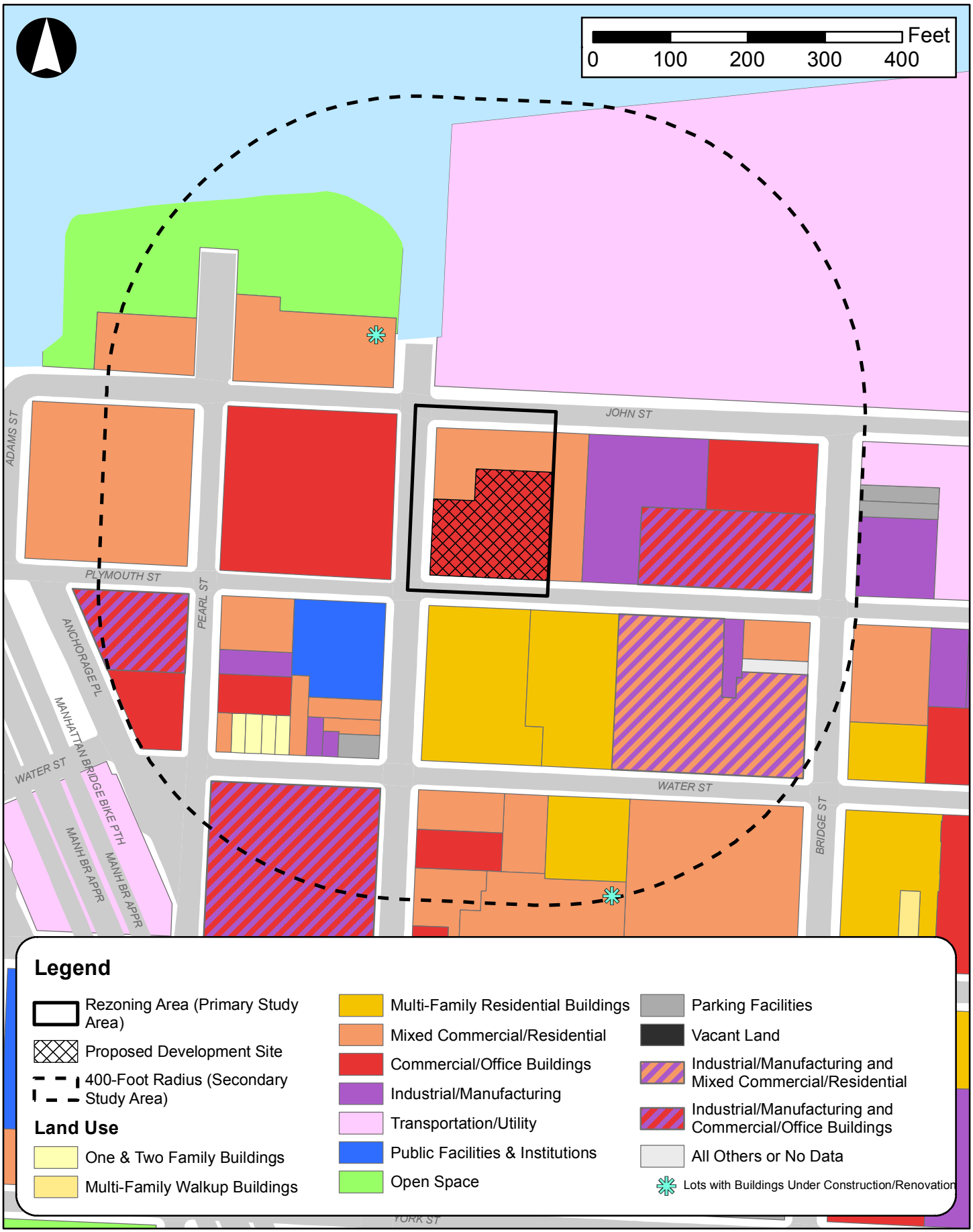
Land Use and Zoning

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. As the Proposed Actions consist of zoning map and text amendments, a detailed assessment of land use and zoning is warranted and provided in Section V below.

Public Policy

According to the *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans, such as 197-a plans, or published reports that pertain to the study area. If the Proposed Actions could potentially alter or conflict with identified

Figure C-1
Study Area Land Use



policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

As the primary and secondary study areas are located within the City's designated coastal zone, in addition to being located within the DUMBO Business Improvement District (BID), a detailed public policy assessment is warranted and is provided in Section V, "Detailed Assessment."

V. DETAILED ASSESSMENT

Existing Conditions

Land Use

Primary Study Area (Rezoning Area)

The approximate 28,500-sf Rezoning Area consists of the applicant-owned Proposed Development Site (Block 20, Lot 1) and the adjacent non-applicant-owned outparcel (Block 20, Lot 6) in the DUMBO neighborhood of Brooklyn Community District (CD) 2.

The approximately 18,955-sf Proposed Development Site comprises Block 20, Lot 1, which is located at the northeast corner of Jay and Plymouth streets. The Proposed Development Site has approximately 99 feet of street frontage on the east side of Jay Street and approximately 150 feet of street frontage on the north side of Plymouth Street. The Proposed Development Site is currently occupied by a one-story approximately 21,735-gsf building constructed in the 1970s. The former industrial building is currently occupied by the Use Group 10 Gelsey Kirkland Academy of Classical Ballet.

The adjacent non-applicant-owned outparcel (Brooklyn Block 20, Lot 6) is a 9,545-sf irregularly shaped lot located at the southeast corner of Jay and John streets. The lot has approximately 91 feet of frontage on the east side of Jay Street and 150 feet of frontage on the south side of John Street. The outparcel is occupied by a mixed-use five-story building comprised of 23 residential units and a mix of commercial tenants, including the Brooklyn Roasting Company (a Use Group 6 eating and drinking establishment), Use Group 9 arts organizations, and Use Group 17 commercial spaces (a jewelry designer studio and a photography production company).

Secondary Study Area

As shown in **Figure C-1** and **Table C-1**, land uses in the secondary study area include a mix of uses, many of which share the same lot and/or the same building. Specifically, 20 of the 41 study area lots are occupied by a mix of commercial and residential and/or industrial uses; mixed commercial/residential buildings are the most prevalent land use, comprising 39 percent of the secondary study area lots and 43.3 percent of the secondary study area building area. Commercial office uses are also prevalent in the secondary study area, comprising approximately 12.2 percent of the secondary study area lots and 22.5 percent of the secondary study area building area. While historically an industrial neighborhood, there are currently only five industrial/manufacturing lots in the secondary study area, representing only two percent of the secondary study area building area, demonstrative of the shift in land uses that has occurred in the area since the latter half of the twentieth century. Also indicative of the development that

has occurred in the area in recent years is the absence of any vacant lots in the secondary study area and the number of lots that are currently either under construction or being renovated. As presented in **Figure C-1**, two lots within 400 feet of the Rezoning Area are currently under development.

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

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Residential	6	14.6	36,678	3.7	135,923	5.5
One & Two-Family Residential	*4*	*9.8*	*3,628*	*0.4*	*13,876*	*0.6*
Multi-Family Walkup Buildings	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
Multi-Family Elevator Buildings	*2*	*4.9*	*33,050*	*3.3*	*122,047*	*4.9*
Mixed Commercial/Residential Buildings	16	39.0	194,483	19.4	1,072,748	43.3
Commercial/Office Buildings	5	12.2	70,749	7.1	558,510	22.5
Industrial/Manufacturing	5	12.2	28,214	2.8	50,192	2.0
Transportation/Utility	1	2.4	387,060	38.6	0	0.0
Public Facilities & Institutions	1	2.4	13,812	1.4	86,350	3.5
Open Space	1	2.4	151,930	15.2	0	0.0
Parking Facilities	1	2.4	1,500	0.1	0	0.0
Mixed Industrial/Commercial/Residential Buildings	1	2.4	41,238	4.1	171,382	6.9
Mixed Industrial/Manufacturing and Commercial/Office Buildings	3	7.3	75,457	7.5	400,400	16.2
Vacant Land	0	0.0	0	0.0	0	0.0
All Others or No Data	1	2.4	1,437	0.1	1,437	0.1
Total	***41***	***100.0***	***1,002,558***	***100.0***	***2,476,942***	***100.0***

Source: 2016 PLUTO data; July 2017 field visits.

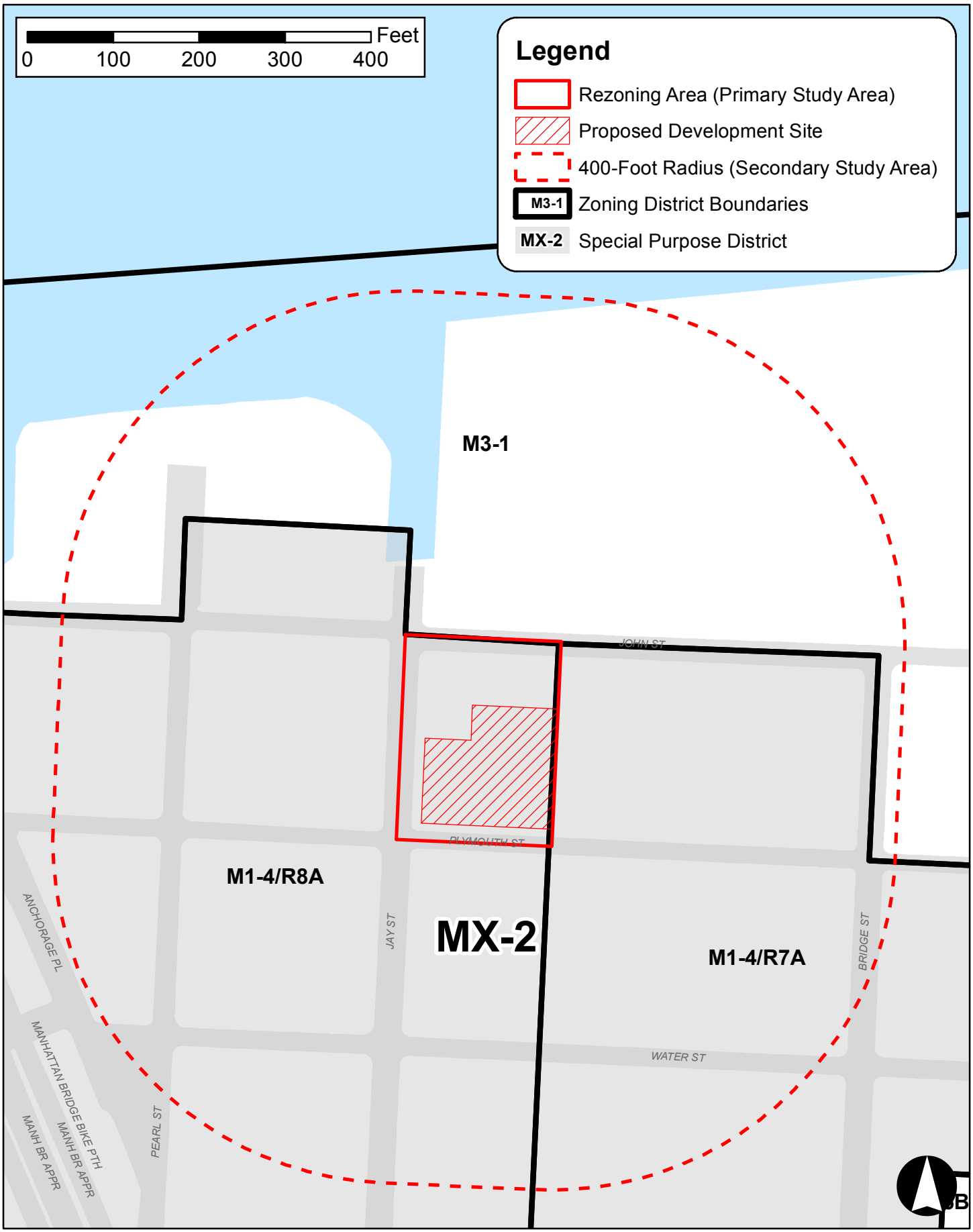
In addition to commercial, residential, and industrial uses, while representing only one lot, each, open space and transportation/utility uses comprise a notable percentage of the secondary study area lot area. A portion of Brooklyn Bridge Park is located within the secondary study area and represents approximately 15.2 percent of the secondary study area lot area; the Con Edison substation located directly north of the Rezoning Area comprises approximately 38.6 percent of the secondary study area lot area. One parking facility use is located in the secondary study area (at the northwest corner of Jay and Water streets) and one public facility (the Phoenix House rehabilitation facility) is located at the southwest corner of Jay and Plymouth streets.

Zoning

Primary Study Area (Rezoning Area)

As presented in **Figure C-2**, the primary study area is currently zoned M1-4/R8A. The Rezoning Area was rezoned from M3-1 to M1-4/R8A (MX-2) as part of the 2009 DUMBO Rezoning (ULURP No. 090309ZRK and 090310ZMK), a City-initiated rezoning of 12 blocks in the eastern section of the DUMBO neighborhood. The DUMBO Rezoning, which also expanded the boundaries of the MX-2 Special Mixed-Use District and designated the area as an Inclusionary Housing (IH) area, was intended to: (1) allow for the residential conversion of existing loft buildings at appropriate densities; (2) protect and preserve the neighborhood's scale and mixed-use character; (3) provide opportunities and incentives for affordable

Figure C-2
Study Area Zoning



housing development; and (4) reinforce the Jay Street corridor as a public transit connection and gateway to a reactivated waterfront.

The Special Mixed Use District (MX) was established in 1997 to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed-use communities. Within MX districts, new residential and non-residential uses (commercial, community facility, and light industrial) can be developed as-of-right and be located side-by-side or within the same building.

Under the Rezoning Area's existing M1-4/R8A zoning designation, residential (Use Groups 1 and 2), community facility (Use Groups 3 and 4), most commercial (Use Groups 5-14 and 16) and select manufacturing (Use Group 17) uses are permitted as-of-right. With the provision of Inclusionary Housing pursuant to the IH Program, residential uses are permitted, up to a maximum FAR of 7.2, with lower maximum FARs for community facility (6.5 FAR) and commercial and manufacturing uses (2.0 FAR). Residential uses in M1-4/R8A districts are subject to R8A bulk controls, while commercial, industrial, and community facility uses are subject to M1-4 bulk controls. Specifically, pursuant to R8A contextual residential zoning district bulk controls, above a base height of 60 to 85 feet, the building must set back to a depth of ten feet on a wide street and 15 feet on a narrow street before rising to a maximum building height of 120 feet or 125 feet with qualifying ground floor space. In addition, the maximum building height for predominantly residential developments including Inclusionary Housing is 140 feet or 145 feet with a qualifying ground floor commercial of community facility use. Building height and setback controls of commercial, community facility, and manufacturing developments in M1-4/R8A districts, which are governed by M1-4 bulk controls, are controlled by the base building envelope for residential buildings without Inclusionary Housing.

With a built FAR of 1.15, the Proposed Development Site is currently underbuilt pursuant to the site's existing M1-4/R8A zoning. The existing outparcel building totals approximately 47,735 gsf (including approximately 30,000 gsf of residential floor area and approximately 17,735 gsf of commercial floor area), and has a built FAR of just over 5.0, and, therefore, is generally consistent with the site's existing M1-4/R8A bulk regulations.

Secondary Study Area

As presented in **Figure C-2**, the majority of the secondary study area is located within the DUMBO Special Mixed-Use District (MX-2); points south and west of the Rezoning Area are zoned M1-4/R8A, while east and southeast of the Rezoning Area, the zoning is M1-4/R7A. North of the Rezoning Area (generally north of John Street), is an existing M3-1 zoning district.

As noted above, the DUMBO MX-2 Special Mixed-Use District was established in 2009 and allows for a mix of residential and non-residential uses. Within the M1-4/R8A district, which encompasses the Rezoning Area and points south and west, residential uses are permitted up to a maximum FAR of 7.2 (with the provision of Inclusionary Housing pursuant to the IH Program), with lower maximum FARs for community facility (6.5 FAR) and commercial and manufacturing uses (2.0 FAR). Within the M1-4/R7A zoning district mapped to the east and southeast of the Rezoning Area, residential uses are permitted up to a maximum FAR of 4.6 (with the provision of IH), community facility uses are permitted up to a maximum FAR of 4.0 and commercial and manufacturing uses are permitted up to a maximum FAR of 2.0.

The M3-1 district mapped to the north of the Rezoning Area was excluded from the 2009 DUMBO Rezoning. M3 zoning districts are designated for areas with heavy industries that generate noise, traffic, or pollutants. Typical uses include power plants, solid waste transfer facilities, recycling plants, and fuel supply depots. Even in M3 districts, uses with potential nuisance effects are required to conform with minimum performance standards. M3 districts are usually located near the waterfront and buffered from residential areas, as is the case with the secondary study area's M3 zoning district. M3 districts permit a maximum manufacturing and commercial FAR of 2.0; community facility and residential uses are not permitted in M3 zoning districts. M3 districts have a maximum base height of 60 feet, above which buildings must be setback and cannot penetrate the sky exposure plane.

It should be noted that many of the commercial and industrial buildings in the secondary study area have built FARs greater than the 2.0 FAR permitted pursuant to the underlying zoning (as these buildings were constructed prior to the 1961 Zoning Resolution), including, most notably, the 11.1 FAR commercial office building at 20 Jay Street (across the street from the Proposed Development Site). Other overbuilt commercial and industrial buildings in the M1-4/R8A portion of the secondary study area include the 4.19 FAR commercial building at 155 Water Street, the 2.12 FAR commercial/industrial building at 140 Plymouth Street, the 2.97 FAR commercial building at 53 Pearl Street, the 7.77 FAR commercial/industrial building at 68 Jay Street, and the 2.6 FAR commercial building at 65 Jay Street; the 7.84 FAR building at 10 Jay Street (currently being converted to include a mix of residential and commercial uses) exceeds the maximum permitted residential FAR of 7.2. Within the M1-4/R7A portion of the secondary study area, the following buildings exceed the maximum permitted FAR: the 2.47 FAR commercial/industrial building at 195 Plymouth Street, the 3.33 FAR commercial building at 18 Bridge Street, the 4.99 FAR residential/commercial building at 218 Plymouth Street, and the 5.29 FAR industrial building at 216 Plymouth Street.

Public Policy

As noted above, the primary and secondary study areas are located within the City's designated coastal zone, in addition to being located within the DUMBO BID and the S/NR-listed and LPC-designated DUMBO Historic District. A discussion of each of these public policies is provided below.

Waterfront Revitalization Program

Projects that are located within the designated boundaries of New York City's Coastal Zone must be assessed for their consistency with the City's WRP. The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and Federal concerns about the deterioration and inappropriate use of the waterfront. In accordance with the CZMA, New York State adopted its own Coastal Management Program (CMP), which provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City. The New York City WRP is the City's principal coastal zone management tool. The WRP was originally adopted in 1982 and approved by the New York State Department of State (NYSDOS) for inclusion in the New York State CMP. The WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. NYSDOS administers the program at the State level, and DCP administers it in the City. The WRP was revised and approved by the City Council in October 1999. In August 2002, NYSDOS and federal authorities (i.e., the U.S. Army Corps of Engineers [USACE] and the U.S. Fish and Wildlife

Service [USFWS]) adopted the City's ten WRP policies for most of the properties located within its boundaries.

In October 2013, the City Council approved revisions to the WRP in order to proactively advance the long-term goals laid out in Vision 2020: The New York City Comprehensive Waterfront Plan, released in 2011. The changes solidify New York City's leadership in the area of sustainability and climate resilience planning as one of the first major cities in the U.S. to incorporate climate change considerations into its Coastal Zone Management Program. They also promote a range of ecological objectives and strategies, facilitate interagency review of permitting to preserve and enhance maritime infrastructure, and support a thriving, sustainable working waterfront. The New York State Secretary of State approved the revisions to the WRP on February 3, 2016. The U.S. Secretary of Commerce concurred with the State's request to incorporate the WRP into the New York State CMP.

In 2013, the New York City Panel on Climate Change (NPCC) released a report (*Climate Risk Information 2013: Observations, Climate Change Projections, and Maps*) outlining New York City-specific climate change projections to help respond to climate change and accomplish PlaNYC goals, which are described below. The 2013 NPCC report predicted future City temperatures, precipitations, sea levels, and extreme event frequency for the 2020s and 2050s. Subsequently, in January 2015, the Second NPCC (NPCC2) released an updated report that presented the full work of the NPCC2 from January 2013 to 2015 and include temperature, precipitation, sea level, and extreme event frequency predictions for the 2081 to 2100 time period. While the projections will continue to be refined in the future, current projections are useful for present planning purposes and to facilitate decision-making in the present that can reduce existing and near-term risks without impeding the ability to take more informed adaptive actions in the future. Specifically, the NPCC2 report predicts that mean annual temperatures will increase by 2.0 to 2.8˚F, 4.1 to 5.7˚F, 5.3 to 8.8˚F, and 5.8 to 10.3˚F by the 2020s, 2050s, 2080s, and 2100, respectively; total annual precipitation will rise by 1 to 8 percent, 4 to 11 percent, 5 to 13 percent, and -1 to +19 percent by the 2020s, 2050s, 2080s, and 2100, respectively; sea level will rise by 4 to 8 inches, 11 to 21 inches, 18 to 39 inches, and 22 to 50 inches by the 2020s, 2050s, 2080s, and 2100, respectively; heat waves and heavy downpours are also very likely to become more frequent, more intense, and longer in duration, with coastal flooding very likely to increase in frequency, extent, and elevation.

As illustrated in **Figure C-3**, "Coastal Zone Boundary," the entirety of the primary and secondary study areas falls within the City Coastal Zone. Therefore, the Proposed Actions must be assessed for their consistency with the policies of the City's Local Waterfront Revitalization Program (LWRP).

DUMBO BID

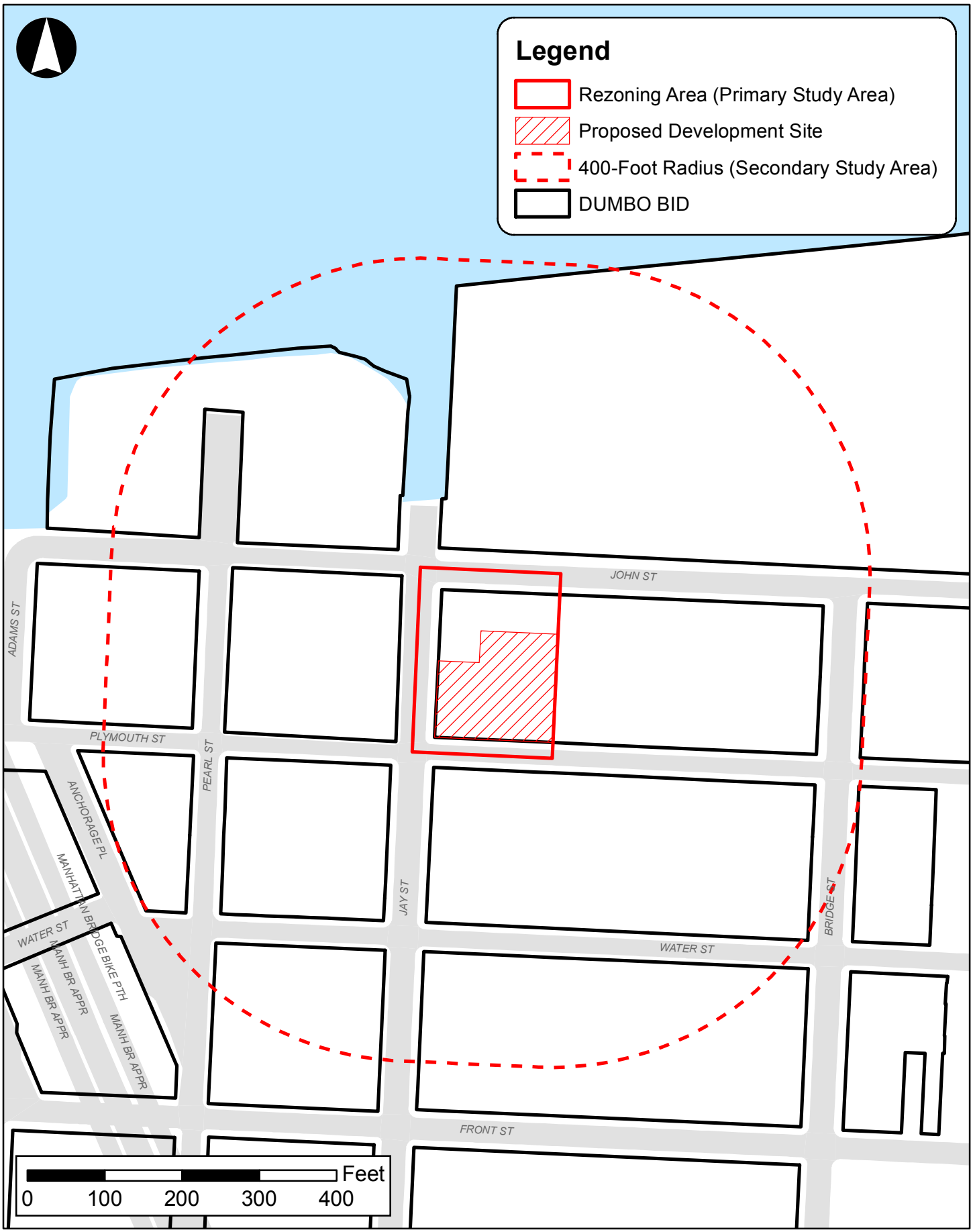
A BID is a formal organization made up of property owners and commercial tenants who are dedicated to promoting business development and improving an area's quality of life. BIDs deliver supplemental services, such as sanitation and maintenance, public safety and visitor services, marketing and promotional programs, capital improvements, and beautification for the area. BIDs are funded by the properties and businesses that lie within their service area. The New York City Department of Small Business Services (SBS) is the lead agency responsible for BID creation and oversight.

As presented in **Figure C-4**, both the primary and secondary study areas are located within the DUMBO BID. The DUMBO BID was established in December 2005 to provide advocacy, street beautification, neighborhood marketing, and programming of public spaces within the boundaries of the BID. The BID

Figure C-3
Coastal Zone Boundary



Figure C-4
DUMBO BID



covers a total of 98 block faces spanning from Old Fulton Street to the west to Gold Street to the east between the East River (to the north) and York Street (to the south).

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

Primary Study Area (Rezoning Area)

In the future without the Proposed Actions, the primary study area's existing M1-4/R8A zoning would remain in place. As presented in **Attachment A, "Project Description,"** it is assumed that the applicant will retain ownership of the Proposed Development Site and that the site would be redeveloped with an as-of-right residential building with ground floor commercial in the 2021 No-Action condition. Specifically, the Proposed Development Site would be redeveloped with a new 145-foot-tall apartment building containing 121 dwelling units (DUs), 15,164 sf of local retail space, and 45 accessory parking spaces. No changes to the outparcel would occur in the future without the Proposed Actions, which would continue to be occupied by a mixed-use five-story building comprised of 23 DUs and a mix of commercial tenants.

Secondary Study Area

There are several known and anticipated developments that are expected to occur within the 400-foot secondary study area radius in the 2021 No-Action condition, as presented in **Table C-2** and **Figure C-5**. As shown in **Table C-2**, there are 11 known and anticipated developments within the secondary study area, including seven building conversions/enlargements and four new construction projects. In total these ten developments are expected to introduce 486 residential units, 175,671 sf of office floor area, 72,473 sf of retail floor area, a 93-seat day care/school, and 48 accessory parking spaces. These planned and anticipated developments are expected to continue the existing trends of the area, with vacant and former industrial loft building converted to residential and commercial uses and/or replaced by new commercial and residential construction.

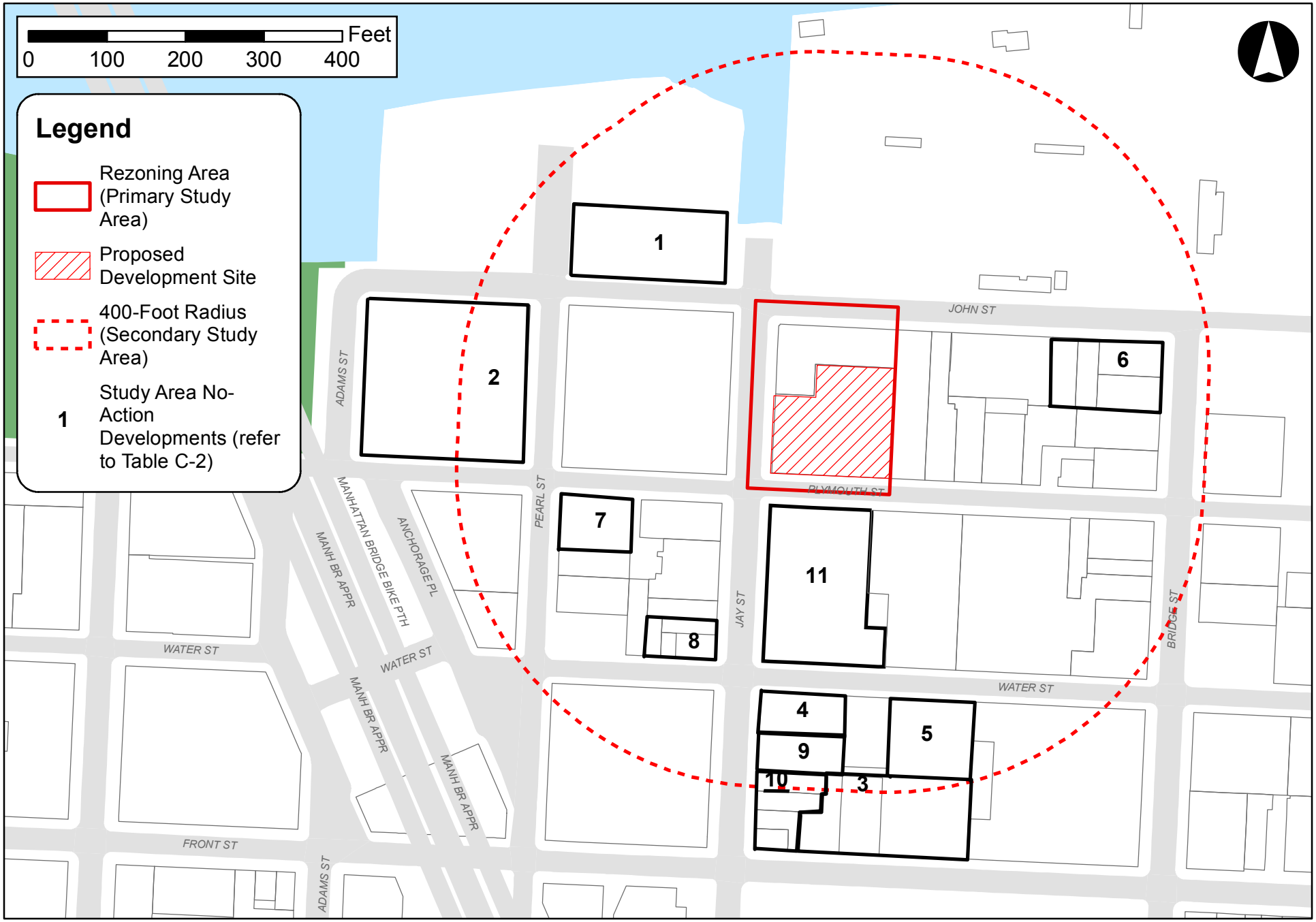
No changes to the secondary study area zoning districts are anticipated in the 2021 No-Action condition.

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

In the 2021 future with the Proposed Actions, the primary study area would be rezoned from M1-4/R8A to M1-6/R8X, facilitating the development of the Proposed Project.

Land Use

The Proposed Project would consist of an approximately 224,935 gsf commercial building comprised of approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail. The Proposed Project would not include accessory parking. One loading dock would also be provided (at the westernmost edge of the Proposed Project's Plymouth Street frontage), in accordance with the proposed M1-6/R8X zoning. The Proposed Project would have a total commercial FAR of 10.0, and, therefore, would maximize the permitted FAR pursuant to the proposed M1-6/R8X zoning. The Proposed Project would conform with the bulk and use requirements of the proposed M1-6/R8X district, as modified by the proposed zoning text amendments. No changes would occur on the outparcel lot in the future with the Proposed Actions.



29 Jay Street

Figure C-5
Study Area No-Action Developments

Table C-2: Study Area No-Action Developments

Map ID[1]	Name/Address	Development Type	Residential (DUs)	Office (sf)	Retail (sf)	Community Facility (sf)/Other	Build Year
1	10 Jay Street	Conversion	0	154,900	25,000		2018
2	135 Plymouth Street	Conversion	95	6,800	21,080	93-seat (8,400 sf) day care/school with 26 staff	2018
3	181 Front Street	New Construction	105	0	1,490	48 parking spaces	2018
4	57 Jay Street	Conversion	23	13,971	0		2017[2]
5	200 Water Street	Conversion	15	0	0		2017[3]
6	18 Bridge Street (2009 *DUMBO Rezoning EAS* Projected Site 6)	Conversion/ Enlargement	44	0	6,355		2019
7	39 Pearl Street (2009 *DUMBO Rezoning EAS* Projected Site 8)	Conversion	20	0	4,960		2019
8	54 Jay Street (2009 *DUMBO Rezoning EAS* Projected Site 10)	New Construction	29	0	3,632		2019
9	65 Jay Street (2009 *DUMBO Rezoning EAS* Projected Site 15)	New Construction	34	0	4,250		2019
10	73 Jay Street (2009 *DUMBO Rezoning EAS* Projected Site 16)	New Construction	46	0	5,706		2019
11	51 Jay Street	Conversion/ Enlargement	75	0	0		2017[3]
		Totals	***486***	***175,671***	***72,473***		

Notes:

[1] Refer to **Figure C-5**.

[2] While a Certificate of Occupancy was issued for this development in July 2017, as construction was completed after existing conditions data was collected, it is included as a No-Action development so as not to underestimate future conditions.

[3] While a Temporary Certificate of Occupancy was issued for this development, as a Final Certificate of Occupancy has not been issued, it is included as a No-Action development.

Sources: 2009 *DUMBO Rezoning EAS,* the New York City Department of Building's (DOB's) Building Information Search (BIS), real estate/leasing material, real estate blogs.

The Proposed Actions would result in changes to land use within the primary study area by introducing commercial office and retail uses on the Proposed Development Site. As described above, in the future without the Proposed Actions, the Proposed Development Site would be occupied by a predominately residential building with ground floor retail and accessory parking. With the anticipated With-Action development, the Proposed Actions would result in a net increase of 212,701 gsf of commercial office floor area, as well as a net reduction of 121 residential units, 2,939 sf of local retail, and 45 accessory parking spaces (refer to **Table C-3**).

The Proposed Actions would not generate land uses that would be incompatible with surrounding uses, nor would they displace existing primary study area land uses in such a way as to adversely affect surrounding land uses. The land uses would not differ from those permitted as-of-right and would be consistent with the land uses present in the primary and secondary study areas. As noted above,

commercial buildings are the most prevalent land use present in the secondary study area, with approximately half of the study area lots occupied by buildings that are either fully or partially commercial. In addition, the secondary study area would not undergo any land use changes as a result of the Proposed Actions. Therefore, the Proposed Actions would support land use trends and would not introduce any new land uses that would be compatible with their surroundings, and no significant adverse land use impacts would occur in the secondary study area.

Table C-3: Comparison of Primary Study Area No-Action and With-Action Condition Land Uses

Land Use	No-Action	With-Action	Increment
Commercial Office	0	212,701 gsf	+212,701 gsf
Retail	15,164 sf	12,225 gsf	-2,939 gsf
Residential	121,312 gsf (121 DUs)	0	-121,312 gsf (-121 DUs)
Accessory Parking	45 spaces	0	-45 spaces

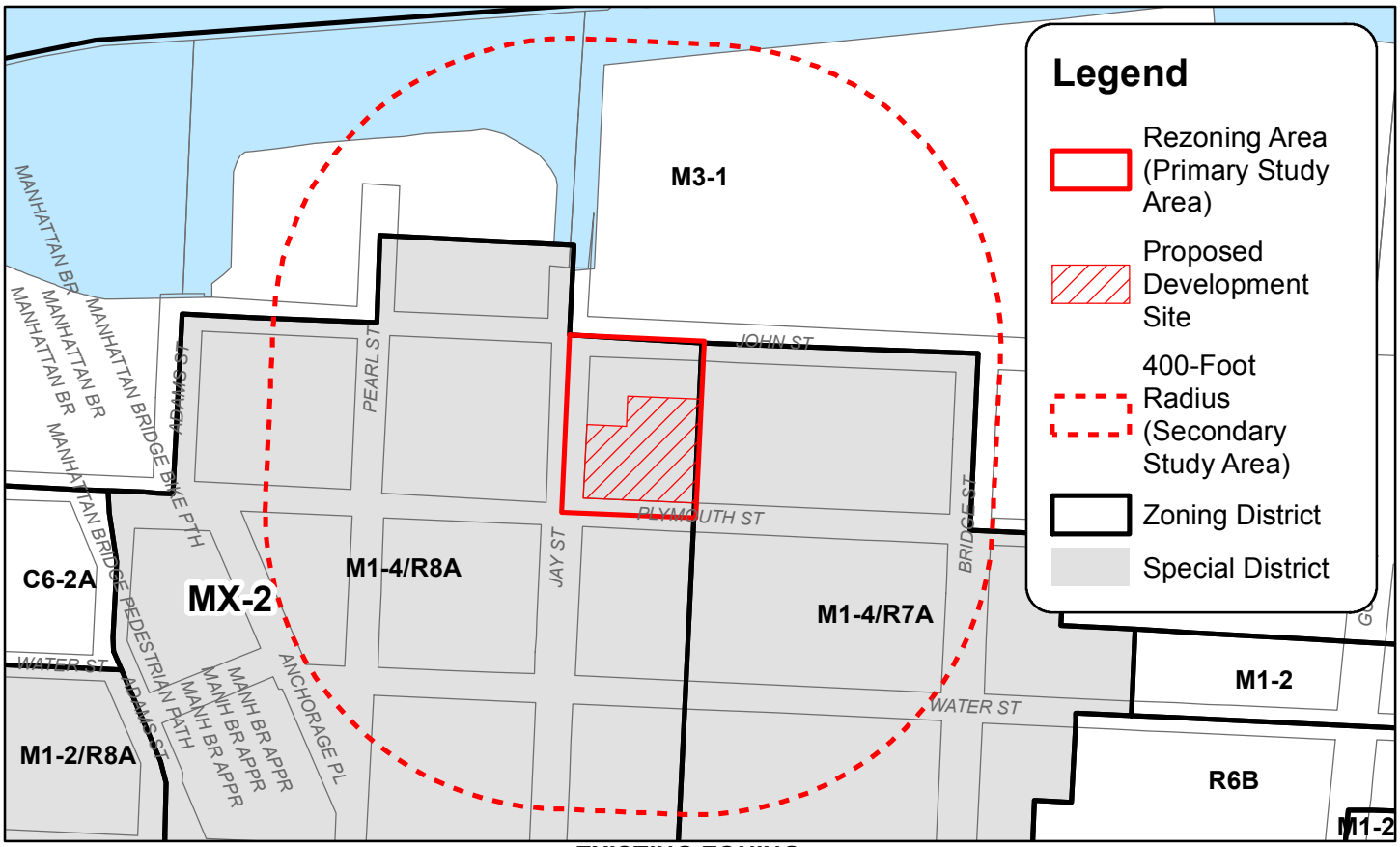
Zoning

In the future with the Proposed Actions, the primary study area would be rezoned from M1-4/R8A to M1-6/R8X (refer to **Figure C-6**). **Table C-4**, below, compares the use and bulk requirements under the existing and proposed zoning districts. In MX districts, the maximum permitted residential and community facility FAR are governed by the residential zoning designation, whereas the maximum permitted commercial and manufacturing FAR are governed by the manufacturing zoning designation. As presented in Table **C-4**, under the proposed rezoning, the maximum commercial and manufacturing FARs would increase from 2.0 to 10.0, with no change in the maximum permitted residential and community facility FARs, the permitted Use Groups, or parking requirements.

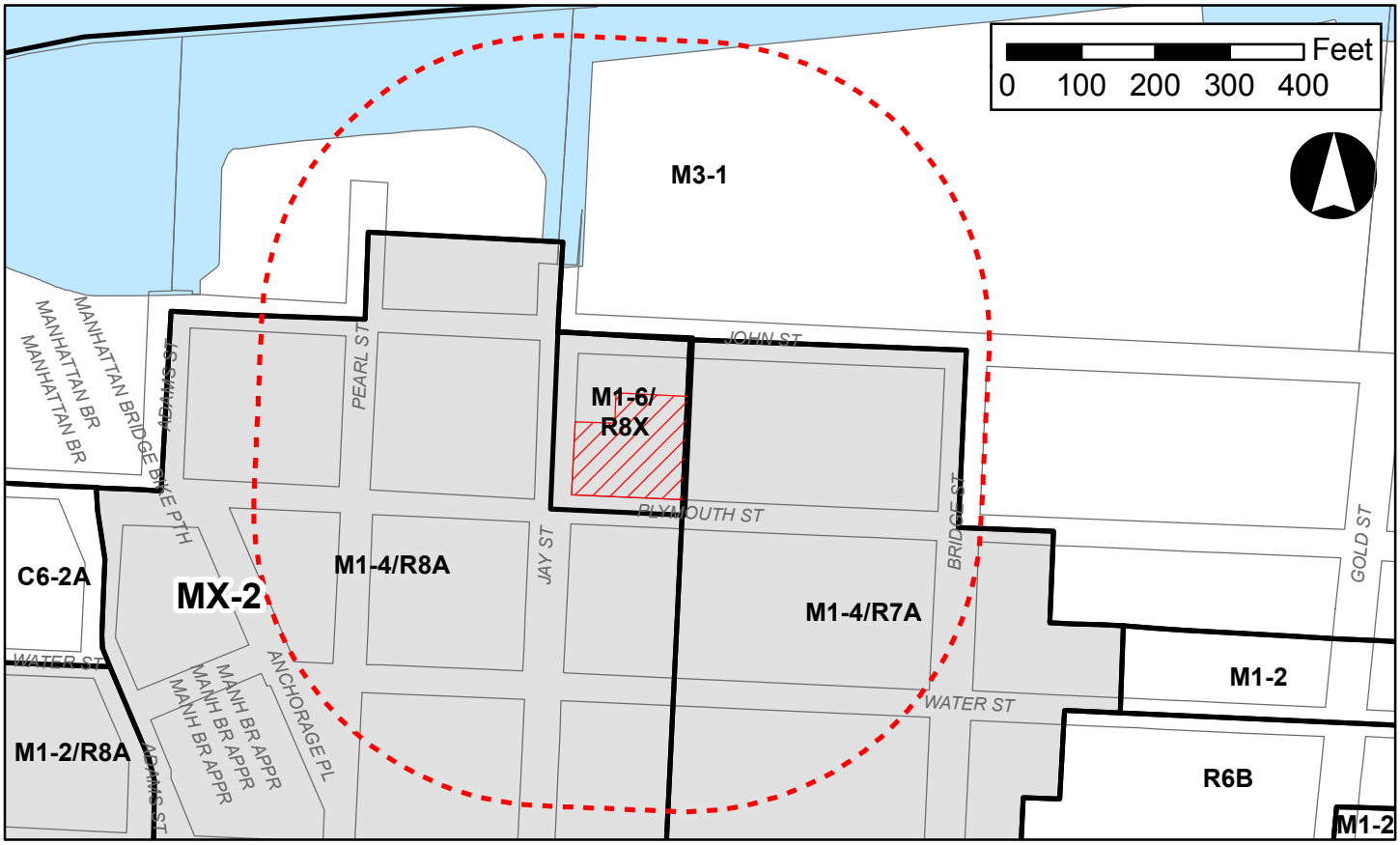
Pursuant to ZR Section 123-662 (All Buildings in Special Mixed Use Districts with R6, R7, R8, R9, and R10 District designations), in MX districts with medium and high density contextual residential districts (e.g., R6A through R10X) the bulk of all buildings or other structures (i.e., building height, base height, and setbacks) are governed by the residential zoning designation. As presented in **Table C-4** (and outlined in ZR Sections 23-662 (Maximum height of buildings and setback regulations), with the change from R8A to R8X, the maximum permitted building height would also increase from 125 feet to 155 feet for buildings not constructed pursuant to the IH program, but with qualifying ground floor space (and from 120 feet to 150 feet for buildings that do not provide a qualifying ground floor space); for residential buildings with affordable housing constructed pursuant to the IH Program the maximum permitted building height would increase from 145 feet to 175 feet.

In addition, the proposed zoning text amendments would be approved in the 2021 With-Action condition. Specifically, as described in **Attachment A, "Project Description,"** the applicant is seeking a zoning text amendment to ZR Section 123-63 (Maximum Floor Area Ratios and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts) to add R8X to the list of residential districts mapped in the MX2 Special Mixed-Use District; and a zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) to allow the streetwall height of developments in the Rezoning Area (i.e., developments in MX districts that are located in an LPC-designated historic district, where the designated residence district is an R8X district) to allow the base height to be raised based on the surrounding context.

Proposed Zoning Map Change



EXISTING ZONING



PROPOSED ZONING

Table C-4: Comparison of Existing and Proposed Zoning

	Existing M1-4/R8A		Proposed M1-6/R8X	
	M1-4	**R8A**	**M1-6**	**R8X**
Use Groups	4-14, 16, 17	1-4	4-14, 16, 17	1-4
Maximum FAR				
Residential	0.0	7.2[1,*]	0.0	7.2[1,*]
Community Facility	6.5	6.5*	10.0	6.0*
Commercial	2.0*	0.0	10.0*	0.0
Manufacturing	2.0*	0.0	10.0*	0.0
Bulk Regulations				
Maximum Building Height	Governed by Sky Exposure Plan	120 Feet[2,3,*]	Governed by Sky Exposure Plan[5]	150 Feet[3,4,*]
Maximum Streetwall Height	60 Feet	60-85 Feet[6,*]	85 Feet	60-85 Feet[6,*]
Parking Regulations				
Parking	None	40% of DU[7]	None	40% of DU[7]

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

Notes:

[1] 7.2 FAR with provision of Inclusionary Housing pursuant to the IH Program (ZR Section 23-90 (Inclusionary Housing)); maximum permitted FAR without IH 5.4 under both R8A and R8X zoning.

[2] Increased to 125 feet for a Quality Housing building with a qualifying ground floor and to 145 feet with the provision of IH and a qualifying ground floor.

[3] Additional five feet permitted for community facility buildings constructed outside of the Manhattan Core.

[4] Increased to 155 feet for a Quality Housing building with a qualifying ground floor and to 175 feet with the provision of IH.

[5] Tower can penetrate sky exposure pane provided it is set back at least 10' from a wide street and 15' from a narrow street.

[6] Increased to 95 feet for a Quality Housing building with a qualifying ground floor and to 105 feet with the provision of IH and a qualifying ground floor.

[7] Decreased to 12 percent for income-restricted DUs.

* Indicates governing FAR and bulk regulations in MX districts.

Specifically, under the proposed zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) the maximum permitted streetwall height could be increased from the maximum permitted pursuant to the underlying M1-6/R8X zoning (60 to 85 feet; see **Table C-4**) to a height up to that of a building adjacent to or across the street from the development site. In the context of the Proposed Development Site, 20 Jay Street (located directly across the street from the site) has a streetwall height of approximately 153.5 feet; the remaining existing adjacent buildings have lower streetwalls. As the streetwall height cannot exceed the maximum building height (150 feet pursuant to the proposed M1-6/R8X zoning; refer to **Table C-4**), the maximum streetwall height that would be permitted pursuant to the proposed zoning text amendment to ZR Section 123-66 (Height and Setback Regulations) would be 150 feet. The increase in the maximum building height resulting from the proposed zoning map amendment would, in the Applicant's opinion, not be out of context with the maximum height presently allowed for residential buildings with a qualifying ground floor (145 feet). The proposed zoning text amendments would allow for buildings to be built with streetwalls reflective of the surrounding building context, conforming aesthetically to the surrounding loft buildings. The requested zoning text amendments would not introduce any uses that would not be permitted as-of-right pursuant to the proposed M1-6/R8X zoning.

The R8X zoning and the zoning text amendment would allow for the same FAR for residential use as allowed by the existing R8A zoning, but allows for a base development envelope that is consistent with the taller loft buildings characteristic of the DUMBO area. The M1-6 zoning designation is also in keeping with the FAR of the neighboring loft buildings, and would allow for the larger floor plates needed by

commercial uses while respecting the maximum height limitations set by the R8X zoning. The proposed rezoning would allow for the development of a commercial building of a scale consistent with the built fabric that exists to the west, north, and south of the Rezoning Area. For these reasons, the Proposed Actions would not represent a significant adverse impact on zoning in the primary or secondary study areas, in accordance with the criteria set forth in the *CEQR Technical Manual.*

Public Policy

Waterfront Revitalization Program

As noted above, the entirety of the primary and secondary study areas falls within the City's designated coastal zone (refer to **Figure C-3**). Therefore, the Proposed Actions must be assessed for their consistency with the policies of the WRP. The WRP includes policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. The WRP Consistency Assessment Form (CAF) (see Appendix II) lists the WRP policies and indicates whether the Proposed Actions would promote or hinder each policy, or if that policy would not be applicable. This section provides additional information for the policies that have been checked "promote" or "hinder" in the WRP CAF.

Policy 1: Support and facilitate commercial and residential development in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential development in appropriate Coastal Zone areas.

The Rezoning Area is located in a well-established neighborhood with existing residential and commercial uses. The Proposed Actions would facilitate the development of compatible commercial uses already present in the area. The Rezoning Area is not located within a Significant Maritime and Industrial Area (SMIA), Special Natural Waterfront Area (SNWA), Priority Maritime Activity Zone (PMAZ), Recognized Ecological Complex (REC), or West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA), as defined in the WRP, and is therefore not located in a special area designation that may be affected by the development of new commercial uses. For these reasons, the Proposed Actions would promote Policy 1.1 of the WRP and would facilitate commercial and residential development in an area well-suited to such development.

Policy 1.3: Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.

The Proposed Actions would facilitate the redevelopment of a site that is well-served by existing public facilities and infrastructure, and would therefore be consistent with Policy 1.3 of the WRP. There are several public transportation options in the surrounding area, including the York Street (F) subway station (located three blocks south of the Rezoning Area), the B67 bus route (which runs along portions of Jay, Front, and York Streets in the vicinity of the Rezoning Area), and the Brooklyn Bridge Park/DUMBO East River Ferry landing (located approximately 0.5 miles west of the Rezoning Area). In addition, the Rezoning Area is located in a combined sewer area, with existing sewer and water mains along the adjacent roadways.

Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.

Refer to Policy 6.2 consistency assessment, below.

Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.

As outlined in *The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance* document, for site-specific actions that include (or would facilitate the development of) new vulnerable, critical, or potentially hazardous features, the detailed methodology approach should be utilized to assess a project or action's consistency with Policy 6.2 of the WRP. The detailed Policy 6.2 methodology assessment is provided below.

STEP 1: IDENTIFY VULNERABILITIES AND CONSEQUENCES

1. *Identify vulnerabilities and consequences.* The goal of this first step is to assess the project's vulnerabilities to future coastal hazards and what potential consequences may be.

As presented in **Figure C-7**, while only a portion of the Proposed Development Site is within the 100-year floodplain (per the 2015 Federal Emergency Management Agency's (FEMA's) preliminary Flood Insurance Rate Map (pFIRM)), based on NPCC projections, the entirety of the Proposed Development Site would be within the 100-year floodplain by the 2020s.

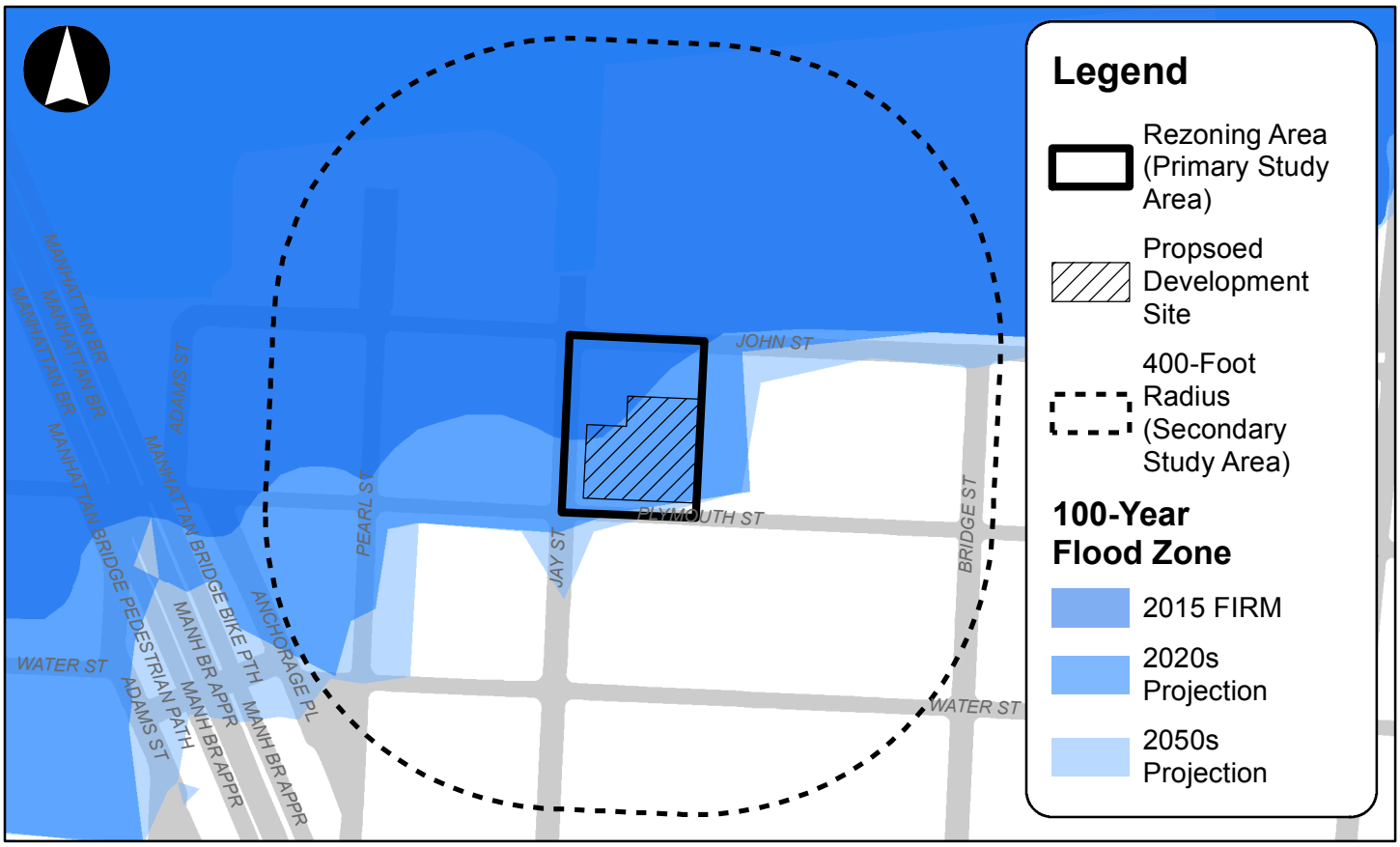
As shown in **Figures C-8a and C-8b**, the Proposed Project's ground floor retail could be below the elevation of the one percent annual chance floodplain (i.e., the "100-year floodplain") by the 2050s under high sea level rise projections and by the 2080s under the high-middle and middle sea level rise projections. If it were, there could be damage to property and loss of inventory. The lobby of the Proposed Project's office use and the lowest level of the Proposed Project's mechanical, electrical, and plumbing (MEP) systems could be below the elevation of the one percent annual chance floodplain by the 2080s under the high-middle and high sea level rise projections (refer to **Figures C-8a and C-8c**). This could also result in damage to property and temporary displacement of building users. Lastly, as shown in **Figures C-8a-c**, the lowest tenanted office space would remain above the one percent annual floodplain projections. As presented in **Figure C-9**, no features of the Proposed Project would be below the elevation of the Mean Higher High Water (MHHW) at any point over the project's lifespan.

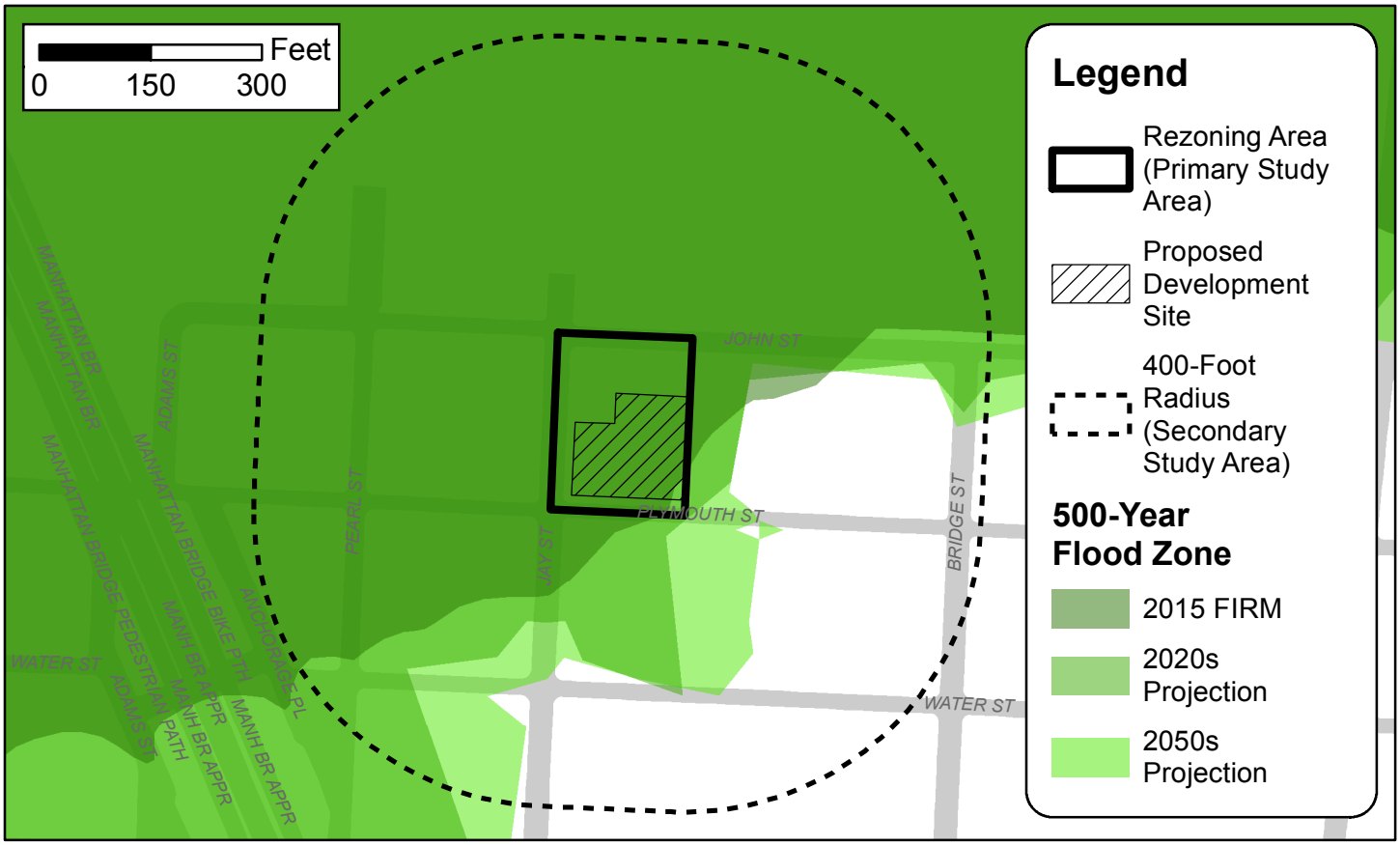
Coastal storms could bring high winds in addition to the flood hazards described above. However, the Proposed Development Site is not within a Coastal A or V zone.

STEP 2: IDENTIFY ADAPTIVE STRATEGIES

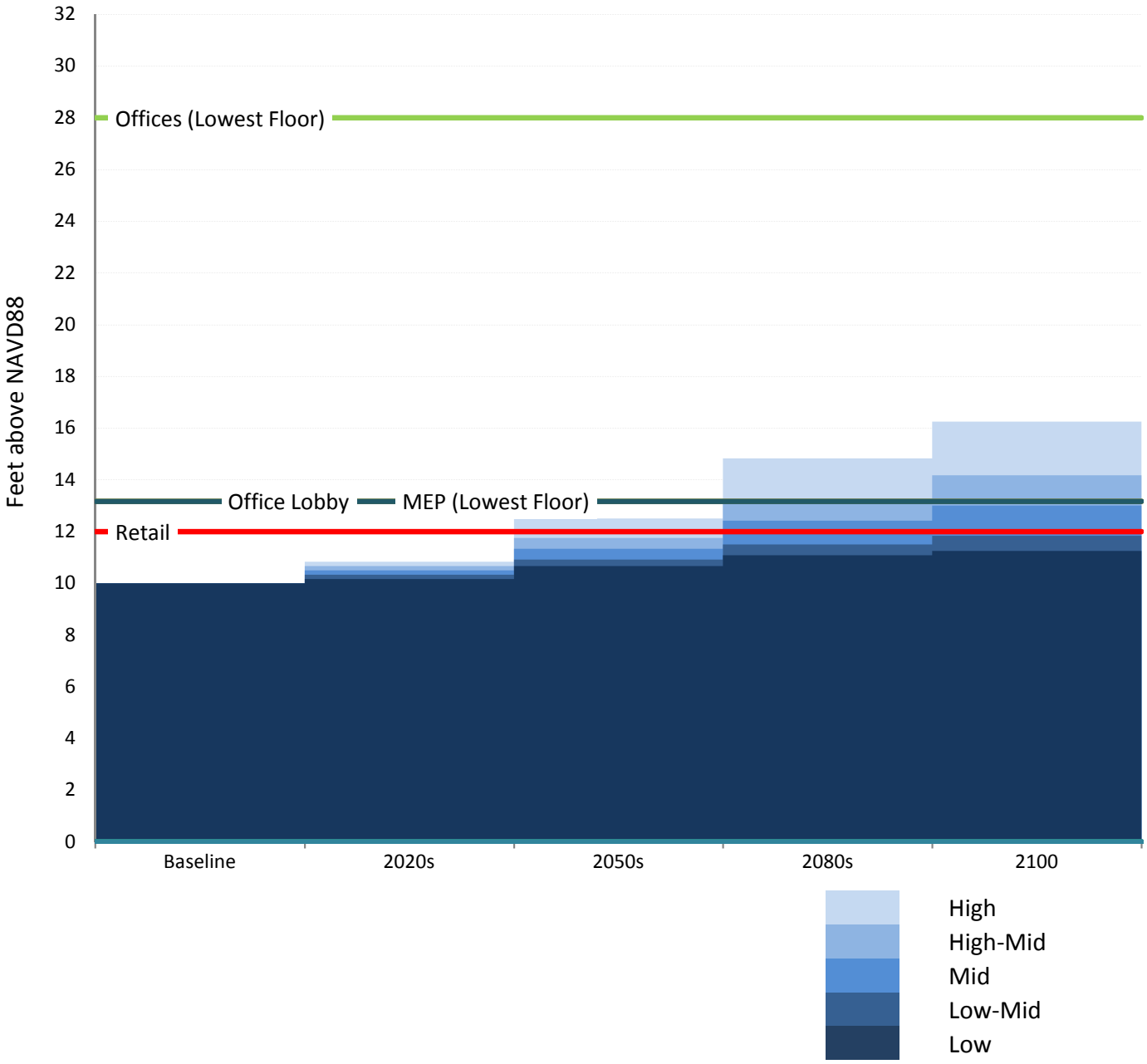
The Proposed Project would be designed to meet New York City Building Code standards for flood resistant construction standards, including dry floodproofed walls, flood barriers at building openings, and a foundation system designed to resist hydrostatic pressure. As a result, the building would floodproofed up to the elevation of the current one percent annual chance floodplain plus one foot of freeboard (+11

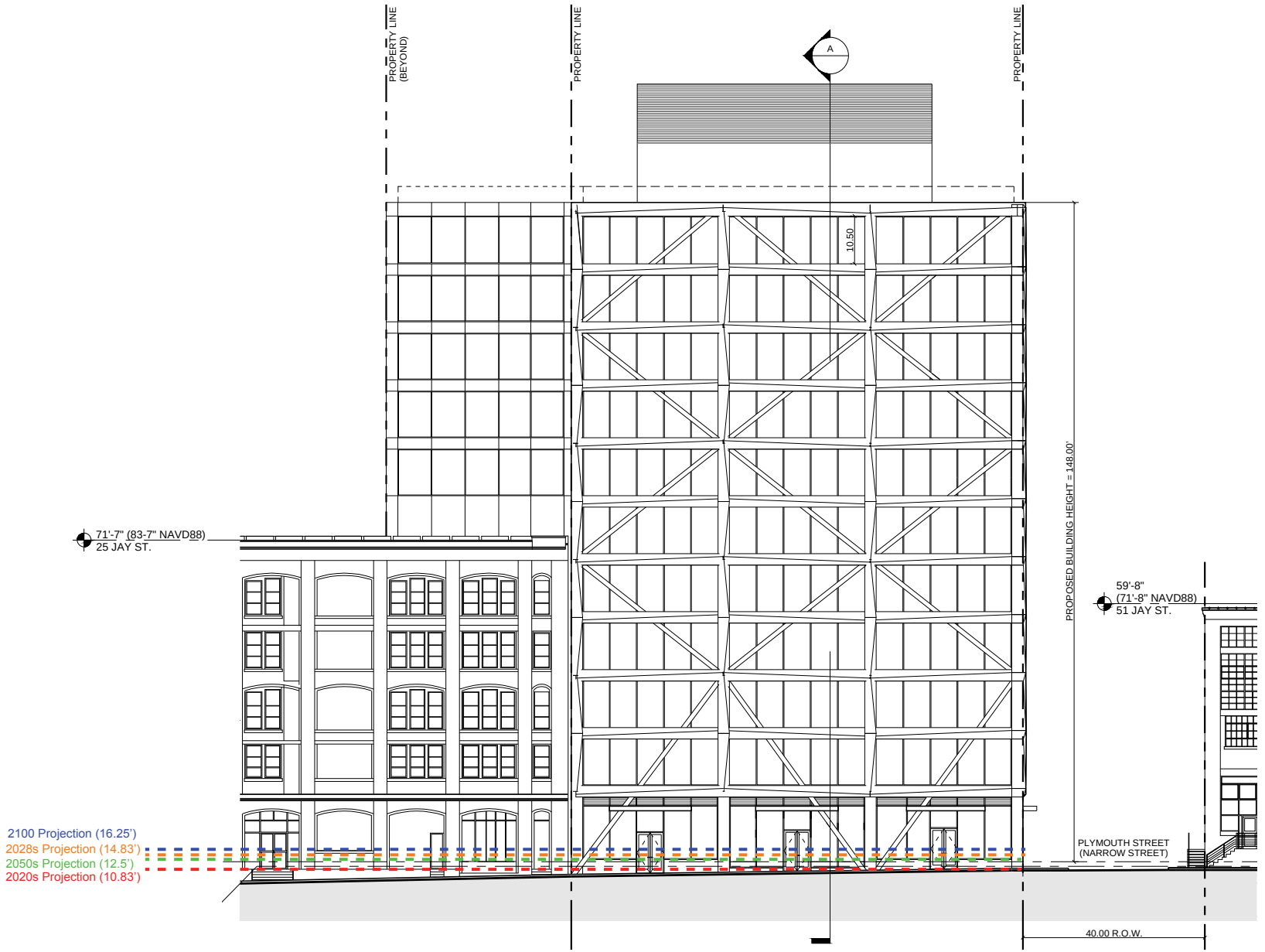
Figure C-7
NPCC Floodplain Projections





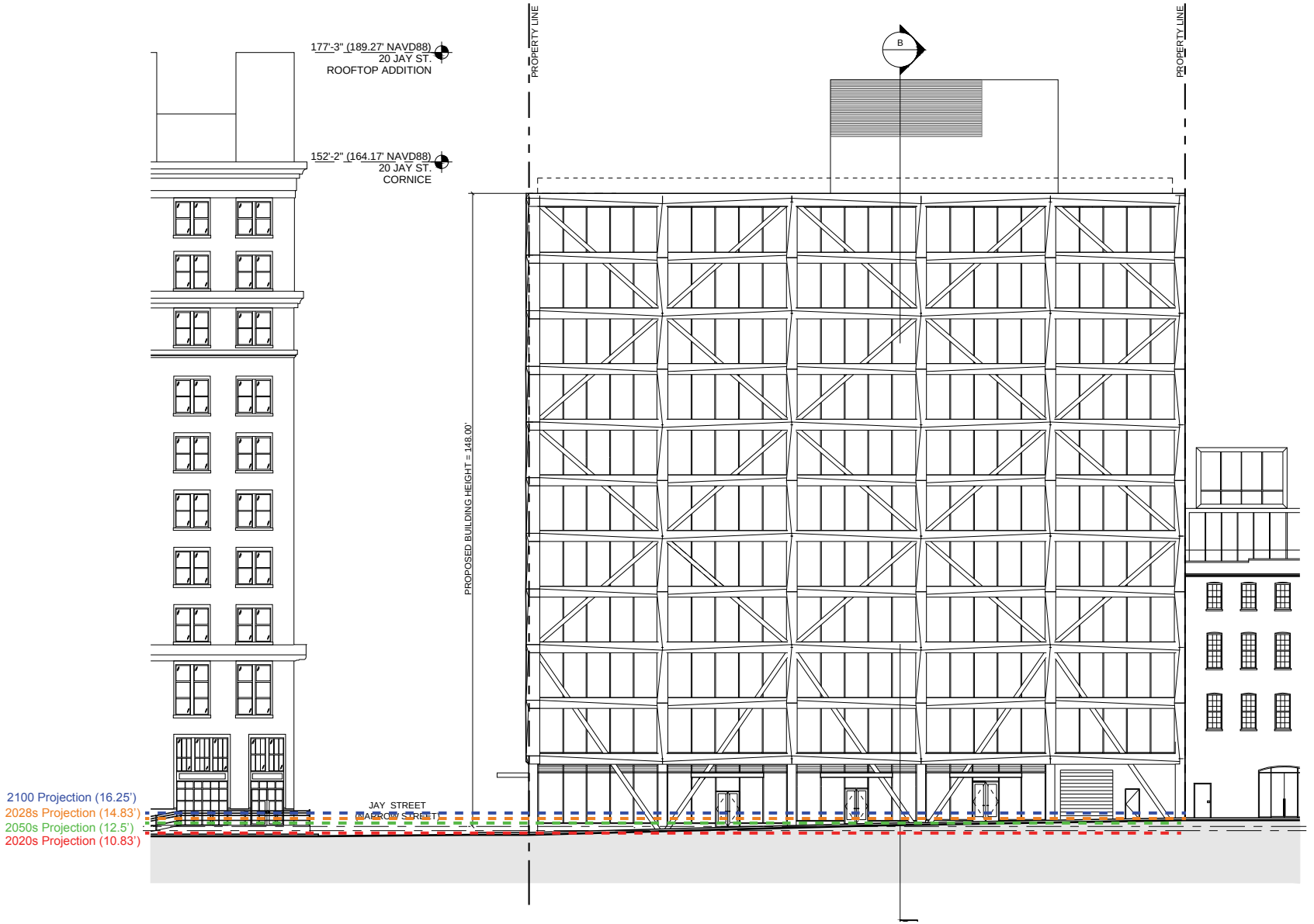
1% Flood Elevation + Sea Level Rise





29 Jay Street

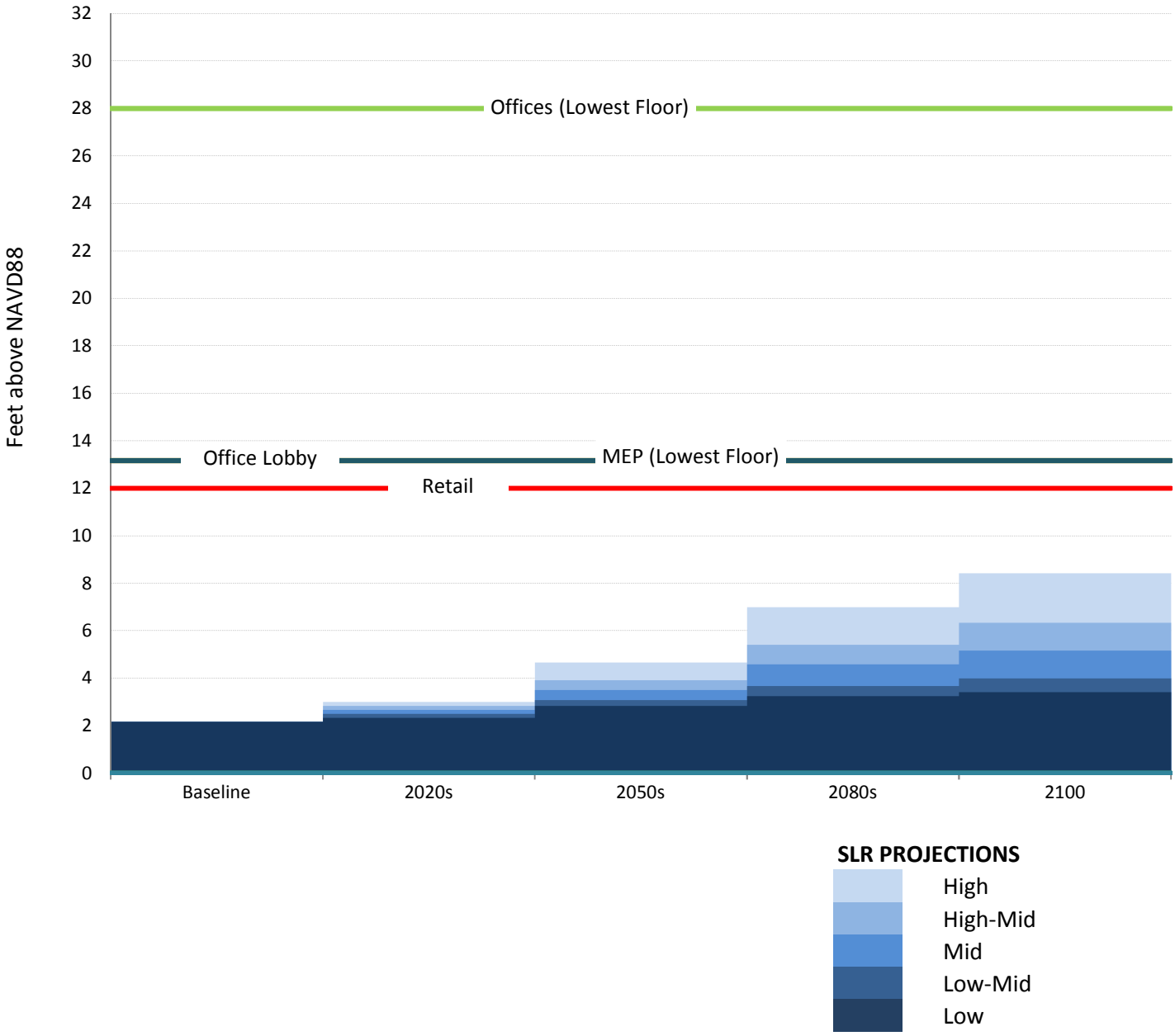
Figure C-8b
1% Flood Elevation Projections - Jay Street Building Elevation



29 Jay Street

Figure C-8c
1% Flood Elevation Projections - Plymouth Street Building Elevation

Mean Higher High Water (MHHW) + Sea Level Rise



NAVD 88). If the elevation of the floodplain increases beyond that by the 2050s or 2080s, additional protection could be provided through temporary barriers or subsequent retrofits to extend dry floodproofed materials to higher elevations. The Proposed Project would be required to meet New York City Building Code standards for wind loading.

The Proposed Project would not make flooding on adjacent sites worse, nor would it conflict with other plans for flood protection on adjacent sites.

STEP 3: ASSESS POLICY CONSISTENCY

The Proposed Actions advance Policy 6.2. All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction elements or future adaptive actions.

Policy 10: Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.

Policy 10.1: Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.

As discussed in **Attachment A, "Project Description,"** the Rezoning Area is located within the LPC-designated DUMBO Historic District and the State/National Registers of Historic Places (S/NR) -listed DUMBO Industrial District. While located within both the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, the existing building on the Proposed Development Site is not considered a contributing historic resource. The outparcel building is a contributing resource of both the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. As discussed in **Attachment D, "Historic and Cultural Resources,"** the Proposed Actions would not adversely impact the LPC-designated DUMBO Historic District or the S/NR-listed DUMBO Industrial District. The Proposed Actions would facilitate the development of a new building on the Proposed Development Site that the Applicant feels would reflect and complement the aesthetics of the surrounding LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The proposed new building would not eliminate or substantially obstruct significant public views of architectural resources, or introduce incompatible elements to any historic resource's setting. The Proposed Actions would not result in direct impacts, as the existing Proposed Development Site building has been identified as non-contributing to the historic district, nor would the Proposed Actions result in construction-related impacts to historic resources. As such, the Proposed Actions would advance Policy 10.1.

DUBMO BID

The Proposed Actions would not alter or conflict with the goals of the DUMBO BID since it would result in new development and reinforce the area's commercial stature. In addition, the Proposed Project would improve the area's pedestrian and built environments by introducing ground floor retail space and would introduce new workers who could frequent nearby business establishments. Overall, the Proposed Actions would be supportive of the goals of the DUMBO BID.

New York City Landmarks Law

As discussed in **Attachment D, "Historic and Cultural Resources,"** the Proposed Actions would not adversely impact the LPC-designated DUMBO Historic District or the S/NR-listed DUMBO Industrial

District; the existing Propose Development Site building is a brick structure constructed in 1975-77 and is a non-contributing structure. The Proposed Project would only be developed after the LPC issues a C of A, and construction of the Proposed Project would be in accordance with the requirements of the New York City Department of Building's (DOB's) Technical Policy and Procedure Notice (TPPN) #10/88. The Proposed Actions would comply with these requirements and would not alter or conflict with the policies of the New York City Landmarks Law.

ATTACHMENT D

HISTORIC AND CULUTRAL RESOURCES

I. INTRODUCTION

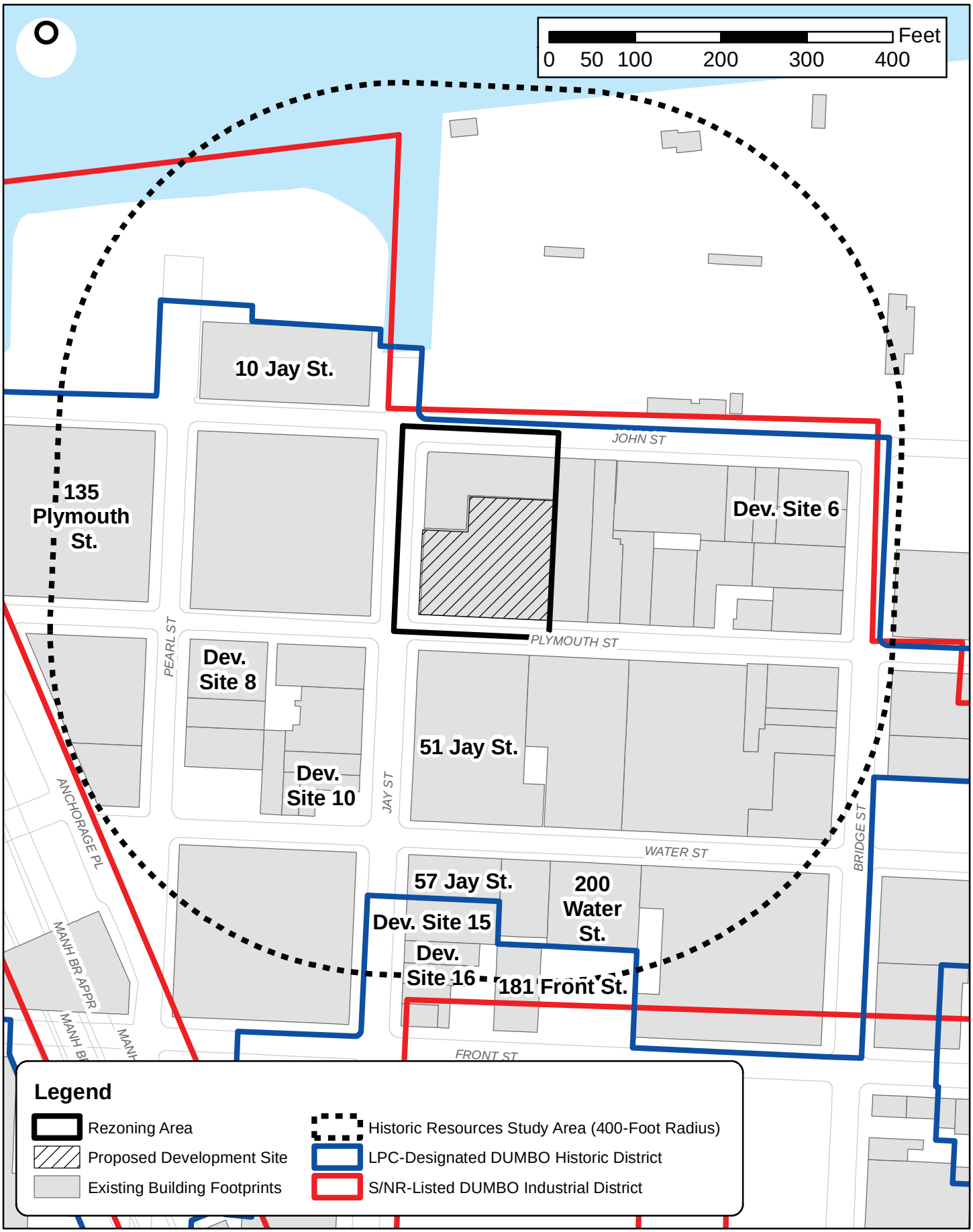
The 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed in the State/National Registers of Historic Places (S/NR) or contained within a district listed in or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

As detailed in **Attachment A, "Project Description,"** the applicant is seeking zoning map and text amendments from the New York City Planning Commission (the "Proposed Actions"), to facilitate the development of a commercial building at 29 Jay Street (Block 20, Lot 1) in the DUMBO neighborhood of Brooklyn (the "Proposed Development Site"). Absent the Proposed Actions, the Proposed Development Site would be redeveloped with a residential building with ground floor retail space. As shown in **Figure D-1**, the Rezoning Area also encompasses a non-applicant-owned outparcel (Block 20, Lot 6), which is not expected to change under No-Action or With-Action conditions. The build year for the Proposed Actions is 2021.

The Rezoning Area is located within the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District (refer to **Figure D-1**). Therefore, pursuant to CEQR guidelines, an assessment of the potential impacts of the Proposed Actions on historic architectural resources is warranted. According to CEQR, impacts on historic resources are considered on those sites impacted by the Proposed Actions and in the surrounding area. The historic architectural resources study area is therefore defined as the Rezoning Area plus an approximate 400-foot radius around the Rezoning Area (refer to **Figure D-1**), which is typically adequate for the assessment of historic architectural resources in terms of physical, visual, and historical relationships.

An assessment of archaeological resources is usually required for projects that involve in-ground disturbance, unless such disturbance occurs in an area that has already been excavated. As presented in **Attachment B, "Supplemental Screening,"** as part of the 2009 *DUMBO Rezoning EAS*, the LPC determined that the Proposed Development Site contained no archaeological resource concerns. As such, an archaeological analysis is not warranted for the Proposed Actions, and this attachment focuses exclusively on historic architectural resources.

Figure D-1
Historic Resources Study Area



II. PRINCIPAL CONCLUSIONS

As detailed below, the Proposed Actions would not result in significant adverse impacts on historic architectural resources. The Proposed Actions would facilitate the development of a new building on the Proposed Development Site that the Applicant feels would reflect and complement the aesthetics of the surrounding LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The proposed new building would not eliminate or substantially obstruct significant public views of architectural resources, or introduce incompatible elements to any historic resource's setting. The Proposed Actions would not result in direct impacts, as the existing Proposed Development Site building has been identified as non-contributing to the historic district, nor would the Proposed Actions result in construction-related impacts to historic resources, as construction of the Proposed Project would be subject to the New York City Department of Building's (DOB'S) Technical Policy and Procedure Notice (TPPN) #10/88. Lastly, as none of the surrounding historic resources in the LPC-designated and S/NR-listed DUMBO Historic District contain sunlight-sensitive features, such as stained-glass or polychromatic detailing, the limited incremental shadows generated by the Proposed Project would not result in any significant adverse impacts on historic resources.

III. DEVELOPMENT BACKGROUND[1]

The DUMBO Historic District, located along the northwestern waterfront of Brooklyn, is comprised of both original landfill and East River landfill. According to old maps of Brooklyn, all or portions of Block 20 (which includes the Rezoning Area), 1, 18, 19, 26, 27, 28, and 29 were once in the river. The earliest residents of the DUMBO area were Canarsee Indians. In 1637, the Canarsee sold a large tract of land along the East River to Dutch settler Joris Jansen Rapalje (also spelled Rapalye). The Rapalje family retailed ownership and farmed the land until the end of the Revolutionary War. The Rapalje were loyalists during the war, and, in accordance with New York State's 1779 "Act for the Forfeiture and Sale of the Estates of Persons who Have Adhered to the Enemies of the State," their lands were confiscated.

In 1784, Comfort and Joshua Sands purchased 160 acres of land along the East River from the Commissioners of Forfeiture. Comfort and Joshua Sands were responsible for laying out the grid of streets along the waterfront for a community to be called "Olympia." Olympia was located just east of the original ferry landing at the foot of what is now Fulton Street. The area became even more accessible to New York City with the opening of the New or Catherine Street Ferry in 1795, connecting Catherine Street in Manhattan with Main Street in Brooklyn. Modest residential and commercial buildings were soon erected within the DUMBO Historic District. By the 1830s, many houses were occupied on Adams, Bridge, Front, Jay, Main, Pearl, Washington, Water, and York streets. Besides real estate, Joshua Sands was involved with shipping and had his own piers and a ropeworks where he manufactured rigging and cables. The piers may have adjoined the historic district and the ropeworks was in or near the district. Thus, from an early period, the residences in the DUMBO area were mixed with industrial establishments.

In the early 19th century, the riverfront was converted into filled land; the exact mechanism by which permission was granted to fill the Brooklyn waterfront is not known.

[1] Much of this section is from the LPC's 2007 *DUMBO Historic District Designation Report* and SHPO's 2000 *DUMBO Industrial District Nomination Report.*

Commerce and industry flourished to the west of the DUMBO Historic District, in what is now the Fulton Ferry Historic District, as a result of the introduction and expansion of steam ferry service, beginning in 1814. Safe and reliable ferry service resulted in a major expansion of Brooklyn's population, as affluent families moved to Brooklyn, with workers commuting to New York City by ferry. As Brooklyn's population increased, commerce and industry expanded, since Brooklyn now had both an entrepreneurial class that owned and operated industrial plants and laborers who could work in the new factories. The earliest extant industrial building in the DUMBO Historic District is the former Benson's Sugar Refinery at 66-68 Water Street (five blocks west of the Rezoning Area), known to have been standing by 1850. The 1855 *Perris Atlas of the City of Brooklyn* illustrates how widespread industrial development already was in DUMBO, recording the presence of foundries, factories, and various storage yards. The *Perris Atlas* also records the close juxtaposition of factories and residential structures.

Almost all of the industrial buildings in the DUMBO Historic District date from between 1880 and 1930. Some of the factories in the historic district were erected by small firms, but most were commissioned by companies that built substantial complexes over a period of years and employed large numbers of people in their manufacturing businesses. DUMBO developed into a major industrial area because of its convenient location and the availability of large plots of land. The East River has deep water that permits ships to tie up at docks directly adjacent to land and the neighborhood was also in close proximity to upland residential neighborhoods where factory owners and workers lived, making it easy for employees to walk to work in the decades before mass transit connected DUMBO to more outlying regions. While some of DUMBO's industrial firms were established in Brooklyn, other firms moved to Brooklyn from Manhattan, in search of more land and convenient access to Manhattan. For example, in 1880, the Kirkman soap firm moved from Manhattan to DUMBO, followed in 1881 by John Arbuckle's coffee roasting business and, in 1888, but Robert Gair's paper box company.

In the final decades of the 19th century, transportation networks expanded to Brooklyn, adding to the convenience of manufacturing in DUMBO. In 1885, the Main Line of the Brooklyn Elevated Railroad began operations along York Street, with stops at Washington Street and Bridge Street. In 1935, the Independent Subway Line opened services throughout the neighborhood, with a stop at York and Jay streets (now the F train). Besides the transportation network that brought people and goods in and out of DUMBO, a small rail line running on the area's streets transported goods within the neighborhood. The Jay Street Connecting Rail was established in 1904 by Charles Arbuckle as a means of transporting rail cars from barges to his factories. The barges docked at the Jay Street Terminal at the foot of Jay Street (one block north of the Rezoning Area), and the Jay Street Connector Rail line initially ran along John Street, extending as far as the Empire Stores to the west. The line was expanded to service adjoining factories, with tracks running along the streets and often also alongside buildings, and sometime inside buildings.

Most of the factories within the DUMBO Historic District were commissioned by the businesses that occupied them. Among the companies with a major presence in the historic district were the Arbuckle Brothers (once America's largest coffee roaster and packager, as well as a sugar refiner), E. W. Bliss (a manufacturer of machinery), Robert Gair Co. (a manufacturer of paper boxed, printed labels, and stationary, as well as a major realtor, leasing industrial space in his many buildings within the historic district), Hanan & Son (shoe manufacturer), Jones Brothers/Grand Union Company (a grocery packaging business), Kirman & Son (a soap manufacturer), John W. Masury & Son (a large paint company), and W. H. Sweeny Manufacturing Company (a manufacturer of metal kitchenware).

By the 1920s, the major industries began to leave DUMBO. Many small businesses rented space in DUMBO's factories, and others, such as the Arbuckle sugar refinery, were converted into warehouses. In

the late 1970s, artists began moving into DUMBO's factories in large numbers, converting industrial spaces into lofts, and creating a new community in the area. It is at this time, that the neighborhood assumes its current name (DUMBO, an acronym for Down Under the Manhattan Bridge Overpass). At the same time, social service organizations acquired what were then relatively inexpensive buildings and converted them for their own uses. Since the 1980s, many of the former industrial buildings have been converted into high-end housing and office uses, and several new residential buildings have been erected in the area.

IV. EXISTING CONDITIONS

Rezoning Area

As presented in **Attachment A, "Project Description,"** the Rezoning Area consists of the applicant-owned Proposed Development Site (Block 20, Lot 1) and the adjacent non-applicant-owned outparcel (Block 20, Lot 6).

Proposed Development Site

The approximately 18,955-square foot (sf) Proposed Development Site is currently occupied by a one-story approximately 21,735-gross sf (gsf) building constructed in 1975-77. While located within both the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, the existing building on the Proposed Development Site is not considered a contributing historic resource. As shown in **Figure D-2**, the existing building is constructed of brick with minimal articulation, apart from a ribbon band of metal, multi-pane, fixed and pivot windows beneath the roofline. Vehicular entrances are located on the north end of the building's Jay Street façade and the east end of the building's Plymouth Street façade, with small pedestrian entrances on the south end of the Jay Street façade and in the center of the Plymouth Street façade.

It should be noted that the sidewalk and roadbed fronting the Proposed Development Site's Plymouth Street façade are of Belgian block construction with granite slab details and some bluestone curbing. Belgian blocks are also present along the southern portion of the Jay Street sidewalk adjacent to the Proposed Development Site. In addition, historic rail tracks are visible at the intersection of Plymouth and Jay streets, which continue east on the south side of Plymouth Street and south along Jay Street's eastern sidewalk. These industrial streetscape elements are distinctive features of the DUMBO Historic District.

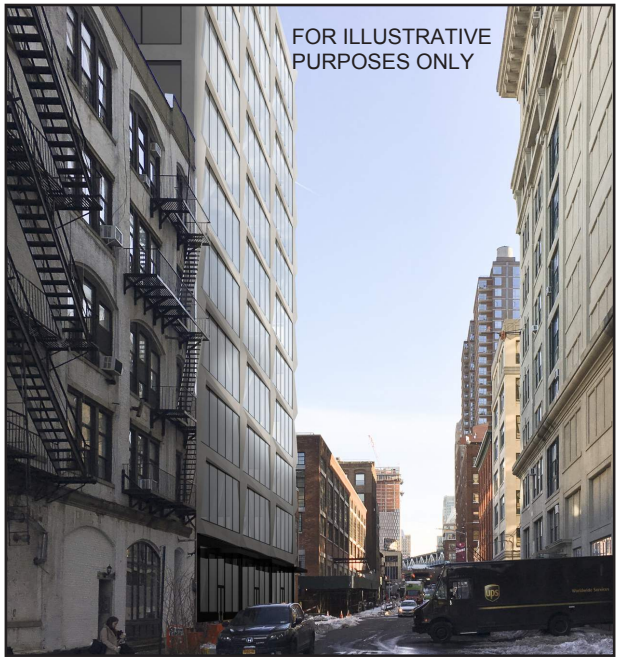
Outparcel

The approximately 9,545-sf non-applicant-owned outparcel is occupied by a mixed-use five-story (73-foot-tall) building. The outparcel building (shown in **Figure D-2**) was constructed in 1892 and is a contributing resource of both the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The building was constructed in the Romanesque Revival style, with a simple brick façade articulated by segmental openings. This, together with its slow-burning mill construction, makes it representative of American factory architecture of this period.

While the 2007 *DUMBO Historic District Designation Report* notes that the history of this building is somewhat ambiguous, the building was likely originally erected in 1892 as a three-story structure by



1. Existing view of the Proposed Development Site, looking north from the intersection of Jay and Plymouth streets.



2. With-Action rendering of the Proposed Project, looking south along Jay Street.



3. No-Action massing, looking south along Jay Street.



4. With-Action massing of the Proposed Project, looking south along Jay Street.



5. With-Action massing of the Alternate RWCDS, looking south along Jay Street.

29 Jay Street

Figure D-2

Proposed Development Site - Existing, No-Action, and With-Action Conditions

Joseph Le Comte who, one year later, incorporated the Joseph Le Comte Manufacturing Company, which manufactured plate, tin ware, sheet iron, metal, and stamped ware. In 1895, the building was still in use by the Le Comte Company, at which point a new street entrance was added to the building, in addition to an elevator shaft. In 1897, the site was sold to John Arbuckle and others involved with the Arbuckle coffee and sugar businesses. At this point, either Arbuckle erected an entirely new structure on the site (for which no records have been located) or built an addition of two stories. Arbuckle was a key figure in the history of coffee in America during the 19th century and eventually also a sugar refiner.

LPC's 2007 *DUMBO Historic District Designation Report* notes that the outparcel building is "representative of American factory architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District." The *Designation Report* also stated that "the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history."

Study Area

As presented in **Figure D-1**, the majority of the secondary study area falls within the boundaries of the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District. The DUMBO Industrial District was listed on the S/NR in 2000, with the LPC designating the DUMBO Historic District seven years later (2007). Within the study area, the two historic districts generally follow the same boundaries, with the following exceptions:

- **Jay Street north of John Street** is located within the LPC-designated DUMBO Historic District, but is not within the S/NR-listed DUMBO Industrial District.
- **East River waterfront lot west of Jay Street (Block 1, Lot 1)** is located within the NR-listed DUMBO Industrial District, but is not within the LPC-designated DUMBO Historic District.
- **Block 41, Lots 2, 5, and 42 (at the northeast corner of Jay and Front streets)** are located within the NR-listed DUMBO Industrial District, but are not within the LPC-designated DUMBO Historic District.

The DUMBO Historic District is one of New York City's most significant extant industrial waterfront neighborhoods, home to some of the largest and most important manufacturing businesses in Brooklyn or New York City during much of the 19th and 20th centuries, employing thousands of local workers, and playing a large role in making Brooklyn the fourth largest manufacturing center in the entire country by the early-20th century. The buildings in the historic district reflect important trends in the development of industrial architecture in the United States during the 19th and 20th centuries and embody an important era of Brooklyn and New York City history. The earliest of these buildings are representative of the slow-burning mill construction popular in the mid- to late-19th century, with simple brick façades, rhythmically placed window openings, and large entrances at the ground level for vehicular access, as well as internal structural systems composed of massive wooden columns, beams, and joints, which are very slow to combust and provide a measure of protection against fire. In the late-19th and early-20th centuries, builders began to use steel frame construction and terra-cotta floor tiles to provide even greater fire protection. In the beginning of the 20th century, buildings constructed entirely of reinforced concrete began to appear. These buildings were among the earliest large-scale reinforced concrete factory buildings erected in the United States.

The historic district also contains a number of other building types related to the area's industrial past, including tenements, foundries, modern factories, and other structures and is further enhanced by its

distinctive industrial streetscapes, which retain original granite Belgian block paving for several portions of streets and sidewalks, as well as the network of train tracks, running along the streets and, in some cases, extending into individual buildings. The Manhattan Bridge, which soars over the area, provides a dramatic backdrop for the neighborhood's industrial architecture. The Bridge's anchorage and piers, with their boldly-detailed arches spanning streets and sidewalks, are a major presence and strongly contribute to the historic district's sense of place.

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

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

Properties that are designated NYCLs are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition of those resources can occur. All properties within LPC-designated historic districts also require LPC permit and approval prior to new construction, addition, enlargement, or demolition. The owners of a property may work with LPC to modify their plans to make them appropriate. Properties that have been calendared for consideration for designation as NYCLs are also afforded a measure of protection insofar as, due to their calendared status, permits may not be issued by the DOB for any structural alteration to the buildings for any work requiring a building permit, without at least 40 days prior notice being given to LPC. During the 40-day period, LPC has the opportunity to consider the case and, if it so chooses, schedule a hearing and move forward with designation.

The New York City Building Code provides some measure of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. Additional protective measures apply to designated NYCLs and S/NR-listed historic buildings located within 90 linear feet of a proposed construction site. For these structures, the DOB's TPPN #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCL-designated or S/NR-listed historic resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. The procedures and protections of the DOB's TPPN #10/88 would apply to any alteration, enlargement, or demolition taking place in the LPC-designated or S/NR-listed Historic Districts, or properties within 90 feet of either historic district's boundaries.

Additionally, historic resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection from the effects of federally-sponsored, or federally-assisted projects under Section 106 of the National Historic Preservation Act, and are similarly protected against impacts resulting from state-sponsored or state-assisted projects under the New York State Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Private property owners using private funds

can, however, alter or demolish their S/NR-listed or S/NR-eligible properties without such a review process.

Anticipated Developments in the No-Action Condition

Primary Study Area

In the 2021 future without the Proposed Actions, it is assumed that the Proposed Development Site would be redeveloped with an as-of-right residential and commercial building, as projected in the 2009 *DUMBO Rezoning EAS*. Specifically, the No-Action building would rise 145 feet and contain 121 DUs, approximately 15,164 sf of ground floor local retail space, and 45 accessory parking spaces (refer to **Figure D-2**). Because the Proposed Development Site is within the DUMBO Historic District, the No-Action development would require a Certificate of Appropriateness (C of A) from the LPC.

No changes to the non-applicant-owned outparcel would occur in the future without the Proposed Actions.

Secondary Study Area

As presented in **Attachment C, "Land Use, Zoning, and Public Policy,"** there are several known and anticipated developments in the 400-foot secondary study area that are expected to be completed by the Proposed Actions' 2021 build year, including both conversions of existing buildings and new construction.

To the northwest of the Rezoning Area, 10 Jay Street (a contributing building of the Historic District) is in the process of being converted into commercial office and retail uses (refer to **Figure D-1**). The conversion, which was approved by the LPC, will result in the construction of a new contemporary façade on the building's East River (northern) frontage comprised of irregularly-shaped glass pieces inspired by the building's history as a sugar refinery, the Manhattan Bridge, and the neighborhood's historic steel and brick facades. On the building's remaining facades, the stucco brick-covering that has covered the building's historic brick facades since the 1970s, will be removed. Due to its existing damaged condition, the building's Jay Street (eastern façade) will be demolished in its entirety and reconstructed.

One block south of the Rezoning Area, 51 Jay Street (a contributing building of the Historic District) is being converted into a residential building (refer to **Figure D-1**). The conversion, which was approved by the LPC, will involve a one-story addition, as well as altering the masonry openings, replacing the windows, installing a storefront infill, and a canopy.

Two blocks west of the Rezoning Area (and partially within the secondary study area, as shown in **Figure D-1**), 135 Plymouth Street (a contributing building of the Historic District that was once the largest factory in the world) is being converted into a mixed-use building with residential, office, retail, and community facility uses. The conversion, which was approved by the LPC, involves removing roll-down doors and associated housing, tracks, and hardware, installing storefront infill within the building's existing masonry openings at the Plymouth, Pearl, John, and Adams street facades, installing ramps and stairs at the Pearl Street façade, and installing light fixtures as bother sides of the storefronts.

Two blocks south of the Rezoning Area, 57 Jay Street (a contributing building of the Historic District) is being converted into a mixed-use building with residential and office uses (refer to **Figure D-1**). The

conversion, which was approved by the LPC, will involve installing a fire escape, ramp, and windows, removing modern infill at three Water Street façade window openings, and restoring the historic masonry window openings.

200 Water Street to the southeast of the Rezoning Area (a contributing building of the Historic District), is currently being converted into a 15-unit residential building (refer to **Figure D-1**). The conversion, which was approved by the LPC, involves the construction of a rooftop addition, replacing windows, and altering the building's rear façade, in addition to renovations to the building's Water Street façade.

In the future without the Proposed Actions, a new mixed-use residential building with ground floor retail is being constructed at 181 Front Street. While the site is located within the S/NR-designated DUMBO Industrial District, as the site is located outside of the boundaries of the LPC-designated DUMBO Historic District (as shown in **Figure D-1**), no LPC approval was required to facilitate the new construction. The new building will be built to the streetwall and rise 60 to 78 feet in height, with dormers extending to heights of 78 to 116 feet along the building's Front Street frontage. It should be noted that the site was previously occupied by a one-story non-contributing building of the S/NR-listed DUMBO Industrial District, in addition to vacant land.

Lastly, the 2009 DUMBO Rezoning EAS identified several additional sites that were likely to be developed within the 400-foot radius secondary study area, as discussed in **Attachment C, "Land Use, Zoning, and Public Policy."** Specifically, Block 20, Lot 21 ("Development Site 6") and Block 30, Lot 7 ("Development Site 8") were both projected to be converted into residential uses; and Block 30, Lots 19, 20, 22, and 23 ("Development Site 10"), Block 41, Lot 5 ("Development Site 15"), and Block 41, Lots 1 and 2 ("Development Site 16") were projected to be developed with new mixed-use buildings (refer to **Figure D-1**). As the two anticipated residential conversions and the redevelopment of Site 10 would affect properties within the LPC-designated DUMBO Historic District, LPC would have to issue C of A's for all work associated with the buildings' conversions, alterations, and/or demolitions.

As shown in **Figure D-1**, Development Sites 15 and 16 fall outside of the LPC-designated DUMBO Historic District, and, as such, future redevelopment of these sites would not require LPC review. As detailed above, these properties, which are located within the S/NR-listed DUMBO Industrial District, are given a measure of protection from the effects of federal- or state-sponsored or assisted projects, however, private property owners using private funds can alter or demolish these sites without a review process. It should be noted that the only building within these two development sites that is considered a contributing resource in the historic district is 67 Jay Street on Site 16; the remainder of the properties are non-contributing to the historic district.

All the anticipated No-Action developments detailed above are located within the LPC-designated DUMBO Historic District and/or the S/NR-listed DUMBO Industrial District. Therefore, they will all be subject to DOB's TPPN #10/88, which would prevent construction-related impacts to nearby historic resources. The No-Action developments that involve conversions of existing historic buildings would likely include the rehabilitation of exterior façades, improving the context of the surrounding historic district. However, the sites that would be redeveloped with new buildings would change the context of the historic district in the future without the Proposed Actions. Those properties located in the LPC-designated DUMBO Historic District would require approval from LPC in order to confirm that the new developments would be in keeping with the existing character of the historic district; however, the sites located outside of the LPC-designated DUMBO Historic District are not subject to LPC-approval, and as such, could be redeveloped

with structures that are incompatible with the existing context of the Historic District in the future without the Proposed Actions.

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

According to the *CEQR Technical Manual*, generally, if a proposed action would impact those characteristics that make a resource eligible for NYCL designation or S/NR listing, this could be a significant adverse impact. As described above, the historic resources in the study area are significant both for their architectural quality, as well as for their historical value as part of the City's development. This section assesses the Proposed Actions' potential to result in significant adverse impacts on the adjacent LPC-designated and S/NR-listed DUMBO Historic District, including impacts resulting from construction of the Proposed Project, project-generated shadows, or other indirect impacts on existing historic resources in the study area.

The Proposed Actions were assessed in accordance with guidelines established in the *CEQR Technical Manual* (Chapter 9, Section 420) to determine (a) whether there would be a physical change to any designated property as a result of the Proposed Actions; (b) whether there would be a physical change to the setting of any designated resource, such as context or visual prominence as a result of the Proposed Actions; and (c) if so, whether the change is likely to diminish the qualities of the resource that make it important. Whereas this chapter focuses specifically on the Proposed Actions' effects on the visual context of historic resources, an assessment of the Proposed Actions' effect on the visual character of the study area in general is provided separately in **Attachment H, "Urban Design and Visual Resources."**

As detailed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of an approximately 224,935 gsf commercial building on the Proposed Development Site, and no development would occur on the non-applicant-owned outparcel. As under No-Action conditions, the With-Action building on the Proposed Development Site would be built out to the lot line and contain ground floor space. The RWCDS With-Action development would rise 155 feet, would have an FAR of 10.0, and would be clad in glass with shaped precast concrete panels (see rendering in **Figure D-2**). Because the Proposed Development Site is within the LPC-designated DUMBO Historic District, the Proposed Project requires a C of A.

Direct (Physical) Impacts

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

As discussed above, the Proposed Development Site does not contain any contributing resources of the DUMBO Historic District. However, as the Proposed Development Site is located within the DUMBO Historic District, the proposed new building would require a C of A from the LPC, confirming that the Proposed Project would be in keeping with the context of the surrounding Historic District. As such, the Proposed Actions would not result in any significant adverse direct impacts to historic architectural

resources. Additionally, as noted above, the Proposed Actions would not result in any changes to the adjacent outparcel.

Indirect (Contextual) Impacts

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

The Proposed Actions would not result in significant adverse indirect impacts on historic resources in the study area as compared to No-Action conditions. Although the Proposed Project would alter the setting and visual context of the surrounding Historic District, none of the changes would be significant or adverse as compared to No-Action conditions. As detailed above, the No-Action building on the Proposed Development Site would rise 145 feet, while the RWCDS With-Action building would rise 155 feet, a difference of ten feet. The proposed zoning text amendment would permit buildings in the Rezoning Area to have streetwalls up to the height of nearby buildings (adjacent to and across the street from a development site) that are located in a historic district to allow for a building in keeping with the large loft buildings characteristic of the Historic District. As such, the RWCDS With-Action building would have a streetwall of the same height as 20 Jay Street (153.5 feet) (refer to **Figure D-2**). Additionally, the Proposed Project would be built out to the lot lines and rise without setback. As shown in **Figure D-1**, most of the buildings in the DUMBO Historic District are large, multi-story structures built out to the lot lines with no setbacks, similar to the Proposed Project. As such, the Proposed Project would be compatible with existing heights and bulks in the surrounding historic district, supplementing the established streetscape of the area.

As shown in **Figure D-2**, the Proposed Actions would facilitate the construction of a commercial building with materials similar to the existing buildings within the surrounding DUMBO Historic District. The proposed new building would be clad in glass with shaped precast concrete panels. The concrete cross-bracing reflects designs on the Manhattan Bridge. Additionally, as detailed above, the most radical innovation in DUMBO's industrial architecture occurred at the beginning of the 20th century when large-scale factories were constructed entirely of reinforced concrete, among the earliest in the U.S. The concrete panels of the Proposed Project would reflect this historically significant building material, complementing the surrounding concrete factories and buildings of the Historic District.

The Proposed Project would not alter the relationship of any surrounding historic resources to the streetscape, as all streets in the study area would remain open and each resource's relationship with the street would remain unchanged in the future with the Proposed Actions. The Proposed Project would be constructed on an existing block and lot, and would not eliminate or substantially obstruct significant public views of architectural resources, as all elements of these historic resources would remain visible in view corridors on public streets. Additionally, no incompatible visual, audible, or atmospheric elements would be introduced by the Proposed Actions to any historic resource's setting under With-Action conditions. The Proposed Actions would not diminish the qualities that make the LPC-designated DUMBO Historic District or the S/NR-listed DUMBO Industrial District historically and architecturally important

and, as such, would not result in significant adverse indirect or contextual impacts to historic architectural resources.

Construction-Related Impacts

Any new construction taking place within historic districts or adjacent to individual landmarks has the potential to cause damage to contributing buildings to those historic resources from ground-borne construction vibrations. As noted above, the Proposed Actions include the construction of a new building on the Proposed Development Site, which is located within the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District (refer to **Figure D-1**).

As detailed above, the New York City Building Code provides some measures of protection for all properties against accidental damage from adjacent construction and additional protective measures apply to LPC-designated and S/NR-listed properties located within 90 linear feet of a proposed construction site. For these structures, DOB's TPPN #10/88 applies, supplementing the standard building protections afforded by the Building Code.

Adjacent historic resources, as defined in the procedure notice, only include designated NYCLs, properties within NYCL historic districts, and listed S/NR properties that are within 90 feet of a lot under development or alteration. They do not include S/NR-eligible, NYCL-eligible, potential, or unidentified architectural resources. Construction period impacts on any designated historic resources would be minimized, and the historic structures would be protected, by ensuring that adjacent development projected as a result of the Proposed Actions adheres to all applicable construction guidelines and follows the requirements laid out in TPPN #10/88. Under the TPPN, a construction protection plan must be provided to the LPC for review and approval prior to any demolition and construction on the Proposed Development Site. The construction protection plan would take into account the guidance provided in the *CEQR Technical Manual*, Chapter 9, Section 523, "Construction Protection Plan." With the implementation of the appropriate construction protection measures mandated by TPPN #10/88, no construction-related impacts on historic resources would be anticipated as a result of the Proposed Actions.

Shadows

As detailed above, the No-Action building on the proposed development site would rise 145 feet, while the Alternate RWCDS With-Action building would rise 175 feet. However, as none of the surrounding historic resources in the LPC-designated and S/NR-listed DUMBO Historic District contain sunlight-sensitive features, such as stained-glass or polychromatic detailing, the limited incremental shadows generated by the Proposed Actions would not result in any significant adverse impacts to historic resources.

ATTACHMENT E

URBAN DESIGN AND VISUAL RESOURCES

I. INTRODUCTION

This attachment considers the potential effects of the Proposed Actions and subsequent development on urban design and visual resources. As defined in the *City Environmental Quality Review* (CEQR) *Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements such as streets, buildings, visual resources, open space, natural resources, wind, and sunlight play an important role in the pedestrian experience. The Proposed Actions would facilitate the construction of an approximately 224,935-gross square foot (gsf) development comprised of 212,710 gsf of commercial office floor area, and 12,225 gsf of ground floor local retail at 29 Jay Street (Brooklyn Block 20, Lot 1) in the DUMBO neighborhood of Brooklyn Community District (CD) 2.

In accordance with *CEQR Technical Manual* guidelines, the assessment focuses on the components of the Proposed Actions that may have the potential to alter the arrangement, appearance, and functionality of the built environment. The effect of the Proposed Actions represents the incremental effect on conditions resulting from the net change in development between No-Action and With-Action conditions. In addition, as an Alternate reasonable worst-case development scenario (RWCDS) was developed for the Proposed Actions, this attachment assesses the potential for significant adverse impacts resulting from the RWCDS (a 155-foot-tall building) and an Alternate RWCDS (a 175-foot-tall building).

II. PRINCIPAL CONCLUSIONS

The Proposed Actions and subsequent development, while resulting in a notable change in the urban design of the study area, would not result in a significant adverse impact on the area's urban design and visual resources, as defined by the *CEQR Technical Manual*. Under the RWCDS, the Proposed Actions would facilitate the construction of a new 11-story, 155-foot tall building comprised of commercial office space and local retail uses on the ground floor; under the Alternate RWCDS, the Proposed Development Site would be redeveloped with a building rising to a maximum height of 175 feet. The RWCDS would have a comparable maximum building height to the development anticipated on the projected development site in the No-Action (an as-of-right predominantly residential building rising to a maximum building height of 145 feet). While the Alternate RWCDS building would rise to a maximum building height of 175 feet, the taller building height of the Alternate RWCDS building would not be notable from the pedestrian perspective, as it would be setback from the streetwall by 15 feet in accordance with zoning requirements. In addition, the Proposed Project's higher streetwall (153.5 feet under the RWCDS and Alternate RWCDS With-Action condition, versus up to 105 feet in the No-Action condition), the tall streetwall would be more consistent with the historic urban design fabric of the neighborhood, which includes a substantial number of former industrial buildings that are built to the lot line and rise without a setback. The Proposed Project would fill an existing void by replacing existing underutilized land with active pedestrian-oriented uses that would complement those found in the primary and secondary study areas. While the Proposed Development Site is located in the New York City Landmarks Preservation Commission- (LPC-) designated DUMBO Historic District and the State and National Register- (S/NR-) listed DUMBO Industrial District, the Proposed Project would replace an existing non-contributing building with a building reflecting the loft

character of the area and that will be subject to the approval of the LPC. The Proposed Project would not obstruct or alter views of any visual resources from existing public thoroughfares. Therefore, the Proposed Actions would not result in significant adverse impacts on urban design and visual resources.

III. METHODOLOGY

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

As described in the *CEQR Technical Manual*, a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning. A preliminary analysis provides a "snapshot" of the project, comparing existing and future conditions with and without the proposed actions. The following analysis examines each of the elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale, form and arrangement; and natural features, open space, and topography.[1] The following preliminary analysis also considers the effects of the Proposed Actions on the area's visual resources, which are generally considered to be important public view corridors, vistas, or natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geologic formations.

Based on *CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environment. The urban design study area consists of both a primary study area (where urban design effects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area encompasses the Rezoning Area. Consistent with the analysis of land use, zoning, and public policy, the secondary study area for the urban design assessment has been defined as an area within approximately 400 feet of the Rezoning Area (see **Figure E-1**).

The analysis is based on field visits, aerial views, photographs, and other graphic images of the Rezoning Area and surrounding area. Zoning calculations, including floor area calculations, building heights, and lot coverage information are also provided. A photo key for the primary and secondary study area photos is provided in **Figure E-2**.

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

Figure E-1
Urban Design Study Area

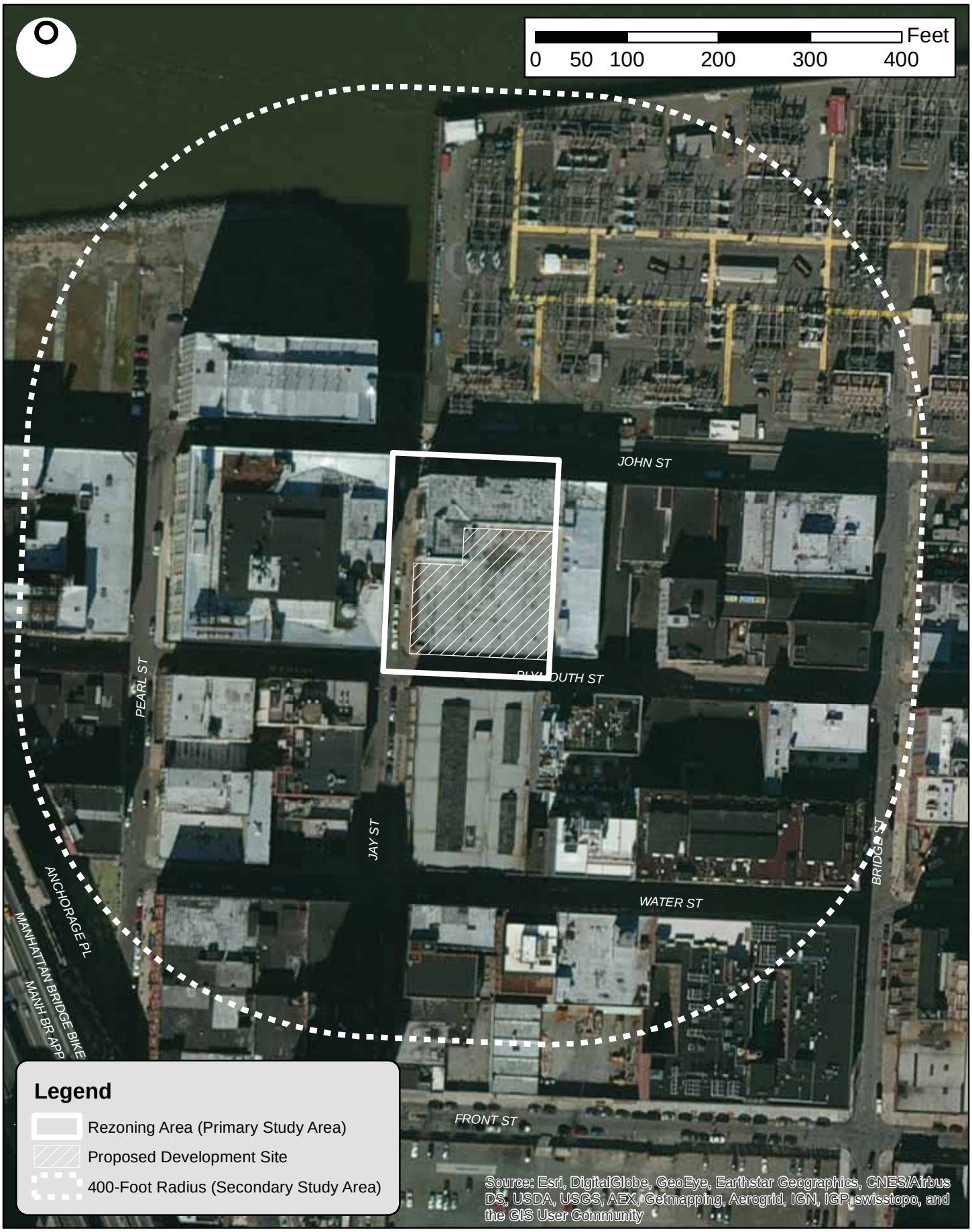
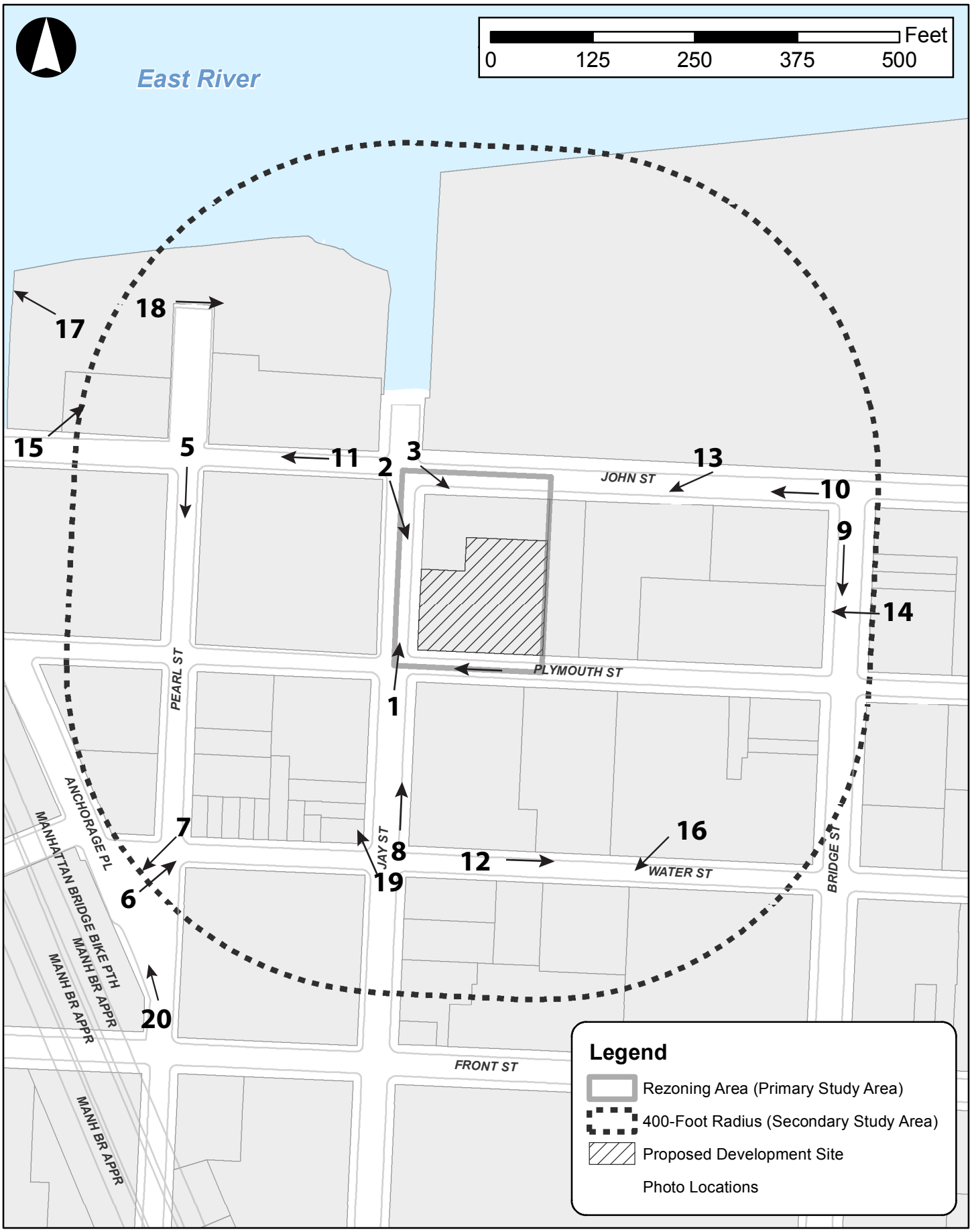


Figure E-2
Photo Locations



IV. PRELIMINARY ASSESSMENT

Existing Conditions

Urban Design

Primary Study Area (Rezoning Area)

The Rezoning Area comprises the westernmost 150 feet of the block bounded by Jay Street to the west, John Street to the north, Bridge Street to the east, and Plymouth Street to the south. In total, the Rezoning Area comprises 28,500 sf, with 190 feet of frontage on the east side of Jay Street, 150 feet of frontage on the south side of John Street, and 150 feet of frontage on the north side of Plymouth Street; Block 20, Lot 750 abuts the Rezoning Area to the east. The Rezoning Area block is similar in dimensions to other blocks found east of Jay Street, which are generally 200-feet-by-500-feet; however, unlike the blocks to the east, west, and south of the Rezoning Area, which extend 200 feet north-south, the Rezoning Area block is only 190 feet in north-south dimensions. Due to this discrepancy, the mapped widths of John and Plymouth streets between Jay and Bridge streets are wider than found on blocks to the east and west (at 50 feet), and the two thoroughfares include substantially wider sidewalks than found outside of the subject block segment.

As described in **Attachment A, "Project Description,"** the Rezoning Area comprises the applicant-owned Proposed Development Site and the adjacent non-applicant-owned outparcel. The Proposed Development Site comprises Lot 1 of Brooklyn Block 20, a 18,955-sf irregularly-shaped lot at the northeast corner of Jay and Plymouth streets with approximately 99 feet of frontage on the east side of Jay Street and 150 feet of frontage on the north side of Plymouth Street. As shown in **Figure E-3** the Proposed Development Site is currently occupied by one-story 33-foot-tall approximately 18,955-gsf building constructed in 1975-77. The existing Proposed Development Site building is occupied by the Use Group 8 Gelsey Kirkland Academy of Classical Ballet. With a built floor area ratio (FAR) of 1.0, the Proposed Development Site is currently underbuilt pursuant to the site's existing M1-4/R8A zoning. While located within both the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District, the existing building on the Proposed Development Site is not a contributing resource. The existing building is constructed of brick with minimal articulation, apart from a ribbon band of metal, multi-pane, fixed and pivot windows beneath the roofline. Vehicular entrances (and associated curb cuts) are located on the north end of the building's Jay Street façade and the east end of the building's Plymouth Street façade, with small pedestrian entrances on the south end of the Jay Street façade and in the center of the Plymouth Street façade.

The non-applicant-owned outparcel (Brooklyn Block 20, Lot 6) is a 9,545-sf irregularly shaped lot located at the southeast corner of Jay and John streets. The lot has approximately 91 feet of frontage on the east side of Jay Street and 150 feet of frontage on the south side of John Street. The outparcel is occupied by a mixed-use five-story (73-foot-tall) building comprised of 23 residential units and five commercial tenants, including the Brooklyn Roasting Company (a Use Group 6 eating and drinking establishment), Use Group 9 arts organizations, and Use Group 17 commercial spaces (a jewelry designer studio and a photography production company). The existing outparcel building totals 47,735 zoning square feet (zsf; including approximately 30,000 zsf of residential floor area and approximately 17,735 zsf of commercial floor area), with a built FAR of just over 5.0, and, therefore, complies with the site's existing M1-4/R8A bulk regulations. The outparcel building (shown in **Figure E-3**) was constructed in 1892 and is a



1. View of 29 Jay Street looking north from the intersection of Jay and Plymouth Street



2. View of the outparcel building and 29 Jay Street looking southeast from the intersection of John and Jay Street



3. The outparcel building looking southeast from John Street



4. View west on Plymouth Street (with 29 Jay Street on right)

29 Jay Street

Figure E-3
Project Site

contributing resource of both the LPC-designated DUMBO Historic District and S/NR-listed DUMBO Industrial District. The building was constructed in the Romanesque Revival style, with a simple brick façade articulated by segmental openings, and was originally occupied by uses associated with the Arbuckle Brothers, a prominent Brooklyn manufacturing firm. LPC's 2007 *DUMBO Historic District Designation Report* notes that the building is "representative of American factor architecture of this period and contributes to the architectural and historical character of the DUMBO Historic District." The *Designation Report* also stated that "the structure contributes to the district through its architecture, structure, and the fact that its owners played a significant role in the area's history."

The character of the roadways that the Rezoning Area fronts varies substantially in materiality and pedestrian experience. John Street, which runs along the northern border of the Rezoning Area, is a paved 50-foot-wide one-way westbound roadway with concrete sidewalks lining both sides and parking permitted along the roadbed's southern curb. This segment of John Street, in addition to being wider than the segments to the east and west, as noted above, also serves as a dividing line between the more pedestrian oriented uses to the south and the Con Edison facility to the north (discussed in greater detail in the "Secondary Study Area" section, below). Streetscape elements along John Street are minimal and limited to standard cobrahead street lights, parking signage, and bike racks on its southern sidewalk and bollards, utility boxes, and concrete dividers along its northern sidewalk. Utility lines also traverse John Street at the corner of John and Jay streets.

Jay Street is an approximately 60-foot-wide two-way roadway that reflects a mix of more auto-oriented loading activities and pedestrian-oriented streetscape elements, such as sidewalk seating at the café located on the outparcel, multiple bike racks, and several street trees located along the eastern sidewalk. The more pedestrian-oriented feel of the street is also a result of the large ground floor windows of the buildings around the Proposed Development Site.

Plymouth Street is a 50-foot-wide one-way roadway that, in its existing form, lacks noticeable pedestrian-oriented streetscape elements. This portion of the street contains no bike racks or seating, with streetscape elements limited to standard streetlamps and signage. On the north side of Plymouth Street is the existing Proposed Development Site building. This portion of the building has a brick façade with no windows facing Plymouth Street; there is also no clear separation between sidewalk and street along this segment of the north side of Plymouth Street (as shown in **Figure E-3**). Along the southern side of Plymouth Street, large windows of the adjacent building face out onto a narrow sidewalk. As shown in **Figure E-3**, this segment of Plymouth Street also features historic rail tracks and Belgian blocks, with granite slab details and some bluestone curbing.

There are no natural features or open space resources located within the Rezoning Area. The Rezoning Area has a sloped topography, decreasing in elevation from south to north (as the Rezoning Area approaches the East River) and from east to west.

Secondary Study Area

The blocks comprising the secondary study area are generally rectilinear in form. Blocks south of the Rezoning Area are similar in shape to the Rezoning Area block (Brooklyn Block 20), measuring 200 feet north-south by 500 feet east-west. To the west of Jay Street, the secondary study area blocks are square in shape measuring approximately 200 feet by 200 feet. Buildings present in the secondary study area, while including both historic structures and newly constructed and/or renovated buildings built following the 2009 DUMBO Rezoning, are similar in form, and are built to the lot line (refer to **Figures E-4** and **E-5**).

Figure E-4
Study Area Building Heights

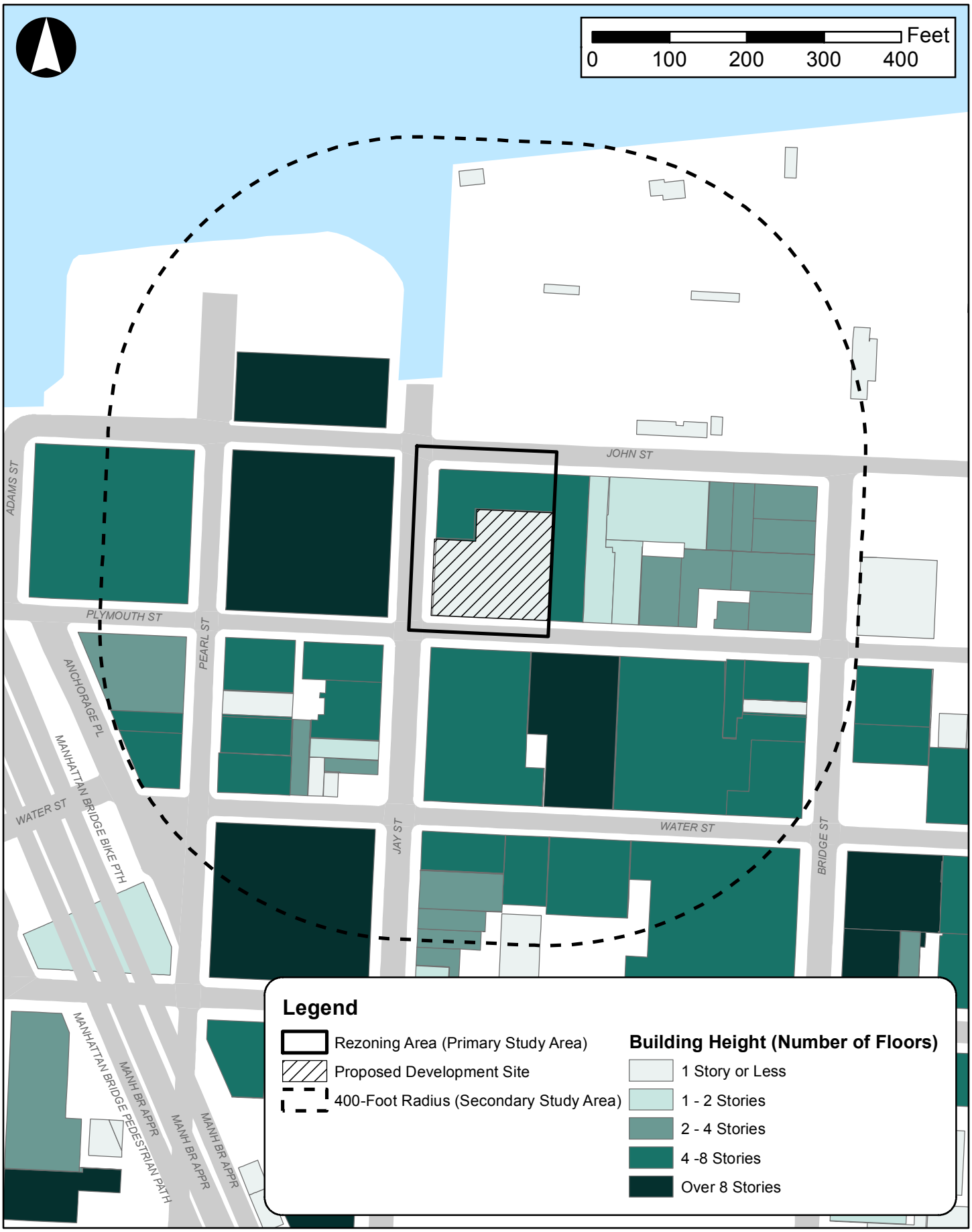
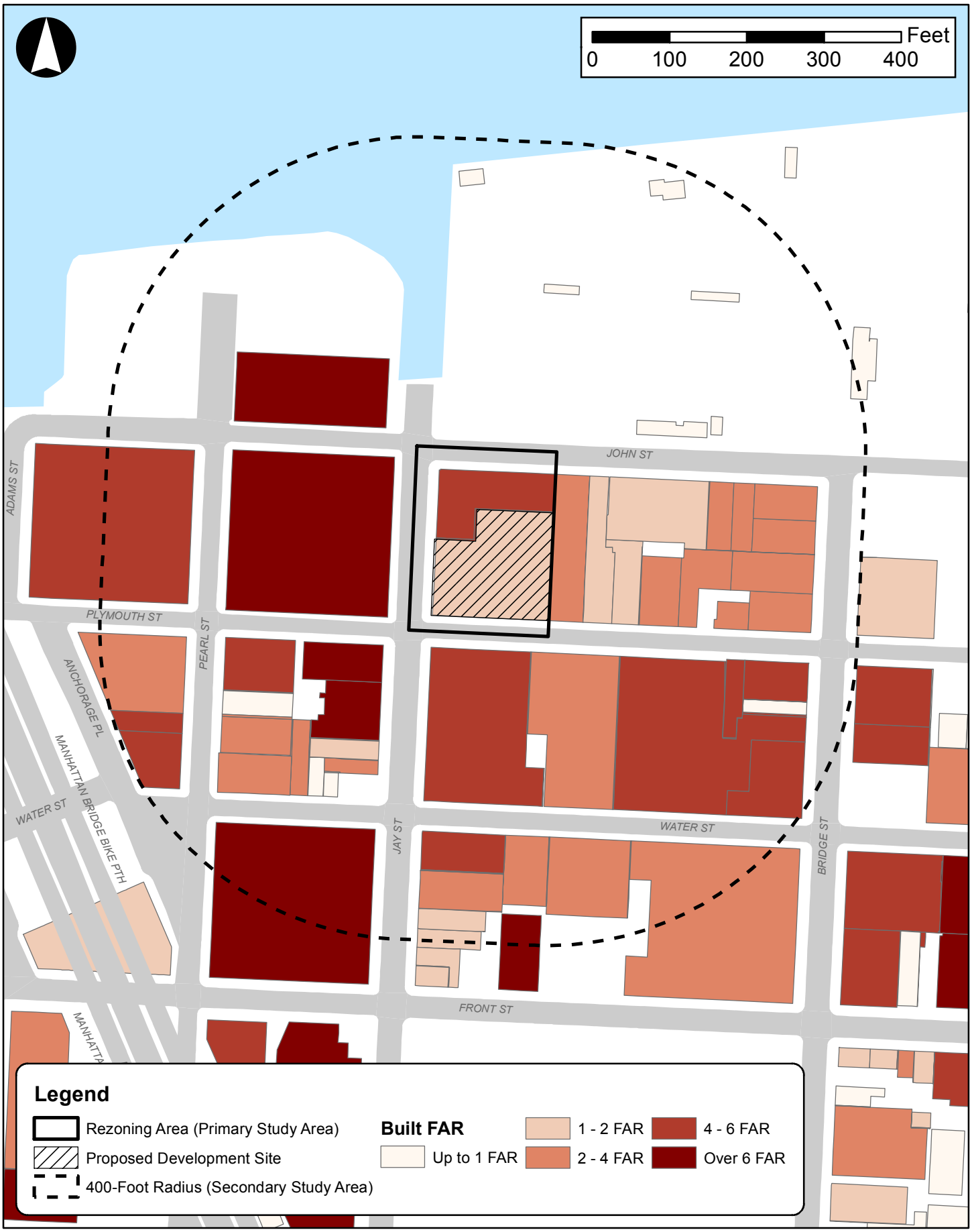


Figure E-5
Study Area Building Density



As such, newly constructed and renovated buildings in the secondary study area generally blend in with the historic building context. In terms of building height, as presented in **Figure E-4,** the tallest buildings in the secondary study area are located along Jay Street. Similarly, as shown in **Figure E-5**, the most densely built lots are generally located along Jay Street. The most densely built lot in the secondary study area is 20 Jay Street, directly across Jay Street from the Rezoning Area. 20 Jay Street occupies the entirety of the block bounded by Jay, Pearl, Plymouth, and John streets, rises to a maximum height of approximately 164 feet (11 stories) with no setback from the lot line, and has a built FAR of 11.11.

Pearl Street is the westernmost roadway of the secondary study area and serves one-way southbound traffic with parking on both sides of the street. North of Plymouth Street there is no sidewalk on the western side of the roadway. This segment of the street is dominated by loading areas, though there is one retail bicycle shop on the eastern side of the street (shown in **Figure E-6**). Between Plymouth and Water streets, sidewalks and parking line both sides of Pearl Street. This area is characterized by several loading areas with few windows. South of Water Street (in the southwest corner of the secondary study area), Pearl Street is much more pedestrian oriented, with a variety of ground floor local retail uses, a public plaza with plantings, tables, and chairs (Pearl Street Triangle), and a CitiBike station (shown in **Figure E-6**).

Jay Street is the primary north-south street in the secondary study area. As noted above, Jay Street is 60-feet wide two-way roadway with parking on both sides of the street. While the portion of Jay Street between John and Plymouth streets (discussed in the "Primary Study Area" section, above) includes a mix of more auto-oriented loading activities and pedestrian-oriented streetscape elements, south of Plymouth Street, Jay Street is more pedestrian oriented. Several buildings with large windows line the sidewalk, including 51 Jay Street (directly south of the Rezoning Area), which features large windows in place of what was formerly a loading area and an improved sidewalk (refer to **Figure E-6**), as well as multiple restaurants and food stores that line the western side of the street south of Water Street.

Bridge Street is the easternmost north-south roadway of the secondary study area. This two-way roadway accommodates parking on both sides of the street. Between John and Plymouth streets, street trees line both sides of the street (as shown in **Figure E-7**). Between these two streets the eastern side of Bridge Street is occupied by a Con Edison facility and a one-story building with a loading area and no windows fronting Bridge Street. On the western side of the street is a four-story building with commercial space on the ground floor, a one-story private event venue (shown in **Figure E-8**), and a four-story building with a loading area fronting Bridge Street. South of Plymouth Street, a seven-story building was recently constructed on the east side of Bridge Street (at 37 Bridge Street), and a five-story building with a loading area is located on the western side of the street. Unlike the portion of Bridge Street to the north of Plymouth Street, this portion does not have street trees, plantings, or bike racks. The only streetscape elements present on this segment of the roadway (outside of standard cobrahead light fixtures and street signage) are benches (on the western side of Bridge Street), historic rail tracks, and Belgian block paving (located at the intersection of Plymouth and Bridge streets).

As shown in **Figure E-7** and discussed in the "Primary Study Area" section above**,** John Street is a one-way westbound narrow street with parking along the southern side of the street. The segment of the roadway between Bridge and Jay streets is industrial in character, with the Con Edison facility lining the roadway to the north, and several manufacturing uses (each with their own loading areas and few windows lining the roadway) located to the south (refer to **Figure E-7**). While sidewalks line both sides of the street, there are no street trees or plantings; bike racks are located on the south side of the street only. To the west of Jay Street, John Street is flanked by two of the tallest buildings of the secondary study area: 20 Jay Street



5. View of Pearl Street looking South from John Street



6. View of the Pearl Street Triangle looking northeast at the intersection of Water and Pearl Street



7. View of the pedestrian plaza looking southwest from the intersection of Water and Pearl Street



8. Looking north from the intersection of Jay and Water Street



9. Looking south along Bridge Street from John Street



10. Looking west along John Street from the intersection of Bridge and John Street



11. The Manhattan Bridge looking west from the intersection of Jay and John Street



12. Looking east along Water Street from Jay Street

and 10 John Street (to the north and south, respectively; refer to **Figure E-4**). As shown in **Figure E-7** the northern side of the street is currently dominated by the presence of construction scaffolding associated with the ongoing construction at 10 Jay Street. On the southern side of the street, the sidewalk does not extend the entirety of the block frontage. West of Pearl Street is the recently completed 12-story residential building at 1 John Street (shown in **Figure E-8**).

One block south, the northern side of Plymouth Street between Pearl and Jay streets is a small stretch of ground floor retail uses. Bike racks can be found on both sides of the street between Jay and Pearl streets. Between Jay and Bridge streets, Plymouth Street is dominated by garages and loading areas for manufacturing uses. While, as noted above, there is no sidewalk along the portion of Plymouth Street that abuts the Proposed Development Site (shown in **Figure E-3**), sidewalks line both sides of the roadway throughout the remainder of the secondary study area. In addition, with the exception of the intersection of Plymouth and Jay streets, the remaining segments of Plymouth Street in the secondary study area feature Belgian block paving; the segment of Plymouth Street between Jay and Bridge streets also features an historic rail track.

Water Street (the southernmost east-west roadway of the secondary study area) is a narrow one-way westbound road with parking on the south side of the street. Between Pearl and Jay streets, the Water Street streetscape has few streetscape elements, despite this stretch of roadway containing a newly constructed residential building and two ground floor businesses; the sidewalks flanking both sides of the roadway contain no street trees/plantings, bike racks, or benches (see **Figure E-7**). A single six-story building occupies the southern side of the street (with two businesses fronting Water Street midblock);on the northern side of the street (west to east) are the newly constructed DUMBO Townhouses (a five-story building with a modern façade located at 168 Water Street), a narrow four-story building, a one-story garage, and a paved lot used for parking (refer to **Figure E-4**). Between Jay and Bridge streets the sidewalks that flank the roadway to the north and south feature minimal streetscape elements, with no street trees/plantings, bike racks, or benches and no ground floor retail uses. The buildings on this block range in height from four to seven stories. Two buildings on the south side of the street have recently undergone renovations (192 and 220 Water Street, see **Figure E-8**), and one recently constructed is located on the north side of the street (the seven story building 205-215 Water Street).

As shown in **Figure E-9**, natural features and open space resources in the secondary study area include Brooklyn Bridge Park and the adjacent East River, as well as the Pearl Street Triangle (located at the intersection of Water Street, Pearl Street, and Anchorage Place); the only other open space in the secondary study area is the surface parking lot located at the northwest corner of Jay and Water streets. The topography of the secondary study area slopes gently towards the East River (from south to north).

Visual Resources

Primary Study Area (Rezoning Area)

As noted above, the existing outparcel building within the Rezoning Area is considered a contributing resource to both the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District. Portions of the outparcel building can be seen from as far south as the southern border of the secondary study area (mid-block along Jay Street between Water and Front streets). The furthest points east and west that partially obstructed views of the outparcel building can be seen from are along John Street in the middle of the block between Jay and Pearl street (to the west) and in the middle of the block



13. View of the manufacturing buildings located on the southern side of John Street between Bridge and Jay Street.



14. Private event venue located on the western side of Bridge Street



15. 1 John Street looking northeast



16. Looking southwest along Water Street towards 220-222 Water Street



17. The Manhattan Bridge looking west from John Street Park



18. Looking east within John Street Park



19. Looking northwest from the intersection of Jay and Water Street



20. Facing north from the southern end of the Pearl Street Triangle

between Jay and Bridge streets (to the east). From the Rezoning Area itself, partial views of the Manhattan skyline and the East River waterfront are visible from John and Jay streets (in views north). Portions of the Manhattan Bridge is also visible in views west along Plymouth and John streets.

Secondary Study Area

There are numerous visual resources located within or visible from the secondary study area. Visual resources located in the secondary study area include historic resources (contributing resources of the LPC designated DUMBO Historic District and/or the S/NR DUMBO Industrial District), open space resources (Brooklyn Bridge Park and Pearl Street Triangle), and natural resources (the East River). Additionally, the Manhattan skyline is visible along Pearl, John, Jay and Bridge streets but is located outside of the secondary study area.

Partial views of Brooklyn Bridge Park, an open space resource, are visible from Pearl Street to the southern edge of the secondary study area (Pearl Street Triangle), and from John Street from the eastern edge of the secondary study area Partial views of Pearl Street Triangle are provided from as far north as Brooklyn Bridge Park (where Pearl Street ends) and as far east as the intersection of Jay and Water Street (surface parking lot).

Also visible from the secondary study area are the Manhattan skyline and the East River, which are visible from all north-south roadways in the secondary study area (Pearl, Jay, and Bridge streets). The Manhattan Bridge, a National Historic Civil Engineering Landmark that is located just west of the secondary study area boundary, is visible from Pearl, John, Water, and Plymouth streets.

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

Urban Design

Primary Study Area (Rezoning Area)

In the 2021 future without the Proposed Actions, the Proposed Development Site would be redeveloped with a 145-foot tall predominantly residential building containing 121 DUs, 15,164 sf of local retail space, and 45 accessory parking spaces. No changes would occur to the outparcel, which would continue to be occupied by the existing 25 Jay Street building, a contributing resource of the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District.

Secondary Study Area

As described in **Attachment C, "Land Use, Zoning, and Public Policy,"** there are 11 known or projected development projects in the secondary study area that are expected to be completed and occupied by the 2021 analysis year. Seven of the ten No-Action developments comprise building conversions/enlargements, with the remaining four No-Action developments comprising new construction. No-Action development in the secondary study area, including conversions and new construction, would continue to be built to the lot line, maintaining the uniform streetwall found throughout the area. Newly renovated and constructed buildings will activate the streets within the secondary study area with new residents, employees, and ground floor retail uses.

Visual Resources

Primary Study Area (Rezoning Area)

As noted above, in the 2021 No-Action condition, a 145-foot-tall building would be constructed on the Proposed Development Site. As the No-Action building would be taller than the existing Proposed Development Site building, it would block select views of portions of the existing outparcel building (a contributing resource of the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District). Notably, given the Proposed Development Site's location relative to the outparcel building, the No-Action development would block views of the building's southern façade (shown in **Figure E-11**) when looking north at the building. Views of the waterfront from the Rezoning Area would not be altered.

Secondary Study Area

The construction of the 145-foot-tall No-Action building would not alter views of the Manhattan Bridge from Pearl, John, Plymouth, or Water streets, nor would the No-Action development alter views of the waterfront from Jay, Pearl, John, and Bridge streets (shown in **Figures E-12** and **E-11** respectively). While new development anticipated in the secondary study area (outlined in the "Urban Design" section, above) would alter certain views of visual resources located within or visible from the secondary study area, the buildings that would be newly constructed would replace existing buildings that are built to the lot line. Therefore, pedestrian views from the streetscape would not be substantially blocked by the No-Action developments anticipated in the secondary study area.

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

Urban Design

Primary Study Area (Rezoning Area)

In the 2021 future with the Proposed Actions, the proposed approximately 224,935-gsf predominantly commercial office space project would be constructed on the Proposed Development Site. Under the RWCDS, the building would have a 153.5-foot-tall streetwall, above which the building would rise to a maximum building height of 155 feet after a 15-foot setback. The Proposed Project would include a total of 212,710 gsf of commercial office space and 12,225 gsf of local retail, for a total FAR of 10.0 and would conform with all bulk and use requirements applicable to a predominantly commercial building in M1-6/R8X districts, as modified by the proposed zoning text amendments.

In addition, as presented in **Attachment A, "Project Description,"** an Alternate RWCDS was also identified for the Proposed Development Site. Under the Alternate RWCDS, the Proposed Development Site would be redeveloped with a 175-foot-tall building; the Alternate RWCDS, similar to the RWCDS presented above would have a maximum streetwall height of 153.5 feet, the maximum permitted pursuant to the proposed zoning map and text amendments.

No changes to the non-applicant-owned outparcel would occur in the 2021 With-Action condition, and the outparcel would continue to be occupied by the existing 25 Jay Street building, a contributing resource of the LPC-designated DUMBO Historic District and the S/NR-listed DUMBO Industrial District.

Figures E-10 through **E-12** provide comparative pedestrian views of the Rezoning Area under existing, No-Action, With-Action, and Alternate With-Action conditions. As presented in **Figures E-10** through **E-12**, the Proposed Actions would result in a noticeable change in the urban design character of the primary study area, as compared to the No-Action condition. While the RWCDS With-Action building would be similar to the No-Action building in terms of overall building height (155 feet versus 145 feet), the Alternate RWCDS building would rise to a maximum building height of 175 feet. However, as shown in **Figures E-10** through **E-12**, the taller building height of both the RWCDS and Alternate RWCDS buildings would not be notable from the pedestrian perspective, as it would be setback from the streetwall by 15 feet in accordance with zoning requirements.

Both the RWCDS and Alternate RWCDS With-Action buildings would have streetwall heights of 153.5 feet, versus 105 feet under the No-Action condition. As shown in **Figures E-10** through **E-12** the proposed taller streetwall (facilitated by the proposed zoning text amendment) would be more in keeping with the historic built context of the neighborhood. Notably, 20 Jay Street (directly across the street from the Proposed Development Site) features a streetwall height of 153.5 feet. While both the No-Action and With-Action developments would activate the streetscape with the introduction of new ground floor retail uses on the Proposed Development Site, the With-Action development would not include accessory parking and, as such, would eliminate the amount of streetscape that is dedicated to a parking entrance and minimize the streetwall voids to a greater degree. For these reasons, the Proposed Actions would not result in significant adverse impacts on the urban design of the primary study area.

Secondary Study Area

The Proposed Actions would not result in any changes in the urban design in the secondary study area, as development facilitated by the Proposed Actions would be limited to the Rezoning Area. The Proposed Project would introduce uses that would be consistent with those found in the surrounding secondary study area, which is characterized by a mix of residential, commercial, and community facility uses. The additional street activity generated by the Proposed Project would serve as a connection between the retail activities found to the north and south of the Rezoning Area along Jay Street.

The RWCDS and Alternate RWCDS building massing would not be out of character with the surrounding area, which is characterized by a mix of building typologies. The Proposed Project would match the characteristics of the existing former industrial buildings found throughout the secondary study area that are built to the lot line and rise without setback to their maximum height. As noted above, directly across Jay Street from the Proposed Development Site, 20 Jay Street has a 153.5-foot-tall streetwall; immediately northwest of the proposed Rezoning Area, 10 Jay Street (currently being converted to office uses) rises to approximately 130 feet. Overall, the Proposed Actions would contribute to the urban design character of the secondary study area by redeveloping an underutilized piece of land. The Proposed Actions would not adversely affect any urban design features of the secondary study area and would not result in significant adverse impacts to the experience of the pedestrian. The Proposed Actions would facilitate new development that would bring new pedestrian activity in and around the Rezoning Area.

Visual Resources

The Proposed Actions would not result in significant adverse impacts on visual resources in the primary or secondary study areas. While the Proposed Project would be visible in views of primary and secondary study area historic resources, in addition to views of natural, open space, and historic resources in the



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition A
155'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY

29 Jay Street

Figure E-10a
View facing south from Jay Street - Proposed Project



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition B
175'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY

29 Jay Street

Figure E-10b
View facing south from Jay Street - Alternate RWCDS



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition A
155'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition B
175'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY

29 Jay Street

Figure E-11b
View facing north from Jay Street - Alternate RWCDS



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition A
155'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY



1. Current Condition



2. No Action Condition
145'-0" High Maximum Building Envelope (105'-0" Street wall)



3. With Action Condition B
175'-0" High Maximum Building Envelope (153'-6" Street wall)

FOR ILLUSTRATIVE PURPOSES ONLY

29 Jay Street

Figure E-12b
View facing west from Plymouth Street - Alternate RWCDS

secondary study area and beyond, the Proposed Project would not block significant views or alter existing views in a manner that would represent a significant adverse impact. In addition, the RWCDS building form would be consistent with the existing historic character of the neighborhood, as most of the buildings in the DUMBO Historic District are large, multi-story structures built to the lot line with no setbacks. As such, the Proposed Project would not result in significant adverse visual resources impacts.

ATTACHMENT F

WATER AND SEWER INFRASTRUCTURE

I. INTRODUCTION

As defined in the *City Environmental Quality Review* (CEQR) *Technical Manual*, infrastructure comprises the physical systems that support populations and includes structures such as water mains and sewers, bridges and tunnels, roadways, and electrical substations. These structures are static and thus have defined capabilities that may be affected by growth in a particular area.

The Proposed Actions would facilitate the development of 29 Jay Street (Block 20, Lot 1) with an approximately 224,935 gross square foot (gsf) commercial building, including commercial office and local retail uses. This attachment provides an evaluation of the potential effect of the Proposed Project on the City's water and sewer infrastructure. Other City infrastructure identified in the *CEQR Technical Manual*, including the transportation network and public transportation systems, are discussed in separate attachments of this Environmental Assessment Statement (EAS). Included is a description of the existing infrastructure in the study area, as well as changes to water and sewer infrastructure conditions that would occur in the 2021 future with and without the Proposed Actions.

II. PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure. The Proposed Project is expected to generate approximately 24,204 gallons per day (gpd) of sanitary sewage. This would represent a decrease of 7,735 gpd compared to No-Action conditions and would not result in an exceedance of the plant's permitted capacity. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the Proposed Project; sewer improvements and/or an amended drainage plan may also be required to support the house or site connection proposal. Therefore, the Proposed Actions would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.00 and 0.05 million gallons per day (mgd). Compared to existing conditions, this would represent an increase in combined sewer flows of up to 0.02 mgd, depending on rainfall intensities. With the incorporation of selected stormwater source control best management practices (BMPs) that would be required as part of the site connection approval process, subject to the review and approval of the New York City Department of Environmental Protection (DEP), the peaks stormwater runoff rates would be reduced. In addition, as noted above, as part of the site connection proposal process, sewer improvements and/or an amended drainage plan would be prepared may be required, if determined warranted by DEP. Overall, the Proposed Project would not result in significant adverse impacts on the City's sewage conveyance and treatment systems.

III. METHODOLOGY

This analysis follows the methodologies set forth in the *CEQR Technical Manual*. Pursuant to CEQR, a preliminary water analysis is needed if a project would result in an exceptionally large demand of water (over 1,000,000 gpd) or is located in an area that experiences low water pressure. The Rezoning Area is located in the DUMBO neighborhood of Brooklyn Community District (CD) 2 and is not located in an area that experiences low water pressure (i.e., it is not located at the end of the water supply distribution system, such as the Rockaway Peninsula or Coney Island). The Proposed Project would generate an incremental water demand of 27,924 gpd (including water related to sanitary and domestic uses) compared with the No-Action condition. While this would represent an increase in demand on the New York City water supply system, it does not meet the *CEQR Technical Manual* threshold requiring a detailed analysis. Therefore, an analysis of water supply is not warranted since it is expected that there would be adequate water service to meet the incremental water demand and there would be no significant adverse impacts on the City's water supply.

A preliminary sewer analysis is warranted if a project site comprises more than five acres and would result in an increase of impervious surfaces on the site, or if a project is located in a combined sewer area and would result in the incremental development of at least 400 residential units or 150,000 sf or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens or at least 1,000 residential units or 250,000 sf or more of commercial space in Manhattan. As the Rezoning Area is located in a combined sewer area in Brooklyn and the Proposed Project would exceed the CEQR commercial floor area threshold, a preliminary sewer analysis was conducted.

Existing and future sanitary sewage generation is calculated for the Proposed Development Site based on use generation rates set forth in Table 13-2 of the *CEQR Technical Manual*. The DEP Volume Calculation Matrix is then used to calculate the overall combined sanitary sewage and stormwater runoff volume discharged to the combined sewer systems for four rainfall volume scenarios with varying durations. Stormwater runoff volumes are determined by estimating the amount of pervious and impervious surfaces on the project site. The ability of the City's water and sewer infrastructure to handle the estimated demand/generation that is anticipated from the Proposed Project is assessed by estimating existing, No-Action, and With-Action water demand and sewage generation. Future With-Action water demand and wastewater generation is compared to the No-Action condition, and future With-Action combined stormwater runoff and wastewater generation volumes are compared to existing conditions.

IV. EXISTING CONDITIONS

Conveyance System

The majority of New York City's wastewater treatment system is comprised of the sewer network beneath the streets and the fourteen WPCPs located throughout the City. The majority of New York City's sewers are called combined sewers as they received sanitary wastewater and stormwater runoff. Wastewater generated in a "drainage basin" (the area served by a WPCP) is conveyed through a network of combined sewers to the WPCP. As noted above, the Rezoning Area is served by combined sewers that collect both sanitary sewage and stormwater. The Rezoning Area is located within the drainage basin for the Red Hook WPCP, located four blocks east of the Rezoning Area.

Collection sewers can be one to two feet in diameter on side streets, and three or four feet in diameter under larger roadways, which connect to trunk sewers, generally five to seven feet in diameter. During dry weather, regulators built into the combined sewer system direct flows to interceptor sewers leading to the WPCPs. These large interceptor sewers (often up to ten or twelve feet in diameter) bring the wastewater to the WPCPs for treatment. In the vicinity of the Proposed Development Site, there is a 12-inch combined sewer under Jay Street and a 24-inch combined sewer under Plymouth Street; a 96-inch interceptor sewer is also located beneath Plymouth Street.

At the Red Hook WPCP, wastewater is fully treated by physical and biological process before it is discharged into the East River. The quality of the treated wastewater (effluent) is regulated by a State Pollutant Discharge Elimination System (SPDES) permit issued by the New York State Department of Environmental Conservation (NYSDEC), which establishes limits for effluent parameters (i.e., suspended solids, fecal coliform bacteria, and other pollutants). Since the volume of flow to a WPCP affects the level of treatment a plant can provide, the maximum permitted capacity for the Red Hook WPCP is 60 mgd. As presented in **Table F-1**, below, the average daily flows to the WPCP for the 12-month period ending in March 2018 was 28.67 mgd, which is well below the maximum permitted capacity of 60 mgd.

Table F-1: Existing Red Hook WPCP Average Daily Sewer Flows

Year	Month	Average Daily Flows (mgd)
2017	April	30
	May	30
	June	29
	July	27
	August	28
	September	25
	October	26
	November	24
	December	24
2018	January	29
	February	36
	March	36
12-Month Average		28.67

Source: DEP "Monthly Operating Efficiency" tables.

During and immediately after wet weather events, combined sewers can experience a much larger flow due to stormwater runoff collection. Stormwater runoff from impermeable surfaces is collected by catch basins along the street and conveyed by the City's combined sewer system to the Red Hook WPCP. During storm events, the regulators built into the system allow only twice the dry weather design flow into interceptor sewers, and any excess flow is directed to outfalls into the local waterway (e.g., the East River, etc.) as combined sewer overflow (CSO). In the vicinity of the Rezoning Area, there are several CSO outfalls discharging into the East River. Most proximate to the Proposed Development Site, a CSO outfall is located on the northern terminus of Jay Street.

Sanitary Flows

As described in **Attachment A, "Project Description,"** the existing 21,735-gsf building located on the Proposed Development Site is currently occupied by the Gelsey Kirkland Academy of Classical Ballet. As

presented in **Table F-2**, the existing building is estimated to generate approximately 2,174 gpd of daily sanitary sewage, with a total water demand of 5,868 gpd. Existing sanitary flows generated on the Proposed Development Site are conveyed to the Red Hook WPCP during dry weather events via the existing combined sewers serving the site.

Table F-2: Existing Water Consumption and Wastewater Generation on the Project Development Site

Land Use	Rate[1]	Area (sf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Dance Studio	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	21,735	2,174	3,695
		Total Water Consumption	5,868	
		Total Wastewater Generation	2,174	

Notes:
[1] Commercial office rate from the *CEQR Technical Manual,* Table 13-2 applied to existing dance studio use.

Stormwater Flows

The Proposed Development Site has a total area of approximately 18,955 sf. As noted above, the Proposed Development Site is currently occupied by the 21,725 gsf Gelsey Kirkland Academy of Classical Ballet, which is housed in a one-story structure occupying the entirety of the site. As such, the Proposed Development Site is currently comprised entirely of impervious surfaces (roof), resulting in an existing runoff coefficient of 1.0, as presented in **Table F-3**.

Table F-3: Existing Surface Types on the Proposed Development Site

Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Softscape	Total
Area (%)	100	0	0	0	100
Surface Area (sf)	18,955	0	0	0	18,955
Runoff Coefficient[2]	1.0	0.85	0.85	0.20	1.0

Notes:
[1] Total roof area on site.
[2] Runoff coefficients for each surface type are as per DEP.

For this analysis, standard DEP runoff coefficients were used to calculate the amount of stormwater runoff for various rainfall intensities and durations, with rainfall ranging from 0.00 inches to 2.50 inches over durations of 3.80 to 19.50 hours. **Table F-4** shows the combined stormwater runoff and wastewater generation for the Proposed Development Site under existing conditions. As indicated in the table, the Proposed Development Site currently generates between 0.00 and 0.03 mgd of stormwater within the Red Hook WPCP for the different rainfall intensities.

Table F-4: Existing Combined Stormwater Runoff and Wastewater Generation

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Runoff Coefficient	Stormwater Runoff (MG)	Sanitary to CSS (MG)[1]	Total (MG)
0.00	3.80	0.44	1.00	0.00	0.000	0.00
0.40	3.80			0.00	0.000	0.00
1.20	11.30			0.01	0.001	0.01
2.50	19.50			0.03	0.002	0.03

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

V. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION)

As described in **Attachment A, "Project Description,"** in the future without the Proposed Actions, the Proposed Development Site would be redeveloped as-of-right with a predominantly residential building with ground floor retail. In total, the No-Action development would comprise 121 dwelling units (DUs), 15,164 gsf of local retail, and 45 accessory parking spaces.

Sanitary Flows

In the future without the Proposed Actions, additional sanitary discharges resulting from the No-Action development on the Proposed Development Site would be directed to the Red Hook WPCP. As indicated in **Table F-5**, the No-Action development is expected to generate approximately 31,939 gpd of daily sanitary sewage, with a total water demand of 34,517 gpd. As under existing conditions, dry weather flows from the Proposed Development Site's No-Action uses would be conveyed to the Red Hook WPCP via the existing combined sewers serving the site. As there is available capacity at the Red Hook WPCP for the incremental No-Action wastewater flows, the facility would continue to operate within its current design capacities in the 2021 No-Action condition.

Table F-5: No-Action Water Consumption and Wastewater Generation on the Project Development Site

Land Use	Rate[1]	Area (gsf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Residential	Domestic: 100 gpd/resident A/C: 0.17 gpd/sf	283 residents	28,300	N/A
Retail	Domestic: 0.24 gpd/sf A/C: 0.17 gpd/sf	15,164	3,639	2,578
Water Consumption				
Total Water Consumption			*34,517*	
Incremental Water Consumption			*+28,649*	
Wastewater Generation				
Total Wastewater Generation			*31,939*	
Incremental Wastewater Generation			*+29,766*	

Notes:
[1] Rates are from the *CEQR Technical Manual,* Table 13-2.

Stormwater Flows

As noted above, in the future without the Proposed Actions, the Proposed Development Site would be developed as-of-right with a predominantly residential building with ground floor retail. As the No-Action building would occupy the entirety of the Proposed Development Site, the existing runoff coefficient (1.0) would not change in the No-Action condition. However, as the amount of sanitary flows generated by the Proposed Development Site would increase in the 2021 future without the Proposed Actions, the total wet weather flows would increase, as compared to existing conditions.

VI. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION)

In the 2021 With-Action condition, the Proposed Development Site would be redeveloped with an approximately 224,935 gsf commercial building. As described in **Attachment A, "Project Description,"** the Proposed Project would be comprised of approximately 212,710 gsf of commercial offices and approximately 12,225 gsf of ground floor local retail. As under existing and No-Action conditions, the With-Action building would occupy the entirety of the Proposed Development Site.

Sanitary Flows

As described previously, the Proposed Development Site is located in an area served by combined sewers. In the future with the Proposed Actions, wastewater from the Proposed Development Site would continue to be treated by the Red Hook WPCP, which has an SPDES-permitted dry weather flow capacity of 60 mgd. As shown in **Table F-6**, the Proposed Project would generate approximately 24,204 gpd of sanitary sewage, with a total water demand of approximately 62,442 gpd. This sanitary sewage generation represents a net decrease of approximately 7,735 gpd (0.007 mgd) over the No-Action condition and would not result in an exceedance of the Red Hook WPCP's permitted capacity of 60 mgd. In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), the Proposed Project would be required to utilized low-flow plumbing fixtures, which would reduce sanitary flows to the plant. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the Proposed Project; sewer improvements and/or an amended drainage plan may also be required to support the house or site connection proposal. Therefore, the Proposed Project would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment.

Table F-6: With-Action Water Consumption and Wastewater Generation on the Proposed Development Site

Land Use	Rate[1]	Area (gsf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Commercial Office	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	212,710	21,270	36,159
Retail	Domestic: 0.24 gpd/sf A/C: 0.17 gpd/sf	12,225	2,934	2,078
Water Consumption				
Total Water Consumption			*62,442*	
Incremental Water Consumption			*+27,924*	
Wastewater Generation				
Total Wastewater Generation			*24,204*	
Incremental Wastewater Generation			*-7,735*	

Notes:
[1] Rates are from the *CEQR Technical Manual,* Table 13-2.

Stormwater Flows

In the future with the Proposed Actions, the amount of impervious surface area on the Proposed Development Site would not change, as compared to existing conditions; as such, the existing runoff coefficient (1.0) would remain. **Table F-7** compares the estimated combined flows (stormwater runoff and sanitary flows) to the combined sewer system under existing and With-Action conditions using the DEP Flow Volume Calculation Matrix. As shown in the table, depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.00 and 0.05 mgd. Compared to existing conditions, this would represent an increase in combined sewer flows of up to 0.02 mgd.

Table F-7: Existing and With-Action Combined Stormwater Runoff and Wastewater Generation

Rainfall (inches)	Duration (Hours)	Existing Conditions			With-Action Condition			Increased Total Volume to CSS (MG)
		Stormwater Runoff (MG)	Sanitary to CSS (MG)	Total (MG)	Stormwater Runoff (MG)	Sanitary to CSS (MG)	Total (MG)	
0.00	3.80	0.00	0.000	0.00	0.00	0.004	0.00	0.00
0.40	3.80	0.00	0.000	0.00	0.00	0.004	0.00	0.00
1.20	11.30	0.01	0.001	0.01	0.01	0.011	0.02	0.01
2.50	19.50	0.03	0.002	0.03	0.03	0.020	0.05	0.02

Notes:
MG = million gallons

The Flow Volume Matrix calculations do not reflect the use of any sanitary and stormwater source control BMPs to reduce sanitary flow and stormwater runoff volumes to the combined sewer system. As noted above, the Proposed Project would incorporate low-flow plumbing fixtures to reduce sanitary flow in accordance with the New York City Plumbing Code. In addition, stormwater BMPs would be required as part of the DEP site connection approval process in order to bring the building into compliance with the required stormwater release rate. Based on the DEP Guidelines for the Design and Detention Facility Design, dated June 6, 2012, for new developments, the required stormwater release rate for the Proposed Project is required to be 0.25 cubic feet per second (cfs) or ten percent of the allowable flow. Specific BMP methods will be determined with further refinement of the building design and in consultation with DEP.

The incorporation of the appropriate BMPs that would be required as part of the site connection approval process, with the review and approval of DEP, would reduce the overall volume of stormwater runoff as well as the peak stormwater runoff rate from the project site. In addition, as noted above, as part of the site connection proposal process, sewer improvements and/or an amended drainage plan would be prepared may be required, if determined warranted by DEP. Therefore, there would be no significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

ATTACHMENT G

TRANSPORTATION

I. INTRODUCTION

This attachment presents the findings from the analysis of traffic, parking, transit, and pedestrian conditions for the proposed 224,935 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1; the "Proposed Development Site") in the DUMBO neighborhood of Brooklyn Community District (CD) 2. The Proposed Project would include approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail.

The Proposed Project is expected to be completed and occupied by 2021. To facilitate the Proposed Project, the applicant is seeking zoning map and text amendments from the New York City Planning Commission (CPC) (the "Proposed Actions"). In the absence of the Proposed Actions (the "No-Action condition"), it is anticipated that the Proposed Development Site would be redeveloped with an as-of-right approximately 136,476-gsf predominantly residential building containing 121 DUs (including the potential for 24 affordable DUs under the Inclusionary Housing program), approximately 15,164 sf of local retail space, and 45 accessory parking spaces. The incremental development on the Proposed Development Site forms the basis of the transportation impact analysis.

II. PRINCIPAL CONCLUSIONS

The Proposed Actions would generate additional vehicular, transit, and pedestrian trips in the surrounding area. As incremental project-generated vehicle and transit trips would not exceed *City Environmental Quality Review* (CEQR) *Technical Manual* analysis thresholds, a detailed analysis of traffic, parking, and transit conditions is not provided in this EAS. Because the incremental increase in pedestrian trips would exceed the CEQR threshold, a detailed analysis of operating conditions is provided for one sidewalk adjacent to the Proposed Development Site. As this sidewalk is expected to operate at level of service (LOS) B under the 2021 With-Action condition, the Proposed Actions are not expected to result in significant adverse pedestrian impacts.

III. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if a more detailed analysis of transportation conditions is warranted. The preliminary analysis first analyzes trip generations (Level 1) to estimate the number of person and vehicle trips attributable to the Proposed Project. According to the *CEQR Technical Manual*, if the Proposed Project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further analysis is not warranted. If the Proposed Project exceeds these trip thresholds, detailed trip assignments (Level 2) are performed to estimate the incremental trips that may occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the Proposed Project would generate 50 or more peak hour vehicle trips

at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, then further analysis may be warranted, depending on which threshold is tripped, to assess the potential for significant adverse impacts on traffic, transit, pedestrians, and vehicular and pedestrian safety.

IV. LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the number of peak hour person and vehicle trips by mode expected to be generated by the Proposed Project. The peak hour person and vehicle trip estimates were then compared to the *CEQR Technical Manual* analysis thresholds to determine if a Level 2 screening is warranted. The travel demand assumptions used for the Level 1 assessment, including a detailed travel demand forecast, are discussed below.

Transportation Planning Factors

The transportation planning factors used to forecast travel demand for the Proposed Project's land uses are summarized in **Table G-1** and discussed below. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factor for each land use were primarily based on the 2014 *CEQR Technical Manual*, census data, survey data, and studies that have been used in previous environmental review documents for projects with similar uses. Factors are shown for the weekday AM, midday, and PM and Saturday midday peak periods.

Office

The weekday and Saturday trip generation rates (18.0 and 3.9 trips per 1,000 gsf, respectively), temporal distributions (12.0 percent for the weekday AM, 15.0 percent for the weekday midday, 14.0 percent for the weekday PM, and 17.0 percent for the Saturday midday periods), and truck trip generation rates for the office component of the Proposed Project were based on the 2014 *CEQR Technical Manual*. Modal splits for the weekday AM, weekday PM, and Saturday periods of 10.0 percent by auto, 1.0 percent by taxi, 69.5 percent by subway, 0.9 percent by bus, and 18.6 percent by walk/other modes, as well as the auto vehicle occupancy of 1.05 for all periods, were based on surveys conducted by Philip Habib & Associates (PHA) at three DUMBO office buildings in 2012. Modal splits for the weekday midday period of 2.0 percent by auto, 1.0 percent by taxi, 7.0 percent by subway, 7.0 percent by bus, and 83.0 percent by walk/other modes, as well as the directional in/out splits and taxi vehicle occupancy of 1.42 for the weekday AM, midday, and PM and Saturday midday periods, respectively, were based on the 2009 *DUMBO Rezoning EAS*.

Table G-1: Travel Demand Forecast Assumptions

Land Use:	**Office**		**Residential**		**Local Retail**	
Size/Units:	212,710 gsf		-121 DU		-2,939 gsf	
Trip Generation:	(1)		(1)		(1)	
Weekday	18		8.075		205.0	
Saturday	3.9		9.6		240.0	
	per 1,000 gsf		per DU		per 1,000 gsf	
Temporal Distribution:	(1)		(1)		(1)	
AM	12.0%		10.0%		3.0%	
MD	15.0%		5.0%		19.0%	
PM	14.0%		11.0%		10.0%	
SatMD	17.0%		8.0%		10.0%	
	(2,3)		(4)		(3)	
Modal Splits:	AM/PM/SAT	MD	All Periods		All Periods	
Auto	10.0%	2.0%	11.1%		2.0%	
Taxi	1.0%	1.0%	1.1%		3.0%	
Subway	69.5%	7.0%	69.1%		20.0%	
Bus	0.9%	7.0%	3.0%		5.0%	
Walk/Bike/Other	18.6%	83.0%	15.7%		70.0%	
	100.0%	100.0%	100.0%		100.0%	
	(3)		(3)		(3)	
In/Out Splits:	In	Out	In	Out	In	Out
AM	96.0%	4.0%	20%	80%	50%	50%
MD	39.0%	61.0%	51%	49%	50%	50%
PM	5.0%	95.0%	65%	35%	50%	50%
Sat MD	60.0%	40.0%	50%	50%	55%	45%
Vehicle Occupancy:	(2,3)		(3,4)		(3)	
	All Periods		All Periods		All Periods	
Auto	1.05		1.10		2.00	
Taxi	1.42		1.40		2.00	
Truck Trip Generation:	(1)		(1)		(1)	
Weekday	0.32		0.06		0.35	
Saturday	0.01		0.02		0.04	
	per 1,000 sf		per DU		per 1,000 sf	
	(1)		(1)		(1)	
AM	10.0%		12.0%		8.0%	
MD	11.0%		9.0%		11.0%	
PM	2.0%		2.0%		2.0%	
Sat MD	11.0%		9.0%		11.0%	
	In	Out	In	Out	In	Out
AM/MD/PM/SMD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes :

(1) Based on 2014 *City Environmental Quality Review (CEQR) Technical Manual.*

(2) Based on employee and visitor surveys conducted by PHA at DUMBO office buildings in 2012.

(3) Based on 2009 *Dumbo Rezoning EAS*.

(4) Estimated from 2011-2015 American Community Survey (ACS) Data for Brooklyn tract 1, 13, 21 and 23.

Local Retail

The travel demand forecast for local retail used weekday and Saturday trip generation rates of 205 and 240 trips per 1,000 gsf, respectively. The travel demand forecast used temporal distributions of 3.0 percent for the weekday AM, 19.0 percent for the weekday midday, 10.0 percent for the weekday PM, and 10.0 percent for the Saturday midday period. Both trip generation and temporal distribution rates for the local retail component of the Proposed Project were based on the 2014 *CEQR Technical Manual*. Modal splits (2.0 percent by auto, 3.0 percent by taxi, 20.0 percent by subway, 5.0 percent by bus, and 70.0 percent by walk/other modes), directional in/out splits, and auto and taxi vehicle occupancy rates for all periods were based on the 2009 *DUMBO Rezoning EAS*. As it is likely that there will be overlap between office and retail users, a 25 percent linked-trip credit on weekdays is assumed for local retail uses in accordance with *CEQR Technical Manual* guidelines.

No-Action Residential

The weekday and Saturday trip generation rates (8.075 and 9.6 trips per DU, respectively), temporal distributions (10.0 percent for the weekday AM, 5.0 percent for the weekday midday, 11.0 percent for the weekday PM, and 8.0 percent for the Saturday midday periods), and truck trip generation rates for the residential component of the No-Action development were based on the 2014 *CEQR Technical Manual*. Modal splits for the weekday AM, midday, and PM and Saturday midday periods of 11.1 percent by auto, 1.1 percent by taxi, 69.1 percent by subway, 3.0 percent by bus, and 15.7 percent by walk/other modes, as well as the auto vehicle occupancy of 1.10, were based on 2011-2015 American Community Survey (ACS) data for Brooklyn census tracts 1, 13, 21 and 23. Directional in/out splits and a taxi vehicle occupancy rate of 1.40 for the weekday AM, midday, and PM and Saturday midday periods, respectively, were based on the 2009 *DUMBO Rezoning EAS*.

Travel Demand Forecast

Table G-2 presents the incremental person and vehicle trips expected to be generated by the Proposed Project, as compared to conditions in the future without the Proposed Actions. As presented in **Table G-2**, the Proposed Project would generate approximately 348, 440, and 384 incremental person trips in the weekday AM, midday, and PM peak hours, respectively, and a net reduction of 24 person trips in the Saturday midday peak hour. A discussion of the incremental person trips and vehicle trips, by mode, is provided below.

Traffic

As shown in **Table G-2**, the Proposed Project would result in a net increase of 45, 17, 47, and three vehicle trips in the weekday AM, midday, PM, and Saturday midday peak periods, respectively. Under *CEQR Technical Manual* criteria, if a proposed project generates 50 or more peak hour vehicle trips ends, there is likely a need for further analysis. As the number of vehicle trips would not exceed 50 during any analysis period, the Proposed Project is not expected to result in traffic impacts. Therefore, further traffic analysis is not warranted as a result of the Proposed Project.

Table G-2: Travel Demand Forecast

Land Use:		Office		Residential		Local Retail*		Total	
Size/Units:		212,710	gsf	-121	DU	-2,939	gsf		
Peak Hour Person Trips:									
	AM	460		-98		-14		348	
	MD	576		-50		-86		440	
	PM	538		-108		-46		384	
	Sat MD	142		-94		-72		-24	
Person Trips:									
		In	Out	In	Out	In	Out	In	Out
AM	Auto	44	3	-2	-9	0	0	42	-6
	Taxi	4	0	0	-1	0	0	4	-1
	Subway	307	13	-14	-54	-1	-1	292	-42
	Bus	4	0	-1	-2	0	0	3	-2
	Walk/Other	82	3	-3	-12	-6	-6	73	-15
	Total	441	19	-20	-78	-7	-7	414	-66
		In	Out	In	Out	In	Out	In	Out
MD	Auto	4	7	-3	-3	-1	-1	0	3
	Taxi	2	4	0	0	-1	-1	1	3
	Subway	16	25	-17	-17	-9	-9	-10	-1
	Bus	16	25	-1	-1	-2	-2	13	22
	Walk/Other	186	291	-4	-4	-30	-30	152	257
	Total	224	352	-25	-25	-43	-43	156	284
		In	Out	In	Out	In	Out	In	Out
PM	Auto	3	51	-8	-4	0	0	-5	47
	Taxi	0	5	-1	0	-1	-1	-2	4
	Subway	19	355	-49	-26	-5	-5	-35	324
	Bus	0	5	-2	-1	-1	-1	-3	3
	Walk/Other	5	95	-11	-6	-16	-16	-22	73
	Total	27	511	-71	-37	-23	-23	-67	451
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto	9	6	-5	-5	-1	-1	3	0
	Taxi	1	1	-1	-1	-1	-1	-1	-1
	Subway	58	38	-33	-33	-8	-6	17	-1
	Bus	1	1	-1	-1	-3	-2	-3	-2
	Walk/Other	16	11	-7	-7	-27	-22	-18	-18
	Total	85	57	-47	-47	-40	-32	-2	-22
Vehicle Trips :									
		In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	42	3	-2	-8	0	0	40	-5
	Taxi	3	0	0	-1	0	0	3	-1
	Taxi Balanced	3	3	-1	-1	0	0	2	2
	Truck	3	3	0	0	0	0	3	3
	Total	48	9	-3	-9	0	0	45	0
		In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	4	7	-3	-3	-1	-1	0	3
	Taxi	1	3	0	0	-1	-1	0	2
	Taxi Balanced	4	4	0	0	-1	-1	3	3
	Truck	4	4	0	0	0	0	4	4
	Total	12	15	-3	-3	-2	-2	7	10
		In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	3	49	-7	-4	0	0	-4	45
	Taxi	0	4	-1	0	-1	-1	-2	3
	Taxi Balanced	4	4	-1	-1	-1	-1	2	2
	Truck	1	1	0	0	0	0	1	1
	Total	8	54	-8	-5	-1	-1	-1	48
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto (Total)	9	6	-5	-5	-1	-1	3	0
	Taxi	1	1	-1	-1	-1	-1	-1	-1
	Taxi Balanced	2	2	-1	-1	-1	-1	0	0
	Truck	0	0	0	0	0	0	0	0
	Total	11	8	-6	-6	-2	-2	3	0

Total Vehicle Trips			
	In	Out	Total
AM	45	0	45
MD	7	10	17
PM	-1	48	47
Sat MD	3	0	3

* assumes 25% linked trip credit on a weekday.

Transit

Subway

According to the general thresholds used by the Metropolitan Transportation Authority (MTA), and specified in the 2014 *CEQR Technical Manual*, a detailed subway analysis is generally not required if the proposed project generates an increase in passengers of fewer than 200 person trips by subway, per subway station. Based on the travel demand forecast, the Proposed Project would generate approximately 250 and 289 incremental person trips by subway in the weekday AM and PM peak hours, respectively (refer to **Table G-2**). As the number of peak hour subway trips would exceed 200 in the weekday AM and PM peak hours, a Level 2 trip assignment is warranted for these peak hours and is provided in the following section.

Bus

According to the general thresholds used by MTA and specified in the 2014 *CEQR Technical Manual*, a detailed bus-line haul analysis is generally not required if the proposed project generates an increase of fewer than 200 peak hour passengers by bus. Based on the travel demand forecast, the project would generate a net increase of one person trip by during the weekday AM peak hour and would generate no new trips in the PM peak hour (refer to **Table G-2**). As the projected person trips by bus would not exceed 200 or more passengers per hour during any peak period, the Proposed Project is not expected to result in significant impacts on any bus line. Therefore, further detailed analysis is not warranted.

Pedestrians

An analysis of pedestrian conditions is required where a substantial number of trips are generated by an action. This analysis focuses on sidewalks, corner areas, and crosswalks. As shown in **Table G-2**, the Proposed Project would generate 58, 409, and 51 incremental walk trips in the weekday AM, midday, and PM peak hours, respectively, as well as a net reduction of 36 walk trips in the Saturday midday period. Including walk trips to/from public transit and pubic parking facilities, the Proposed Project would generate a combined 345, 436, and 382 incremental pedestrian trips in the weekday AM, midday, and PM peak periods, as well as a net decrease of 22 pedestrian trips in the Saturday midday peak period. As the number of incremental peak hour trips would exceed the *CEQR Technical Manual* analysis threshold in the weekday AM, midday, and PM peak hours, a Level 2 screening assessment was undertaken for these peak hours and is provided in the following section.

V. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment of project-generated trips to the study area's transportation networks and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and, therefore, require a quantitative analysis.

Subway

As presented above, the Proposed Project would generate more than 200 incremental subway trips in the weekday AM and PM peak hours. According to the general thresholds used by the MTA and specified in

the 2014 *CEQR Technical Manual*, a detailed subway analysis is generally not required if the project-generated increase in passengers is fewer than 200 person trips at a single station or on a single subway line.

Based on the mode-choice survey data collected in 2012 at the DUMBO office buildings in close proximity to the Proposed Development Site, it is anticipated that approximately 57 percent of the project-generated trips would utilize the York Street (F) Station, with approximately 29 percent utilizing the High Street (A/C) Station, approximately twelve percent utilizing the Clark Street (2/3) and Borough Hall (4/5) Stations, and approximately two percent utilizing the DeKalb Avenue (B/Q/R) Station. Based on this information, it is anticipated that the Proposed Project would not generate more than 200 trips at any one subway station in either the weekday AM or PM peak hour. The York Street (F) Station would experience the highest concentration of project-generated subway trips with approximately 143 and 165 new incremental subway trips in the weekday AM and PM peak hours, respectively. Based on the anticipated distribution of project-generated subway trips, the Proposed Project would not generate 200 or more incremental subway trips on any one subway line during the weekday AM or PM peak hours. The Proposed Project, therefore, is not expected to result in significant adverse impacts to subway line haul conditions and further analysis is not warranted.

Pedestrians

Project-generated pedestrian trips were assigned to area pedestrian elements for the weekday AM, midday, and PM peak hours (the three peak hours when trips would exceed the 200-trip CEQR screening threshold). Walk-only trips and trips to/from public transit and public parking facilities would each have a different assignment pattern. Subway trips were assigned as described above, and bus trips were assigned to the closest bus stops for the B67 and B62 bus routes. Walk-only trips were assigned evenly throughout the local street network, with trips originating/ending at the applicable entrance/exit locations based on the proposed site plan. Walk trips to/from public parking facilities were assigned to/from the public parking facility most proximate to the Proposed Development Site, because it is expected to be the most utilized by the Proposed Project users.

An assignment of weekday AM, midday, and PM peak hour pedestrian trips is shown in **Figure G-1**. As shown in **Figure G- 1**, the CEQR analysis threshold of 200 new pedestrian trips would be exceeded on one sidewalk, namely the east sidewalk on Jay Street between John and Plymouth streets adjacent to the Projected Development Site. At this location, a detailed pedestrian analysis is warranted in the weekday AM, midday, and PM peak hours. As the Proposed Project would result in a net reduction in pedestrian trips in the Saturday midday peak hour, a Saturday midday peak hour pedestrian impact analysis is not warranted, and no significant adverse pedestrian impacts are anticipated during this period. It should be noted that the CEQR analysis threshold of 200 new pedestrian trips would also be exceeded at corner areas at the intersections of Jay and Plymouth Streets in one or more peak hour. However, as this intersection is unsignalized, corner areas are therefore not analyzed at these intersections in accordance with *CEQR Technical Manual* methodology.

Pedestrian Project Increment Assignment

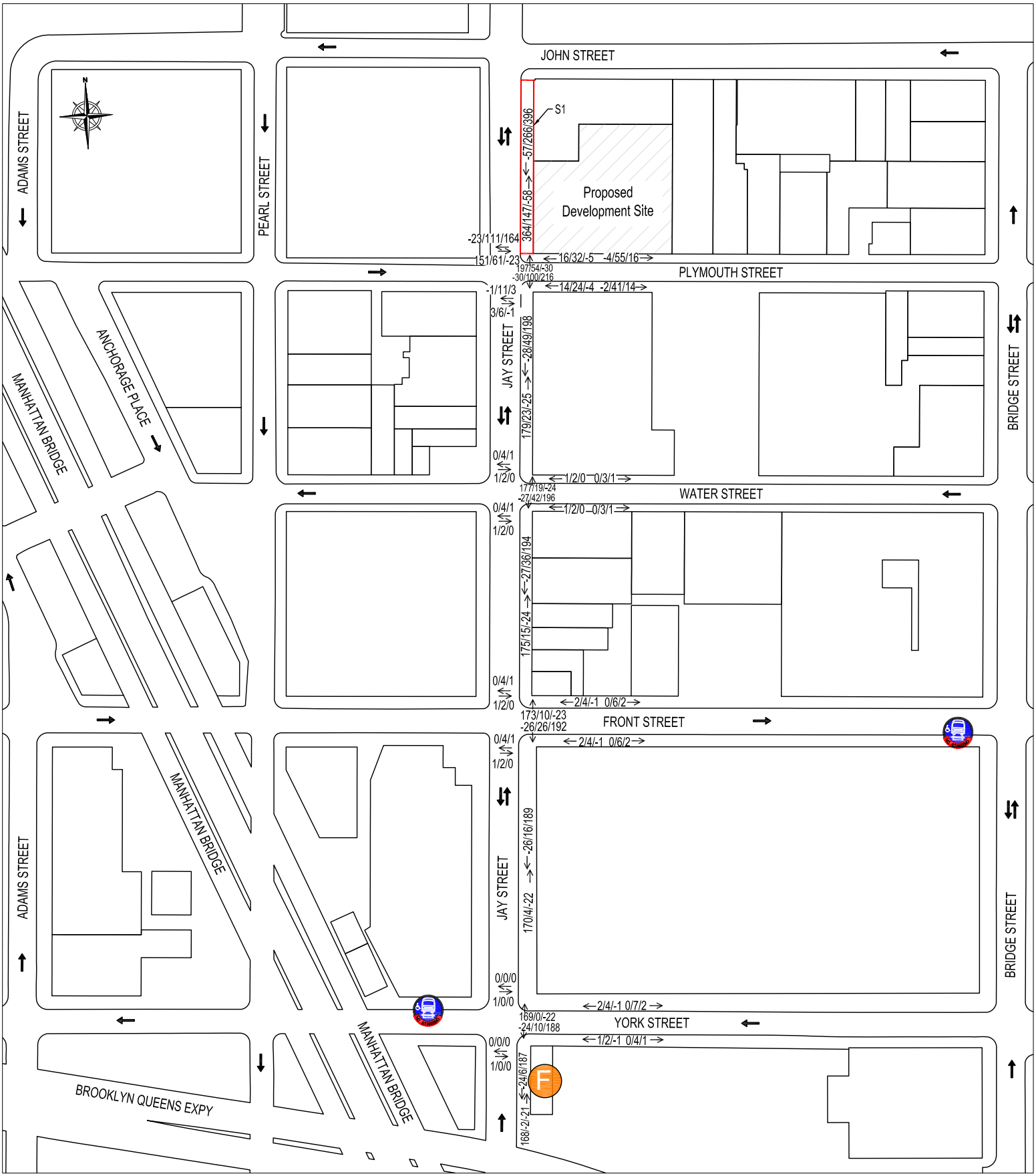
MTA Subway Station

MTA Bus Stop

S1 Pedestrian Element Analysis Location

199/225/393 - Weekday AM/MD/PM Pedestrian Volumes

Proposed Development Site



VI. TRANSPORTATION ANALYSES METHODOLOGIES

Pedestrians

Analysis Methodology

Peak 15-minute pedestrian flow conditions are analyzed using the *2000 Highway Capacity Manual* methodology and procedures outlined in the *CEQR Technical Manual.* Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity, and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared to LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners can be more complicated, as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these elements, a "time-space" analysis methodology is employed that takes into consideration the traffic light cycle at intersections.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-mintue peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. **Table G-3** defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, using the *Highway Capacity Manual* methodology.

Table G-3: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

LOS	Crosswalk/Corner	Crosswalk/Corner Area Criteria (sf/ped)	Non-Platoon Sidewalk Criteria (sf/ped)	Platoon Sidewalk Criteria (sf/ped)
A	Unrestricted	> 60	> 60	> 530
B	Slightly Restricted	> 40 to 60	> 40 to 60	> 90 to 530
C	Restricted, but Fluid	> 24 to 40	> 24 to 40	> 40 to 90
D	Restricted, Necessary to Continuously Alter Walking Stride and Direction	> 15 to 24	> 15 to 24	> 23 to 40
E	Severely Restricted	> 8 to 15	> 8 to 15	> 11 to 23
F	Forward Progress Only by Shuffling; No Reverse Movement Possible	≤ 8	≤ 8	≤ 11

Source: *CEQR Technical Manual*
Notes:
Based on average conditions for 15 minutes
Sf/ped – square feet of area per pedestrian

The analysis of sidewalk conditions also includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups, or "platoons," once they cross a street where cross traffic or signals require them to wait. Platooning generally results in a lower LOS than that determined for average flow rates.

Significant Impact Criteria

Sidewalks

The *CEQR Technical Manual* impact criteria for a CBD location are used to identify significant adverse impacts due to the Proposed Actions. These criteria define a significant adverse sidewalk impact in a CBD area to have occurred under platoon conditions if the average pedestrian space under the No-Action condition is greater than 39.2 square feet per pedestrian (sf/ped) (just below the LOS C/D threshold), and the average pedestrian space under the With-Action condition is 31.5 sf/ped or less (mid-LOS D or worse). If the average pedestrian space under the With-Action condition is greater than 31.5 sf/ped (mid-LOS D or better), the impact should not be considered significant. If the No-Action pedestrian space is between 6.4 and 39.2 sf/ped, a reduction in pedestrian space under the With-Action condition should be considered significant based on the criteria presented in **Table G-4**, which shows a sliding scale that identifies the increase that is considered a significant impact for a given reduction in pedestrian space. If the decrease in average pedestrian space is less than the value shown in **Table G-4**, the impact should not be considered significant. If the average pedestrian space under the No-Action condition is less than 6.4 sf/ped, then a decrease in pedestrian space greater than or equal to 0.3 sf/ped should be considered significant.

Pedestrian and Vehicular Safety Evaluation

Under *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for high accident locations within the traffic and pedestrian study areas. High accident locations are defined as locations where 48 or more total reportable and non-reportable crashes, or five or more pedestrian/bicyclist injury crashes, have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, accident trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, accident types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with the New York City Department of Transportation (DOT).

Table G-5 shows summary accident data for the years 2012 through 2014 that were obtained from DOT. This is the most recent three-year period for which data is available. The table shows the total number of crashes each year and the number of crashes each year involving pedestrians and cyclists at study area intersections. As shown in **Table G-5**, none of the study area intersections were identified as high crash locations. As such, a pedestrian and vehicular safety evaluation is not required for the Proposed Project, and no significant adverse impacts are anticipated.

Table G-4: Significant Impact Criteria for Sidewalks with Platooned Flow in a CBD Location

No-Action Condition Pedestrian Flow (sf/ped)	With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
> 39.2	With-Action Condition < 31.5
38.7 to 39.2	Reduction ≥ 3.8
37.8 to 38.6	Reduction ≥ 3.7
36.8 to 37.7	Reduction ≥ 3.6
35.9 to 36.7	Reduction ≥ 3.5
34.9 to 35.8	Reduction ≥ 3.4
34.0 to 34.8	Reduction ≥ 3.3
33.0 to 33.9	Reduction ≥ 3.2
32.1 to 32.9	Reduction ≥ 3.1
31.1 to 32.0	Reduction ≥ 3.0
30.2 to 31.0	Reduction ≥ 2.9
29.2 to 30.1	Reduction ≥ 2.8
28.3 to 29.1	Reduction ≥ 2.7
27.3 to 28.2	Reduction ≥ 2.6
26.4 to 27.2	Reduction ≥ 2.5
25.4 to 26.3	Reduction ≥ 2.4
24.5 to 25.3	Reduction ≥ 2.3
23.5 to 24.4	Reduction ≥ 2.2
22.6 to 23.4	Reduction ≥ 2.1
21.6 to 22.5	Reduction ≥ 2.0
20.7 to 21.5	Reduction ≥ 1.9
19.7 to 20.6	Reduction ≥ 1.8
18.8 to 19.6	Reduction ≥ 1.7
17.8 to 18.7	Reduction ≥ 1.6
16.9 to 17.7	Reduction ≥ 1.5
15.9 to 16.8	Reduction ≥ 1.4
15.0 to 15.8	Reduction ≥ 1.3
14.0 to 14.9	Reduction ≥ 1.2
13.1 to 13.9	Reduction ≥ 1.1
12.1 to 13.0	Reduction ≥ 1.0
11.2 to 12.0	Reduction ≥ 0.9
10.2 to 11.1	Reduction ≥ 0.8
9.3 to 10.1	Reduction ≥ 0.7
8.3 to 9.2	Reduction ≥ 0.6
7.4 to 8.2	Reduction ≥ 0.5
6.4 to 7.3	Reduction ≥ 0.4
<6.4	Reduction ≥ 0.3

Source: *CEQR Technical Manual*

Table G-5: Accident Data Summary 2012 - 2014

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Injury Crashes			Total Crashes (Reportable + Non-Reportable		
North-South Roadway	East-West Roadway	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Jay Street	Plymouth Street	0	0	0	0	0	0	0	0	0	0	0	1
	Water Street	0	1	0	0	0	0	0	1	0	0	1	0
	Front Street	0	0	0	0	1	0	0	1	0	1	2	0
	York Street	1	0	1	0	0	2	1	0	3	1	0	4

Source: NYSDMV/DOT

VII. DETAILED PEDESTRIAN ANALYSIS

Existing Conditions

As discussed previously in Section V, "Level 2 Screening Assessment," a total of one sidewalk where project-generated incremental pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* threshold in one or more peak hour has been selected for analysis. **Figure G-2** shows the existing pedestrian volumes at the analyzed sidewalk for the weekday AM, midday, and PM peak hours. **Table G-6** shows the existing pedestrian space (in square feet per pedestrian) and LOS at the analyzed sidewalk. Peak 15-minute volumes are also provided for the analyzed sidewalk. As shown in **Table G-6**, the analyzed sidewalk is currently operating at LOS A in all three analysis peak hours.

Table G-6: 2017 Existing Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		AM	MD	PM	AM	MD	PM	AM	MD	PM
East sidewalk on Jay Street between John and Plymouth Streets	14.0	180	266	206	739.1	641.9	656.6	A	A	A

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

Estimates of peak hour volumes in the No-Action condition, which are shown in **Figure G-3**, were developed by applying the *CEQR Technical Manual* recommended annual background growth rate to existing volumes and accounting for new development in the future without the Proposed Actions. **Table G-7** shows the forecasted No-Action average pedestrian space (in square feet per pedestrian) and LOS at the analyzed sidewalk. As shown in **Table G-7,** the analyzed sidewalk is expected to operate at LOS B in all three analysis peak hours under 2021 No-Action conditions.

Table G-7: 2021 No-Action Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		AM	MD	PM	AM	MD	PM	AM	MD	PM
East sidewalk on Jay Street between John and Plymouth Streets	14.0	346	774	537	384.4	220.4	251.7	B	B	B

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

Figure G-4 shows the resultant total With-Action pedestrian volumes at the analyzed sidewalk for the weekday AM, midday, and PM midday peak hours. **Table G-8** shows the forecasted With-Action average pedestrian space (in square feet per pedestrian) and LOS at the analyzed sidewalk. As shown in **Table G-8**, the analyzed sidewalk is expected to continue to operate at LOS B in all analyzed peak hours under 2021 With-Action conditions. Therefore, the Proposed Project is not expected to result in significant adverse pedestrian impacts.

Table G-8: 2021 With-Action Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Project Increment			Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
East sidewalk on Jay Street between John and Plymouth Streets	14.0	307	413	338	653	1,187	875	203.5	143.5	154.2	B	B	B

2017 Existing Pedestrian Peak Hour Volumes

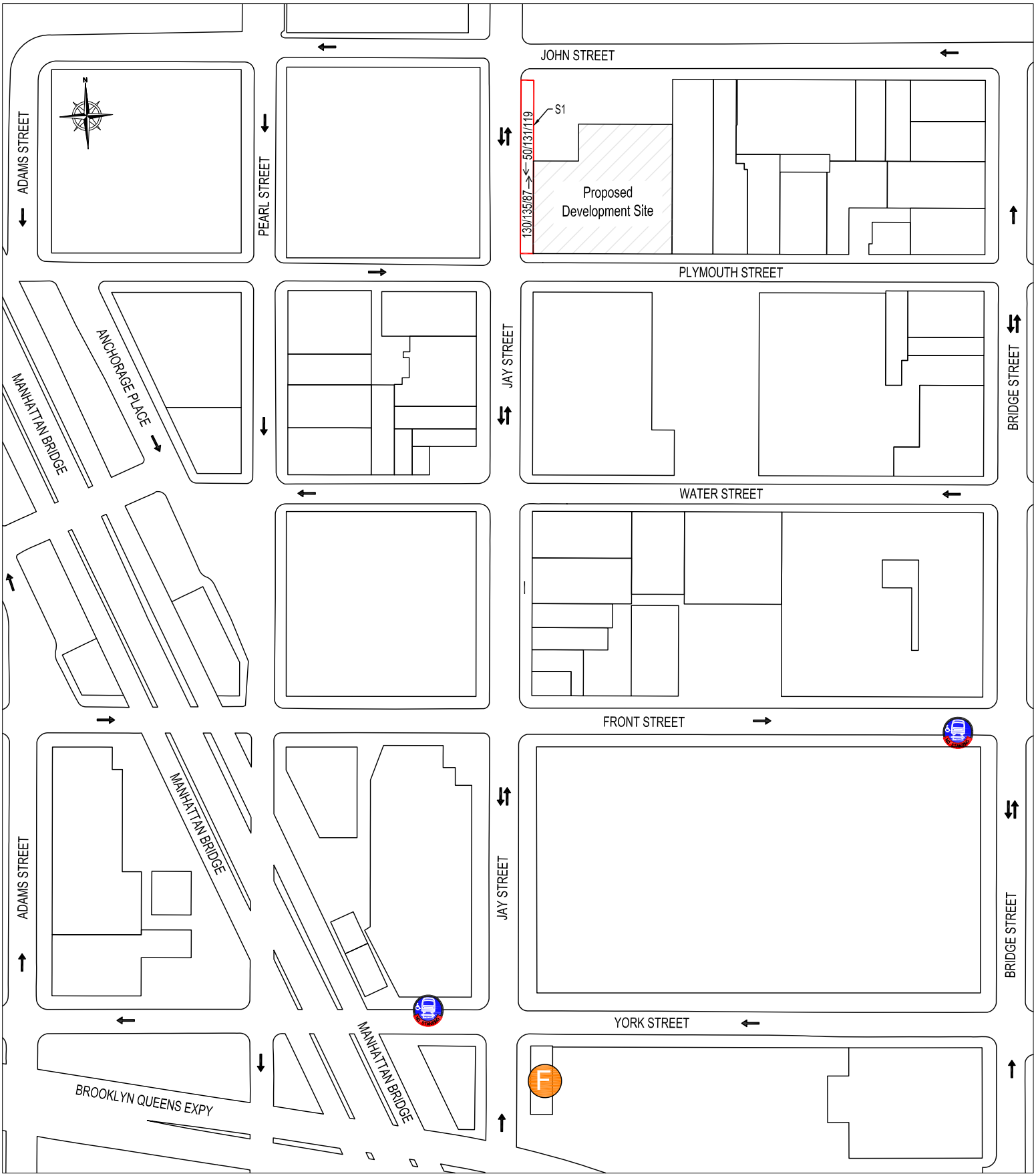
MTA Subway Station

MTA Bus Stop

S1 Pedestrian Element Analysis Location

199/225/393 - Weekday AM/MD/PM Pedestrian Volumes

Proposed Development Site



2021 No-Action Pedestrian Peak Hour Volumes

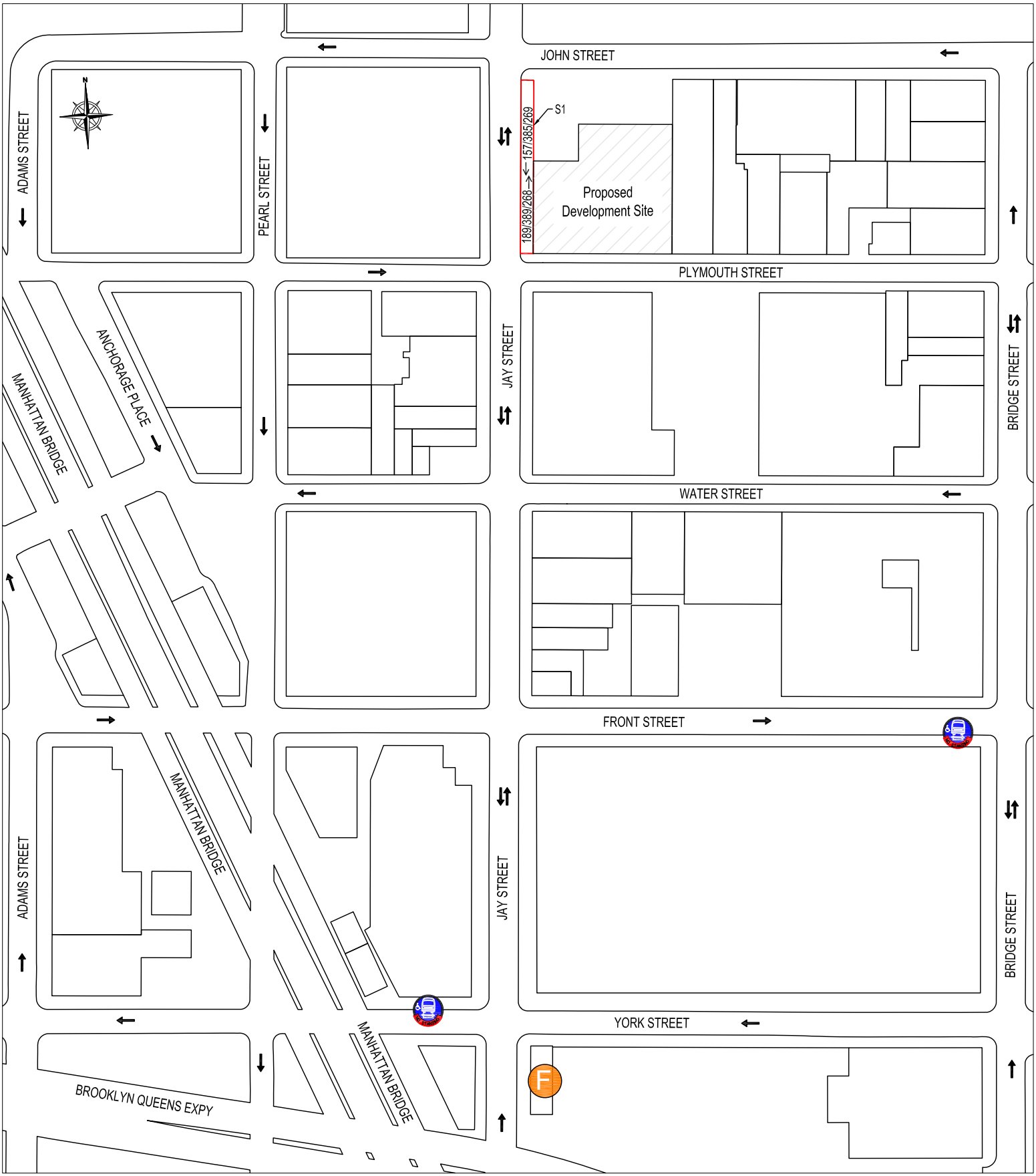
MTA Subway Station

MTA Bus Stop

S1 Pedestrian Element Analysis Location

199/225/393 - Weekday AM/MD/PM Pedestrian Volumes

Proposed Development Site



2021 With-Action Pedestrian Peak Hour Volumes

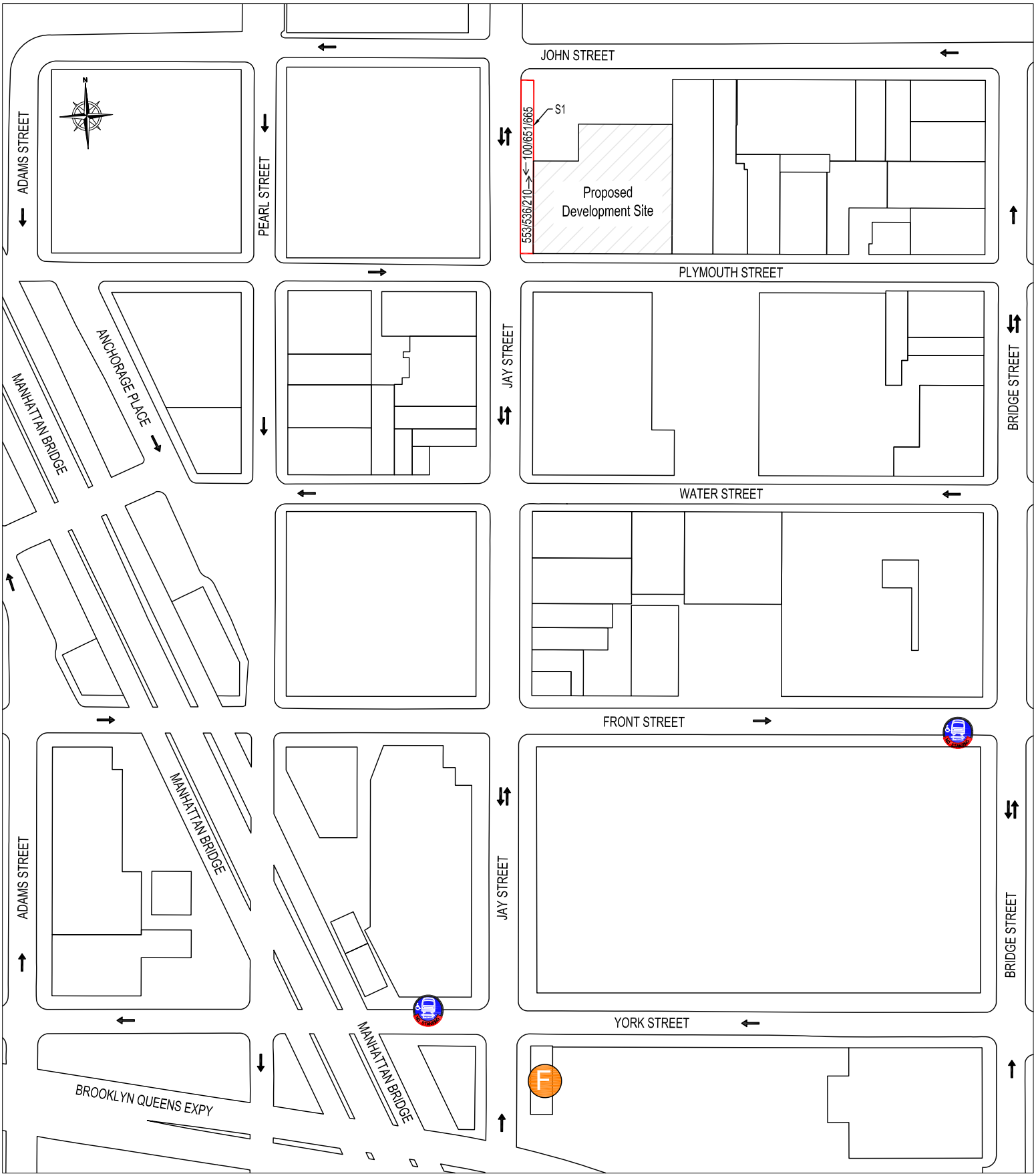
MTA Subway Station

MTA Bus Stop

S1 Pedestrian Element Analysis Location

199/225/393 - Weekday AM/MD/PM Pedestrian Volumes

Proposed Development Site



ATTACHMENT H

AIR QUALITY

I. INTRODUCTION

The potential for air quality impacts from the Proposed Actions is examined in this attachment. Air quality impacts can be either direct or indirect. Direct impacts result from emissions generated by stationary sources at a development site, such as emissions from on-site fuel combustion for heat and hot water systems, or emissions from parking garage ventilation systems. Indirect impacts are caused by off-site emissions associated with a project, such as emissions from nearby existing stationary sources (impacts on the proposed project) or by emissions from on-road vehicle trips generated by the proposed project or other changes to future traffic conditions due to a project. As the Rezoning Area is located adjacent to areas zoned for manufacturing uses, potential effects of stationary source emissions from existing nearby industrial facilities on the Proposed Project were assessed. This analysis was conducted in accordance with *CEQR Technical Manual* methodology.

II. PRINCIPAL CONCLUSIONS

The analysis concludes that the Proposed Actions would not result in significant adverse air quality impacts and would not be adversely affected by existing sources of air emissions in the surrounding area. The Proposed Actions would not exceed the screening thresholds for detailed mobile source or garage analyses, and the Proposed Actions are not expected to result in significant adverse impacts due to vehicle emissions. As the Proposed Project would exceed the CEQR heating, ventilation, and air conditioning (HVAC) impact analysis screening threshold, a detailed HVAC analysis of the potential for significant adverse air quality impacts on the closest building of similar or greater height (20 Jay Street) was prepared. The detailed analysis concludes that, with the incorporation of an (E) designation to be assigned to the Proposed Development Site, which would restrict both fuel type and stack location, no significant adverse air quality impacts would result. A review of area land uses and a formal request for industrial permit information submitted to the New York City Department of Environmental Protection (DEP) identified industrial source air permits for facilities located within 400 feet of the Proposed Development Site, which were the focus of the air toxics analysis. The result of the air toxics emissions analysis indicates that no exceedances of the applicable guideline values are predicted.

III. STATIONARY SOURCE AIR QUALITY ANALYSIS

HVAC Analysis

Relevant Air Pollutants

The U.S. Environmental Protection Agency (EPA) has identified several pollutants, known as criteria pollutants, as being of nationwide concern. As the Proposed Project would be heated by natural gas, the

two criteria pollutants associated with natural gas combustion – nitrogen dioxide (NO_2) and particulate matter smaller than 2.5 microns ($PM_{2.5}$) – would be the primary concern.

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act (CAA), National Ambient Air Quality Standards (NAAQS) have been established by the EPA for the criteria pollutants by EPA. The NAAQS set the concentration limit of each criteria pollutant in order to protect public health and the nation's welfare. New York has adopted the NAAQS as the State ambient air quality standards. This analysis addresses compliance with the one-hour and annual NO_2 NAAQS.

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

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

Table H-1: Applicable NAAQS and CEQR Threshold Values

Pollutant	Averaging Period	NAAQS	CEQR Thresholds
NO_2	1 Hour	0.100 ppm (188 µg/m^3)	--
	Annual	.053 ppm (100 µg/m^3)	--
$PM_{2.5}$	24 Hour	35 µg/m^3	7.25
	Annual	12 µg/m^3	0.3

NO_2 NAAQS

Nitrogen oxide (NO_x) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NO_x in these emissions is then gradually converted to NO_2, which is the pollutant of concern.

One-Hour Standard

The one-hour NO_2 NAAQS standard of 0.100 ppm (188 µg/m^3) is the three-year average of the 98th percentile of daily maximum one-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating one-hour NO_2 concentrations comprised of three tiers: Tier 1 analysis, the most conservative approach, assumes a full (100 percent) conversion of NO_x to NO_2; Tier 2 analysis applies a slightly less conservative 80 percent conversion of NO_x to NO_2; and Tier 3 analysis, the most precise approach, does not assume a conversion ratio, but, instead, utilizes AERMOD's Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM determines one-hour NO_2 concentrations by accounting for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

If the Tier 1 analysis yields a one-hour NO_2 concentration in excess of the one-hour NO_2 NAAQS, then a Tier 2 analysis must be conducted. If Tier 2 similarly yields a one-hour NO_2 concentration in excess of the one-hour NO_2 NAAQS, then a Tier 3 analysis must be conducted. If a Tier 3 analysis is utilized, AERMOD will generate the eighth highest daily maximum one-hour NO_2 concentrations (or total one-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model) and average these values over the five years modeled. Total estimated NO_2 concentrations are then expressed in terms of the one-hour NO_2 NAAQS (ppm) format and can be directly compared with the one-hour NO_2 NAAQS standard.

Annual Standards

The annual NO_2 standard is 0.053 parts per million (ppm or 100 $\mu g/m^3$). In order to conservatively estimate annual NO_2 impacts, a NO_2 to NO_x ratio of 0.75 percent, which is recommended by DEP for an annual NO_2 analysis, was applied. Annual impacts are modeled directly; no tiering approach is applicable.

$PM_{2.5}$ CEQR Significant Impact Criteria

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

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

The 24-hour $PM_{2.5}$ background concentration of 20.5 $\mu g/m^3$ was obtained from Brooklyn JHS-126 monitoring station as the average of the 98th percentile for the latest three years of available monitoring data collected by the New York State Department of Environmental Conservation (NYSDEC) for 2014-2016. As the applicable background value is 20.5 $\mu g/m^3$, half of the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 7.25 $\mu g/m^3$. As such, a significant impact criterion of 7.25 $\mu g/m^3$ was used for determining whether the potential 24-hour $PM_{2.5}$ impacts of the proposed project are considered to be significant.

For annual average adverse $PM_{2.5}$ incremental impact, according to CEQR guidance:

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

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

CEQR Screening Analysis

In accordance with *CEQR* guidance, a preliminary screening analysis was conducted as a first step to predict whether the potential impacts of the HVAC emissions would be significant and therefore require a detailed analysis.

The total square footage of the Proposed Project (224,935 gsf) was used in this analysis, and Figure 17-7 of the *CEQR Air Quality Appendix* for a residential development using natural gas for a corresponding stack

height was applied. (Note that, while the Proposed Project would be comprised of non-residential uses, the Figure 17-7 nomograph screening is more conservative than the Figure 17-8 screening, and was, therefore, utilized for conservative screening assessment purposes.)

Figure 17-7 compares the size of a development to the distance below which a potential impact could occur, and provides a threshold distance. As required by the *CEQR Technical Manual*, the 100-foot curve provided in this figure was utilized as this height is closest to but not higher than the stack height of the building. If the actual distance between the stack and the affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact, and a detailed analysis would be required.

As presented in Attachment A, "Project Description," the applicant is proposing a 148-foot-tall commercial building on Brooklyn Block 20, Lot 1. However, as the Proposed Actions would facilitate development at greater maximum building heights than proposed, a commercial reasonable worst-case development scenario (RWCDS) with a maximum building height of 155 feet after a 15-foot setback was identified. In addition, the Project Description identifies an alternate RWCDS with a maximum building height of 175 feet (the maximum building height for residential buildings under the proposed zoning map amendment). Assuming a three-foot-tall stack height, the respective nearest building of greater or equal height to the commercial RWCDS building and the residential RWCDS building would be 20 Jay Street's eleventh floor (108'-5" from the Proposed Development Site) and the 21-story residential building at 85 Jay Street (approximately 500 feet from the Proposed Development Site). In comparison, the nearest existing or planned building of equal or greater height to the Proposed Project would be 20 Jay Street (approximately 58'-5" from the Proposed Development Site); therefore, the proposed 148-foot-tall commercial building represents the worst-case scenario for HVAC analysis purposes.

As the Proposed Project does not pass the screening analysis because the actual distance between the Proposed Development Site and 20 Jay Street (the closest building of greater or equal height) is less than the threshold distance set forth in *CEQR* Figure 17-7 for the building size (approximately 110 feet), further detailed analysis is required.

Detailed Analysis

A dispersion modeling analysis was conducted to estimate impacts from the HVAC emissions of the Proposed Project using the latest version of EPA's AERMOD dispersion model 8.0 (EPA version 16216r). In accordance with *CEQR Technical Manual* guidance, the analysis conducted assumed stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the one-hour NO_2 analysis to account for NOx to NO_2 conversion, when necessary. Analyses were conducted with and without the effects of wind flow around the buildings (i.e., with and without downwash) utilizing AERMOD's Building Profile Input Program (BPIP) algorithm, and both results are reported.

Emission rates for HVAC analysis were estimated as follows:

- As the Proposed Project would be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the gross floor area (gsf) of the Proposed Project and EPA AP-42 emission factors for firing natural gas combustion in small boilers;

- $PM_{2.5}$ emissions from natural gas combustion accounted for both filterable and condensable particulate matter;
- Short-term NO_2 and $PM_{2.5}$ emission rates were estimated by accounting for seasonal variation in heat and hot water demand; and
- The natural gas fuel usage factor 59.1 cubic foot per square foot per year was obtained from CEQR Table US1, "Total Energy Consumption, Expenditures and Intensities, 2005, Part I: Housing Unit Characteristics and Energy Use Indicators for New York" using the conservative factor for residential uses (even though the building would be comprised of commercial uses, which generally use less energy for heating than residential uses).

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

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

Stack Height (feet)	Total Floor Area (gsf)	$PM_{2.5}$ Emission Rate[1]		NO_2 Emission Rate[2]	
		24 hour (g/sec)	Annual (g/sec)	One Hour (g/sec)	Annual (g/sec)
151	224,935	5.30E-03	1.45E-03	6.98E-02	1.91E-02

Notes:

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

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

Meteorological Data

All analyses were conducted using the last five consecutive years of meteorological data (2012 through 2016). Surface data was obtained from LaGuardia Airport and upper air data was obtained from Brookhaven Station, New York. The data was processed by Trinity Consultants, Inc. using the current EPA AERMET and EPA procedures. This meteorological data provides hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five-year period.

This meteorological data was combined into a single multiyear file to conduct 24-hour $PM_{2.5}$ and one-hour NO_2 modeling. The $PM_{2.5}$ special procedure, which is incorporated into AERMOD, calculates concentrations at each receptor for each year modeled, averages those concentrations across the five years of data, and then selects the highest values across all receptors of the five-year averaged highest values.

Background Concentrations

NO_2

In order to conduct the one-hour NO_2 Tier 3 analysis (if necessary), hourly NO_2 and hourly ozone background concentrations were developed from available monitoring data collected by NYSDEC at the Queens College 2 monitoring station for the five consecutive years (2012 through 2016), and compiled

into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format. Queens data were used as NYSDEC's Brooklyn Monitor (located at Junior High School 126) does not collect hourly ozone and NO_2 background data.

The maximum one-hour NO_2 background concentration from the Queens College 2 monitoring station is 121.3 µg/m^3, which is the three-year average of the 98th percentile of daily maximum one-hour concentrations. The annual NO_2 background concentration of 31.3 µg/m^3 is the maximum annual average for 2014 through 2016.

$PM_{2.5}$

The maximum annual $PM_{2.5}$ background concentration from the Brooklyn JHS-126 monitoring station is 8.6 µg/m^3.

Stack and Receptor Locations

It was assumed for this analysis as a conservative measure that emissions would be released through a single stack located on the roof of the Proposed Project. The stack was assumed to be 151 feet high (e.g., 148 feet building height plus three feet above the height on the roof). The stack was initially placed at the minimum practical ten-foot distance from the building's edge, for a resultant distance of 68 feet 5 inches from the nearest edge of the existing 20 Jay Street building. If exceedances of the CEQR significant threshold values or NAAQS were predicted, the stack would gradually be set back until no exceedances of the CEQR thresholds or NAAQS were predicted.

Windows on the existing 20 Jay Street building were considered as "receptors" for this analysis, as these windows could be opened and the air quality levels of the occupants of the building could, therefore, be affected. The upper windows of the building, where the highest impacts are likely to occur, were assumed to be five feet below the roof parapet and five feet below the eleventh story roof. Receptors were placed around all faces of the existing building frame, in ten-foot increments, starting ten feet above the ground and extending up to the upper windows. Because the building's eleventh story is located in the middle of the building's roof (with a 50-foot setback from the street), two sets of receptors were considered to cover all areas of the potential impact – the first set is from ground level up to the roof parapet, which is 148'-5" (153'-5" roof height minus five feet to the top of the windows), and the second set above the roof parapet up to 159 feet (164-foot maximum building height minus five feet). More than 1,400 receptors were considered to assure that maximum impacts were estimated.

Modeling parameters used in the analysis are provided in **Table H-3**.

Results

When emissions from a stack on a shorter building impact receptors on a taller building, the exhaust plume can impact receptors located directly at the stack height, or below or above stack height (considering plume rise), and potential impact could be significant. If the plume height (e.g., stack height plus plume rise) is greater than the receptor heights, the plume could fly over the receptors and, as result, impacts would likely not be significant. With the 151-foot stack height of the Proposed Project, the upper window receptors on the existing 20 Jay Street building frame at the roof parapet level would be lower (at 148'-5") than the stack (or plume) height and should result in lower impacts. In comparison as the

windows of the building's eleventh story (159 feet) would be higher than the Proposed Project's 151-foot-tall stack, the exhaust plume could impact receptors directly at the stack height, or below or above stack height. As a result, potential impacts could be significant. However, because the eleventh floor is 50 feet further away from the stack than 20 Jay Street's lower floors, potential impacts would be reduced.

Table H-3: Modeling Parameters for HVAC Analysis

Model	AERMOD (EPA Version 16216r)
Source Type	Point Source
Number of Emission Points (stacks) Considered	One
Surface Characteristic	Urban Area Option
Urban Surface Roughness Length	1
Downwash Effect	BPIP Program
Meteorological Data	Preprocessed by the AERMET meteorological preprocessor program by Trinity Consultants, Inc. Yearly meteorological data for 2012-2016 concatenated into single multiyear file for $PM_{2.5}$ modeling, as recommended by the EPA.
Surface Meteorological Data	LaGuardia 2012-2016
Profile Meteorological Data	Brookhaven Station 2012-2016
Pollutant Background Concentrations	Brooklyn JHS-126 and Queens College 2 monitoring stations data for 2012-2016
$PM_{2.5}$ Analysis	Special procedure incorporated into AERMOD ,where model, calculates concentration at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest across all receptors of the five-year averaged highest values

Estimated 24-hour and annual $PM_{2.5}$ impacts concentrations would not exceed the *CEQR* significant criteria with the stack located 68'-5" from 20 Jay Street. However, the maximum estimated one-hour NO_2 concentration would exceed the one-hour NO_2 NAAQS at 20 Jay Street's eleventh floor receptors with the stack at this location using the conservative Tier 1/Tier 2 analysis approaches. As such, in accordance with *CEQR Technical Manual* guidance, a more precise Tier 3 analysis of NO_2 was conducted with the PVMRM module.

$PM_{2.5}$ Results

As shown in **Table H-4**, the maximum 24-hour impact would be 3.8 µg/m^3 at the 20 Jay Street building façade receptors and 3.3 µg/m^3 at the building's eleventh floor receptors (which are located further away from the stack than 20 Jay's lower floors). The maximum average annual impact would 0.18 µg/m^3. Both the 24-hour and annual $PM_{2.5}$ impacts would be less than the *CEQR Technical Manual* significant impact thresholds of 7.25 µg/m^3 and 0.3 µg/m^3, respectively. Therefore, with the use of natural gas as fuel for the HVAC system, and a stack located a minimum of 20 feet from Jay Street (to be required pursuant to

an (E) designation, as discussed below), $PM_{2.5}$ emissions of the Proposed Project would not result in significant adverse impacts on nearby sensitive receptors.

Table H-4: $PM_{2.5}$ Analysis Results

Maximum 24-Hour $PM_{2.5}$ Concentration ($\mu g/m^3$)	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	CEQR Significant Impact Criteria 24-Hour/Annual ($\mu g/m^3$)
3.8	0.18	7.25/0.3

NO_2 Results

The NO_2 analysis used the same stack location as determined in the $PM_{2.5}$ analysis. As mentioned above, the Tier 1 and Tier 2 analysis approaches for the one-hour NO_2 analysis were not sufficient to demonstrate compliance; therefore, a Tier 3 analysis with the AERMOD PVMRM module was conducted to confirm compliance with the one-hour NO_2 NAAQS. The results of the Tier 3 NO_2 analysis are provided in **Table H-5**. The maximum one-hour concentrations would occur at the receptors placed at a height of 159 feet on 20 Jay Street's eleventh floor, which is 50 feet further from the Proposed Development Site than 20 Jay Street's lower floors.

Table H-5: NO_2 Analysis Results

Maximum One-Hour Total NO_2 Concentration ($\mu g/m^3$)	Maximum Annual Total NO_2 Concentration ($\mu g/m^3$)	NAAQS One-Hour/Annual ($\mu g/m^3$)
174.8[1]	32.2[2]	188/100

Notes:

[1] With Tier 3 analysis.

[2] Total annual NO2 concentrations include background value of 31.3 $\mu g/m^3$.

With the Tier 3 analysis, the NO_2 background concentration is added internally within the model, and the total eighth highest one-hour concentration is compared to the one-hour NO_2 NAAQS. As shown in **Table H-5**, the estimated one-hour NO_2 concentration would be less than the one-hour NO_2 NAAQS of 188 $\mu g/m^3$. The estimated annual average NO_2 concentration, which includes the Proposed Project's impact and the annual background concentration, would also be less than the annual NO_2 NAAQS of 100 $\mu g/m^3$. Therefore, with the use of natural gas as the fuel for the HVAC system and a stack located a minimum of 20 feet from Jay Street (to be required pursuant to an (E) designation, NO_2 emissions would not cause significant adverse impacts on nearby sensitive receptors.

As shown in **Tables H-4** and **H-5**, with the stack location and fuel restrictions of the (E) designation to be assigned to the Proposed Development Site, no exceedances of the *CEQR Technical Manual* significant impact criteria or the applicable NAAQS for $PM_{2.5}$ or one-hour/annual NO_2 NAAQS were estimated for the Proposed Project.

A summary of all results, with and without downwash effect, is presented in **Table H-6**.

Table H-6: Summary of HVAC Analysis Results (µg/m³)

Pollutant/Avg. Time	Modeled Concentration[1]	Background Concentration	Maximum Predicted Impacts	Total Concentration[2,3,4]	CEQR Impact Criteria	NAAQS
$PM_{2.5}$						
Maximum 24-Hour Impact	1.7/3.8	-	3.8	-	7.25 (*CEQR*	
Max Average 24-Hour Concentration	2.73	20.5	-	23.2	-	35
Annual Average Impact	<0.1/0.18	-	0.18	-	0.3 *Criteria*)	
Annual Average Concentration	<0.1/0.18	8.6	-	8.8	-	12
NO_2						
One-Hour	99.3/174.8	-	-	174.8	-	188
Annual	0.3/0.98	31.3	-	32.3	-	100

Notes:
[1] Modeled concentrations are shown with/without downwash effects.
[2] Total $PM_{2.5}$ concentration include 24-hour and annual background values of 20.5 and 8.6 µg/m³.
[3] Total annual NO_2 concentration includes background value of 31.3 µg/m³.
[4] One-hour NO_2 background concentration with Tier 3 analysis is added internally within the model.

(E) Designation

An (E) designation would be required to restrict stack location and fuel type to the exclusive use of natural gas in the HVAC system(s) of the Proposed Project located at 29 Jay Street. The text of the (E) designation would be as follows:

> **Residential Use:**
> **Any new residential use on Block 20, Lot 1 must use natural gas as the type of fuel for HVAC systems, and ensure that that the heating, ventilating and air conditioning stack(s) is located at the height highest tier or at least 181 feet above grade to avoid any potential significant adverse air quality impacts.**
>
> **Commercial Use:**
> **Any new commercial development on Block 20, Lot 1 must exclusively use natural gas as the type of fuel for HVAC systems, and ensure that the heating, ventilating and air conditioning stack(s) is located at the height highest tier or at least 151 feet above grade and at least 20 feet from the lot line facing Jay Street to avoid any potential significant adverse air quality impacts.**

The required (E) designation will assure that no significant adverse air quality impacts will occur from the HVAC emissions of the proposed development.

Industrial Source Analysis

Identification of Industrial Sources for Analysis

In accordance with Section 220 (Stationary Sources) of the *CEQR Technical Manual*, "projects that would result in new uses (particularly schools, hospitals, and residences) located within 400 feet of manufacturing or processing facilities" may result in potentially significant impacts, and therefore require stationary source analyses. As several industrial facilities are located within 400 feet of the Proposed Development Site, an analysis was conducted to determine whether the potential impacts of the air toxic emissions released from these facilities would result in significant adverse impacts on the Proposed Project.

The first step in this analysis is to determine the types and amounts of emissions generated by the nearby industrial facilities. A formal request was made to DEP to obtain emission data for facilities permitted by DEP, including nearby block and lot numbers. Based on the information received, permits for eight industrial facilities were identified. Six of these facilities are no longer be operating and/or will not be operating by the 2021 analysis year. The remaining two industrial facilities were identified as operational within 400 feet of the Proposed Development Site:

1. A Con-Edison generating sub-station, located at 89 John Street – DEP Permit #s PA066582 and PA066682; and
2. The Pilot Paint Co, Inc., located at 47 Pearl Street – DEP Permit # PA039283.

The Con Edison facility permits are for diesel emergency generators. According to the permit description, these generators are used for short periods of time (no more than one hour a day and 500 hours a year) and only in case of an emergency. Therefore, the potential air quality impact from these generators would not be significant and analysis of these units is not warranted.

The permit of Pilot Paint is for paint manufacturing operation (mixing and/or blending) in a mixing tank. An analysis was conducted to determine whether emissions from this facility would have the potential to cause significant adverse impacts to the Proposed Project.

The data received from DEP contained in the permits were reviewed to determine the types of operations and pollutant emission rates, and served as the primary basis of the emission data for this analysis. The Pilot Paint facility type, address, block and lot numbers, permit number, and emitted pollutant are provided in **Table H-7**, below.

Table H-7: Existing Toxic Facility Permit Information

Facility Name	Address	Permit No.	Facility Type	Pollutant Name	CAS No.	Pollutant Emission Rates	
						lb/hr	lb/yr
Pilot Paint	47 Pearl Street (Block 30 Lot 6)	PA039283	Paint Mixing Spray Booth	Mineral Spirits[1]	8052-41-3	0.07	112

Notes:
[1] Mineral Spirits are listed in the DAR-1 database under the chemical name "Stoddard solvent."

Permits and Pollutants

The Pilot Paint Company is involved in manufacturing paints and, according to its permit, emits only one pollutant – mineral spirits (or Stoddard solvent, as mineral spirits identified in the New York State DAR-1 database). According to the permit, the facility produces approximately 300 gallons of paints a day, with three batches of 100 gallons each containing 85 percent water-based latex paints and 15 percent solvent-based paints. Each batch contains approximately ten gallons of mineral spirits and one percent of the solvent is lost during mixing. The solvent is emitted with a maximum rate of 0.07 pounds per hour (lb/hr) or 112 lb/year (refer to **Table H-7**).

Toxic Assessment Methodology

While no federal standards have been promulgated for toxic air pollutants, the EPA and NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure criteria.

In order to evaluate short-term and annual impacts of toxic air pollutants, NYSDEC established short-term ambient guideline concentrations (SGCs) and ambient annual-average-based guideline concentrations (AGCs) for exposure limits. These are maximum allowable one-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. If the maximum estimated concentration is less than the applicable guideline value, no adverse health effects would occur. If the concentration of any pollutant exceeds its applicable guideline value (either SGC or AGC), a more detailed analysis would be required.

CEQR Screening Analysis

For estimating potential impacts, the *CEQR Technical Manual* recommends using a screening procedure for industrial emission sources with toxic air pollutants as a first step in an analysis. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of one gram per second from Table 17-3, "Industrial Source Screen," of the *CEQR Technical Manual* for the applicable averaging time periods. This approach, which can be used to estimate maximum short-term and annual average concentration values at various distances (from 30 to 400 feet) from an emission source, was used to assess the potential impacts of the emissions from the existing permitted and non-permitted facilities.

The minimum distance from the lot line of the Proposed Development Site to the lot line of the Pilot Paint Company is approximately 215 feet. A conservative distance of 200 feet was used for the analysis. At this distance, based on a one gram per second emission rate (per Table 17-3 of the *CEQR Technical Manual*), the maximum one-hour and annual concentrations were estimated to be 3,335 $\mu g/m^3$ and 167 $\mu g/m^3$, respectively.

The values obtained from Table 17-3 of the *CEQR Technical Manual* for an emission rate of one gram per second were then multiplied by the actual emission rate of the Stoddard solvent listed in the permit to estimate its actual concentration. These values were then compared to the DAR-1 AGC for Stoddard solvent. (A SGC value is not available for Stoddard solvent in the DAR-1 database.)

Results

Estimated hourly and annual emission rates of the Stoddard solvent are provided in **Table H-8**, and the estimated concentration for comparison with the applicable DAR-1 AGC value is shown in **Table H-9**.

Table H-8: Estimated Stoddard Solvent Emission Rates Under PA039283

Pollutant Emission Rates						Concentration for 1 g/sec		Actual Concentration	
Pollutant	**CAS No.**	**Hourly (lb/hr)**	**Annual (lb/year)**	**Hourly (g/s)**	**Annual (g/s)**	**Hourly ($\mu g/m^3$)**	**Annual ($\mu g/m^3$)**	**Hourly ($\mu g/m^3$)**	**Annual ($\mu g/m^3$)**
Stoddard	8052-41-3	0.07	112	0.00882	0.00161	3,335	167	29.41	0.2689

Table H-9: Estimated Stoddard Solvent One-Hour Concentration under PA039283

Chemical Name	CAS No.	Max Estimated Annual Concentration ($\mu g/m^3$)	AGC ($\mu g/m^3$)	Exceeded (Yes/No)
Stoddard	8052-41-3	0.2689	900	No

As presented in **Table H-9**, the screening analysis resulted in a maximum estimated annual concentration of Stoddard solvent that is less than its AGC value, indicating that this pollutant passes the screening analysis and no further analysis is required. As such, the emissions released from the nearby existing industrial source are not predicted to significantly impact the Proposed Project.

APPENDIX I

ZONING TEXT AMENDMENT

29 JAY STREET – OFFICE BUILDING
TEXT AMENDMENT

FFHSJ Draft – 08/__/17

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

Article XII - Special Purpose Districts

Chapter 3
Special Mixed Use District

* * *

123-63
Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts

Where the designated #Residence District# is an R6, R7, R8 or R9 District, the minimum required #open space ratio# and maximum #floor area ratio# provisions of Section 23-151 (Basic regulations for R6 through R9 Districts) shall not apply. In lieu thereof, all #residential buildings#, regardless of whether they are required to be #developed# or #enlarged# pursuant to the Quality Housing Program, shall comply with the maximum #floor area ratio# and #lot coverage# requirements set forth for the designated district in Sections 23-153 (For Quality Housing buildings) or 23-155 (Affordable independent residences for seniors), as applicable.

Where the designated district is an R7-3 District, the maximum #floor area ratio# shall be 5.0 and the maximum #lot coverage# shall be 70 percent on an #interior# or #through lot# and 100 percent on a #corner lot#.

Where the designated district is an R9-1 District, the maximum #floor area ratio# shall be 9.0, and the maximum #lot coverage# shall be 70 percent on an #interior# or #through lot# and 100 percent on a #corner lot#.

The provisions of this Section shall not apply on #waterfront blocks#, as defined in Section 62-11. In lieu thereof, the applicable maximum #floor area ratio# and #lot coverage# requirements set forth for #residential uses# in Sections 62-30 (SPECIAL BULK REGULATIONS) through 62-32 (Maximum Floor Area Ratio and Lot Coverage on Waterfront Blocks), inclusive, shall apply.

However, in #Inclusionary Housing designated areas# and #Mandatory Inclusionary Housing areas#, as listed in the table in this Section, the maximum permitted #floor area ratio# shall be as set forth in Section 23-154 (Inclusionary Housing). The locations of such districts are specified in APPENDIX F of this Resolution.

#Special Mixed Use District#	Designated #Residence District#
MX 2 – Community District 2, Brooklyn	R7A R8A <u>R8X</u>
MX 4 – Community District 3, Brooklyn	R6A
MX 8 – Community District 1, Brooklyn	R6 R6A R6B R7A
MX 11 – Community District 6, Brooklyn	R7-2

MX 13 – Community District 1, The Bronx	R6A R7A R7X R8A
MX 14 – Community District 6, The Bronx	R7A R7X
MX 16 – Community Districts 5 and 16 Brooklyn	R6A R7A R7D R8A

* * *

123-66
Height and Setback Regulations

The height of all #buildings or other structures# in #Special Mixed Use Districts# shall be measured from the #base plane#.

The following modifications of height and setback regulations set forth in paragraphs (a) and (b) apply in Historic Districts designated by the Landmarks Preservation Commission:

(a) For any #zoning lot# located in a Historic District designated by the Landmarks Preservation Commission, the minimum base height of a #street wall# may vary between the height of the #street wall# of an adjacent #building# before setback, if such height is lower than the minimum base height required, up to the minimum base height requirements of this Chapter.

(b) In #Special Mixed Use District# 2 in the Borough of Brooklyn, where the designated #Residence District# is an R8X District, the maximum base height of a #street wall# may vary between the maximum base height set forth in this Chapter, and the height of the #street wall# of an adjacent #building# before setback, if such height is higher than the maximum base height set forth in this Chapter. For the purposes of this paragraph (b), a #building# situated directly across a #street# from a #development# shall be considered an adjacent #building#.

On #waterfront blocks#, as defined in Section 62-11, where the designated #Residence District# is R3, R4 or R5, the height and setback regulations of Section 62-34, inclusive, shall apply to #buildings and other structures#, except that for #mixed use buildings#, the height and setback regulations set forth in Section 123-661 (Mixed use buildings in Special Mixed Use Districts with R3, R4 or R5 District designations) shall apply.

APPENDIX II

WRP CONSISTENCY ASSESSMENT FORM

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: Forman Ferry, LLC

Name of Applicant Representative: Peter Forman

Address: 130 Shore Road, Suite 124, Port Washington, NY 11050

Telephone: 516-717-0000 Email: peter@forman.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The applicant, Forman Ferry, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) (the "proposed actions") that would affect Brooklyn Block 20, Lots 1 and 6 in the DUMBO neighborhood of Brooklyn Community District (CD) 2 (the "rezoning area"). Specifically, the applicant is seeking (1) to rezone the rezoning area from M1-4/R8A to M1-6/R8X; (2) a zoning text amendment to ZR Section 123-63 to add R8X to the list of residential districts mapped in the MX2 Special Mixed-Use District; and (3) a zoning text amendment to ZR Section 123-66 to allow the streetwall height of developments in the rezoning area be increased based on the surrounding context. The proposed actions would facilitate the development of a 10.0 FAR, 150-foot-tall approximately 224,935 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "proposed development site"). The proposed development would include approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail (the "proposed project"). In addition, as the proposed development site is located within a New York City Landmarks Preservation Commission-(LPC) designated historic district, the proposed project requires a Certificate of Appropriateness ("C of A") from LPC. The proposed develeopment is expected to be completed and occupied by 2020. In the absence of the proposed actions, the proposed development site would be redeveloped as-of-right with a 145-foot-tall predominantly residential building comprising 141 dwelling units (DUs), 15,164 gsf of local retail, and 45 accessory parking spaces.

2. Purpose of activity

The proposed actions are intended to facilitate a new commercial development on the proposed development site, creating many new jobs in the district. Under the current M1-4/R8A zoning, commercial and light industrial uses are only permitted up to a maximum FAR of 2.0. The proposed M1-6/R8X zoning would increase the maximum permitted commercial and light industrial FAR to 10.0 (through the change from an M1-4 to M1-6 manufacturing district) and increase the maximum permitted building height from 120 to 150 feet for non-IH buildings (through the change from R8A to R8X). The R8X zoning would allow for the same FAR for residential use as allowed by the existing R8A zoning, but allows for a base development envelope that is consistent with the taller loft buildings characteristic of the DUMBO area. The M1-6 zoning designation is also in keeping with the FAR of the neighboring loft buildings, and would allow for the larger floor plates needed by commercial uses while respecting the maximum height limitations set by the R8X zoning. The proposed rezoning, which would allow for the development of a commercial building of a scale consistent with the built fabric that exists to the west, north, and south of the rezoning area. The proposed zoning map amendment and zoning text amendments would, combined, increase the maximum building height to 150 feet, and allow flexibility in the maximum streetwall height to conform with the surrounding historic built context. The increase in the maximum building height resulting from the proposed zoning map amendment would not be out of context with the maximum height presently allowed for residential buildings with a qualifying ground floor (145 feet). In addition, the zoning text amendment would allowing buildings to be built with streetwalls reflective of the surrounding building context, allowing for the streetwall of new buildings constructed in the rezoning area to conform aesthetically to the surrounding loft buildings.

C. PROJECT LOCATION

Borough: Brooklyn Tax Block/Lot(s): Block 20, Lot 1

Street Address: 29 Jay Street

Name of water body (if located on the waterfront): Not applicable.

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☑ Other, explain: LPC Certificate of Appropriatness
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☐ Yes ☑ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☐ Yes ☑ No
3. Is the project located on publicly owned land or receiving public assistance? ☐ Yes ☑ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)

   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)

   ☐ Priority Martine Activity Zone (PMAZ) (*3.5*)

   ☐ Recognized Ecological Complex (REC) (*4.4*)

   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☐	☐	☑
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☐	☐	☑
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☐	☐	☑
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☐	☐	☑
7.2	Prevent and remediate discharge of petroleum products.	☐	☐	☑
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☑	☐	☐
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☑	☐	☐
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Peter Forman, Forman Ferry, LLC Manager

Address: 130 Shore Road, Suite 124, Port Washington, NY 11050

Telephone: 516-717-0000 Email: peter@forman.com

Applicant/Agent's Signature: Peter Forman

Date: 5/22/18

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3525
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
(518) 474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

- ☑ Copy of original signed NYC Consistency Assessment Form
- ☑ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☑ Environmental Review documents
- ☐ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. HighTab 4 contains primary results. Tab 5, "Future Flood Level Projections" contains background computations. The remaining tabs contain additional results, to be used as relevant.Non-highlighted cells have been locked.

Background Information	
Project Name	29 Jay Street
Location	29 Jay Street, Brooklyn, NY
Type(s)	☑ Residential, Commercial, Community Facility ☐ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☐ Critical Infrastructure or Facility ☐ Industrial Uses ☐ Over-water Structures ☐ Shoreline Structures ☐ Transportation ☐ Wastewater Treatment/Drainage ☐ Coastal Protection
Description	The applicant, Forman Ferry, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) to facilitate the development of an approximately 222,375 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "proposed development site") in the DUMBO neighborhood of Brooklyn Community District (CD) 2. The proposed development would include approximately 211,279 gsf of office floor area and approximately 11,096 gsf of ground floor local retail. In addition, as the proposed development site is located within a New York City Landmarks Preservation Commission- (LPC-) designated historic district, the proposed development requires a Certificate of Appropriateness ("C of A")
Planned Completion date	2020

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet Error."

Last update: June 7, 2017

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.17	**2.17**	**NAVD88**	https://tidesandcurrents.noaa.gov/
1% flood height	10.00	**10.00**	**NAVD88**	*2015 FEMA PFIRM*
As relevant:				
0.2% flood height	12.00	12.00	**NAVD88**	*2015 FEMA PFIRM*
MHW	1.79	1.79	**NAVD88**	https://tidesandcurrents.noaa.gov/
MSL	-0.35	-0.35	**NAVD88**	https://tidesandcurrents.noaa.gov/
MLLW	-2.91	-2.91	**NAVD88**	https://tidesandcurrents.noaa.gov/

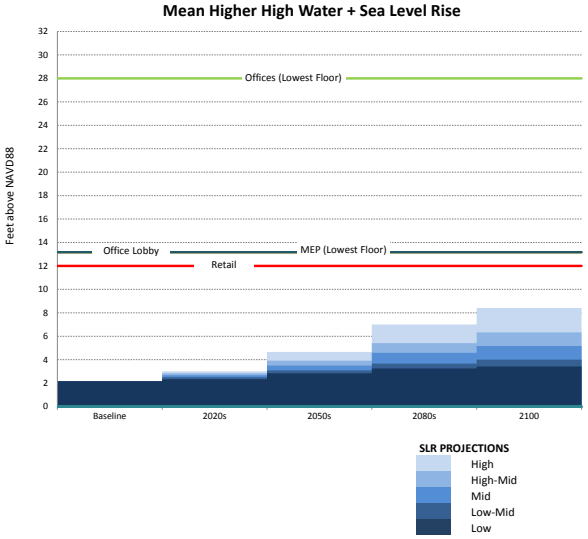
Data will be converted based on the following datums:

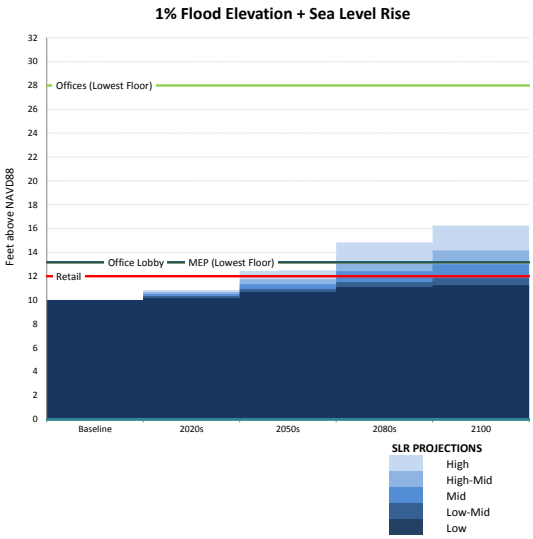
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*
Station	Brooklyn Bridge
MLLW	-2.91

Describe key physical features of the project.

Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 1% flood height	Ft Above 0.2% flood height
Retail	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2050	12.0	Feet	NAVD88	*12.0*	*12.0*	*9.8*	*2.0*	*0.0*
One or more retail establishment would be located on the western portion of the proposed project's ground floor.										
Office Lobby	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2050	13.2	Feet	NAVD88	*13.2*	*13.2*	*11.0*	*3.2*	*1.2*
The office lobby would be located on the ground floor of the proposed project and would be accessible via an entrance on Plymouth Street.The lobby would lead to elevator bays and stairs at the northern end of the building										
Offices (Lowest Floor)	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2050	28.0	Feet	NAVD88	*28.0*	*28.0*	*25.8*	*18.0*	*16.0*
Office space would be located on floors 2-10 of the proposed project. Each floor would be occupied by 1 or more tenants.										
MEP (Lowest Floor)	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	2050	13.2	Feet	NAVD88	*13.2*	*13.2*	*11.0*	*3.2*	*1.2*
Mechincal, electrical, and plumbing systems would be located on all floors of the proposed project.										
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
Description of Planned Uses and Materials										
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
Description of Planned Uses and Materials										
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
Description of Planned Uses and Materials										
	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88					
Description of Planned Uses and Materials										

Assess project vulnerability over a range of sea level rise projections.





	SLR (ft)					
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**	
Baseline	0.00	0.00	0.00	0.00	0.00	**2014**
2020s	0.17	0.33	0.50	0.67	0.83	**2020s**
2050s	0.67	0.92	1.33	1.75	2.50	**2050s**
2080s	1.08	1.50	2.42	3.25	4.83	**2080s**
2100	1.25	1.83	3.00	4.17	6.25	**2100**

	MHHW+SLR (ft above NAVD88)					
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**	
Baseline	2.17	2.17	2.17	2.17	2.17	**Baseline**
2020s	2.34	2.50	2.67	2.84	3.00	**2020s**
2050s	2.84	3.09	3.50	3.92	4.67	**2050s**
2080s	3.25	3.67	4.59	5.42	7.00	**2080s**
2100	3.42	4.00	5.17	6.34	8.42	**2100**

	1%+SLR (ft above NAVD88)					
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**	
Baseline	10.00	10.00	10.00	10.00	10.00	**Baseline**
2020s	10.17	10.33	10.50	10.67	10.83	**2020s**
2050s	10.67	10.92	11.33	11.75	12.50	**2050s**
2080s	11.08	11.50	12.42	13.25	14.83	**2080s**
2100	11.25	11.83	13.00	14.17	16.25	**2100**

	0.2%+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	12.00	12.00	12.00	12.00	12.00
2020s	12.17	12.33	12.50	12.67	12.83
2050s	12.67	12.92	13.33	13.75	14.50
2080s	13.08	13.50	14.42	15.25	16.83
2100	13.25	13.83	15.00	16.17	18.25

	0	1
Retail	12	12
Office Lobby	13	13.17
Offices (Lowest Floor)	28	28
MEP (Lowest Floor)	13.17	13.17
0	0	0
0	0	0
0	0	0
0	0	0

SLR (in)

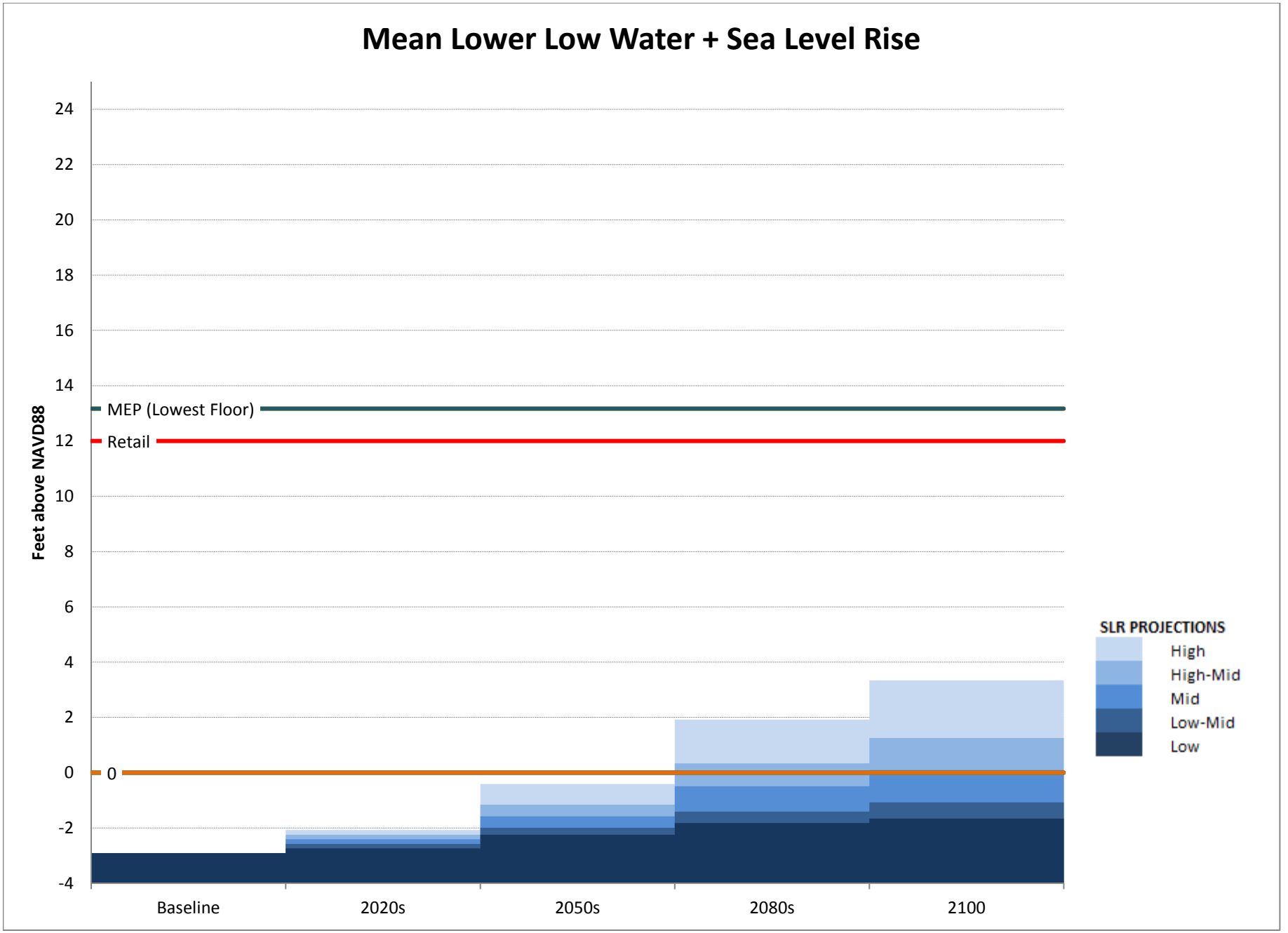
Low	Low-Mid	Mid	High-Mid	High
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

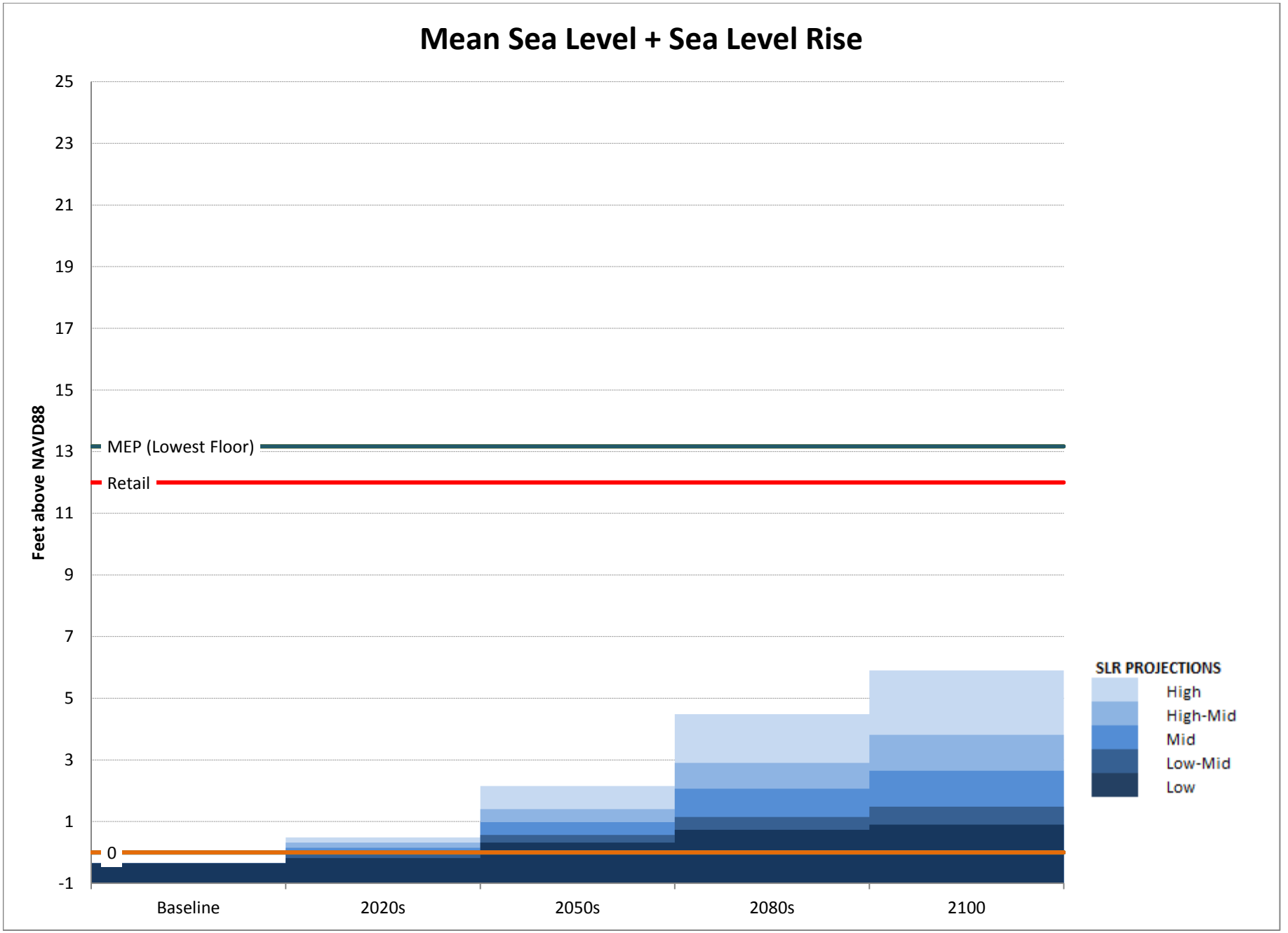
MLLW+SLR (ft above NAVD88)

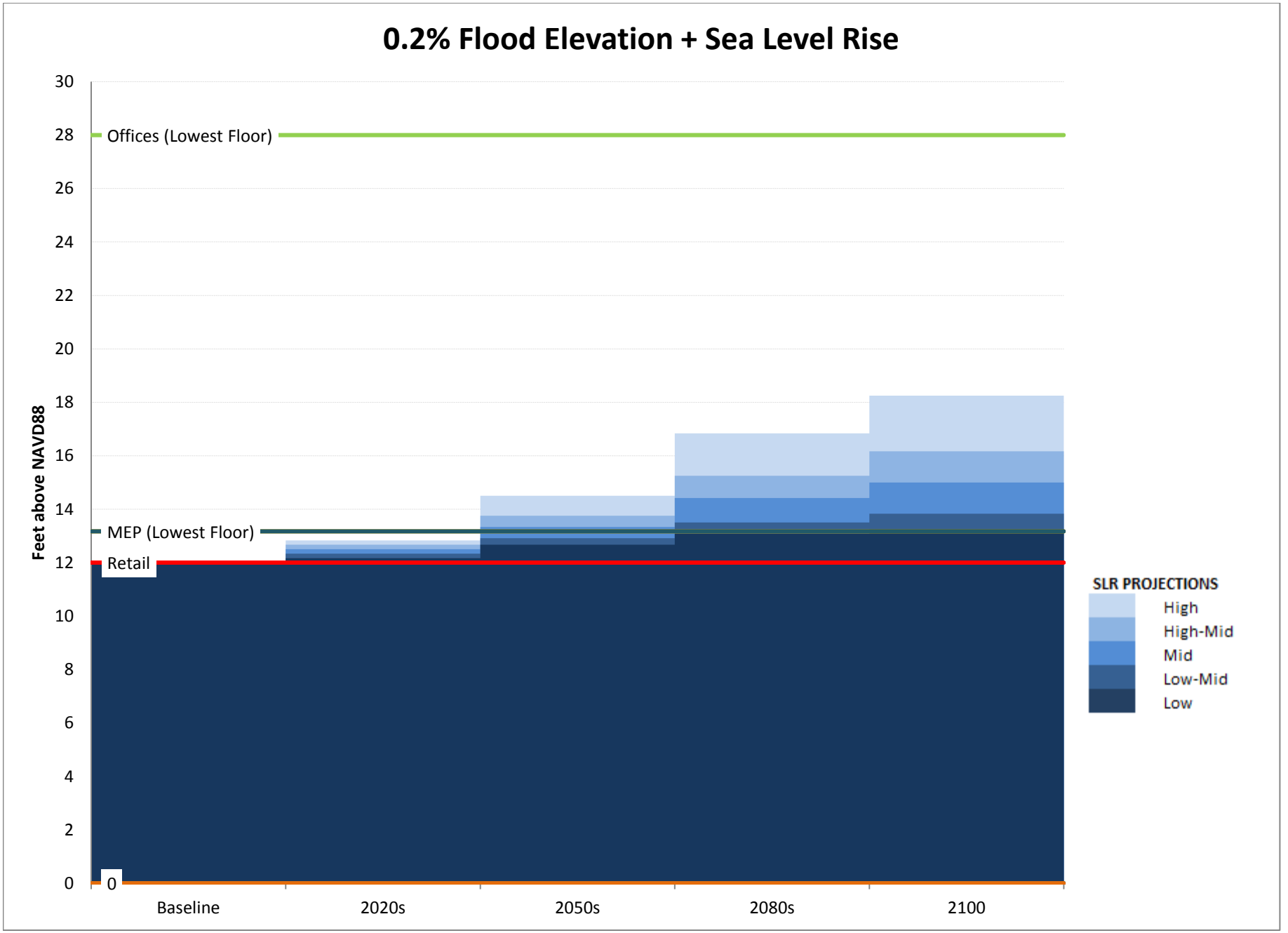
Low	Low-Mid	Mid	High-Mid	High
-2.91	-2.91	-2.91	-2.91	-2.91
-2.74	-2.58	-2.41	-2.24	-2.08
-2.24	-1.99	-1.58	-1.16	-0.41
-1.83	-1.41	-0.49	0.34	1.92
-1.66	-1.08	0.09	1.26	3.34

MSL+SLR (ft above NAVD88)

Low	Low-Mid	Mid	High-Mid	High
-0.35	-0.35	-0.35	-0.35	-0.35
-0.18	-0.02	0.15	0.32	0.48
0.32	0.57	0.98	1.40	2.15
0.73	1.15	2.07	2.90	4.48
0.90	1.48	2.65	3.82	5.90


Mean Lower Low Water + Sea Level Rise
Feet above NAVD88
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
MEP (Lowest Floor)
Retail
0
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low


Mean Sea Level + Sea Level Rise
Feet above NAVD88
25
23
21
19
17
15
13
11
9
7
5
3
1
-1
MEP (Lowest Floor)
Retail
0
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low


0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Offices (Lowest Floor)
MEP (Lowest Floor)
Retail
0
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

APPENDIX III

HAZARDOUS MATERIALS

Hydro Tech Environmental, Corp.

Main Office
77 Arkay Drive, Suite G
Hauppauge, New York 11788
T (631) 462-5866 • F (631) 462-5877

NYC Office
15 Ocean Avenue, 2nd Floor
Brooklyn, New York 11225
T (718) 636-0800 • F (718) 636-0900

WWW.HYDROTECHENVIRONMENTAL.COM

June 17, 2015

Mr. Peter Forman
Forman Ferry, LLC
130 Shore Road, Suite 124
Port Washington, NY 11050

Re: Subsurface Investigation Report
29 Jay Street (Block 20, Lot 1), Brooklyn NY
E-231; CEQR # 09DCP053K

Dear Mr. Forman:

This letter is intended to provide you with the results of our recent subsurface investigation conducted at the above referenced property, which will hereafter be referred to as the "Site". The purpose of this investigation was to assess the sub-surface soil and groundwater quality in anticipation of a proposed remedial redevelopment at this Site, which is designated for residential or commercial use. The scope of work was based upon a March 20, 2015 pre-application meeting with the New York City Mayor's Office of Environmental Remediation (OER) and our recent discussions.

The investigation consisted of the performance of a Ground Penetrating Radar Survey (GPR) and the installation and sampling of ten (10) soil probes and four (4) monitoring wells. The four monitoring wells were also developed, gauged and surveyed for the determination of groundwater flow direction.

SITE DESCRIPTION

The Site is approximately 18,955 square feet in area and is described as Tax Block 20 and Lot 1. The Site is entirely developed with a 1-story building with a slab-on grade. The building at the Site is currently vacant and was until most recently occupied by as furniture retail store in the southwestern portion and a theater in the remaining portions. Two loading bays are located in the northwestern portion of the Site along Jay Street; one of the loading bays is covered by a wooden ramp that provides access to the theater area, the second loading bay is active and provides access to both the furniture store and the theater. A wooden floor associated with the former theater covers the slab in the northeastern portion of the building and an elevated seating platform is located in the southeastern portion. A restrooms area and an office area are located in the western portion of the theater. A fill port sealed with concrete and two vent pipes protrude from the southwestern portion of the building.

Access to the Site is from Jay Street to the west and also via an exit door along Plymouth Street to the south. The topography of the Site vicinity declines moderately toward the north. The topography at the Site is level with the elevation of Plymouth Street to the south. The loading bays, which are level with Jay Street, drop approximately 4 feet below the elevation of the building slab. **Figure 1** provides a Site Plan.

SITE ENVIRONMENTAL ASSESSMENT

Hydro Tech prepared a summary letter of a Phase I Environmental Site Assessment (ESA) dated June 30, 2014 for the Site. This Site assessment was based upon a site reconnaissance, interview(s) with site contacts, review of historical fire insurance maps, city directory records, local, state and federal databases and New York City Department of Buildings, City Planning and Housing Preservation and Development records. The following Recognized Environmental Conditions were identified at the Site:

1. The presence suspect fuel oil heating underground storage tanks;
2. The presence of a HazMat E-Designation (E-231 CEQR #09DCP053K);
3. The presence of fill material beneath the Subject Property.
4. The historic use of the Subject Property as an industrial facility for the manufacturing of metal products;
5. The presence of a 5,000-gallon number 2 fuel oil UST that is closed in place along the southern portion of the Site;
6. The presence of open NYSDEC spill #0913068 located on an adjacent parcel to the south;
7. The presence of open NYSDEC spill #9013330 located beneath Plymouth Street to the south;
8. The presence of closed NYSDEC spill #9705464 related to gasoline release at an adjacent property to the southeast that has no record of groundwater remediation.

FIELDWORK

The field portion of the investigation was conducted on June 1, 3, and 4, 2015. Prior to the performance of the fieldwork, a One-Call Public Utility Mark-out was requested. Confirmation #151481554 and #151481559 were issued to the mark-out. **Attachment #1** provides photographs of the fieldwork.

All portions of the fieldwork were performed under the direct oversight of a Hydro Tech Project Manager and under the guidance of a Hydro Tech Geologist and in the presence of a representative of Site ownership.

GROUND PENETRATING RADAR (GPR) SURVEY

The GPR survey was performed to confirm the location of a 5,000-gallon number 2 fuel oil underground storage tank (UST), which was previously closed in place in the southern portion of the Site and also to determine the presence of other UST anomalies and to clear all sampling locations of any potential subsurface obstructions.

The GPR survey was performed utilizing a GSSI SIR-3000 Control Unit and a 400-megahertz shielded antenna. The GPR operator wheeled the antenna over the predetermined grid. The GPR takes one "scan" per set unit. The number of scans per unit is based upon the estimated sizes of targets. As each scan is performed, the antenna emits specific radar amplitude into the subsurface. The amplitude of the radar reflected back to the antenna is based upon the differences in the dielectric constants of the subsurface materials. The difference in amplitude obtained during each scan is graphically displayed on the Control Unit, which are then interpreted by the GPR operator at the time of the survey. Additional interpretations are then conducted in the office using computer software.

The GPR survey was performed throughout approximately 40 percent of the Site perimeter and excluded the loading bay covered by a ramp, the wooden floor, the area beneath the elevated seating platform and the restrooms and office areas in the theater. One anomaly that is 30 feet long and 12 feet wide was identified in the southwestern portion of the Site, approximately 15 feet from the southwestern building walls, where two vent pipes and a fill port closed with concrete are located. No other environmental anomalies were detected beneath the Site during the GPR survey. The survey also cleared all sampling locations of subsurface obstructions.

SOIL PROBES

A total of ten (10) soil probes were installed at the Site during this investigation. Soil probes SP-1 to SP-3 were installed in the area of the former furniture store. Specifically, SP-1 and SP-2 were installed in the immediate vicinity of the suspect UST anomaly. Soil probes SP-6 was installed in the active loading bay. The remaining soil probes SP-4, SP-5, SP-8 to SP-10 were installed in the theater. Specifically, SP-4, SP-7 and SP-8 were installed in the northern portion of theater, SP-5 in the central portion and SP-9 and SP-10 in the southern portion. **Figure 2** provides the locations of the soil probes.

The soil probes were installed utilizing Hydro Tech's fleet of Geoprobe® units. The Geoprobe installs soil probes utilizing direct-push technology. Soil samples were collected at continuous 2-foot intervals utilizing a four-foot long Macro core sampler fitted with dedicated acetate liners. Each sampler was installed with 2½-inch diameter drill rods.

Soil probes were installed to the depth of 12 feet below the slab on-grade elevation (bgs) in SP-8 and SP-10 and 12 feet below the loading bay slab elevation in SP-6. The remaining soil probes were installed to the depth of unknown refusal, which was encountered at 8 feet bgs in SP-1, SP-2, SP-9, at 9 feet bgs in SP-3, at 10 feet bgs in SP-4 and SP-5 and at 10.5 feet bgs in SP-7.

Groundwater was encountered in SP-6 at 9 feet below the loading bay slab. No groundwater was encountered in any of the remaining nine soil probes. A Hydro Tech geologist performed infield characterization and screening of each soil sample utilizing the Unified Soil Classification System and a Photo Ionization Detector (PID). The general soil type consists of coarse sand and pebbles. Evidence of fill material consisting of bricks, asphalt, and concrete was encountered in all soil probes and extended from grade surface to the final depth the probes. Organic vapors ranging between 7.9 and 18.6 parts per million (ppm) and petroleum odor were identified in SP-8 in soil samples collected between 6 and 12 feet bgs. No organic vapors (<0.1 ppm) or odor were noted in the remaining soil samples from the soil probes. **Attachment #2** provides soil probe logs.

Consistent with the City Environmental Quality Review (CEQR) protocols for addressing the Hazmat "E" designation, two (2) soil samples from each soil probe were containerized and analyzed at a State-certified laboratory. The first sample in all soil probes consisted of the shallow sample obtained from zero to 2 feet below the building slab. The second one was collected from the subsurface interval between 2 feet and the deepest dry soil interval based on elevated PID readings and/or visual observations. Therefore, the second soil sample was collected from soil probes as follows:

-6 to 8 foot sample from SP-1, SP-2, and SP-9;
-7 to 9 foot sample from SP-3;
-8 to 10 foot sample from SP-4, SP-5 and SP-8;
-8.5 to 10.5 foot sample from SP-7;
-10 to 12 foot sample from SP-6 and SP-10.

Each soil sample was contained into a terra core kit consisting of three 40-milliliter (mL) vials containing appropriate preservatives and an 8-ounce jar and appropriately labeled.

MONITORING WELLS

Four (4) monitoring wells, designated MW-1, MW-2, MW-3 and MW-4 were installed during this investigation. Specifically, MW-1 was installed at the same location of SP-1 in the vicinity of the suspect UST anomaly, MW-2 was installed the same location of SP-6, MW-3 was installed the same location of SP-4 and MW-4 was installed the same location of SP-10. **Figure 2** provides the locations of the monitoring wells.

The four monitoring wells were installed with Hydro Tech's fleet of Geoprobe® units. These units install monitoring wells utilizing direct-push technology. The monitoring wells were constructed of 1-inch diameter PVC. The total depth of the monitoring wells was 20 feet below the loading bay slab in MW-2, 20 feet bgs in MW-4, 24 feet bgs in MW-1 and 30 feet bgs in MW-3. The screened interval of each consisted of 0.010-inch slots and was situated approximately 5 feet above the level of groundwater and at least 10 feet below. The remaining portion of each well consisted of a riser, which was finished level with existing slab elevations. **Attachment #3** provides the groundwater monitoring well construction diagrams.

Prior to sample collection, the four monitoring wells MW-1 through MW-4 were properly developed monitored and gauged for separate phase product and surveyed. The monitoring was performed utilizing a Solinst® 122 Oil/Water Interface Probe (Interface Probe). The Interface Probe can measure depths to water to 0.01 inch. The depth to water was measured in each well from the northern portion of the casing top.

Table 1 provides the groundwater monitoring details. As **Table 1** indicates, none of the monitoring wells were found to contain free product. The depth to water during this monitoring event ranges from 13.10 feet in MW-3 to 13.36 in MW-4.

The casing elevations of MW-1 to MW-4 were determined utilizing a David White LT8-300 Transit. A surveyor's rod was placed on the northern portion of the casing top and the elevation was read with the transit. The determination of the casing elevation allowed for the calculation of the groundwater elevation beneath the site, which therefore, allows for the determination of the groundwater flow direction. The survey was performed utilizing a site-specific benchmark of 30.00 feet.

Utilizing the casing elevation and depth to water, the groundwater elevation was then determined**. Table 1** provides the groundwater surveying details for the monitoring wells. The groundwater elevations range from 11.18 feet in MW-4 to 11.58 feet in MW-2. The groundwater elevations were then imported into a computer-contouring program to determine the site-specific groundwater flow direction. The site-specific groundwater flow direction was determined to be toward the southeast. **Figure 3** provides a groundwater flow direction.

Groundwater samples were obtained from MW-1 through MW-4 following the monitoring event. The sampling was performed utilizing a peristaltic pump fitted with dedicated polyethylene tubing. The pump was connected to PVC tubing and was carefully lowered above the middle of the screened interval zone water in order to minimize mixing with stagnant water above and the suspension of solids that collect at the bottom of the well. Initially, each monitoring well was purged 3 to 5 well volumes. The sampling of the wells was performed after the water was allowed to recharge to the original monitoring level. Each groundwater sample was placed into 3 pre-cleaned 40-milliliter (mL) vials, 2 pre-cleaned 1L ambers and two 250 mL plastic containers and appropriately labeled.

LABORATORY ANALYTICALS

All soil and groundwater samples were analyzed for volatile organic compounds (VOCs) via EPA Method 8260, semi-volatile organic compounds (SVOCs) via EPA Method 8270, Pesticides and Polychlorinated Biphenyls (PCBs) via EPA Method 8081/8082 and Target Analyte List (TAL) Metals. TAL Metal analysis was made on both filtered and unfiltered groundwater samples. **Attachment #4** provides copies of the laboratory reports.

INVESTIGATORY-DERIVED WASTE

Soil cuttings, latex gloves, rinsate from the decontamination area and purge water during monitoring well development and sampling were placed in one (1) 55-gallon drum. Once disposal arrangements with a disposal facility have been completed, the drum will be disposed properly of in accordance to DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

ANALYTICAL RESULTS

SOIL RESULTS

Table 2 provides the results of the soil samples from SP-1 through SP-10. Table 2 also provides a comparison to the Unrestricted Use, Restricted Residential and Commercial Use Soil Cleanup Objectives (SCOs) from 6 NYCRR Part 375. The concentrations reported in **Table 2** are in milligrams per kilogram (mg/kg).

Laboratory analytical results indicate the VOC acetone was commonly detected in the soil samples and is likely to be classified as a laboratory contaminant. No other VOCs were detected in any samples at concentrations exceeding their Unrestricted Use SCOs.

Individual SVOCs were commonly detected in 9 shallow soil samples from SP-2 to SP-9 and 6 deep soil samples from SP-2 to SP-4 and SP-7 to SP-9 at concentrations in exceedance of their respective Restricted Residential Use SCOs. These SVOCs consist of benzo(a)anthracene (max. 7.19 mg/kg), benzo (a)Pyrene (max. 1.13 mg/kg), benzo (b) fluoranthene (max. 10.70 mg/kg), benzo(k)fluoranthene (max. 3.64 mg/kg), chrysene (max. 2.36 mg/kg), dibenzo(a,h)anthracene (max. 2.06 mg/kg), and indeno(1,2,3-cd)pyrene (max. 4.49 mg/kg). Among these SVOCs, benzo(a)anthracene, benzo (a)Pyrene and dibenzo(a,h)anthracene also exceeded the Commercial Use SCOs in 2 shallow soil samples from SP-4 and SP-9 and in 3 deep soil samples from SP-2, SP-3 and SP-8. No other SVOC were detected in any of the remaining shallow or deep soil samples at concentrations exceeding their Unrestricted Use SCOs.

Pesticides including 4,4'-DDD (max. 0.036 mg/kg), 4,4'-DDE (max. 0.36 mg/kg), and 4,4'-DDT (max. 0.55 mg/kg), were commonly detected in 10 shallow and 7 deep soil samples at concentrations exceeding their respective Unrestricted SCOs. No other Pesticides were detected in any of the remaining shallow or deep soil samples at concentrations exceeding their Unrestricted Use SCOs.

Metals including arsenic (max. 13.70 mg/kg), chromium hexavalent (max. 1.42 mg/kg), chromium trivalent (max. 50.50 mg/kg), copper (max. 53.4 mg/kg), lead (max. 2,050 mg/kg), mercury (max. 0.80 ppm), nickel (max. 30.30 ppm), selenium (max. 5.56 ppm) and zinc (max. 537 ppm) were detected at concentrations exceeding their respected Unrestricted Use SCOs in the 10 shallow and 8 deep soils samples. Among these, lead concentrations also exceed its Restricted Residential SCO in 5 shallow soil samples (SP-2, SP-3, SP-6, SP-7 and SP-10) and 1 deep sample (SP-7). Lead concentrations also exceed Commercial Use SCOs in 3 deep soil samples (SP-2, SP-3 and SP-4).

Total PCBs did not occur in any soil samples collected at the Site at concentrations above its respective MDL.

GROUNDWATER RESULTS

Table 3 provides the results the groundwater samples from MW-1, MW-2, MW-3 and MW-4. Table 3 also provides a comparison to 6 NYCRR Part 703.5 Class Groundwater Quality Standards (GQS). The concentrations reported in Table 3 are in micrograms per liter (ug/L).

Laboratory analytical results indicate the trichloroethylene is present in the groundwater sample from MW-1 at a concentration less than its respective GQS. No other VOCs were detected in any groundwater samples at concentrations exceeding their respective MDLs.

The SVOCs benzo(a)anthracene (max. 0.14 ug/L), benzo (a)Pyrene (0.26 ug/L), benzo (b) fluoranthene (max. 0.21 ug/L) and chrysene (max. 0.061 ug/L) were detected in the groundwater sample from MW-1 and MW-2 at concentrations exceeding their respective GQS. Two other SVOCs including Bis(2-

ethylhexyl)ether and naphthalene were detected in MW-1 and MW-2 at concentrations below GQS. Bis(2-ethylhexyl)ether is reported as a laboratory contaminant.

Several metals were detected in the groundwater samples collected at the Site. Dissolved concentrations of three metals, magnesium, manganese and sodium, were detected at concentrations exceeding of their respective GQS.

No pesticides or PCB occurred in any groundwater samples.

DISCUSSION OF RESULTS

GPR RESULTS

The GPR survey identified one anomaly that is 30 feet long and 12 feet wide in the southern portion of the Site, approximately 15 feet from the southwestern building walls, where two vent pipes and a fill port closed with concrete are located. Based upon the dimensions and location of this anomaly, it is likely to be indicative of the 3,000-gallon fuel oil UST, which was reported to Hydro Tech closed-in place in the southern portion of the Site. Since the GPR survey did not cover the entire Site, it is likely that other suspect UST anomalies associated with historic heating systems at the Site were not identified during this investigation.

SOIL QUALITY

An individual VOC identified as a gasoline-related compound was detected in the deep soil beneath the northeastern portion of the Site at a concentration exceeding its respective Unrestricted Use SCO. This is evidenced by the analytical results of the 10 to 12 foot soil sample from SP-8. This is also evidenced by the olfactory and detectable levels of organic vapors identified during the field screening of soil samples from SP-8 from 6 to 12 feet bgs. No specific source of VOCs is present in this location. This VOC does not appear to extend with depth, as no VOCs were detected in any groundwater samples.

SVOCs were detected in shallow soil across the Site at concentrations exceeding their respective Restricted Residential Use SCOs and also their commercial use SCOs. These SVOCs appear to extend to deep soil as evidenced by the results of SP-2, SP-3, SP-4, SP-7 to SP-9. The SVOCs detected at the Site can be specifically characterized as Polycyclic Aromatic Hydrocarbons (PAHs), are likely to be attributable to the historic fill present at variable depths as evidenced by the soil probe logs. The presence of fill material at the Site is consistent with Site historic records.

Three pesticides were commonly detected in soil across the Site at a concentration exceeding its Unrestricted Use SCO. This is evidenced by the analytical results of the shallow and deep soil samples collected from all soil probes.

Metals were detected in the shallow soil at concentrations exceeding the Unrestricted Use SCO as evidenced by the analytical results of soil samples from SP-1 to SP-10. These metals consisted of arsenic, lead and mercury. The metals detected in shallow soil extend to deep soil as evidenced by the analytical results of all deep soil samples with the exception of SP-6 to SP-10. Lead also exceeded the Restricted Residential SCOs in 5 shallow soil samples in SP-2, SP-6, SP-7 and SP-10 and the commercial use SCOs in 3 deep soil samples SP-2, SP-3 and SP-4. The detected metals in shallow soil can be likely attributable to the historic use of the Site as an industrial facility.

No PCBs were detected in any of the shallow or deep soils samples collected at the Site. This is evidenced by the analytical results of the soil samples obtained from SP-1 through SP-10.

GROUNDWATER QUALITY

The groundwater flow direction beneath the Site is toward the southeast. No free product was detected in any of the wells installed at the Site.

The results of the groundwater sampling indicate no VOCs were detected at concentrations exceeding GQS. The presence of TCE is MW-1 is likely to be associated with an off-site source since no chlorinated solvents were detected in any soil samples or other groundwater samples collected beneath the Site. SVOCs consisting of PAHs and detected at concentrations above the respective GQS in the northwest upgradient portion of the Site are also likely to be associated with off-site sources. No other organic compounds including Pesticides or PCBS were detected beneath the Site. This is evidenced by the analytical results of groundwater samples from MW-1 to MW-4. Three dissolved metals including magnesium, manganese and sodium were detected in MW-2 and MW-3 at concentrations above GQS. Gross groundwater contamination was not encountered during this investigation in the vicinity of the suspect 5000-gal UST anomaly and across the Site.

CONCLUSIONS

An individual gasoline VOC marginally exceeding its regulatory standard is present in deep soil beneath the northeastern portion of the Site; no specific source of VOCs is present at this location. Historic fill material impacted with PAHs and metals is present in soil throughout the Site to the depth of 12 feet. PAHs are also present in groundwater beneath the northwestern upgradient portion of the Site are likely to be related to off-site sources.

RECOMMENDATIONS

During any future site redevelopment activities, all impacted soil/fill material with elevated levels of PAHs and metals should be properly disposed of at a licensed disposal facility in accordance with local, state and federal regulations. Future development must be coordinated with the NYCOER.

Should you have any questions or comments, please feel free to contact me at your convenience.

Very Truly Yours,
Hydro Tech Environmental, Corp.

Paul I. Matli PIM

Paul I. Matli
Senior Project Manager

PIM/ph
Enc.

cc: HTE File #140172 w/ Enc.

APPENDIX IV

TPF MEMO

Philip Habib & Associates

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DRAFT TECHNICAL MEMORANDUM

TO: New York City Department of City Planning

FROM: Philip Habib & Associates

DATE: May 25, 2018

PROJECT: 29 Jay Street (PHA #16-111)

RE: Transportation Planning Factors

This memorandum summarizes the transportation planning factors to be used for the 29 Jay Street environmental assessment statement (EAS) transportation analyses. The proposed project is a commercial development located at 29 Jay Street in the DUMBO neighborhood of Brooklyn Community District (CD) 2. Provided below are estimates of the proposed project's peak incremental travel demand, along with a discussion of trip assignment methodologies and study area definitions.

THE PROPOSED ACTIONS

The applicant, Forman Ferry, LLC, is seeking zoning map text amendments from the New York City Planning Commission (CPC) to facilitate the development of an approximately 224,935 gross square foot (gsf) commercial building at 29 Jay Street (Brooklyn Block 20, Lot 1, the "proposed development site") in the DUMBO neighborhood of Brooklyn CD 2 (see **Figure 1**). The proposed actions would rezone the westernmost 150 feet of the block bounded by Plymouth Street to the south, Jay Street to the west, John Street to the north, and Bridge Street to the east (Lots 1 and 6 of Brooklyn Block 20, the "rezoning area") from M1-4/R8A to M1-6/R8X. The proposed actions would also include a zoning text amendment to ZR Section 123-63 to add R8X to the list of residential districts mapped in the MX2 Special Mixed-Use District; and a zoning text amendment to ZR Section 123-66 to allow the streetwall height of developments in the rezoning area to allow the base height to be raised based on the surrounding context. The proposed zoning text amendments would only affect the rezoning area. In addition, as the proposed development site is located within a New York City Landmarks Preservation Commission (LPC) designated historic district, the proposed project requires a Certificate of Appropriateness ("C of A") from LPC. The approximately 224,935 gsf proposed new building would include approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail. The proposed project is expected to be completed and operational in 2021.

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the potential effects of the proposed actions, a reasonable worst-case development scenario (RWCDS) for both the future without the proposed actions (the "No-Action" condition) and the



29 Jay Street

Figure 1
Project Location

future with the proposed actions (the "With-Action" condition) will be forecasted for an analysis year, or Build year, of 2021. The No-Action condition represents the baseline against which the effects of the proposed actions will be compared in the EAS. The effect of the proposed actions, therefore, represents the incremental effect on conditions that would result from the net change in development between the No-Action and With-Action conditions (i.e., the "project increment").

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

The proposed development site, which is currently occupied by an approximately 18,955 sf dance studio, was rezoned from M3-1 to M1-4/R8A as part of the City's 2009 DUMBO Rezoning ("Projected Development Site 3" in the EAS). In the future without the proposed actions, it is assumed that the applicant will retain ownership of the proposed development site, and the site would be redeveloped with an as-of-right residential building containing 121 DUs (including the potential for 24 affordable DUs under the Inclusionary Housing program), approximately 15,164 sf of local retail space, and 45 accessory parking spaces. No changes would occur on the non-applicant owned outparcel (Block 20, Lot 6) in the future without the proposed actions.

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

By 2021 under the With-Action condition, it is expected that the applicant would complete the proposed development, which would be facilitated by the proposed actions, as previously stated. The proposed development would consist of an approximately 224,935 gsf commercial building comprised of approximately 212,710 gsf of office floor area and approximately 12,225 gsf of ground floor local retail. The proposed development would not include accessory parking. No changes would occur on the non-applicant owned outparcel in the future with the proposed actions. In total, the proposed actions would result in a net increase of 212,710 gsf of commercial office floor area, as well as a net reduction of 121 DUs, 2,939 gsf of local retail, and 45 accessory parking spaces.

LEVEL 1 SCREENING

A Level 1 trip generation screening assessment was conducted to estimate the number of peak hour person and vehicle trips by mode expected to be generated by the Proposed Project. The peak hour person and vehicle trip estimates were then compared to the *CEQR Technical Manual* analysis thresholds to determine if a Level 2 screening is warranted. The travel demand assumptions used for the Level 1 assessment, including a detailed travel demand forecast, are discussed below.

Transportation Planning Factors

The transportation planning factors used to forecast travel demand for the Proposed Project's land uses are summarized in **Table 1** and discussed below. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factor for each land use were primarily based on the 2014 *CEQR Technical Manual*, census data, survey data, and studies that have been used in previous environmental review documents for projects with similar uses. Factors are shown for the weekday AM, midday, and PM and Saturday midday peak periods.

Table 1: Transportation Planning Assumptions

Land Use:	**Office**		**Residential**		**Local Retail**	
Size/Units:	212,710 gsf		-121 DU		-2,939 gsf	
Trip Generation:	(1)		(1)		(1)	
Weekday	18		8.075		205.0	
Saturday	3.9		9.6		240.0	
	per 1,000 gsf		per DU		per 1,000 gsf	
Temporal Distribution:	(1)		(1)		(1)	
AM	12.0%		10.0%		3.0%	
MD	15.0%		5.0%		19.0%	
PM	14.0%		11.0%		10.0%	
SatMD	17.0%		8.0%		10.0%	
Modal Splits:	(2,3) AM/PM/SAT	MD	(4) All Periods		(3) All Periods	
Auto	10.0%	2.0%	11.1%		2.0%	
Taxi	1.0%	1.0%	1.1%		3.0%	
Subway	69.5%	7.0%	69.1%		20.0%	
Bus	0.9%	7.0%	3.0%		5.0%	
Walk/Bike/Other	18.6%	83.0%	15.7%		70.0%	
	100.0%	100.0%	100.0%		100.0%	
	(3)		(3)		(3)	
In/Out Splits:	In	Out	In	Out	In	Out
AM	96.0%	4.0%	20%	80%	50%	50%
MD	39.0%	61.0%	51%	49%	50%	50%
PM	5.0%	95.0%	65%	35%	50%	50%
Sat MD	60.0%	40.0%	50%	50%	55%	45%
Vehicle Occupancy:	(2,3) All Periods		(3,4) All Periods		(3) All Periods	
Auto	1.05		1.10		2.00	
Taxi	1.42		1.40		2.00	
Truck Trip Generation:	(1)		(1)		(1)	
Weekday	0.32		0.06		0.35	
Saturday	0.01		0.02		0.04	
	per 1,000 sf		per DU		per 1,000 sf	
	(1)		(1)		(1)	
AM	10.0%		12.0%		8.0%	
MD	11.0%		9.0%		11.0%	
PM	2.0%		2.0%		2.0%	
Sat MD	11.0%		9.0%		11.0%	
	In	Out	In	Out	In	Out
AM/MD/PM/SMD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes :

(1) Based on 2014 *City Environmental Quality Review (CEQR) Technical Manual.*

(2) Based on employee and visitor surveys conducted by PHA at DUMBO office buildings in 2012.

(3) Based on 2009 *Dumbo Rezoning EAS*.

(4) Estimated from 2011-2015 American Community Survey (ACS) Data for Brooklyn tract 1, 13, 21 and 23.

Office

The weekday and Saturday trip generation rates (18.0 and 3.9 trips per 1,000 gsf, respectively), temporal distributions (12.0 percent for the weekday AM, 15.0 percent for the weekday midday, 14.0 percent for the weekday PM, and 17.0 percent for the Saturday midday periods), and truck trip generation rates for the office component of the proposed project were based on the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual*. Modal splits for the weekday AM, weekday PM, and Saturday periods of 10.0 percent by auto, 1.0 percent by taxi, 69.5 percent by subway, 0.9 percent by bus, and 18.6 percent by walk/other modes, as well as the auto vehicle occupancy of 1.05 for all periods, were based on surveys conducted by Philip Habib & Associates (PHA) at three DUMBO office buildings in 2012 for the *Domino Sugar Rezoning Technical Memorandum 003*. Modal splits for the weekday midday period of 2.0 percent by auto, 1.0 percent by taxi, 7.0 percent by subway, 7.0 percent by bus, and 83.0 percent by walk/other modes, as well as the directional in/out splits and taxi vehicle occupancy of 1.42 for the weekday AM, midday, and PM, and Saturday midday periods, respectively, were based on the 2009 *DUMBO Rezoning EAS*.

Local Retail

The travel demand forecast for local retail used weekday and Saturday trip generation rates of 205 and 240 trips per 1,000 gsf, respectively. The travel demand forecast used temporal distributions of 3.0 percent for the weekday AM, 19.0 percent for the weekday midday, 10.0 percent for the weekday PM, and 10.0 percent for the Saturday midday period. Both trip generation and temporal distribution rates for the local retail component of the proposed project were based on the 2014 *CEQR Technical Manual*. Modal splits (2.0 percent by auto, 3.0 percent by taxi, 20.0 percent by subway, 5.0 percent by bus, and 70.0 percent by walk/other modes), directional in/out split, and auto and taxi vehicle occupancy rates for all periods were based on the 2009 *DUMBO Rezoning EAS*. As it is likely that there will be overlap between office and retail users, a 25 percent linked-trip credit on weekdays is assumed for local retail uses in accordance with *CEQR Technical Manual* guidelines.

No-Action Residential

The weekday and Saturday trip generation rates (8.075 and 9.6 trips per DU, respectively), temporal distributions (10.0 percent for the weekday AM, 5.0 percent for the weekday midday, 11.0 percent for the weekday PM, and 8.0 percent for the Saturday midday periods), and truck trip generation rates for the residential component of the No-Action development were based on the 2014 *CEQR Technical Manual*. Modal splits for the weekday AM, midday, and PM, and Saturday midday periods of 14.2 percent by auto, 2.4 percent by taxi, 65.4 percent by subway, 0.0 percent by bus, and 18.0 percent by walk/other modes, as well as the auto vehicle occupancy of 1.18, were based on 2011-2015 American Community Survey (ACS) data for Brooklyn census tract 21. Directional in/out splits and a taxi vehicle occupancy rate of 1.40 for the weekday AM, midday, PM, and Saturday midday periods, respectively, were based on the 2009 *DUMBO Rezoning EAS*.

Travel Demand Forecast

Table 2 presents the incremental person and vehicle trips expected to be generated by the Proposed Project, as compared to conditions in the future without the Proposed Actions. As presented in **Table 2**, the Proposed Project would generate approximately 348, 440, and 384 incremental person trips in the weekday AM,

midday, and PM peak hours, respectively, and a net reduction of 24 person trips in the Saturday midday peak hour. A discussion of the incremental person trips and vehicle trips, by mode, is provided below.

Traffic

As shown in **Table 2**, the proposed project would result in a net increase of 45, 17, 47, and three vehicle trips in the weekday AM, midday, PM, and Saturday midday peak periods, respectively. Under 2014 *CEQR Technical Manual* criteria, if a proposed project generates 50 or more peak hour vehicle trips ends, there is likely a need for further analysis. As the number of vehicle trips would not exceed 50 during any analysis period, the Proposed Project is not expected to result in traffic impacts. Therefore, further traffic analysis is not warranted as a result of the Proposed Project.

Transit

Subway

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) , and specified in the 2014 *CEQR Technical Manual*, a detailed subway analysis is generally not required if the proposed project generates an increase in passengers of fewer than 200 person trips by subway, per subway station. Based on the travel demand forecast, the Proposed Project would generate approximately 250 and 289 incremental person trips by subway in the weekday AM and PM peak hours, respectively (refer to **Table 2**). As the number of peak hour subway trips would exceed 200 in the weekday AM and PM peak hours, a Level 2 trip assignment is warranted for these peak hours and is provided in the following section.

Bus

According to the general thresholds used by MTA and specified in the 2014 *CEQR Technical Manual*, a detailed bus-line haul analysis is generally not required if the proposed project generates an increase of fewer than 200 peak hour passengers by bus. Based on the travel demand forecast, the project would generate a net increase of one person trip by during the weekday AM peak hour and would generate no new trips in the PM peak hour (refer to **Table 2**). As the projected person trips by bus would not exceed 200 or more passengers per hour during any peak period, the Proposed Project is not expected to result in significant impacts on any bus line. Therefore, further detailed analysis is not warranted.

Pedestrians

An analysis of pedestrian conditions is required where a substantial number of trips are generated by an action. This analysis focuses on sidewalks, corner areas, and crosswalks. As shown in **Table 2**, the Proposed Project would generate 58, 409, and 51 incremental walk trips in the weekday AM, midday, and PM peak hours, respectively, as well as a net reduction of 36 walk trips in the Saturday midday period. Including walk trips to/from public transit and pubic parking facilities, the Proposed Project would generate a combined 345, 436, and 382 incremental pedestrian trips in the weekday AM, midday, and PM peak periods, as well as a net decrease of 22 pedestrian trips in the Saturday midday peak period. As the number of incremental peak hour trips would exceed the *CEQR Technical Manual* analysis threshold in the weekday AM, midday, and PM peak hours, a Level 2 screening assessment was undertaken for these peak hours and is provided in the following section.

Table 2: Travel Demand Forecast

Land Use:		Office		Residential		Local Retail*		Total	
Size/Units:		212,710	gsf	-121	DU	-2,939	gsf		
Peak Hour Person Trips:									
	AM	460		-98		-14		348	
	MD	576		-50		-86		440	
	PM	538		-108		-46		384	
	Sat MD	142		-94		-72		-24	
Person Trips:									
		In	Out	In	Out	In	Out	In	Out
AM	Auto	44	3	-2	-9	0	0	42	-6
	Taxi	4	0	0	-1	0	0	4	-1
	Subway	307	13	-14	-54	-1	-1	292	-42
	Bus	4	0	-1	-2	0	0	3	-2
	Walk/Other	82	3	-3	-12	-6	-6	73	-15
	Total	441	19	-20	-78	-7	-7	414	-66
		In	Out	In	Out	In	Out	In	Out
MD	Auto	4	7	-3	-3	-1	-1	0	3
	Taxi	2	4	0	0	-1	-1	1	3
	Subway	16	25	-17	-17	-9	-9	-10	-1
	Bus	16	25	-1	-1	-2	-2	13	22
	Walk/Other	186	291	-4	-4	-30	-30	152	257
	Total	224	352	-25	-25	-43	-43	156	284
		In	Out	In	Out	In	Out	In	Out
PM	Auto	3	51	-8	-4	0	0	-5	47
	Taxi	0	5	-1	0	-1	-1	-2	4
	Subway	19	355	-49	-26	-5	-5	-35	324
	Bus	0	5	-2	-1	-1	-1	-3	3
	Walk/Other	5	95	-11	-6	-16	-16	-22	73
	Total	27	511	-71	-37	-23	-23	-67	451
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto	9	6	-5	-5	-1	-1	3	0
	Taxi	1	1	-1	-1	-1	-1	-1	-1
	Subway	58	38	-33	-33	-8	-6	17	-1
	Bus	1	1	-1	-1	-3	-2	-3	-2
	Walk/Other	16	11	-7	-7	-27	-22	-18	-18
	Total	85	57	-47	-47	-40	-32	-2	-22
Vehicle Trips :									
		In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	42	3	-2	-8	0	0	40	-5
	Taxi	3	0	0	-1	0	0	3	-1
	Taxi Balanced	3	3	-1	-1	0	0	2	2
	Truck	3	3	0	0	0	0	3	3
	Total	48	9	-3	-9	0	0	45	0
		In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	4	7	-3	-3	-1	-1	0	3
	Taxi	1	3	0	0	-1	-1	0	2
	Taxi Balanced	4	4	0	0	-1	-1	3	3
	Truck	4	4	0	0	0	0	4	4
	Total	12	15	-3	-3	-2	-2	7	10
		In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	3	49	-7	-4	0	0	-4	45
	Taxi	0	4	-1	0	-1	-1	-2	3
	Taxi Balanced	4	4	-1	-1	-1	-1	2	2
	Truck	1	1	0	0	0	0	1	1
	Total	8	54	-8	-5	-1	-1	-1	48
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto (Total)	9	6	-5	-5	-1	-1	3	0
	Taxi	1	1	-1	-1	-1	-1	-1	-1
	Taxi Balanced	2	2	-1	-1	-1	-1	0	0
	Truck	0	0	0	0	0	0	0	0
	Total	11	8	-6	-6	-2	-2	3	0

Total Vehicle Trips			
	In	Out	Total
AM	45	0	45
MD	7	10	17
PM	-1	48	47
Sat MD	3	0	3

* assumes 25% linked trip credit on a weekday.

LEVEL 2 SCREENING

Subway

As presented above, the Proposed Project would generate more than 200 incremental subway trips in the weekday AM and PM peak hours. According to the general thresholds used by the MTA and specified in the 2014 *CEQR Technical Manual*, a detailed subway analysis is generally not required if the project-generated increase in passengers is fewer than 200 person trips at a single station or on a single subway line.

Based on the mode-choice survey data collected in 2012 at DUMBO office buildings in close proximity to the Proposed Development Site, it is anticipated that approximately 57 percent of the project-generated trips would utilize the York Street (F) Station, with approximately 29 percent utilizing the High Street (A/C) Station, approximately twelve percent utilizing the Clark Street (2/3) and Borough Hall (4/5) Stations, and approximately two percent utilizing the DeKalb Avenue (B/Q/R) Station. Based on this information, it is anticipated that the Proposed Project would not generate more than 200 trips at any one subway station in either the weekday AM or PM peak hour. The York Street (F) Station would experience the highest concentration of project-generated subway trips with approximately 143 and 165 new incremental subway trips in the weekday AM and PM peak hours, respectively. Based on the anticipated distribution of project-generated subway trips, the Proposed Project would not generate 200 or more incremental subway trips per any one subway line during the weekday AM or PM peak hours. The Proposed Project, therefore, is not expected to result in significant adverse impacts to subway line haul conditions and further analysis is not warranted.

Pedestrians

Project-generated pedestrian trips were assigned to area pedestrian elements for the weekday AM, midday, and PM peak hours (the three peak hours when trips would exceed the 200-trip CEQR screening threshold). Walk-only trips and trips to/from public transit and public parking facilities would each have a different assignment pattern. Subway trips were assigned as described above, and bus trips were assigned to the closest bus stops for the B67 and B62 bus routes. Walk-only trips were assigned evenly throughout the local street network, with trips originating/ending at the applicable entrance/exit locations based on the proposed site plan. Walk trips to/from public parking facilities were assigned to/from the public parking facility most proximate to the Proposed Development Site, because it is expected to be the most utilized by the Proposed Project users.

An assignment of weekday AM, midday, and PM peak hour pedestrian trips is shown in **Figure 2**. As shown in **Figure 2**, the CEQR analysis threshold of 200 new pedestrian trips would be exceeded on one sidewalk, namely the East sidewalk on Jay Street between John Street and Plymouth Street adjacent to the Projected Development Site. It should be noted that the CEQR analysis threshold of 200 new pedestrian trips would also be exceeded at corner areas at the intersections of Jay Street with Plymouth in one or more peak hours. However, this intersection is unsignalized and corner areas are therefore not analyzed at these interse ctions in accordance with *CEQR Technical Manual* methodology.

Pedestrian Project Increment Assignment

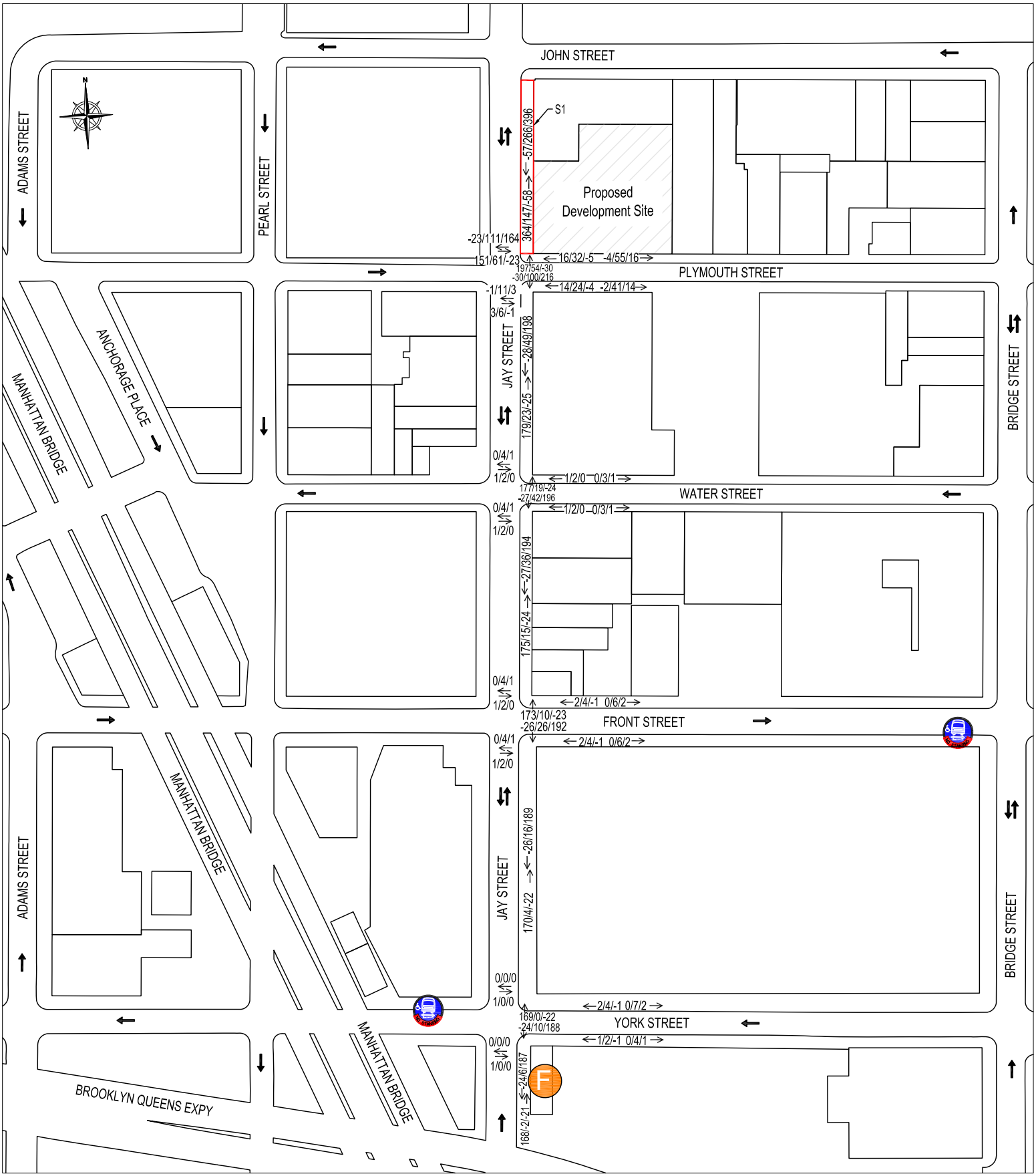
MTA Subway Station

MTA Bus Stop

S1 Pedestrian Element Analysis Location

199/225/393 - Weekday AM/MD/PM Pedestrian Volumes

Proposed Development Site



APPENDIX V

AGENCY CORRESPONDENCE

NYC 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 / 18DCP150K
Project: 29 JAY ST. REZONING
Address: 29 JAY STREET, **BBL:** 3000200001
Date Received: 5/9/2018

[ ] No architectural significance

[X**] No archaeological significance**

[X**] Designated New York City Landmark or Within Designated Historic District**

[X**] Listed on National Register of Historic Places**

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Comments:

The LPC is in receipt of the EAS dated 3/2/18. The document appears acceptable for historic and cultural resources. All new construction is to proceed as per permit(s) issued by the LPC Preservation Department under the NYC Landmarks Law. The construction protection plan is to be submitted to LPC for review and comment prior to start of construction.

Gina Santucci

5/17/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33372_FSO_GS_05172018.doc

Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Anastasios Georgelis, P.E.
Acting Deputy Commissioner
Bureau of Water and
Sewer Operations

59-17 Junction Boulevard
Flushing, NY 11373

watersewerplanning@dep.nyc.gov
sewerinfo@dep.nyc.gov

MEMORANDUM

To: Mitchell Wimbish

From: Bhaskar Nookala, P.E., Section Chief, Drainage Review and Modeling

Subject: CEQR # 18DCP150K – 29 Jay Street
Borough of Brooklyn

Date: June 19, 2018

This is in reference to the Environmental Assessment Statement received by BWSO on May 10, 2018 via e-mail. Please be advised of the following comments:

- **Sewer System**
  The proposed rezoning results in an increase of 196% for the sanitary flow in the adjacent sewers based on rezoning rom M1-4/R8A to M1-6/R8X. A hydraulic analysis of the existing sewer system may be needed 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, there might be a need to amend the existing drainage plan based on the hydraulic analysis calculations.

- **Water System**
  Existing infrastructure should be able to handle the estimated increase in water demand for the subject location. Water mains within the vicinity of 29 Jay Street will be upgraded on an upcoming DDC Project.

C: Jannine McColgan, P.E., Director, Water and Sewer Planning
Sham Hemraj, P.E., Chief of Distribution Engineering
Guo Zhan Wu, P.E., Chief, Site Connection, GI & Plan Review
Ketki Patel, P.E., Chief, Drainage Review
Jerry Volgende, P.E., Chief, Collections Facilities Operations
Lillian Cheng,P.E. EIC, Drainage and Modeling
Vincent Malveaux, E.I.C., Site Connection
Bushra Asfare, Review Engineer, Drainage Review Section
Rose Temple; **Record # 43396**

Subject: RE: 29 Jay - Industrial Permit Sear Request (16-111)
From: "Cofield, Brenda" <BCofield@dep.nyc.gov>
Date: 4/13/2017 9:06 AM
To: "ngreenberger@phaeng.com" <ngreenberger@phaeng.com>
CC: "archives@phaeng.com" <archives@phaeng.com>, "Liang, Kit Y." <KLiang@dep.nyc.gov>, "Narvaez, Angel" <AngelN@dep.nyc.gov>

Good Morning Norabelle,

Below, please find our findings for the area search around 29 Jay Street, Brooklyn.

BLOCK	LOT	Column1	ADDRESS	INDUSTRIAL INSTALLATION NUMBERS	OUR RECORDS SHOW A DIFFERENT ADDRESS FOR THE BLOCK & LOT
29 Jay Street, Brooklyn - Request #(16-111)					
30	23		179 WATER STREET	No Record	
30	6		47 PEARL STREET	PA039283	
30	4		53 PEARL STREET	No Record	
29	8		140 PLYMOUTH STREET	No Record	
40	1		68 JAY STREET	No Record	
1	50		10 JAY STREET	No Record	
3	1		JAY STREET	PA066582; PA066682	89 JOHN STREET
21	1		27 BRIDGE STREET	No Record	
30	22		181 WATER STREET	No Record	
21	9		19 BRIDGE STREET	No Record	
20	29		195 PLYMOUTH STREET	No Record	
31	29		40 BRIDGE STREET	No Record	
20	14		64 JOHN STREET	No Record	
41	7		57 JAY STREET	No Record	
31	25		216 PLYMOUTH STREET	No Record	

Regards,
Brenda

Brenda Cofield | **Clerical Associate II** | **NYC Environmental Protection**
(Office) (718) 595-3704 | **bcofield@dep.nyc.gov**

P **Please consider the environment before printing this e-mail**