Gowanus Ninth Street Rezoning

Environmental Assessment Statement

CEQR No.: 22DCP091K

ULURP Nos.: 210348ZMK, N210349ZRK, 210350ZSK

Prepared for:
Angelina Gatto Trust
Prepared by:
Philip Habib & Associates

April 22, 2022

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

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* Gowanus Ninth Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency) 22DCP091K	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) 210348ZMK, N210349ZRK, 210350ZSK	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Department of City Planning			NAME OF APPLICANT Angelina Gatto Trust		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director, Environmental Assessment and Review Division			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON c/o Paul J. Proulx, Land Use Counsel		
ADDRESS 120 Broadway			ADDRESS Carter Ledyard & Milburn 2 Wall Street		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10005
TELEPHONE 212.720.3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212.238.8763	EMAIL proulx@clm.com	

5. *Project Description*

The Applicant, Angelina Gatto Trust, is seeking approval for three discretionary actions (the "proposed actions") to facilitate the redevelopment of the Applicant-owned projected development site 1 at 153-157 Ninth Street and 122-124 Eighth Street (Block 1002, Lots 48, 49, 50, and 16; the "projected development site 1 zoning lot") in the Gowanus neighborhood of Brooklyn Community District (CD) 6. These actions include: (1) a zoning map amendment to rezone Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55 and portions of Lots 39 and 56 ("proposed rezoning area") from a M2-1 district to a M1-4/R7A Special Mixed-Use (MX) District; (2) a zoning text amendment to Article XII, Chapter 3 and Appendix F of the New York City Zoning Resolution (ZR) to established the proposed MX district and to establish a Mandatory Inclusionary Housing (MIH) area; and (3) a special permit pursuant to ZR Section 74-533 to waive accessory parking requirements of ZR Section 25-23 for projected development Site 1.

The proposed rezoning area consists of the mid-block on the north side of Ninth Street between Second and Third Avenues, and consists of all or portions of 16 privately-owned tax lots on Block 1002 (Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of Lots 39 and 56). The proposed rezoning area comprises a total of approximately 42,075 square feet (sf) of lot area. The proposed MX (M1-4/R7A) district woud extend along the mid-block, mapped from the centerline of Ninth Street between Second and Third Avenues to a depth of 100 feet on Block 1002. Its northwestern boundary would extend parallel to Second Avenue and be mapped roughly 175 feet south of Second Avenue, and its southeastern boundary would extend parallel to Third Avenue and would be mapped 100 feet north of Third Avenue.

Approval of the proposed actions would facilitate the development of an approximately 56,000 gsf, 9-story mixed-use residential and commercial building at 153-157 Ninth Street (Block 1002, Lots 48, 49, and 50; "projected development site 1") that would use 3,300 sf of unused commercial development rights transferred from the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16), which is located outside of the proposed rezoning area and owned by the Applicant. The proposed mixed-use building would have a maximum height of 95 feet to the roofline and include approximately 16,000 gsf of commercial uses on portions of the ground floor and cellar level, as well as 48 DUs with approximately 12 affordable DUs. No accessory parking would be provided per the requested special permit pursuant to ZR Section 74-533.

As a reasonable-worst case development scenario (RWCDS), in addition to projected development site 1, the proposed zoning changes are expeced to facilitate the redevelopment of another projected development site (site 2; Block 1002, Lots 43 and 45). Refer to Attachment A, "Project Description" for details.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 6	STREET ADDRESS 141- 175 Ninth St., 122-124 Eighth St.
TAX BLOCK(S) AND LOT(S) Block 1002, Lots 16, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of Lots 39 and 56		ZIP CODE 11215
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS mid-block on the north side of 9th Street between 2nd and 3rd Aves.		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M2-1		ZONING SECTIONAL MAP NUMBER 16c

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

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Special Permit pursuant to ZR Section 74-533 to waive accessory parking requirements of ZR Section 25-33; zoning text amendment to modify Article XII, Chapter 3 (Special Mixed-Use District) and Appendix F

Board of Standards and Appeals: ☐ YES ☒ NO

☐ VARIANCE (use)

☐ VARIANCE (bulk)

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

7. *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.): 44,575 sf (includes the proposed rezoning area and Development Rights Parcel)

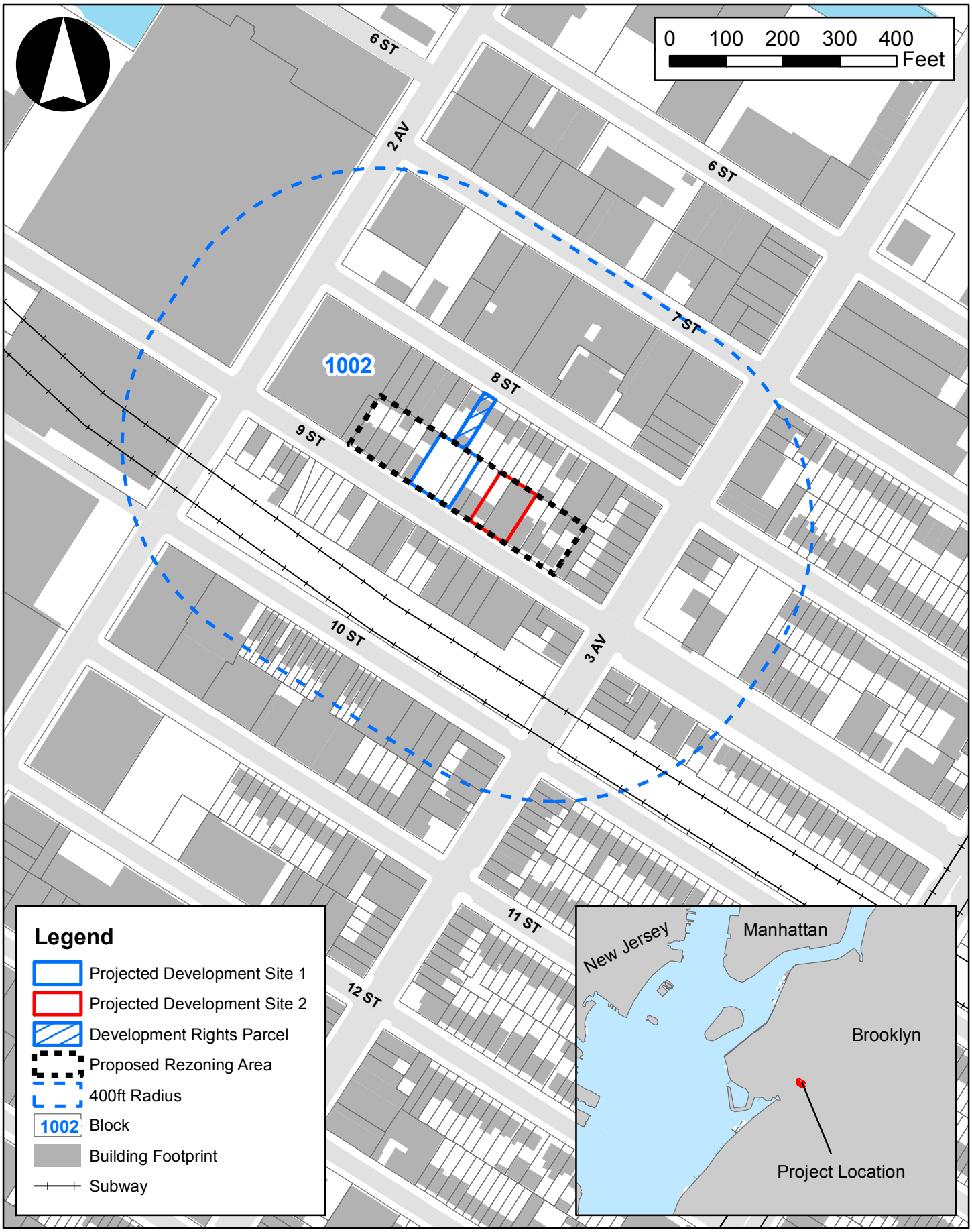
Waterbody area (sq. ft) and type: 0 sf

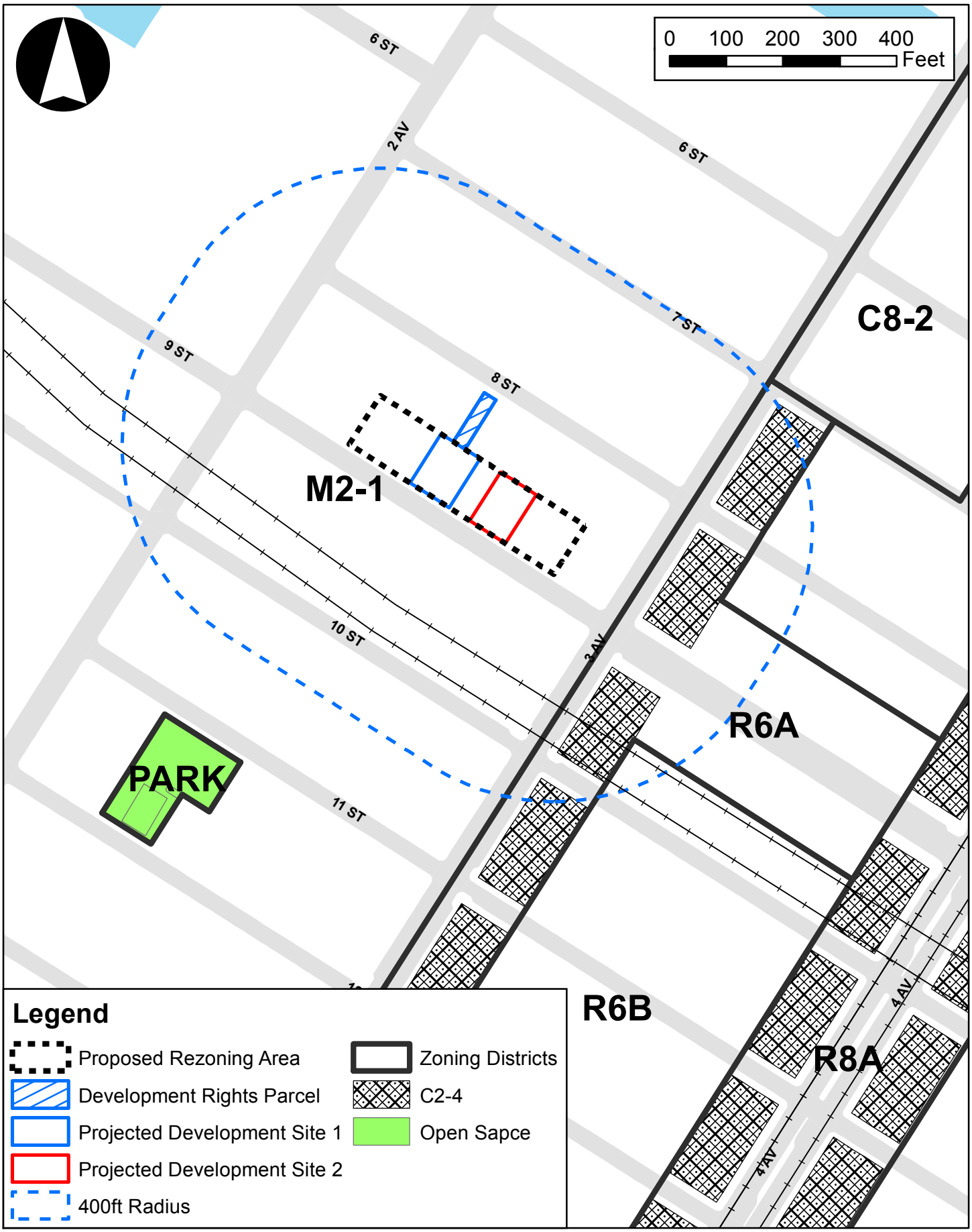
Roads, buildings, and other paved surfaces (sq. ft.): 44,575 sf

Other, describe (sq. ft.): 0 sf

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

Site Location Map

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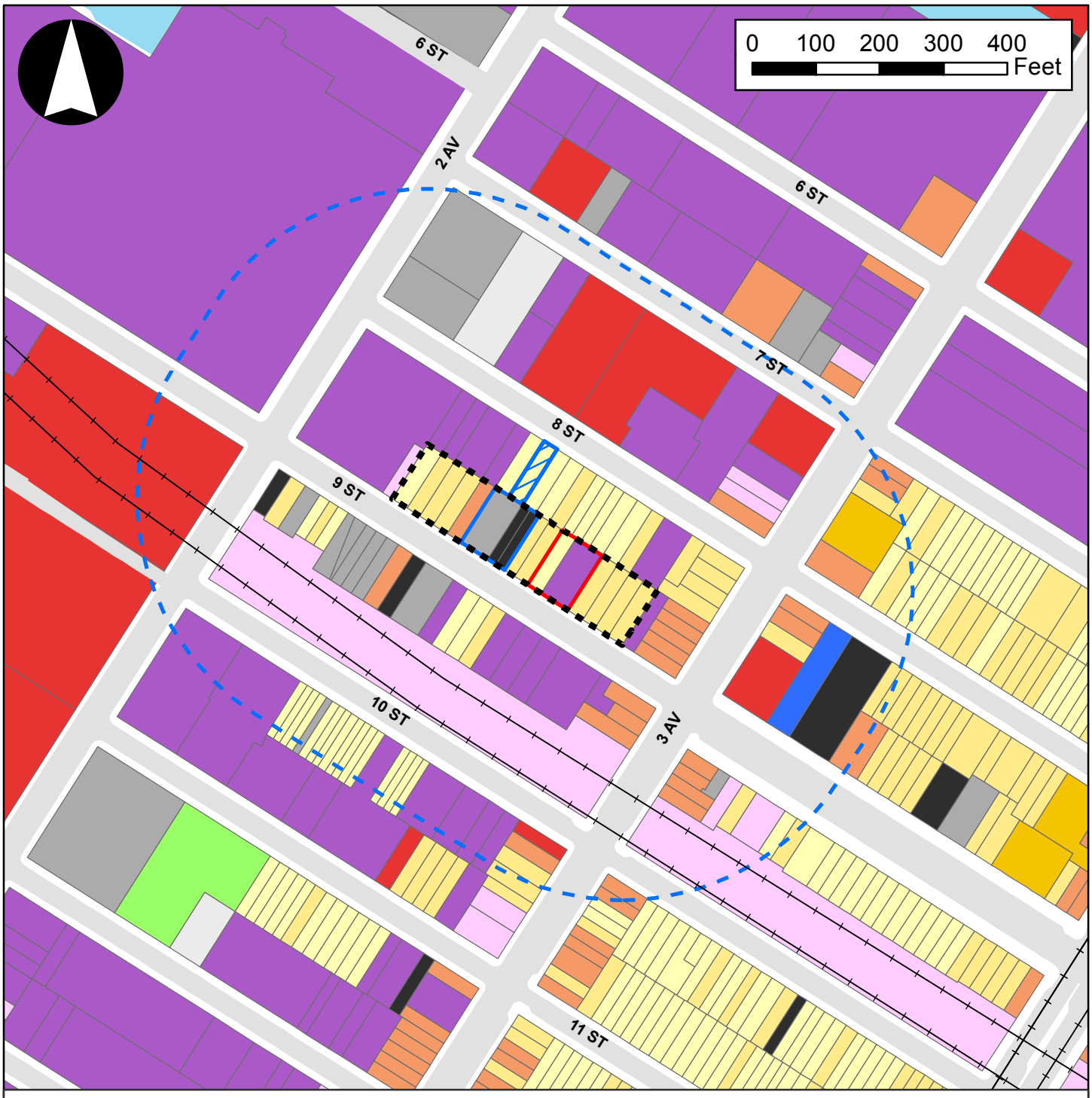
Feet
6 ST
2 AV
6 ST
7 ST
9 ST
8 ST
C8-2
M2-1
10 ST
3 AV
R6A
PARK
11 ST
R6B
4 AV
R8A
4 AV
Legend
Proposed Rezoning Area
Development Rights Parcel
Projected Development Site 1
Projected Development Site 2
400ft Radius
Zoning Districts
C2-4
Open Sapce



Legend

- Projected Development Site 1
- Projected Development Site 2
- Development Rights Parcel
- Proposed Rezoning Area
- 400ft Radius

Land Use

- One and Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing Buildings
- Transportation/Utility
- Public Facilities and Institutions
- Open Space
- Parking Facilities
- Vacant Land
- All Others or No Data



Gowanus Ninth Street Rezoning EAS

Figure 4
Tax Map



View from Ninth Street looking to projected development site 1 (Lots 48 to 50 on Block 1002).



View from Ninth Street looking to the gated vehicular entrance at projected development site 1 (Lots 48 to 50 on Block 1002).



View from Ninth Street to Lot 43, Block 1002, which is part of projected development site 2.



View from Ninth Street to Lot 45, Block 1002, which is part of projected development site 2.



View looking west on the north side of Ninth Street at the proposed rezoning area. The residential buildings on Lots 53 & 54 are in the foreground of the photo.



View looking east on the north side of Ninth Street at the proposed rezoning area. The residential buildings on Lots 46 & 47 are in the foreground of the photo.



View from Eighth Street to Lot 16 on Block 1002 (Development Rights Parcel).



View from Ninth Street to Lots 39, 40, & 41 in the proposed rezoning area.

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): RWCDS total of 94,232 gsf in two new buildings

NUMBER OF BUILDINGS: two new buildings

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 56,000 gsf (Site 1); 38,232 gsf (Site 2)

HEIGHT OF EACH BUILDING (ft.): two new buildings- 95'

NUMBER OF STORIES OF EACH BUILDING: 2 new buildings- 9-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: 10,742 sf

The total square feet not owned or controlled by the applicant: 33,833 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 permanent and temporary disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: 15,742 sq. ft. (width x length) VOLUME OF DISTURBANCE: 157,420 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 15,742 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	71,763 gsf	22,469 gsf		
Type (*e.g.,* retail, office, school)	85 units	Local retail; supermarket		

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 202 NUMBER OF ADDITIONAL WORKERS: 65

Provide a brief explanation of how these numbers were determined: Estimated number of residents is based on the Park Slope-Gowanus Neighborhood Tabulation Area (NTA) average household size of 2.40 persons per household according to the 2014-2018 Five-Year American Community Survey (ACS). Estimated number of workers is based on one worker per 333 gsf of retail/supermarket space, one worker per 25 DUs, and one worker per 1,000 sf of warehouse.

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2026

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: less than two years of construction for each development site

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: each of the two RWCDS buildings would be constructed in a single phase

10. *Predominant Land Use in the Vicinity of the Project* (check all that apply) Varied, mixed-use

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

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 Short 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. Refer to Attachment C, and Appendix 2		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
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, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **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)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed 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?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☒
5. *SHADOWS*: CEQR Technical Manual Chapter 8		

	YES	NO
(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? 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. Refer to Attachment B		
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? Refer to Attachment E, "Urban Design and Visual Resources"	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
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 proposed 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: Refer to Attachment B	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed 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?	☐	☒

	YES	NO
(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 generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
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): 8,897		
○ 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?	☐	☒
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): 14,191,627		
(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 screening analyses, attach appropriate 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 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)	☐	☒
(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?	☐	☒
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) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
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?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		

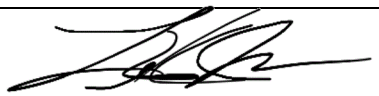
	YES	NO
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. Refer to Attachment B, "Supplemental Screening"		
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. Refer to 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. Refer to 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	DATE
Lisa Jourdy, AICP	04/22/2022

SIGNATURE 

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:

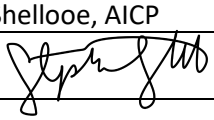
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental 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	City Planning Commission
NAME	DATE
Stephanie Shellooe, AICP	April 22, 2022

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in this EAS. The applicant, Angelina Gatto Trust, is seeking a series of discretionary land use actions including: a zoning map amendment to rezone Brooklyn Block 1002, Lots 40-43, 45-50, 52-55 and portions of Lots 39 and 56 (the "proposed rezoning area") from an M2-1 district to an M1-4/R7A Special Mixed-Use (MX) District; a zoning text amendment to Article XII, Chapter 3 and Appendix F of the New York City Zoning Resolution (ZR) to established the proposed MX district and to establish a Mandatory Inclusionary Housing (MIH) area with MIH options 1 and 2 coterminous with the proposed rezoning area; and a special permit pursuant to ZR Section 74-533 to waive accessory parking requirements of ZR Section 25-23 for projected development site 1 (Brooklyn Block 1002, Lots 48, 49, and 50); collectively, the "Proposed Actions," in the Gowanus neighborhood of Brooklyn Community District (CD) 6. Approval of the Proposed Actions would facilitate development of an approximately 56,000 gross square foot (gsf), 95-foot tall, 9-story mixed-use residential and commercial building at 153-157 Ninth Street, Projected Development Site 1, which would use 3,300 sf of unused commercial development rights transferred from the abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16). The proposed 95-foot-tall building would include 16,000 gsf of commercial uses on the ground floor and cellar level, as well as 48 dwelling units (DUs) with approximately 12 affordable DUs. The EAS also considers a future with-action scenario that includes the redevelopment of Projected Development Site 2 (Lots 43 and 45) with a 38,231 gsf mixed-use building comprising 37 DUs, including approximately nine affordable units, and ground floor local retail. Although the Proposed Actions would result in changes to land use within the primary study area by increasing the allowable density and introducing new residential uses that are currently not allowed, the proposed residential and commercial uses would be compatible with surrounding uses and bring into conformance a number of existing residential buildings. The Proposed Actions would facilitate the creation of market-rate and affordable housing in a transit-accessible area, providing a total of 87 DUs, including 21-26 permanently affordable units pursuant to MIH; and would be consistent with the City's Housing New York 2.0 plan and efforts to increase the overall amount of affordable housing. The proposed rezoning area is located within the coastal zone, and the Proposed Actions would be consistent with all applicable policies of the Waterfront Revitalization Program (WRP # 20-030). Therefore, the analysis concludes that no significant adverse impacts are anticipated for land use, zoning, and public policy, and no further analysis is required.

Open Space

A detailed analysis related to open space is included in this EAS. The rezoning area is located in an "underserved" area as identified in the 2020 CEQR Technical Manual, and the Proposed Actions would result in an increase of greater than 50 residents, thus exceeding the threshold for an indirect open space analysis for the study area's residential population. The open space ratio for residents in the study area would decrease by less than 1% as a result of the Proposed Actions, which is below the 5% threshold for impacts to open space, and also less than a 1% decrease, which may be considered if the existing open space ratio is low. The analysis finds that while there would be a decrease in open space ratio as a result of the increase in population, a number of qualitative factors would help to prevent an impact to open space resources, including proximity to neighborhood and regional parks including the 1.87-acre Carroll Park, 1.9-acre DiMattina Playground and 58-acre Red Hook Recreational Area, and the 526-acre Prospect Park. In the with-action scenario, the proposed MX (M1-4/R7A) district Quality Housing bulk regulations would require (private) indoor recreational space and exterior open space for any residential development, which would also serve to satisfy some of the open space demand created by the Proposed Actions. In addition, the Proposed Actions would not have a direct effect on existing open space resources. Therefore, the analysis concludes that no significant adverse impacts to open space are anticipated, and no further analysis is required.

Urban Design and Visual Resources

A detailed analysis related to urban design and visual resources is included in this EAS. The analysis finds that while the Proposed Actions would facilitate the development of two buildings that are larger in height and bulk (scale) than that found in the immediately surrounding area, the buildings would be expected to complement the existing varied context, which includes a diverse mix of building typologies and uses. Development under the with-action scenario would also be consistent with surrounding neighborhood context in terms of use and lot placement, forming consistent streetwalls with buildings lining Ninth Street. The Proposed Actions would not result in any development that would obstruct or eliminate any public views or affect any existing view corridors or views of visual resources. Although the pedestrian experience would change under the with-action scenario, as existing low-scale sites would be redeveloped with 9-story mixed-use buildings that include ground floor commercial uses, the changes would also activate the streetscape and would not negatively affect a pedestrian's experience of the area. Therefore, the analysis concludes that no significant adverse impacts are anticipated for urban design or visual resources, and no further analysis is required.

Transportation

A detailed analysis related to transportation (pedestrian traffic) is included in this EAS. The Proposed Actions and associated RWCDS would generate additional vehicular, transit and pedestrian trips in the surrounding area. As the incremental increase in pedestrian trips would exceed the 2020 CEQR Technical Manual threshold of 200 pedestrian trips, a detailed analysis of operating conditions is provided for two pedestrian elements (one corner and one sidewalk). Conditions at the northeast corner of Second Avenue and Ninth Street and on the north sidewalk along Ninth Street between Second and Third Avenues have been analyzed during the weekday PM and Saturday midday peak hours. The analysis results demonstrate that the analyzed sidewalk is expected to experience a degradation of level of service (LOS) from the-no-action condition to the with-action conditions from a LOS B to an acceptable LOS C; and the analyzed corner area would continue to operate at a LOS A with no degradation in LOS. Based on 2020 CEQR Technical Manual impact criteria, no significant adverse impacts would occur at either location as a result of the Proposed Actions. Additionally, none of the analyzed intersections would be considered a high crash location per 2020 CEQR Technical Manual guidance. Therefore, the analysis concludes that no significant adverse transportation impacts are anticipated, and no further analysis is required.

Project Name: Ninth Street Rezoning
CEQR # 22DCP091K
SEQRA Classification: Unlisted

Hazardous Materials, Air Quality, and Noise
An (E) designation (E-670) related to hazardous materials, air quality, and noise would be established as part of the approval of the Proposed Actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the Proposed Actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Stacey Barron *at +1 212-720-3419.*

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephane Shellooe, AICP	DATE April 22, 2022
SIGNATURE	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE April 25, 2022
SIGNATURE	

Project Name: Ninth Street Rezoning
CEQR # 22DCP091K
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Actions were determined to have the potential to result in changes to development on the following sites:

Development Site	Borough	Block and Lot
Projected Development Site 1	Brooklyn	Block 1002, Lots 48, 49, and 50
Projected Development Site 2	Brooklyn	Block 1002, Lots 43 and 45

(E) Designation Requirements

To ensure that the Proposed Actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-670**) would be established as part of approval of the Proposed Actions on **Projected Development Site 1 and 2** as described below:

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

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Sites 1 and 2** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse

impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Air Quality

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

Projected Development Site 1: *Any new residential and/or commercial development on the above-referenced property must utilize natural gas as the type of fuel for heating, ventilation, and air conditioning (HVAC) and hot water equipment, and ensure the stack is located at the highest tier and at least 107 feet above grade to avoid any potential significant adverse air quality impact.*

Projected Development Site 2: *Any new residential and/or commercial development on the above-referenced property must utilize natural gas as the type of fuel for heating, ventilation, and air conditioning (HVAC) and hot water equipment, and ensure the stack is located at the highest tier and at least 107 feet above grade and at least 43 feet from the western lot line of Lot 43 facing Second Avenue to avoid any potential significant adverse air quality impact.*

Noise

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

Projected Development Site 1: *To ensure an acceptable interior noise environment, future community facility and commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Ninth Street and the facades facing Second Avenue within 50 feet of Ninth Street and the facades facing Third Avenue within 50 feet of Ninth Street to maintain an interior noise level not greater than 45 dBA for community facility uses and 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Projected Development Site 2: *To ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Ninth Street and the facades facing Second Avenue within 50 feet of Ninth Street and the facades facing Third Avenue within 50 feet of Ninth Street to maintain an interior noise level not greater than 45 dBA for community facility uses and 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

ATTACHMENT A

PROJECT DESCRIPTION

I. INTRODUCTION

The applicant, Angelina Gatto Trust, is seeking zoning map and zoning text amendments and a special permit from the New York City Planning Commission (CPC) to facilitate the development of an approximately 56,000 gross square foot (gsf) mixed-use residential and commercial building with up to nine-stories at 153-157 Ninth Street (Brooklyn Block 1002, Lots 48, 49, and 50; "projected development site 1") in the Gowanus neighborhood of Brooklyn Community District (CD) 6. The proposed mixed-use development would use approximately 3,300 sf of commercial development rights transferred from the abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16), also under the applicant's control, which would not be included within the proposed rezoning area. As a reasonable worst-case development scenario (RWCDS), the proposed development at 153-157 Ninth Street would include approximately 48 dwelling units (DUs) with approximately 12 affordable units and approximately 16,000 gsf of commercial space that occupy potions of the ground floor and cellar level. No accessory parking would be provided pursuant to the requested special permit, which would waive the residential parking requirement. The proposed mixed-use commercial and residential development would replace an underutilized vehicle storage/parking lot occupying the approximately 8,242 sf projected development site 1. The existing legally non-conforming two-family home and accessory building at 124 Eighth Street (Lot 16) would remain at the Development Rights Parcel irrespective of the proposed zoning actions.

In addition, for RWCDS analysis purposes, it is assumed that the proposed zoning changes would allow for redevelopment of Block 1002, Lots 43 and 45 ("projected development site 2") pursuant to the proposed M1-4/R7A zoning regulations. As described further below, projected development site 2 would be comprised of approximately 38,231 gsf, with approximately 31,763 gsf (37 DUs, including approximately nine affordable units) of residential use, and 6,469 gsf of ground floor local retail. It is expected that both projected development sites 1 and 2 would be completely constructed and fully occupied by 2026.

This attachment provides a summary and description of the proposed actions, including rezoning area, site location, existing conditions, project's purpose and need, RWCDS under future No-Action and future With-Action conditions, and the governmental approvals required. The attached supplemental studies 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, open space, urban design and visual resources, transportation, noise and air quality, in **Attachments C through H**, respectively. All other warranted preliminary screening assessments are summarized in **Attachment B, "Supplemental Screening."**

II. EXISTING CONDITIONS

The directly affected area (or Project Area) is located one block east of the Gowanus Canal in Brooklyn CD 6. It comprises an approximately 44,575 sf portion of the midblock of Brooklyn Block 1002, which is bounded by Eighth Street to the north, Third Avenue to the east, Ninth Street to the south, and Second Avenue to the west. It is an irregular-shaped area consisting of all or portions of 17 privately owned, rectangular-shaped tax lots (Lots 16, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of

Lot 39 and 56). The Project Area has approximately 420 feet of frontage on the north side of Ninth Street and 25 feet of frontage on the south side of Eighth Street. Both Ninth and Eighth Streets are defined as narrow streets with widths of 60 feet. Ninth Street is two way and a major east-west arterial. Eight Street is one-way westbound. The elevated tracks for the F and G subway lines are located a half a block south of the Project Area and extend along the north side of Tenth Street.

The Project Area is currently mapped within a M2-1 medium manufacturing zoning district, which permits commercial and industrial/manufacturing uses up to a maximum floor area ratio (FAR) of 2.0. The Project Area has had the same M2-1 zoning designation since the enactment of the 1961 amendments to the Zoning Resolution (ZR). M2 districts occupy the middle ground between light and heavy industrial areas, and are largely found in older industrial neighborhoods and along waterfronts. New residential and community facility uses are not allowed. M2-1 districts are subject to parking requirements based on the type of use and size of an establishment. M2-1 zoning allows a maximum front wall of 60 feet. The M2-1 zoning district encompasses the surrounding area to the north, south, and west of the Project Area, and is mapped to the west of Third Avenue, from the Prospect Expressway, all the way to Carroll Street and then around the northern reaches of the Gowanus Canal to Butler Street. Despite the area's M-zoning most of the lots within the Project Area contain nonconforming multiunit residential buildings.

Proposed Rezoning Area

As shown in **Figure A-1**, the proposed zoning map change and zoning text amendment would affect the midblock of Brooklyn Block 1002 extending along the north side of Ninth Street between Second and Third Avenues. It would encompass portions of 16 contiguous rectangular-shaped tax lots (Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of Lot 39 and 56) with approximately 420 feet of frontage on Ninth Street. The proposed rezoning area measures approximately 42,075 sf.

Projected Development Site 1 Zoning Lot (Applicant's Property)

The approximately 10,742-sf projected development site 1 zoning lot at 153-157 Ninth Street and 124 Eighth Street is comprised of four tax lots owned by the applicant, including Lots 48, 49, and 50 ("projected development site 1), which are located within the proposed rezoning area, as well as an adjacent Lot 16 ("Development Rights Parcel"), which is located outside of the proposed rezoning area on Eighth Street.

Projected development site 1 at 153- 157 Ninth Street comprises a lot area of approximately 8,242 sf with approximately 82 feet of frontage on Ninth Street. It is currently unimproved, enclosed by fencing, and is being used for vehicle storage/parking uses with a single curb cut on Ninth Street. The Development Rights Parcel at 124 Eighth Street (Lot 16) comprises approximately 2,500 sf with 25 feet of frontage on Eighth Street and a depth of 100 feet. It is occupied by a legally non-conforming two-story, two-family residential building fronting on Eighth Street and an accessory building in the rear of the lot. The Development Rights Parcel includes 2,888 gsf (1,716 zsf) of residential development and has a FAR of 0.69. Both of the existing buildings on the Development Rights Parcel would remain in the future with or without the proposed actions.

Remainder of the Rezoning Area

The remaining 13 lots (Lots 40, 41, 42, 43, 45, 46, 47, 52, 53, 54, and 55, and part of Lot 39 and 56) included in the proposed rezoning area are not under the control of the applicant and are each under separate private ownership. All of the lots are rectangular-shaped interior lots with frontage on Ninth

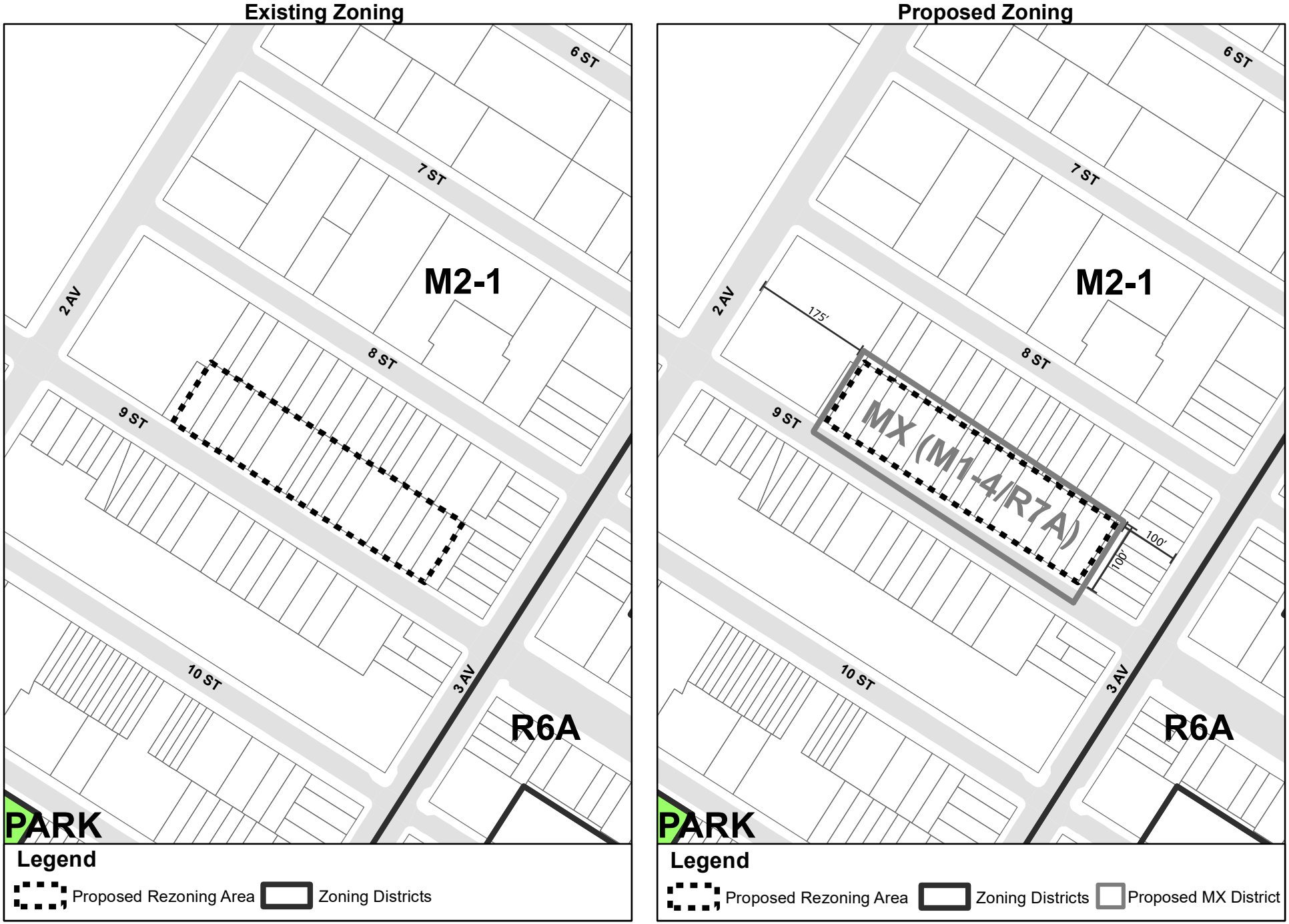


Figure A-1
Existing and Proposed Zoning

Street, and are generally occupied by multiunit walkup residential buildings more than a century old that were constructed in the early 1900s or late 1890s. **Table A-1** provides a description of each of the tax lots included in the proposed rezoning area.

TABLE A-1: Existing Conditions in the Proposed Rezoning Area on Brooklyn Block 1002

Lot	Address	Lot Area (sf)	Owner	Zoning	Land Use	Building (sf)	Built FAR
39*	175 9th Street	2,417	Sameh Boutros	M2-1	2-story multiunit residential (4 DU)	2,375	0.98
40	173 9th Street	2,500	Nancy Felella	M2-1	2-story multiunit residential (3 DU)	1,650	0.66
41	171 9th Street	2,500	Gabriel Silva	M2-1	3-story multiunit residential (3 DU)	1,980	0.79
42	169 9th Street	2,500	169 Brooklyn LLC	M2-1	4-story multiunit residential (5 DU)	5,544	2.21
43	167 9th Street	5,000	165-167 Holding Corp	M2-1	1-story light industrial/warehouse	5,000	1.00
45	163 9th Street	2,500	Jacqueline M Bhatti	M2-1	2-story single-family home (1 DU)	1,000	0.40
46	161 9th Street	2,500	Maria Teresa Durante	M2-1	3-story multiunit residential (4 DU)	3,375	1.35
47	159 9th Street	1,750	Vela Eloy	M2-1	3-story multiunit residential (3 DU)	2,856	1.63
48	157 9th Street	1,642	Angelino Gatto Trust	M2-1	parking lot/vehicle storage	0	0.00
49	155 9th Street	1,608	Angelino Gatto Trust	M2-1	parking lot/vehicle storage	0	0.00
50	153 9th Street	5,000	Angelino Gatto Trust	M2-1	parking lot/vehicle storage	0	0.00
52	149 9th Street	2,500	Nieves William	M2-1	2 buildings, 1-story commercial and 2-story two-family (2 DU)	2,100	0.84
53	147 9th Street	2,500	Harry Steinberg LLC	M2-1	4-story multiunit residential (8 DU)	5,500	2.20
54	145 9th Street	2,500	Liharevic Muhamet	M2-1	3-story multiunit residential (5 DU)	4,850	1.94
55	143 9th Street	2,500	Carmen Riv Fernandez	M2-1	3-story multiunit residential (5 DU)	2,820	1.12
56*	141 9th Street	2,500	Best Mazal Inc.	M2-1	2-story single family home (1 DU)	2,205	0.58
		42,417					

Notes: Shaded properties are under the Applicant's control and comprise projected development site 1.
*Lot is partially included within the proposed rezoning area.

Surrounding Area and Context

The area to be rezoned is in the Gowanus neighborhood of Brooklyn. Land uses near the Project Area are varied, and consist of a dense mix of residential, commercial, light industrial, mixed-use commercial and residential, parking and transportation-related uses, as well as a couple of community facilities and vacant land (refer to **Figure 3** in the EAS form). There are also a few scattered vacant properties.

Residential uses are primarily concentrated to the east of Third Avenue, and along the mid-blocks of the south side of Eighth Street, north side of Ninth Street, and south side of Tenth Street. Commercial uses are clustered to the north of Eighth Street and west of Second Avenue. Mixed-use residential and commercial buildings largely line the Third Avenue corridor, which is a major corridor and truck route. Industrial uses are generally located to the west of Third Avenue. In 2006, the City created the Southwest Brooklyn Industrial Business Zone (SWB IBZ), which is a non-zoning designation that identifies the City's commitment to public policies that encourage the retention and growth of industrial businesses. The SWB IBZ is the City's largest IBZ and encompasses much of the manufacturing districts in Sunset Park, Red Hook and Gowanus. The Project Area is located adjacent to, but not within the SWB IBZ, which is mapped to the north, west and south of the Project Area.

Transportation infrastructure is also a dominating component of the surrounding area. Half a block south of the proposed rezoning area, the elevated MTA subway tracks for the F and G subway lines extend along the north side of Tenth Street, with stations at Smith and Ninth Streets, located roughly two blocks to the west, and at Fourth Avenue, approximately one block to the east, respectively. The F subway line provides

service between Jamaica-179th Street in Queens and Coney Island-Stillwell Avenue/Surf Avenue in Brooklyn via Manhattan, and the G subway line provides service between Court Square in Queens and Church Avenue/McDonald Avenue in Brooklyn. In addition, there is access to the R subway line at Ninth Street and Fourth Avenue, which provides service between Forest Hills, Queens and Bay Ridge, Brooklyn via Manhattan.

Both the B37 and B103 buses travel on Third Avenue near the Project Area with bus stops at Eighth Street and Third Avenue. The B37 provides local service between Fort Hamilton and Boreum Hill via Third Avenue, and the B103 provides limited-stop service between Downtown Brooklyn/Flatbush and Canarsie. The B61 travels along Ninth Street near the Project Area with stops at Second and Third Avenues and provides local service between Windsor Terrace and Downtown Brooklyn.

Zoning

As shown in **Figure 2** of the EAS Form, the proposed rezoning area is located in a M2-1 manufacturing zoning district. The surrounding area is also primarily zoned M2-1 to the west of Third Avenue. To the east of Third Avenue, R6A and R6B residential districts are mapped with C2-4 commercial overlays extending along the east side of Third Avenue. The R6A and R6B zoning districts both permit residential and community facility uses in Use Groups 1 to 4, and have maximum residential FARs of 3.0 and 2.0, respectively. The C2-4 commercial overlay permits neighborhood-oriented commercial retail and services in Use Groups 6 to 9.

III. THE PROPOSED ACTIONS

The proposed project requires the following discretionary land use actions:

- ***Zoning Map Amendment:*** The applicant is proposing a zoning map amendment to rezone an approximately 42,075-sf portion of Brooklyn Block 1002, including portions of Lots 39 and 56, and Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55 in their entirety. The proposed zoning change would map a Special Mixed-Use (MX) M1-4/R7A district. As shown in **Figure A-1,** the proposed MX (M1-4/R7A) district boundary would extend along the mid-block, mapped from the centerline of Ninth Street between Second and Third Avenues, to a depth of 100 feet on Block 1002. Its northwestern boundary would extend parallel to Second Avenue and be mapped roughly 175 feet south of Second Avenue, and its southeastern boundary would extend parallel to Third Avenue and be mapped approximately 100 feet north of Third Avenue. **Table A-2** compares the use and bulk requirements under the existing and proposed zoning districts. The proposed M1-4/R7A district permits a maximum building height of 95 feet with a qualifying ground floor, and mandates Quality Housing bulk regulations.

- ***Zoning Text Amendment:*** The applicant is proposing zoning text amendments to Article XII, Chapter 3 to establish a Special Mixed-Use (MX) District and to Appendix F of the *Zoning Resolution (ZR) of the City of New York* to establish the proposed rezoning area as a Mandatory Inclusionary Housing (MIH) designated area. The establishment of the MIH designated area would require a share of new housing to be permanently affordable where significant new housing capacity would be created. At this time, the applicant is seeking to designate the proposed rezoning area as MIH area with Option 1. Under MIH Option 1, 25 percent of a MIH development's residential floor area must be income restricted.

- ***Special Permit:*** The applicant is requesting a special permit pursuant to ZR Section 74-533 to waive accessory parking for the proposed residential uses at the applicant-owned projected development site 1 (Lots 48 to 50) given the site's proximity to public transit and to maximize the amount of residential and commercial uses at the site.

TABLE A-2: Comparison of Allowable Uses and Maximum FAR for the Existing and Proposed Zoning

	Existing Zoning	Proposed Zoning
Zoning District	**M2-1**	**M1-4/R7A**
Use Groups	UG 6 to 14, 16 & 17	UG 1-14, and 16 & 17
Maximum FAR		
Residential	N/A	4.6 with MIH
Community Facility	N/A	4.0
Commercial	2.0	2.0
Manufacturing	2.0	2.0

Source: *Zoning Resolution of the City of New York.*
Notes: The MIH area sets a new maximum permitted residential FAR that supersedes the FAR permitted by the underlying zoning district. With both the designation of the proposed rezoning area as an MIH area and its rezoning to M1-4/R7A zoning district, the maximum permitted residential FAR within the proposed rezoning area would be 4.6, and the maximum building height would be up to 95 feet with qualifying ground floor.

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

IV. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The proposed zoning changes would map a Special MX zoning district, which would allow a mix of uses reflective of the broader Gowanus setting. The proposed actions are intended to facilitate the development of new housing, including much-needed affordable housing units, in an area where there is a strong demand and which is in close proximity to public transportation. As described above, the elevated tracks for the F and G subway lines are located half a block south of the Project Area, with subway stations at Smith- Ninth Street and at Fourth Avenue, and the B61 travels along Ninth Street and the B37 and B103 travel along Third Avenue. The proposed development would be constructed on underbuilt property that does not currently support any active uses, which is located in close proximity to public transportation and other public amenities.

The proposed zoning change would also bring into compliance several existing legally non-conforming residential uses. Under the current M2-1 zoning, only commercial and industrial/manufacturing uses are permitted, and no new residential or community facility development is allowed. Thus, the applicant seeks to change the zoning to M1-4/R7A, which would permit zoning use groups 1 to 17. The proposed development is expected to introduce 48 DUs, as well as 16,000 gsf of commercial space. According to the applicant, the proposed mixed-use residential and commercial development would provide much needed high-quality affordable housing, as well as retail, services and employment opportunities in Gowanus.

The proposed actions would be consistent with existing land uses, as most of the Project Area consists of residential uses. The proposed actions would also promote and reaffirm a mixed-use live-work neighborhood, by balancing the preservation of neighborhood scale and allowing a moderate increase in

density with the opportunity to increase mixed-income housing. The proposed commercial uses would activate the streetscape. In addition, the proposed special permit to waive accessory parking for the applicant's site, which would support the proposed building's programming and better facilitate the inclusion of affordable housing, as well as eliminate the need for a curb cut that would be disruptive to the corridor for pedestrians.

The proposed actions would be consistent with the overall objectives of the Gowanus rezoning effort (adopted in November 2021), which has identified goals and strategies around community priorities, including sustainability and resiliency, community and cultural resources, housing, economic development, and transportation. Specifically, the proposed Gowanus rezoning would create a substantial area of mixed-use zoning, primarily by combining M1 and R6/R7 zoning, within several blocks at the top of the Gowanus Canal and in the area south of Baltic Street and north of Fourth Street between Fourth Avenue and Nevins Street. The rezoning of these areas to include mixed-use districts that would be paired with the implementation of MIH to generate new mixed-income housing, including market-rate and permanently affordable units. The proposed actions would have the effect of extending the principles of the Gowanus rezoning and the City's historic contextual changes to the east side of Third Avenue to a small area (i.e., proposed rezoning area) of residential land uses two blocks further south, west of Third Avenue, on the north side of Ninth Street. The proposed M1-4/R7A zoning would be comparable to the proposed rezoning of the Union Street corridor, which like Ninth Street is another Canal crossing with similar existing scale.

The proposed actions, according to the applicant, would help to address the continuing need for affordable housing for a range of household income levels in Gowanus and surrounding neighborhoods. The proposed zoning text amendment, which would designate the proposed rezoning area as a MIH area, would require the construction of permanently affordable residential units on the applicant-owned and controlled proposed development. These required permanently affordable units at the site would help to address affordable housing goals set forth by the City in *Housing New York: A Five-Borough, Ten-Year Plan*. The proposed zoning text amendment would be aligned with one of Community Board 6's identified most pressing issues of a need for additional affordable housing. The creation of new affordable housing supply at various income levels helps to alleviate the upward pressure on housing prices, and contributes to housing affordability in the surrounding area and larger City.

V. PROPOSED DEVELOPMENT

The applicant proposes to redevelop projected development site 1 (Block 1002; Lots 48, 49, and 50) at 153-157 Ninth Street with a new 9-story, approximately 56,000 gsf (41,197 zsf) mixed-use residential and commercial building that would use approximately 3,300 sf of commercial development rights transferred from the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16).[1] The projected development site 1 zoning lot, including the Development Rights Parcel, would have an FAR of 3.99, which would be the permitted maximum blended FAR for Lots 48 to 50, which would be mapped in the proposed M1-4/R7A (4.6 FAR), and Lot 16, which would continue to be zoned M2-1 (2.0 FAR).[2]

[1] The existing two-family residence and accessory building including 1,888 gsf (1,716 zsf), which occupies the Development Rights Parcel (Lot 16) at 124 Eighth Street would remain in the future with the Proposed Actions.

[2] The proposed mixed-use building would conform to the proposed zoning changes and ZR Section 77-00 rules on zoning lots divided by district boundaries.

The proposed mixed-use building would include approximately 40,000 gsf of residential space, consisting of 48 DUs (average unit size of approximately 850 gsf), and approximately 16,000 gsf of commercial space on portions of the first floor and cellar level that is expected to be occupied by a supermarket. As part of the proposed actions, the applicant is requesting a special permit pursuant to ZR Section 74-533 to waive accessory parking for the proposed residential uses given the site's proximity to public transit and to maximize the amount of residential and commercial uses at the site.

The proposed building would be constructed along Ninth Street and would have a maximum height of 95 feet (9-stories) with a qualifying ground floor and a base height of 75-feet (see **Figures A-2 and A-3**). The existing two-family residence and accessory building on the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16) would remain in the future with the proposed actions.

VI. ANALYSIS FRAMEWORK

It is anticipated that the proposed development on Block 1002, Lots 48-50 (projected development site 1) would be certified into ULURP in 2022. Assuming completion of the ULURP process by late 2022 after an approximately seven month period, and a period of no more than approximately 14-months of construction, completion and occupancy of the proposed development on projected development site 1 is expected to occur by 2023. In addition to the proposed development, an additional projected development site (projected development site 2) has been identified in the Project Area that is likely to be developed because of the Proposed Actions (Lots 43 and 45). However, as described below, no formal redevelopment plans exist for the site. Nonetheless, the site meets the CEQR soft site criteria and, as such, is assumed to be redeveloped by 2026. This reflects a reasonable estimate of the time needed for the two lots to be combined under common ownership and for the property-owner of projected development site 2 to demolish the existing structures on Lots 43 and 45, design the project, obtain design approvals, and construct the project (approximately five years).[3] Accordingly, this environmental review will use 2026 as the Build Year for analysis of future conditions consistent with *CEQR Technical Manual* guidance.

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 constructed by the build year because of the proposed actions:

- The uses 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 floor area ratio (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 relating 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

[3] Currently, no design plans for Lots 43 and 45 have been developed. As such, construction schedules of the two projected developments are not expected to overlap.



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Gowanus Ninth Street Rezoning EAS

Figure A-2
Preliminary Site Plan for Projected Development Site 1

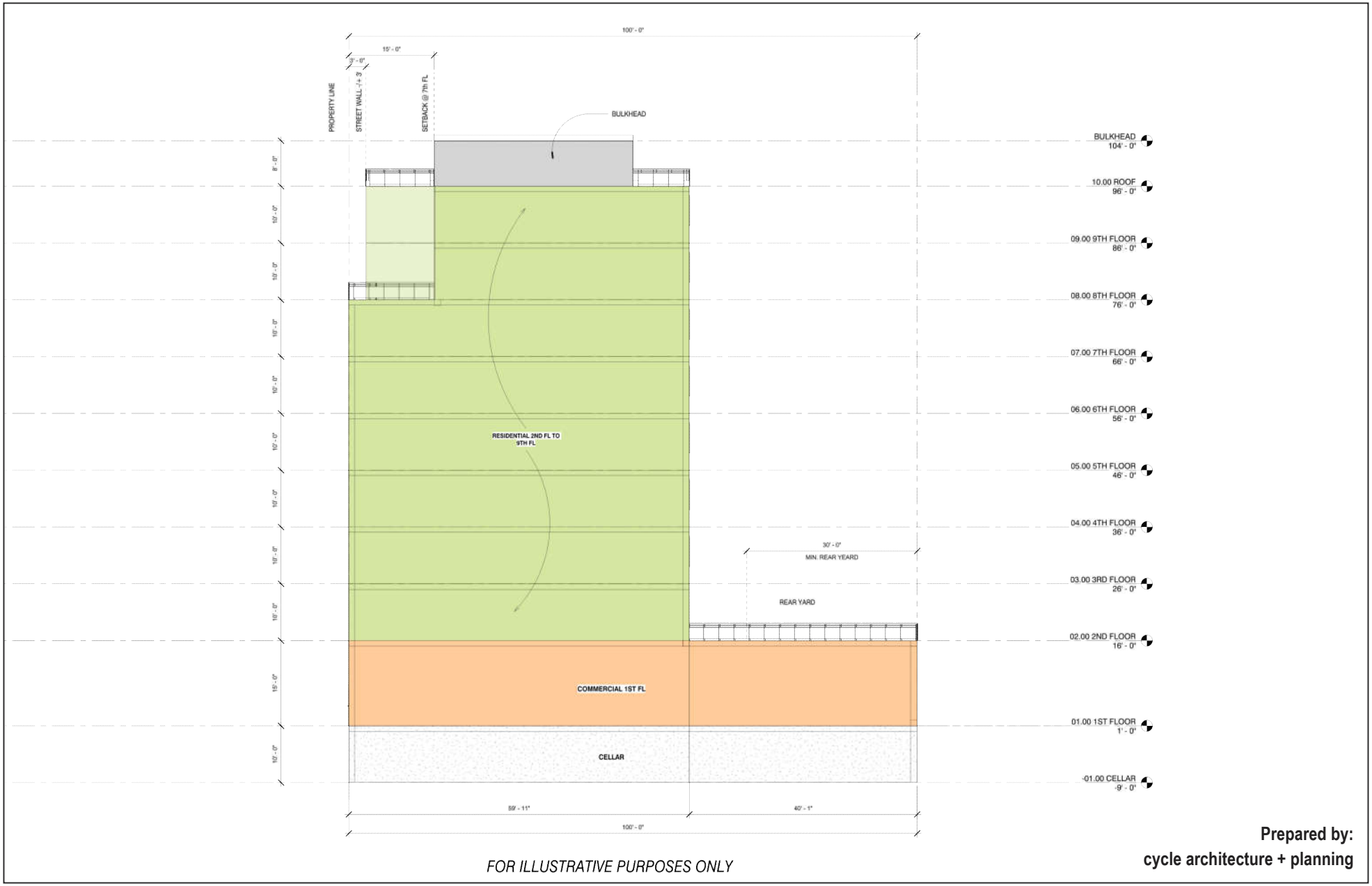

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Figure A-3
Preliminary Massing for Projected Development Site 1

as 5,000 square feet 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 because of the proposed actions:

- 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 (6) or more units constructed before 1974. These buildings are likely to be rent-stabilized and difficult to demolish due to tenant re-location requirements.

Definition of Projected and Potential Development Sites

To produce a reasonable, conservative estimate of future growth identified development sites are typically divided into two categories: projected development sites and potential developments. Projected development sites are considered more likely to be developed within the analysis period for the proposed actions (i.e., by 2026), while potential sites are considered less likely to be developed over the same period.

Lots 48 to 50 on Block 1002 (projected development site 1)

The applicant-owned site is considered a projected development site, as in the future with the proposed actions the applicant intends to redevelop the site with a 9-story mixed-use commercial and residential building, as detailed above. The development would use approximately 3,300 sf of development rights from Lot 16.

Remainder or the Proposed Rezoning Area on Block 1002

As discussed below, portions of 13 other tax lots are included in the Project Area. **Table A-3** lists each of the 13 non-Applicant owned, tax lots on Block 1002 that would be within the proposed rezoning area (see **Figure 4** of the EAS Form for the Tax Map). To help determine the eligibility of each lot as a soft site, the table provides the existing lot area, ownership, existing FAR, and compares the existing and proposed maximum allowable floor areas under the No-Action and With-Action scenarios.

With the exception of Lot 43, most of the tax lots included in the proposed rezoning area comprise 2,500 sf or less of lot area, and are narrow lots with 25 feet of frontage or less along Ninth Street. Each of the

lots is owned by a separate entity, and the assemblage of some or all of these properties into a single development site is considered highly unlikely.

TABLE A-3: Proposed Rezoning Area Non-Applicant Controlled Tax Lots – Existing and Proposed Maximum Allowable FAR

Lot	Lot Area (sf)	Ownership	Existing Use	Existing Zoning	Max. Allowable FAR			Existing FAR
					Existing (R/CF/C/M)	Proposed (R/CF/C/M)	Increment (R/CF/C & M)	
39*	2,417	Sameh Boutros	Residential	M2-1	Residential: 0.0 Community Facility: 0.0 Commercial: 2.0 Manufacturing: 2.0	Residential: 4.6 Community Facility: 4.0 Commercial: 2.0 Manufacturing: 2.0	Residential: + 4.6 Community Facility: +4.0 Commercial: + 0.0 Manufacturing: +0.0	0.98
40	2,500	Nancy Felella	Residential					0.66
41	2,500	Gabriel Silva	Residential					0.79
42	2,500	169 Brooklyn LLC	Residential					2.21
43	5,000	165-167 Holding Corp	Industrial					1.00
45	2,500	Jacqueline M Bhatti	Residential					0.40
46	2,500	Maria Teresa Durante	Residential					1.35
47	1,750	Vela Eloy	Residential					1.63
52	2,500	Nieves William	Residential/ Commercial					0.84
53	2,500	Harry Steinberg LLC	Residential					2.20
54	2,500	Liharevic Muhamet	Residential					1.94
55	2,500	Carmen Riv Fernandez	Residential					1.12
56*	2,500	Best Mazal Inc.	Residential					0.58

Notes: * Lots 29 and 56 are only partially located within the proposed rezoning area.

Lots 42 and 53 are occupied by multiunit residential buildings with FARs of approximately 2.2 and likely contain rent-stabilized apartments. Therefore, these two lots do not classify as soft sites as outlined in the 2020 *CEQR Technical Manual,* and no new development would occur at these two lots because of the proposed actions.

Lots 39, 40, 41, 46, 47, 54, 55, and 56 are small lots and are improved with two-to three-story multi-family walkup residential buildings, some with accessory garages/buildings in the rear of the lot that have FARs ranging from 0.66 to 1.94. Although each of these lots is built below the allowable maximum FAR, their small lot sizes do not meet the soft site criteria outlined above. Lots 39 and 56 would only be partially rezoned because of the proposed actions. Therefore, no new development is expected to occur at these eight lots as a result of the proposed actions.

Lot 52 is a small property that comprises 2,500 sf and would not meet the CEQR threshold of 5,000 to be considered a soft-site. This site is also unlikely to be merged with adjacent properties, including the Applicant's property and the rent stabilized apartment building on Lot 42. No new development would occur at this site as a result of the proposed actions.

Lot 43 is a rectangular-shaped lot that comprises 5,000 sf and is improved with a single-story, approximately 1,000 sf industrial building (1.0 FAR). As such, it would meet the CEQR threshold of a soft site, and is considered a projected development site. In addition, an adjacent lot to the west (Lot 45) comprises 2,500 sf, and is built to less than 50 percent of its allowable FAR (0.4 FAR) with a 2-story single family home. Because of the proposed actions, it is reasonable to assume that Lots 43 and 45 could be combined to form a single zoning lot and would be redeveloped with a mixed-use residential and

commercial building with a FAR of 4.6 that would accommodate approximately 37 DUs and roughly 6,469 gsf of commercial space (projected development site 2).

As such, for RWCDS purposes, two projected development sites (sites 1 and 2) have been identified in the directly affected area. Projected development site 1, which is under the applicant's control, along with one additional projected development site 2, comprising Lots 43 and 45, represent the RWCDS for analysis purposes.

Future without the Proposed Actions (No-Action Condition)

In the 2026 No-Action condition, the Project Area's existing M2-1 zoning would remain in place. Under the existing zoning, no changes are anticipated. All existing buildings and uses within the proposed rezoning area would remain unchanged from existing conditions.

Future with the Proposed Actions (With-Action Scenario)

In the future with the proposed actions (With-Action condition), the proposed zoning map and zoning text amendments and zoning special permit would be approved. As such, the special MX (M1-4/R7A) zoning district would be mapped along the mid-block on the north side of Ninth Street between Second and Third Avenues to a depth of 100 feet and would be designated as a MIH area. Under the With-Action conditions, the maximum allowable FAR in the proposed rezoning area would increase to 4.6 FAR when fully utilizing the additional FAR under the MIH Program.

Lots 48 to 50 (Projected Development Site 1)

As detailed above, the applicant-owned Lots 48 to 50 are considered a projected development site, as in the future with the proposed actions the applicant intends to redevelop the 10,742 sf site with a 9-story (95-feet in height) mixed-use building with approximately 16,000 gsf of commercial use on a portion of the ground floor and a single cellar level with residential (48 DUs including approximately 12 affordable units) above, for a total of 56,000 gsf of development, along Ninth Street. The existing two-family residence and accessory building on the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16) would remain in the future with the proposed actions. Projected development site 1 would have a blended FAR of 3.99, and would contain a total of 57,888 gsf (refer to **Table A-4**). As the site is in a Designated Transit Zone, no accessory parking would be required for the affordable housing units, and accessory parking for the market-rate units would be waived pursuant to the requested special permit. In addition, accessory parking for the commercial use would be waived as less than 40 parking spaces would be required in the proposed M1-4/R7A district.

Lots 43 and 45 (Projected Development Site 2)

Lots 43 and 45 comprise a 7,500-sf rectangular-shaped site currently occupied by a single-story, approximately 5,000 sf light industrial warehouse (Lot 43) and a two-story single-family home (Lot 45) with a combined FAR of 0.80, well below 50 percent of the maximum allowable 4.6 FAR in the future with the Proposed Actions. As such, it is expected that Lots 43 and 45 would be redeveloped to the maximum permitted FAR of 4.6, with a maximum building height of 95 feet including qualifying ground floor (see **Figure A-4**). In the future with the proposed actions, the existing structures on Lots 43 and 45 would be demolished, and the two lots would be redeveloped with an approximately 38,231 gsf mixed-use residential building with ground floor local retail (refer to **Table A-4**). Projected development site 2 would include approximately 31,763 gsf of residential use (37 DUs including approximately nine affordable DUs)

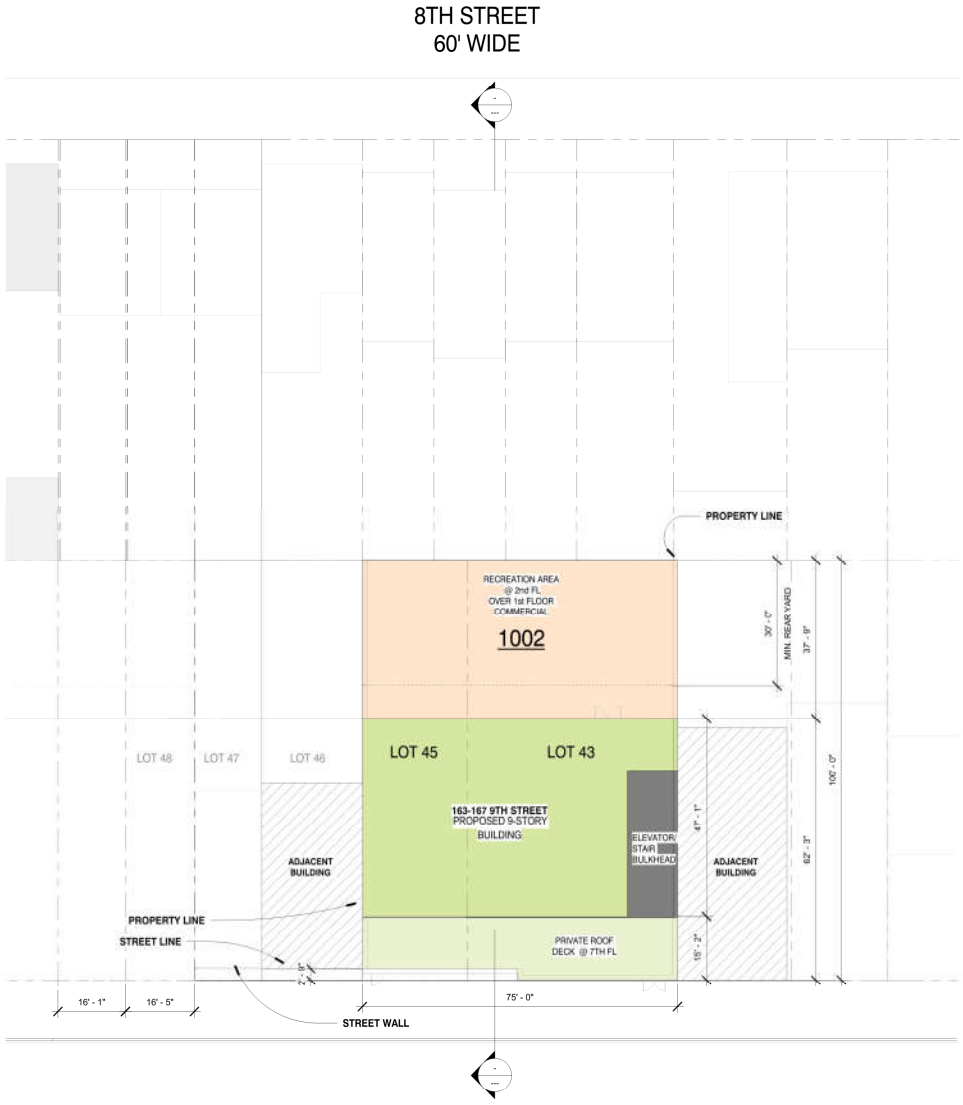

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Figure A-4
Preliminary Site Plan for Projected Development Site 2

and 6,469 gsf of local retail use. As the required number of accessory parking spaces for projected development site 2 would be less than 15 spaces, accessory parking for residential uses would be waived pursuant to ZR Section 25-261. In addition, accessory parking for local retail uses would also be waived as less than 40 parking spaces would be required.

TABLE A-4: With-Action Development Scenarios

Lot	Lot Area (SF)	FAR	Residential			Commercial (GSF) [5]	Total Mixed-Use Building (GSF)	Parking Spaces [6, 7]	Max. Building Height (FT) [8]
			GSF	DUs [3]	Affordable DUs				
16, 48 to 50	10,742	3.99[1]	41,888[2]	50[4]	12	16,000	57,888	0	95
43 & 45	7,500	4.60	31,763	37	9	6,469	38,232	0	95
Total	18,242		73,651	87	21	22,469	96,120	0	

Notes: [1] The Development Zoning Lot, including the Development Rights Parcel, would have a FAR of 3.99, which would be the permitted maximum blended FAR for Lots 48 to 50, which would be mapped in the proposed M1-4/R7A (4.6 FAR), and Lot 16, which would continue to be zoned M2-1 (2.0 FAR).

[2] The residential GSF includes 1,888 gsf of residential development on the Development Rights Parcel as well as development proposed for Lots 48 to 50.

[3] The estimates of RWCDS DUs are based on a standard average unit size of approximately 850 gsf per unit.

[4] The estimates of RWCDS DUs are based on a standard average unit size of approximately 850 gsf per unit.

[5] The 50 DUs include the 48 DUs that would be constructed on Lots 48-50 and the 2 existing DUs on Lot 16 that would remain.

[6] As the sites are in a Designated Transit Zone, no accessory parking would be required for the affordable housing units, and parking would waived pursuant to the requested special permit for Site 1. Accessory parking for the commercial use would be waived for both sites as less than 40 parking spaces would be require required.

[7] Accessory parking requirements for residential use at Site 2 would be waived pursuant to ZR Section 25-261.

[8] A maximum building height of 95 feet is permitted with a qualifying ground floor.

Possible Effects of the Proposed Actions

Table A-5 below provides a comparison of the No-Action and With-Action conditions identified for CEQR analysis purposes. As shown, the incremental (net) change that would result from the proposed actions is the addition of 70,763 gsf of residential uses, including approximately 84 DUs, of which approximately 21 would be affordable units, and 22,469 gsf of commercial (supermarket and local retail) uses. No accessory parking would be provided at either projected development site. In terms of population, the proposed actions are expected to generate an estimated 203 incremental residents and 65 incremental employees, as compared to the 2026 No-Action condition.

TABLE A-5: Comparison of No-Action and With-Action Development Scenarios

Use	No-Action	With-Action	Increment
Residential			
Dwelling units (DUs)	3 DUs	87 DUs	+84 DUs
Affordable DUs	0 DUs	21 DUs	+21 DUs
Gross Square Footage (GSF)	2,888 GSF	73,651 GSF	+ 70,763 GSF
Commercial (GSF)	0 GSF	22,469 GSF	+22,469 GSF
Manufacturing (GSF)	5,000 GSF	0 GSF	- 5,000 GSF
Population/Employment [1]	**No-Action**	**With-Action**	**Increment**
Residents	7	209	+202
Workers	5	70	+65

Notes: [1] Assumptions based on the average household size of 2.40 persons per household for Park Slope- Gowanus Neighborhood Tabulation Area (NTA) according to the 2014-2018 Five-Year American Community Survey (ACS). Employee generation rates are based on one worker per 333 gsf of retail/supermarket space, one worker per 25 DUs, and one worker per 1,000 gsf of warehouse space.

VII. REQUIRED APPROVALS

The applicant requires zoning text and map amendments, as well as a special permit, to construct the proposed development at 153-157 Ninth Street. The proposed zoning map and text amendments and special permit 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: the Community Board; the 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 CPC that the ULURP application is complete. The application is then referred to the relevant Community Board (in this case Brooklyn Community Board 6). 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 Brooklyn Borough President then has up to 30 days to review the application. The 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 forwarded to the City Council, which has 50 days to review the ULURP application.

CEQR is a process by which agencies review discretionary actions to identify 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*.

ATTACHMENT B

SUPPLEMENTAL SCREENING

Gowanus Ninth Street Rezoning EAS
Attachment B: Supplemental Screening

I. INTRODUCTION

This Environmental Assessment Statement ("EAS") has been prepared in accordance with the guidance and methodologies presented in the 2020 *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 this guidance, preliminary screening assessments were conducted for the proposed actions and resultant reasonable worst-case development scenario (RWCDS) to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. For those technical areas that warranted a "Yes" answer in Part II of the EAS Form, including Land Use, Zoning, and Public Policy; Open Space; Shadows; Historic and Cultural Resources; Urban Design and Visual Resources; Hazardous Materials; Transportation; Air Quality; Noise; Public Health; Neighborhood Character; and Construction supplemental screening assessments are provided in this attachment. The remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds and/or are unlikely to result in significant adverse impacts. The following technical areas screened out from any further assessment: Socioeconomic Conditions; Community Facilities; Natural Resources; Water and Sewer Infrastructure; Solid Waste and Sanitation Services; Energy; and Greenhouse Gas Emissions and Climate Change.

The supplemental screenings contained herein identified that additional analyses are required in the areas of Land Use, Zoning, and Public Policy, Open Space, Urban Design and Visual Resources, Transportation, Air Quality, and Noise. These analyses are provided in **Attachments C to H**, respectively, and are summarized in this attachment. **Table B-1** presents a summary of analysis screening information for the proposed actions.

In the future with the proposed actions, as a RWCDS, the applicant-controlled projected development site 1 (Block 1002; Lots 48 to 50) would be redeveloped with a nine-story (95-foot tall), mixed-use residential and commercial building at 153-157 Ninth Street (Block 1002; Lots 48, 49, and 50), which would use approximately 3,300 square feet (sf) of commercial development rights transferred from an abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16). The mixed-use building at projected development site 1 would include approximately 48 dwelling units (DUs) (approximately 12 affordable units under the MIH program) and 16,000 gross square feet (gsf) of commercial space on portions of the ground floor and cellar level. No off-street accessory parking at projected development site 1 pursuant to the requested special permit to waive parking requirements for the residential uses. For CEQR analysis purposes, the proposed actions are also assumed to facilitate the development of a nine-story (95-foot-tall), approximately 38,231-gsf building, including 37 DUs (approximately nine affordable units under the MIH program) and 6,469 gsf of ground floor retail use at projected development site 2 (Block 1002, Lots 43 and 45). As described in **Attachment A, "Project Description,"** none of the other tax lots affected by the proposed zoning map and text changes are expected to be redeveloped or enlarged in the future with the proposed actions, nor would these other tax lots be expected to transfer developments rights given the lack of potential recipient parcels and the local market trends.

TABLE B-1
Summary of CEQR Technical Areas Screening

CEQR TECHNICAL AREA	SCREENED OUT PER EAS FORM	SCREENED OUT PER SUPPLEMENTAL SCREENING	ANALYSIS REQUIRED
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions	X		
Community Facilities and Services	X		
Open Space			X
Shadows		X	
Historic & Cultural Resources		X	
Urban Design & Visual Resources			X
Natural Resources	X		
Hazardous Materials		X	
Water and Sewer Infrastructure	X		
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation - Traffic & Parking - Transit - Pedestrians		 X X	 X
Air Quality - Mobile Sources - Stationary Sources	X		 X (detailed HVAC)
Greenhouse Gas Emissions	X		
Noise			X
Public Health		X	
Neighborhood Character		X	
Construction		X	

II. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual*, a detailed assessment of land use, zoning and public policy is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Zoning and public policy analyses are typically performed in conjunction with a land use analysis when an action would change the zoning on the site or result in the loss of a particular use. Land use analyses are required when an action would substantially affect land use regulation.

The proposed actions include zoning map and zoning text amendments and a special permit. Therefore, a land use, zoning, and public policy assessment is provided in **Attachment C, "Land Use, Zoning, and Public Policy."** As discussed therein, no significant adverse land use, zoning, or public policy impacts are expected in the future with the proposed actions. The proposed actions would facilitate new mixed-use development in an appropriate location within the New York City Coastal Zone that is well served by public facilities and infrastructure, and that is characterized by similar uses.

Open Space

Based on the *CEQR Technical Manual*, an open space assessment is typically warranted if an action would directly affect an open space or if it would increase the population by more than 50 residents or 125 workers in an area of the City that has been designated as "underserved" by publicly open space resources.[1]

The proposed actions and RWCDS are expected to result in an estimated 202 new residents and 65 (net) employees as compared to the No-Action Condition. As the proposed actions increase residents above the *CEQR Technical Manual* threshold for analysis in an "underserved area", a residential open space analysis is provided in **Attachment D, "Open Space."** As discussed in detail in **Attachment D**, no significant adverse impacts to open space are expected because of the proposed actions.

Shadows

A shadows assessment considers proposed actions that result in new shadows long enough to reach a publicly accessible open space or sunlight-sensitive historic resource (except within an hour and a half of sunrise or sunset). For proposed actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the 2020 *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight-sensitive, and do not require a shadow analysis including paved areas (such as handball or basketball courts) and areas without vegetation.

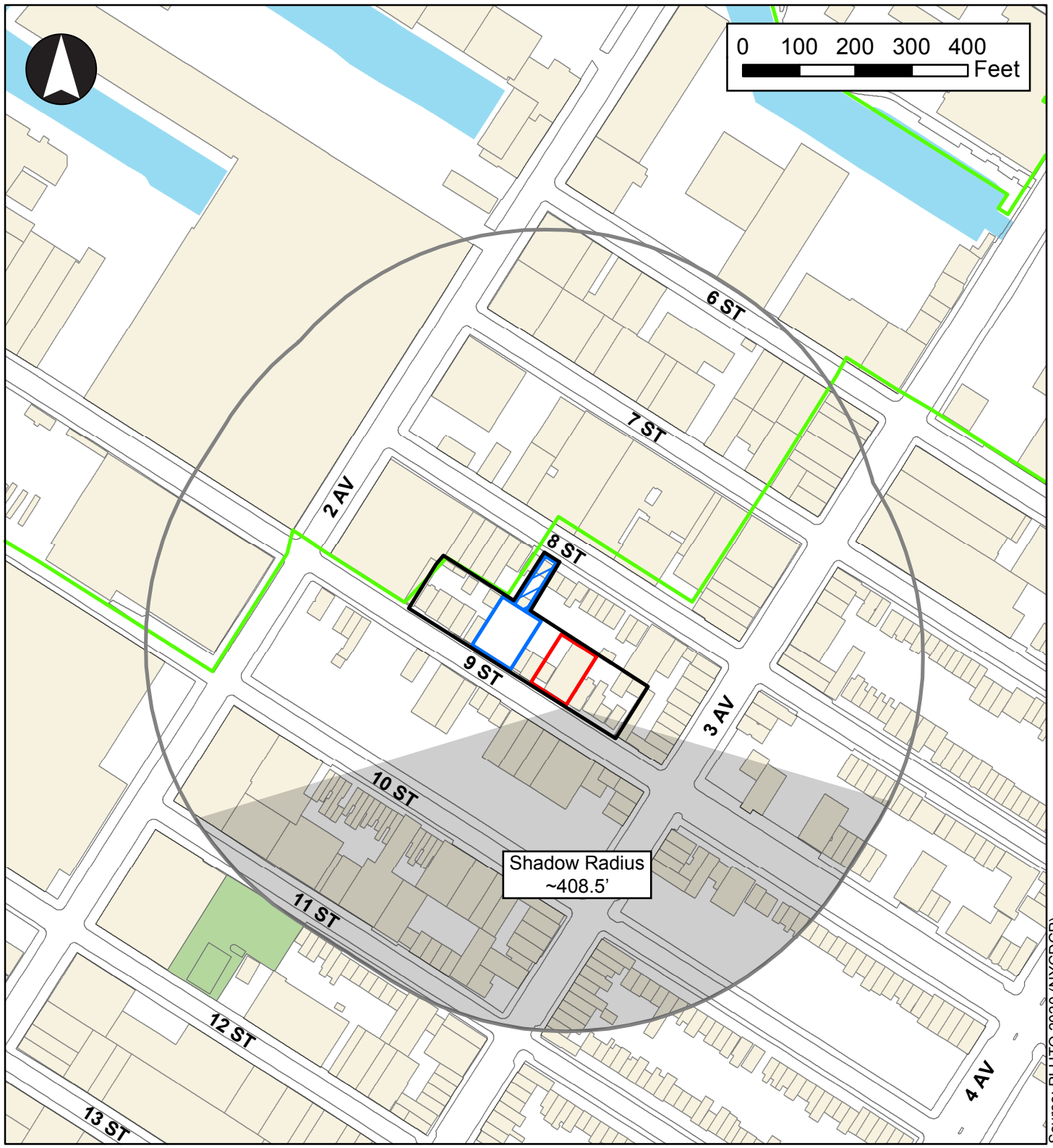
As a RWCDS, the proposed actions would facilitate the construction of two 95-foot tall mixed-use residential and commercial buildings on two separate projected development sites. According to the *CEQR Technical Manual*, the longest shadow a structure would cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. Therefore, per *CEQR Technical* guidance, the maximum shadow radius (Tier 1 Assessment) for the RWCDS would be 408.5 feet. As shown in **Figure B-1**, there are no sunlight-sensitive resources within this longest shadow study area. Ennis Playground, which has frontage along the south side of 11th Street between Second and Third Avenues, is located just south of the longest shadow study area. Although the Gowanus Canal Historic District, which is eligible for listing on the State/National Registers of Historic Places (S/NR), is located directly north of the proposed zoning area and within the longest shadow study area, the eligible historic district does not include any architectural features that depend on direct sunlight (i.e., any sunlight-sensitive resources). As such, the historic district would not be adversely affected by any incremental shadows. In a letter dated 2/19/2022, LPC confirmed that there are no shadows concerns associated with the Proposed Actions on historic resources (see **Appendix 1**). Therefore, a detailed assessment of shadows is not warranted, and no significant adverse shadow impacts would occur because of the proposed actions.

Historic and Cultural Resources

Historic and cultural resources include both architectural and archaeological resources. *The CEQR Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and

[1] According to the *CEQR Technical Manual*, underserved open space areas are areas of high population density in the City that are generally the greatest distance from publicly accessible parkland where the amount of open space per 1,000 residents is less than 2.5 acres. The directly affected area is located within the Underserved Neighborhood of Gowanus in Brooklyn Community District 6.

Figure B-1
Tier I and II Shadow Assessment



Legend

- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- Open Space
- Water
- Tier I: Longest Shadow Study Area
- Tier II: Area that Cannot be Shaded
- S/NR-Eligible Gowanus Canal Historic District

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 on 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; 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 involve or 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.

According to the *CEQR Technical Manual* guidance, a study area defined by a radius of 400 feet from the boundaries of the directly affected area is typically adequate to assess potential impacts on historic/architectural resources. The historic resources study area is therefore defined as the area within a 400-foot radius of proposed rezoning area (see **Figure B-2**). Archaeological resources are considered only in areas where new excavation or ground disturbance is likely and would result in new in-ground disturbance compared to No-Action conditions.

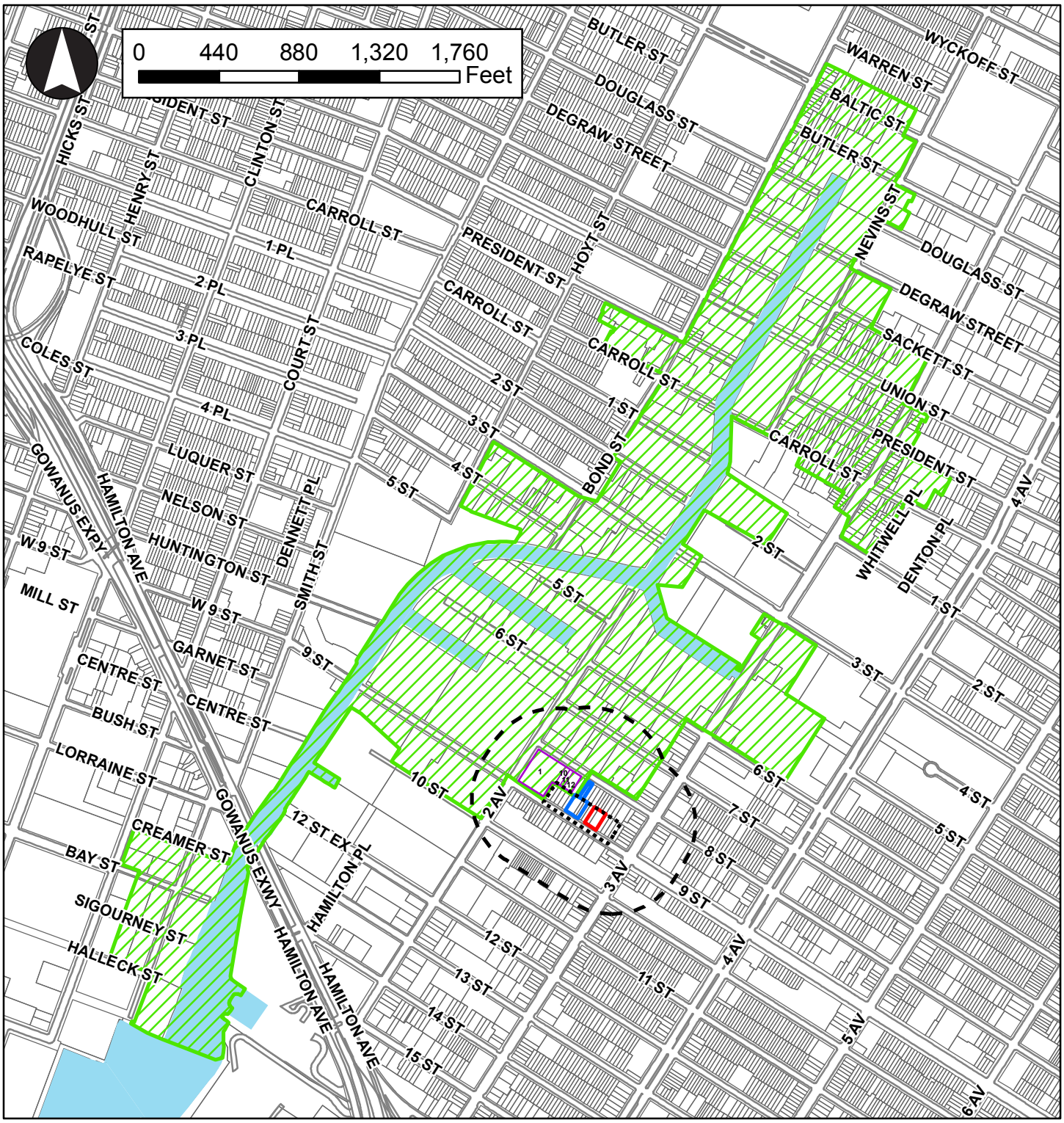
In order to verify the presence of designated or eligible architectural resources in the surrounding area, a request letter was sent to LPC. In a letter dated 9/10/2020, LPC confirmed that neither of the projected development sites contain any architecturally or archaeologically significant resources (refer to **Appendix 1**). Moreover, the directly affected area does not contain any LPC-designated landmarks or any S/NR-listed resources; there are also no designated historic resources within the 400-foot study area. However, a portion of the S/NR-eligible Gowanus Canal Historic District is located within the 400-foot historic resources study area. Therefore, an assessment of the potential indirect impacts of the proposed actions on architectural resources was conducted.

Gowanus Canal Historic District (S/NR-Eligible)

As shown in **Figure B-2**, the Gowanus Canal Historical District, which is eligible for listing on the State and National Registers (S-NR eligible), is located to the west and north of the proposed rezoning area. In its entirely, the S/NR- eligible district includes more than 53 blocks, containing over 400 buildings, vacant lots, and other structures in the neighborhoods surrounding the Gowanus Canal in Brooklyn. The district is not geographically contiguous, but consists of resources dispersed throughout the area surrounding the canal linked thematically to the industrial period of the Canal's history. As shown in **Figure B-2**, the eligible district extends as far east as Fourth Avenue and as far west as Court Street from Baltic Street in the north to Halleck Street in the south. These blocks contain a diverse mix of new and old structures, as well as vacant sites and the Canal. The eligible district includes 422 properties and structures, 330 of which are identified as contributing to the district's historic and/or architectural significance. The Gowanus Canal is roughly 2.5-miles long.

The S/NR-eligible district is significant as a cohesive collection of industrial and manufacturing facilities and associated resources located along the Gowanus Canal that together represent the development of water-borne transportation and industrial development in South Brooklyn between the mid-nineteenth century and mid-1960s. Industrial operations in Gowanus were directly related to the canal as a primary source of materials, power and supplies; the majority of residences in the area were constructed so that workers could live close to their places of employment.

Historic Resources



Source: PLUTO 2020 (NYCDCP); SHPO (2020)

Legend

- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- 1 Contributing Resource to S/NR-Eligible Gowanus Canal Historic District
- S/NR-Eligible Gowanus Canal Historic District
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2

each of the five contributing resources on Block 1002. The closest contributing resource, 116 Eight Street, is located approximately 25 feet west of projected development site 1.

TABLE B-2:
Description of the Contributing Resources to the S/NR-Eligible Gowanus Canal Historic District on Block 1002

Lot	Address	Area (sf)	Land Use	Typology	Building (sf)	Built FAR	Frontage (sf)	Height (feet)[1]	Build Year
1	69 2nd Ave	33,100	1-story industrial	Brick	40,600	1.23	200	24	1924
10	112 8th St	2,500	1-story industrial/warehouse	Brick	1,579	0.63	25	24	1931
11	114 8th St.	2,500	2-story industrial	Brick	4,500	1.8	25	35	1931; altered in 2010
12	116 8th St.	5,000	Two 1-story industrial/warehouse	Brick	5,000	1.0	50	24	1900; altered in 1985

[1] Height is an approximate measurement in feet

Assessment

According to the *CEQR Technical Manual*, generally, if a proposed action(s) would affect those characteristics that make a resource eligible for NYC Landmark designation or S/NR listing, this could be a significant adverse impact. As mentioned above, the S/NR-eligible Gowanus Canal Historic District, located within 400 feet of the proposed rezoning area, is significant both for its architectural quality, as well as for its historical value as part of the City's development.

The proposed actions were assessed in accordance with methodologies established in the *2020 CEQR Technical Manual* (Chapter 9, Part 420) to determine (i) whether there would be a physical change to any designated or listed property as a result of the proposed actions; (ii) 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 (iii) if so, whether the change is likely to diminish the qualities of the resource that make it important.

Direct Effects

As noted previously, as there are no historic architectural resources on either of the two development sites, the proposed actions would not result in any significant adverse architectural historic resources impacts related to direct effects.

Indirect Effects

Development in the With-Action condition would be limited to two projected development sites and would introduce new nine-story buildings along the north side of Ninth Street between Second and Third Avenues. As mentioned above, neither projected development site has any architectural or archeological significance. Projected development site 1 is located southeast of the S/NR-eligible Gowanus Canal Historic District, and so development facilitated by the proposed actions has the potential to affect views of this resource. As described in **Attachment E, "Urban Design and Visual Resources,"** views of the eligible historic resources would continue to be available for enjoyment from publicly accessible areas and along existing view corridors formed by the street pattern. Accordingly, no publicly accessible views to or from the eligible historic resources would be blocked, and there would be no significant adverse urban design and visual resource impacts. Some change in viewing context may occur, but this change is typical of new

Near the Project Area, on the subject block, the S/NR- listed district includes five contributing buildings including 69 Second Avenue (Block 1002, Lot 1), 112 Eighth Street (Block 1002, Lot 10), 114 Eighth Street (Block 1002, Lot 11), 116th Eighth Street (Block 1002, Lot 12), and 139 Ninth Street (Block 1002, Lot 56). All five eligible buildings are low-rise, one-to two-story, nondescript, brick, industrial buildings/ warehouses that were constructed between 1900 and early 1930s. **Table B-2** provides a description of each of the five contributing resources on Block 1002. The closest contributing resource, 116 Eight Street, is located approximately 25 feet west of projected development site 1.

TABLE B-2:
Description of the Contributing Resources to the S/NR-Eligible Gowanus Canal Historic District on Block 1002

Lot	Address	Area (sf)	Land Use	Typology	Building (sf)	Built FAR	Frontage (sf)	Height (feet)[1]	Build Year
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[1] Height is an approximate measurement in feet

Assessment

According to the *CEQR Technical Manual*, generally, if a proposed action(s) would affect those characteristics that make a resource eligible for NYC Landmark designation or S/NR listing, this could be a significant adverse impact. As mentioned above, the S/NR-eligible Gowanus Canal Historic District, located within 400 feet of the proposed rezoning area, is significant both for its architectural quality, as well as for its historical value as part of the City's development.

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Development in the With-Action condition would be limited to two projected development sites and would introduce new nine-story buildings along the north side of Ninth Street between Second and Third Avenues. As mentioned above, neither projected development site has any architectural or archeological significance. Projected development site 1 is located southeast of the S/NR-eligible Gowanus Canal Historic District, and so development facilitated by the proposed actions has the potential to affect views

of this resource. As described in **Attachment E, "Urban Design and Visual Resources,"** views of the eligible historic resources would continue to be available for enjoyment from publicly accessible areas and along existing view corridors formed by the street pattern. Accordingly, no publicly accessible views to or from the eligible historic resources would be blocked, and there would be no significant adverse urban design and visual resource impacts. Some change in viewing context may occur, but this change is typical of new development in urbanized areas. The proposed actions would not remove any contributing architectural resources from the S/NR-eligible Gowanus Canal Historic District. The relationship between the contributing architectural resources and the Gowanus Canal would not be affected by the proposed actions. Projected development site 1 is more than 860 feet from the Gowanus Canal, and projected development site 2 is roughly 900 feet from the Canal.

The proposed actions and the S/NR-eligible historic resource are located in an area containing buildings of widely varying uses, heights, arrangement, and architectural styles. This is a dynamic area with buildings constructed in different periods, which continues to undergo redevelopment. There is not a uniform historic context within the study area or neighborhood as a whole. The proposed actions would allow for greater bulk and density (up to 4.6 FAR compared to 2.0 FAR) than the future No-Action condition. The RWCDS would also be taller than existing neighborhood buildings on the project block and within 400 feet of the Project Area. The proposed actions would result in a change in scale and visual prominence relative to the surrounding area. However, as mentioned above, the 400-foot radius study area includes a range of building types that support a mix of uses and the RWCDS would contribute to that context. It is also determined that no significant adverse shadow impacts to historic resources would occur as there are no shadow-sensitive historic landscapes or structures in the area that would be affected by the RWCDS.

Therefore, the proposed actions would not introduce incompatible elements to the setting of the eligible historic resources located within the vicinity of the Project Area, and would not result in any significant adverse historic architectural impacts related to indirect effects.

Construction Effects

The proposed actions are located in close proximity to the nearby S/NR-eligible Gowanus Canal Historic District. The New York City Building Code provides 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. However, as the surrounding historic district is not listed on the S/NR nor designated a NYCL, construction of the projected development sites would not be subject to the New York City Department of Building's (DOB's) Technical Policy and Procedure Notice (TPPN) #10/88. TPPN #10/88 supplements the standard building protections afforded by the New York City Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to nearby LPC-designated or S/NR-listed resources and to detect at an early stage the beginning of damage so that construction procedures can be changed. Additional protective measures afforded under TPPN #10/88 would only become applicable if the eligible resources are designated in the future prior to the initiation of construction.

Accordingly, the proposed actions would not have the potential to affect any historic architectural resources and no further analysis is warranted.

Urban Design and Visual Resources

An area's urban components and visual resources together define the look and character of the neighborhood. The urban design characteristics of a neighborhood encompass the various components of buildings and streets in the area. These include 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 the 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(s) 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.

The proposed actions involve the rezoning of area from M2-1 to M1-4/R7A, which would result in a development that would differ from what is currently permitted as-of-right, and as such, an analysis of urban design and visual resources is appropriate. This analysis is provided in **Attachment E, "Urban Design and Visual Resources."** As discussed in **Attachment E**, there would be no significant adverse impacts to urban design and visual resources due to the proposed actions.

Hazardous Materials

As defined in the 2020 *CEQR Technical Manual*, 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 semivolatile 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 adverse 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.

Phase I Environmental Site Assessment (ESA)

As the proposed actions would result in new in-ground disturbance and site excavation at the applicant-owned projected development site 1 at 153-157 Ninth Street (Lots 48 to 50 on Block 1002), a Phase I Environmental Site Assessment (ESA) was prepared to determine whether hazardous materials exist on the site. The Phase I ESA was prepared by ALC Environmental (ALC) in October 2020 in conformance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13. The Phase I ESA consisted of visual observations, a review of historical information, environmental databases, information provided by the applicant, and interviews with current site representatives. The Phase I ESA evaluated the potential for hazardous materials on the entirety of the projected development site 1 at 124 8th Street and 153-157 9th Street (Block 1002, Lots 48, 49, and 50) and the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16).

According to the Phase I, projected development site 1 and its associated Development Rights Parcel comprise approximately 0.25-acres, are improved with one two-story, two-family residential building at 124 8th Street and one asphalt-paved and gravel parking lot on the north side of Ninth Street.

Based on a review of historical records, specifically the Fire Insurance (Sanborn) maps and city directories, the Phase I ESA determined that the historical uses of adjacent properties is considered a Recognized Environmental Condition (REC)[2]. These former uses of environmental significance included various manufacturing uses and mills to the northeast at 117-123 8th Street/160-166 7th Street, metal works, manufacturing, furniture making, mills, and woodworking to the northeast at 125-129 8th Street/168-174 7th Street, manufacturing, electric, and automotive-related uses to the southwest at 156-158 9th Street and 160 9th Street, and metal works, electric and automotive-related uses to the northwest 149 9th Street. According to the Phase I, these activities have the potential to generate hazardous wastes in the form of spent oils and solvents; glues and varnishes (furniture making); spent auto fluids, and wastewater contaminated with metals (iron works facility). In addition, polychlorinated biphenyls (PCBs) may have been used at the former identified electric companies.

The Phase I did not identify any historical recognized environmental conditions (HREC) or controlled recognized environmental conditions (CRECs) associated with projected development site 1 and Development Rights Parcel. Other noteworthy conditions included:

- Further investigation is warranted to ensure that a suspect fuel oil tank was removed prior to demolition of the former onsite three-story residential building on Lot 48 (157 Ninth Street).
- Although the subject property address (Lot 50- 151 Ninth Street) was listed in the NY Spills database, the listing pertains to Manhole 5379, which is located in front of the lot and not on the property. As per the NY Spills database, on August 6, 2000 half a pint of unknown oil was found on 200-gallons of water inside the manhole. Cleanup was completed by Consolidated Edison and this spill case was closed by the NYSDEC on November 8, 2001. Based on the small amount of oil found and that no waterways were reported to have been impacted, the Phase I indicates that no further action or investigation is warranted in regards to this spill case.
- Suspect asbestos-containing materials in the form of roofing materials (roof membrane, flashing and roof shingles), textured ceiling plaster, sheetrock, and wall and ceiling plaster on Lot 16. ALC did not have access to the roof, and therefore the Phase I could not assess its condition. According to the Phase I, the remaining suspect ACM materials appeared in good condition.
- The Phase I recommended correct action for the minor cracked and peeling paint that was observed on the ceilings of the bathroom and bedroom in Apartment Unit 1 on Lot 16.
- Although the Phase I indicated that no visible mold growth was observed at the subject building on Lot 16, corrective action is warranted for water stains on the ceiling of the

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

ground-level bathroom in Apartment Unit 1.

The Phase I did not identify any other conditions at projected development 1 and Development Rights Parcel that potentially present a significant environmental concern or recognized environmental condition.

Assessment

Based on the historical manufacturing and automotive repair/maintenance uses of the adjacent properties, the Phase I recommended that subsurface investigation is warranted for projected development site 1 and Development Rights Parcel (Block 1002, Lots 48, 49, and 50). The Phase I ESA also recommends that a Ground Penetrating Radar (GPR) survey be conducted prior to any site redevelopment activities, to confirm that there are no buried oil tanks in Lot 48.

Given that projected development site 1 is leased to several different parties that all have rights to occupy the subject property for storage (vehicles, trailer, etc.), it would be an administrative and financial hardship for the applicant to negotiate terms to terminate or modify existing lease and license agreements to conduct subsurface investigations (i.e., allow borings) on the site. In addition, as a portion of projected development site 1 is located within 200 feet of an elevated New York City Transit Authority (NYCTA) structure, any subsurface testing in this area would require coordination with/approval from the NYCTA and therefore, cannot be conducted prior to project approval.

An (E)-designation (E-670) for hazardous materials will be placed on Block 1002, Lots 48, 49, and 50 pursuant to ZR Section 11-15 to ensure the site is remediated before the construction of any new development and/or site disturbance at projected development site 1.[3] Additionally, ALC has determined that based on historical activities and uses at 163-167 Ninth Street (Block 1002, Lots 43 and 45; "projected development site 2") and on surrounding properties, an (E)-designation pursuant to ZR Section 11-15 should be also placed on Block 1002, Lots 43 and 45 to ensure the site is properly remediated before any development and/or site disturbance as a result of the proposed actions.[4] In a letter dated 02/18/2021, DEP concurs with the EAS recommendation to map (E) designations on projected development sites 1 and 2 (refer to Appendix I). The (E) designation (E-670) for projected development sites 1 and 2 would be the following:

Brooklyn Block 1002, Lots 43, 45, 48, 49 and 50:

The (E) designation (E-670) text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I and Phase II of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site,**

[3] Refer to Appendix I for correspondence from New York City Department of Environmental Protection (NYCDEP), which concurs that (e) designation should be mapped on Block 1002, Lots 48, 49, and 50.

[4] Refer to Appendix I for correspondence from New York City Department of Environmental Protection (NYCDEP), which concurs that (e) designation should be mapped on Block 1002, Lots 43 and 45.

specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

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

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

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

With the requirements of the (E) designation (E-670) to be met before any new development could occur on either projected development site, there would be no impact from the potential presence of contaminated materials. The (E) designation will ensure that testing and remediation will be provided as necessary before any future development and/or soil disturbance on projected development sites 1 and 2. The implementation of the preventative and remedial measures outlined in the (E) designation would preclude the potential for significant adverse hazardous materials impacts from proposed actions. Prior to development at projected development sites 1 and 2, the property owners/developers will comply with the requirements of the (E) designation and coordinate with OER. Therefore, no further analysis is warranted.

Transportation

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to transportation and therefore require a detailed transportation analysis. As shown in Table 16-1 of the *CEQR Technical Manual*, actions that result in fewer than 50 peak hour vehicle trips are generally not likely to cause significant adverse impacts. For projects in Zone 2 (which includes areas within a 0.25-mile of a subway station in Brooklyn), the development thresholds requiring trip generation analysis are 200 DUs and 15,000 gsf of local retail space.

As the RWCDS would result in the net increase of 84 DUs and approximately 22,469 gsf of commercial space to the proposed rezoning area, an assessment of the proposed actions' effect on the City's transportation system is required and has been provided in **Attachment F, "Transportation."** Per CEQR guidance, a screening assessment was completed to determine if the proposed actions and RWCDS warrant detailed analyses of traffic, parking, transit, or pedestrians. The screening assessment consisted

of a Level 1 Project Trip Generation and a Level 2 Project-Generated Trip Assignment, presented in **Attachment F**.

As detailed in **Attachment F**, the proposed actions do not warrant detailed analyses of traffic, or transit. No intersections near the proposed rezoning area would exceed the 50-vehicle CEQR threshold for a detailed traffic analysis. It is also not expected that any subway or bus lines near the proposed rezoning area would experience an increase of more than 200 peak hour rail or 50 peak hour bus transit riders, the CEQR thresholds for a detailed transit analysis. The RWCDS would generate more 200 or more incremental pedestrian trips at two pedestrian elements (one corner and one sidewalk) near the proposed rezoning area. Conditions at the northeast corner of Second Avenue and Ninth Street and on the north sidewalk along Ninth Street between Second and Third Avenues were analyzed during the weekday PM and Saturday midday peak hours. As presented in **Attachment F**, incremental pedestrian trips generated by the RWCDS would not result in any significant adverse pedestrian impacts based on *CEQR Technical Manual* criteria. Therefore, no significant adverse impacts to traffic, transit, or pedestrians would be expected in the future with the proposed actions.

Air Quality

According to *CEQR Technical Manual* guidance, air quality analyses are conducted to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by "mobile sources," pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., "stationary sources." As per the 2020 *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts.

Per *CEQR Technical Manual* Section 210, the threshold for detailed CO impact analysis is 170 vehicles per hour per intersection for the directly affected area, and the threshold for $PM_{2.5}$ impact analysis is 12 to 23 heavy-duty diesel vehicles (HDDV) or its equivalent vehicular emission based on the type of road. According to NYS DOT Highway Functional Classification (https://www.dot.ny.gov/gisapps/functional-class-maps), Ninth Street is classified as a minor arterial road with a threshold of 23 HDDV trip-ends. Per the EAS Form and as shown in **Attachment F, "Transportation,"** the proposed actions and RWCDS would not generate peak hour vehicle volumes in exceedance of the CEQR threshold of 170 vehicle trips, and would not generate peak hour vehicle volumes in exceedance of the CEQR thresholds for heavy-duty diesel vehicle (HDDV) traffic or the vehicular emissions equivalent on adjacent roadways.[5] **Table F-2** in Attachment F indicates that the maximum incremental trips generated by the proposed actions would be 69 during the weekday PM peak period, which is under the threshold for detailed CO impact analysis. Using the worksheet provided in *CEQR Technical Manual* Section 210, 69 LDGT trips would be equivalent to 3 HDDV trips, which would also be under the threshold for detailed $PM_{2.5}$ impact analysis. Therefore, further analysis of air quality mobile sources from action-generated vehicle trips has been screened out in accordance with *CEQR Technical Manual* guidance.

Stationary source impacts could occur with actions that create new stationary sources or pollutants, such as emission stacks for industrial plants, hospitals, or other large institutional uses, or a building's boiler stacks used for heating/hot water, ventilation, and air conditioning ("HVAC") systems, that can affect surrounding uses. Impacts from boiler emissions associated with a development are a function of fuel type, stack height, minimum distance of the stack on the source building to the closest building of similar

[5] Refer to Chapter 17, "Air Quality," Section 210 of the *CEQR Technical Manual* for applicable HDDV thresholds.

or greater height, building use, and the square footage size of the source building. In addition, stationary source impacts can occur when new uses are added near existing or planned emissions stacks, or when new structures are added near such stacks and those structures change the dispersion of emissions from the stacks so that they affect surrounding uses.

A detailed stationary source analysis of the RWCDS was conducted to determine whether the associated exhaust emissions from each projected development sites' HVAC system would have the potential to significantly affect sensitive receptors (windows) on nearby taller buildings, as well as the potential effects of each proposed building on the other proposed building (i.e., project-on-project), and is provided in **Attachment G, "Air Quality."** The detailed stationary source HVAC analysis provided therein determined that there would be no potential for significant adverse air quality impacts with the placement of an (E) designation (E- 670) on projected development sites 1 and 2 (Block 1002, Lots 43, 45, 48, 49, and 50) to restrict fuel oil and HVAC stack location.

In addition, based on a review of area land uses, there are two existing properties within 400 feet that have DEP light industrial air permits, therefore, **Attachment G** includes an air toxics analysis. The analysis of emissions from nearby industrial sources provided in **Attachment G** determined that no significant adverse impacts would result from air toxics related to industrial sources.

As discussed therein, no significant adverse stationary air quality impacts are expected in the future with the proposed actions.

Noise

The purpose of a noise analysis is to determine both a proposed action's potential effects on sensitive noise receptors and the effects of ambient noise levels on new sensitive uses introduced by the proposed action(s). The principal types of noise sources affecting the New York City environment 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.).

The proposed actions and RWCDS would introduce new sensitive uses, and therefore, a detailed noise analysis was conducted in compliance with *CEQR Technical Manual* guidance. As discussed in **Attachment H, "Noise,"** noise from the increased traffic volumes generated by the proposed actions and RWCDS would not cause significant adverse noise impacts, as the relative increases in noise levels would fall below the applicable *2020 CEQR Technical Manual* significant adverse impact threshold (3.0 dBA).

The proposed actions would result in residential and commercial uses on two projected development sites. Consistent with the 2020 *CEQR Technical Manual*, existing noise levels should be measured and compared to the Noise Exposure Guidelines for these types of uses presented in Table 19-2 of the Manual. As such, a detailed noise analysis has been prepared and is provided in **Attachment H, "Noise."** As discussed in **Attachment H**, the noise analysis determined that the projected development sites 1 and 2 (Block 1002, Lots 43, 45, 48, 49, and 50) would require an (E) designation (E-670) that would specify the required noise attenuation measures for commercial office uses. The proposed special MX zoning district would be subject to New York City Zoning Resolution (ZR) Section 132-23 which requires residential dwelling units (DUs) be provided with a minimum window-wall attenuation level of 35 dBA and an alternate means of ventilation to maintain an interior noise level of 45 dBA or less for a closed window condition. As the resulting noise levels would be below 80 dBA, ZR Section 123-32 would require a

minimum of 35 dBA window-wall attenuation for all residential DUs and no (E) designation would be warranted for the residential portion of the RWCDS. Therefore, the proposed actions would not result in any significant adverse noise impacts.

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 *2020 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 and RWCDS 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 further assessment is not warranted.

Neighborhood Character

According to the 2020 *CEQR Technical Manual*, an assessment of neighborhood character may be appropriate if a proposed action(s) has the potential to result in significant adverse impacts on land use, zoning, public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, or noise, or when an action may have moderate effects on several of the elements that define a neighborhood's character. As the EAS provides assessments of land use, zoning, and public policy (**Attachment C**), open space (**Attachment D**), urban design and visual resources (**Attachment E**), transportation (**Attachment F**) and noise (**Attachment G**), a preliminary screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted.

Neighborhood character is an amalgam of various elements that give neighborhoods their distinct "personality." According to the *CEQR Technical Manual*, a preliminary assessment may be appropriate if a project has the potential to result in any significant adverse impacts on any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. Per the analyses provided in this EAS, although the proposed actions required supplemental screening or assessment of some of these technical areas, there would be no action-generated significant adverse impacts.

The *CEQR Technical Manual* also states that for projects not resulting in significant adverse impacts to any technical areas related to neighborhood character, additional analyses may be required to determine if

the proposed actions would result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. However, the *CEQR Technical Manual* indicates that neighborhood character impacts are rare and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects in the neighborhood would result in any significant adverse impact to neighborhood character.

The proposed actions would not adversely affect any component of the surrounding area's neighborhood character. The proposed actions would not conflict with the surrounding activities, nor would they significantly affect land use patterns. The RWCDS that would be facilitated by the proposed actions would bring occupancy and activity to the projected development site 1. The proposed residential and local commercial uses on two development sites would add market-rate and affordable housing and convenient amenities to the neighborhood, and are expected to enhance further the mixed-use character of the area. As the proposed actions would not be considered to have any significant effects on any of the technical areas relating to neighborhood character, a neighborhood character assessment can be screened out, and no significant adverse neighborhood character impacts would occur. Therefore, no additional analysis is warranted for neighborhood character.

Construction

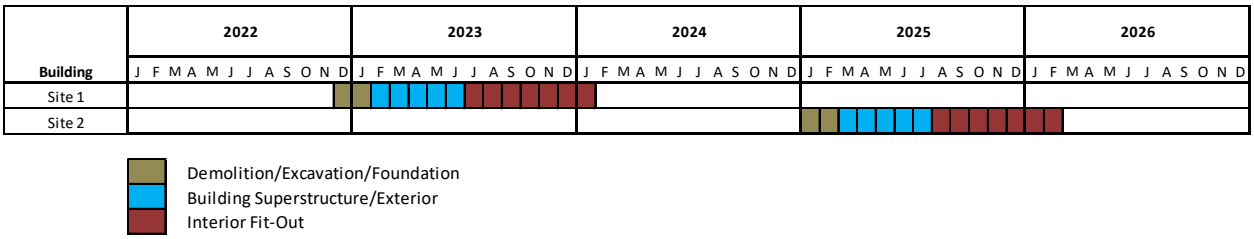
Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts. Based on *CEQR Technical Manual* guidance, when the duration of construction is expected to be short-term (less than two years), any impacts resulting from construction generally do not require detailed assessment. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

The proposed zoning changes are expected to facilitate the development of two nine-story mixed-use residential and commercial buildings at projected development sites 1 and 2, which would be constructed separately and are not expected to have overlapping schedules. Construction of the applicant's property (projected development site 1) is expected to begin at the end of 2022, following approval of the proposed actions, and would be completed in approximately 14 months, by 2024. Projected development site 1 is unimproved and would not involve any demolition, but would require site excavation to construct a single cellar level. In addition, a single non-applicant-owned projected development site (projected development site 2; Lots 43 and 45) has been identified within the Project Area that is likely to be redeveloped due to the proposed zoning changes. However, as no formal redevelopment plans exist for the non-applicant-owned site, it is estimated that construction on projected development site 2 would not begin until early 2025 to reflect a reasonable estimate of the time needed for property owner/developers to design the project, and obtain design approvals. Construction on projected development site 2 is also expected to take approximately 14 months with completion expected in 2026.

Table B-3 illustrates the conceptual construction sequencing of the two RWCDS projected development sites associated with the proposed actions. As shown in **Table B-3**, it is expected that each projected development would take approximately 14 months to complete, and the construction schedules are not expected to overlap. There is also expected to be roughly an 11-month gap between the completion of site 1 and the onset of the construction for site 2. Each site would undergo an initial approximately two months of demolition/excavation/foundation work, approximately five months of building superstructure

erection, and approximately seven months of exterior and interior building fit-out. Although neither development would require more than a 24-month construction schedule, construction would occur for 28 months in the Project Area with an 11-month gap between the active construction schedules of the two development sites.

TABLE B-3: Conceptual Construction Schedules for Projected Development Sites 1 and 2



As each building's construction duration would be considered "short-term" (taking less than two years) in accordance with CEQR, potential effects are expected to be minimal and, as discussed below, the proposed actions are not expected to have any significant adverse construction impacts. Construction activities are not expected to adversely affect surrounding land uses. As required by City regulations, sidewalk protection bridges and full height plywood barriers would be installed to protect the public right of way. Construction of the RWCDS developments would follow applicable federal, state, and local laws for building and safety, as well as local noise ordinances, as appropriate. Construction specifications would require that construction contractors comply with all applicable legal requirements including environmental regulations and obtain necessary permits for the duration of construction.

The proposed actions and RWCDS would result in temporary disruptions including construction related traffic, dust, noise, or mobile source emissions. However, these effects would be temporary, as the duration of construction activities for each projected development site would not exceed 24 months. The following is a brief discussion of the effects associated with construction related activities on hazardous materials, traffic, air quality, and noise resulting from the construction that could occur under the RWCDS.

Conceptual Construction Schedule and Activities

Construction activities for buildings in New York City generally take place Monday through Friday, with exceptions that are discussed separately below. In accordance with City laws and regulations, construction work on the projected development sites would generally begin at 7AM on weekdays, with workers arriving to prepare work areas between 6AM and 7AM. Construction work would typically end at 3:30PM, but at times, the workday could be extended to complete some specific tasks beyond normal work hours, such as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. The extended workday could last until about 9PM and would not include all construction workers on-site, but just those involved in the specific task requiring additional work time. Extended work hours would be subject to after-hours work variance permits from DOB. Additionally, all construction sites require preparation of a noise mitigation plan as outlined in Section 24-219 of the Administrative Code of the City of New York.

Occasionally, Saturday or overtime hours may 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 the DEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005

and effective July 1, 2007, limits construction (absent special circumstances as described below) to weekdays between the hours of 7AM and 6PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6PM and 7AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of City agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7AM with worker arrival and site preparation to 5PM for site cleanup, or as specified in DOB-issued work variance permits.

Construction staging would most likely occur on the projected development sites and may occasionally extend within portions of the sidewalks, curbs, and travel lanes of public streets adjacent to the sites. During the course of construction, traffic lanes and sidewalks adjacent to the projected development sites may have to be intermittently or temporarily closed or protected for varying periods of time to allow for certain construction activities. Any sidewalk or street closures require the approval of DOT's Office of Construction Management and Coordination (DOT-OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. Builders would be required to plan and carry out noise and dust control measures during construction. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all applicable construction safety measures. Construction activities would be subject to compliance with the New York City Noise Code and EPA noise emission standards for construction equipment.

Effect of Construction on Hazardous Materials

As detailed in the Hazardous Materials section above, due to the historical use of several properties near the projected development sites, (E) designations would be placed on Block 1002, Lots 43, 45, 48, 49, and 50 as part of the proposed actions to avoid any potential impacts related to hazardous materials. An (E) designated site is an area designated on a zoning map within which no change of use or development requiring a New York City Department of Building's (DOB) permit may be issued without approval of OER. These sites would require the OER's review to ensure protection of human health and the environment from any known or suspected hazardous materials associated with the site. The (E) designation would ensure that the fee owner conduct a testing and sampling protocol and remediation, where appropriate, to the satisfaction of the OER before the issuance of a permit by DOB. The environmental requirements for the (E) designation would also include a mandatory construction-related health and safety plan, which must also be approved by the OER before any remedial activities that may be required would be permitted to begin. As such, any potential construction-related hazardous materials impact would be avoided through measures required by the (E) designation including site investigation, testing, remediation, and the implementation of a construction health and safety plan (CHASP).

Effect of Construction on Traffic

Construction of the proposed buildings at the two projected development sites would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and removal of construction waste. As discussed above, construction of the projected development sites are expected to occur during the typical construction hours of 7AM and 3:30PM. Therefore, worker trips would be concentrated in off-peak hours and would not represent a substantial increment during the

area's peak travel periods. Construction workers would use both public transportation and private automobiles. Construction workers typically park off-site for larger developments and at curbside near smaller developments. These curbside spaces are typically available as area residents use their autos to travel to work and elsewhere, and are vacated by construction workers in the afternoon before resident demand increases after the typical workday.

Truck movements would be spread throughout the day and would generally occur between the hours of 6AM and 3PM, depending on the stage of construction. Flaggers are expected to be present during construction to manage the access and movements of trucks to and from the development site. Little if any rerouting of traffic is anticipated because of the construction of buildings on the projected development sites. Additionally, moving lanes of traffic are expected to be available at all times along the affected streets except on limited days when cranes will be erecting planks. These conditions would be temporary and not result in significant adverse impacts on traffic conditions.

The daily construction worker vehicle trips are expected to be distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. While construction truck trips would be made throughout the day (with more trips typically made during the early morning), construction workers would typically commute during the hours before and after the work shift. At no point would construction at projected development site 1 or 2, generate more than 50 peak hour vehicle trips.

Construction activities could result in short-term disruption of pedestrian movements around the projected development sites, occurring primarily because of the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the sites. Additionally, it is anticipated that some sidewalks could also be closed to accommodate heavy loading areas for at least several months of the construction period for activities associated with the construction of each projected development site. These activities would include the unloading of construction materials from trucks and the loading of trucks with construction debris. Curb lane and/or sidewalk closures would not affect access points to public transportation including subway and bus stops. In these instances, pedestrians would either walk on the opposite side of the street or in a sectioned-off portion of the street. Detailed Maintenance and Protection of Traffic (MPT) Plans for each building would be submitted prior to construction for approval by DOT- OCMC, which issues permits for any street/sidewalk closures after evaluation of traffic and pedestrian conditions. Appropriate protective measures for ensuring pedestrian safety surrounding each of the projected development sites would be implemented under these plans. Therefore, no significant adverse construction impacts on transportation are expected due to the projected development sites.

Effect of Construction on Air Quality

Possible impacts on local air quality during construction of the two projected development sites include: fugitive dust (particulate) emission from land clearing operation; and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas and would be of short duration for the projected developments. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods

employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site (and largely contained within a proposed site) and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed during construction of the projected developments. Therefore, the fugitive source emissions generated by the proposed actions would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the proposed actions would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a period of less than two years at each site, the mobile-source emissions generated by the proposed actions would not be significant. Overall, the proposed actions would not have the potential to result in significant adverse air quality impacts.

Effect of Construction on Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from the construction sites can affect community noise levels. The severity of impact of these noise sources would depend on the noise characteristics of the equipment, activities involved, the construction schedule, and the location of potentially sensitive noise receptors. Noise and vibration levels at a given location would be dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken. Construction noise associated with the proposed actions is expected to be similar to noise generated by other mixed-use residential and commercial construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. As there is no specific development currently planned for the non-applicant owned site (Projected Development Site 2), the actual construction at Projected Development Site 2 may significantly differ from the projections. Furthermore, as development sizes of anticipated construction are on the smaller scale and as construction would occur over a period of less than two years at each site, no detailed construction analysis is warranted.

Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency (EPA) noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses. These regulations would be followed in such a manner that no significant adverse noise impacts would be expected to result from the proposed actions and no further analysis is warranted.

Effect of Construction on Historic Resources

The proposed actions are located in close proximity to the nearby S/NR-eligible Gowanus Canal Historic District. The New York City Building Code provides 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. Accordingly, the proposed actions would not result in any significant adverse construction-related impacts to historic architectural resources.

As the surrounding historic district is not listed on the S/NR or designated a NYCL, construction of the projected development sites would not be subject to the DOB's Technical Policy and Procedure Notice (TPPN) #10/88. TPPN #10/88 supplements the standard building protections afforded by the New York City Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to nearby LPC-designated or S/NR-listed resources and to detect at an early stage the beginning of damage so that construction procedures can be changed. Additional protective measures afforded under TPPN #10/88 would only become applicable if the eligible resources are designated in the future prior to the initiation of construction.

ATTACHMENT C

LAND USE, ZONING & PUBLIC POLICY

I. INTRODUCTION

Under 2020 *CEQR Technical Manual* guidance, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed action(s), and determines whether the action(s) would be compatible with those conditions or potentially adversely affect them. Similarly, the analysis considers the proposed action's compliance with, and effect on, the area's zoning and other applicable public policies.

As discussed in **Attachment A, "Project Description,"** the proposed actions involve zoning changes that would affect the mid-block portion of a single block (Block 1002) along Ninth Street between Second and Third Avenues in Gowanus Brooklyn Community District (CD) 6. Under the Reasonable Worst-Case Development Scenario (RWCDS) in the future with the proposed actions, the applicant-controlled projected development site 1 (Block 1002; Lots 16, 48 to 50) would be redeveloped with a nine-story (95-foot tall), mixed-use residential and commercial building at 153-157 Ninth Street (Block 1002; Lots 48, 49, and 50), which would use approximately 3,300 square feet (sf) of commercial development rights transferred from an abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16). The mixed-use building at projected development site 1 would include approximately 48 dwelling units (DUs) (approximately 12 affordable units under the MIH program) and 16,000 gross square feet (gsf) of commercial space on portions of the ground floor and cellar level. No off-street accessory parking would be provided at projected development site 1 pursuant to the requested special permit to waive parking requirements. The existing two-family residence and accessory building on the Development Rights Parcel would remain irrespective of the proposed actions. For CEQR analysis purposes, the proposed actions are also assumed to facilitate the development of a nine-story (95-foot-tall), approximately 38,231-gsf building, including 37 DUs (approximately 9 affordable units under the MIH program) and 6,469 gsf of ground floor retail use at projected development site 2 (Block 1002, Lots 43 and 45) and no off-street accessory parking spaces.

According to the *CEQR Technical Manual*, a land use and zoning analysis is warranted for actions facilitating a change in land use or zoning. As the proposed actions involve zoning map and text amendments as well as a zoning special permit and would result in new uses and increase in the allowable density, which are not currently permitted as-of-right, an analysis is warranted. Furthermore, the *CEQR Technical Manual* recommends that if a preliminary assessment cannot succinctly describe land use conditions in the study area, or if a detailed assessment is required in the technical analyses of socioeconomic conditions, neighborhood character, transportation, air quality, noise, infrastructure, or hazardous materials, a detailed land use assessment is appropriate. As such, a detailed land use and zoning assessment is warranted for the proposed actions. In addition, as the directly affected area is located within the New York City Coastal Zone, an assessment of the proposed actions' consistency with the Water Revitalization Program (WRP) is also warranted. The assessment considers the potential effects of the proposed actions on the land use and zoning in study area, as well as the proposed actions' potential effects on public policy.

II. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning or public policy, as defined by the guidance for determining impact significance set forth in the *CEQR Technical Manual*, are expected in the 2026 future with the proposed actions in the primary and secondary study areas. The proposed actions would permit residential and community facility uses as-of-right where they are not currently allowed in the proposed rezoning area. The proposed actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would they generate land uses that would be incompatible with surrounding land uses, zoning, or public policy in the secondary study area.

The proposed actions would also bring into conformance existing residential uses and would increase the allowable density in the primary study area. The proposed zoning change would create additional zoning capacity in a transit-accessible area by supporting new housing creation and increasing affordable housing units in New York City. The proposed actions would result in new development along Ninth Street, which is a major east-west corridor in the surrounding area that is suited for denser development near public transit including two subway stations along the G and F lines.

The proposed mixed-use M1-4/R7A zoning district would not create land uses or structures that would be incompatible with the underlying zoning in the surrounding area, nor would it cause existing structures to become nonconforming. The proposed residential and commercial uses would be consistent with uses already present in the surrounding area. The proposed actions would not result in land uses that conflict with public policies applicable to the primary or secondary study areas. The proposed action would facilitate new residential and commercial development in an appropriate location within the New York City Coastal Zone that is characterized by a similar mix of uses.

III. METHODOLOGY

The purpose of this attachment is to examine the effects of the proposed actions and determine whether they would result in any significant adverse impacts on land use, zoning, or public policy. The analysis methodology is based on the guidance of the *CEQR Technical Manual* and examines the proposed actions' consistency with land use patterns, development trends, zoning regulations, and other applicable public policies. As described in **Attachment A, "Project Description,"** in order to assess the possible effects of the proposed actions, a RWCDS was established for the future without the proposed actions (the No-Action condition) and future with the proposed actions (the With-Action condition) for the 2026 analysis year.

This attachment includes a description of existing land uses and zoning within the directly affected area and the broader study area. Following the guidance of the *CEQR Technical Manual*, the analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the proposed actions to such conditions, assesses the nature of any changes on these conditions that would be created by the proposed actions, and identifies those changes, if any, that could be significant or adverse.

Existing land uses were identified through review of a combination of sources including field surveys and secondary sources, as well as the City's Primary Land Use Tax Lot Output (PLUTO™) data files for 2020 and websites, such as New York City's Zoning and Land Use Map (ZoLa, https://zola.planning.nyc.gov) and NYCityMap (http://gis.nyc.gov/doitt/nycitymap/). New York City Zoning Maps and the Zoning Resolution (ZR) of the City of New York were consulted to describe existing zoning districts and provided the basis for

the zoning evaluation of the future No-Action and future With-Action conditions. Relevant public documents including documents 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 study areas.

Analysis Year

As discussed in **Attachment A, "Project Description,"** development on projected development sites 1 and 2 under the proposed actions is expected to be completed by 2026. Therefore, for the purposes of determining potential impacts, this analysis assesses current conditions and forecasts those conditions to 2026. Future No-Action conditions account for planned land use and development projects, initiatives, and proposals that are anticipated to be completed by 2026.

Study Area Definition

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning, and public policy is related to the type and size of an action, as well as the location and context of the area that could be affected. Study area boundaries vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a very large project. The study areas for the proposed actions have been established in accordance with *CEQR Technical Manual* guidance and are shown in **Figure C-1**.

As shown in **Figure C-1**, land use, zoning, and public policy are addressed and analyzed for two geographical areas for the proposed actions. The study areas include: (1) the directly affected area (or "primary study area"), which comprises proposed rezoning area (Block 1002, Lots 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55 in their entirety, as well as portions of Lots 39 and 56) and the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16), which is owned by the applicant and located outside of the proposed rezoning area; and (2) a secondary study area that encompasses an area that has the potential to experience indirect impacts as a result of the proposed actions. The secondary study area extends an approximate 400-foot radius from the boundary of the primary study area. The secondary study area is bounded to the northeast by Seventh Street and midway between Tenth and Eleventh Street to the southwest roughly between Second and Third Avenues.

IV. DETAILED ANALYSIS

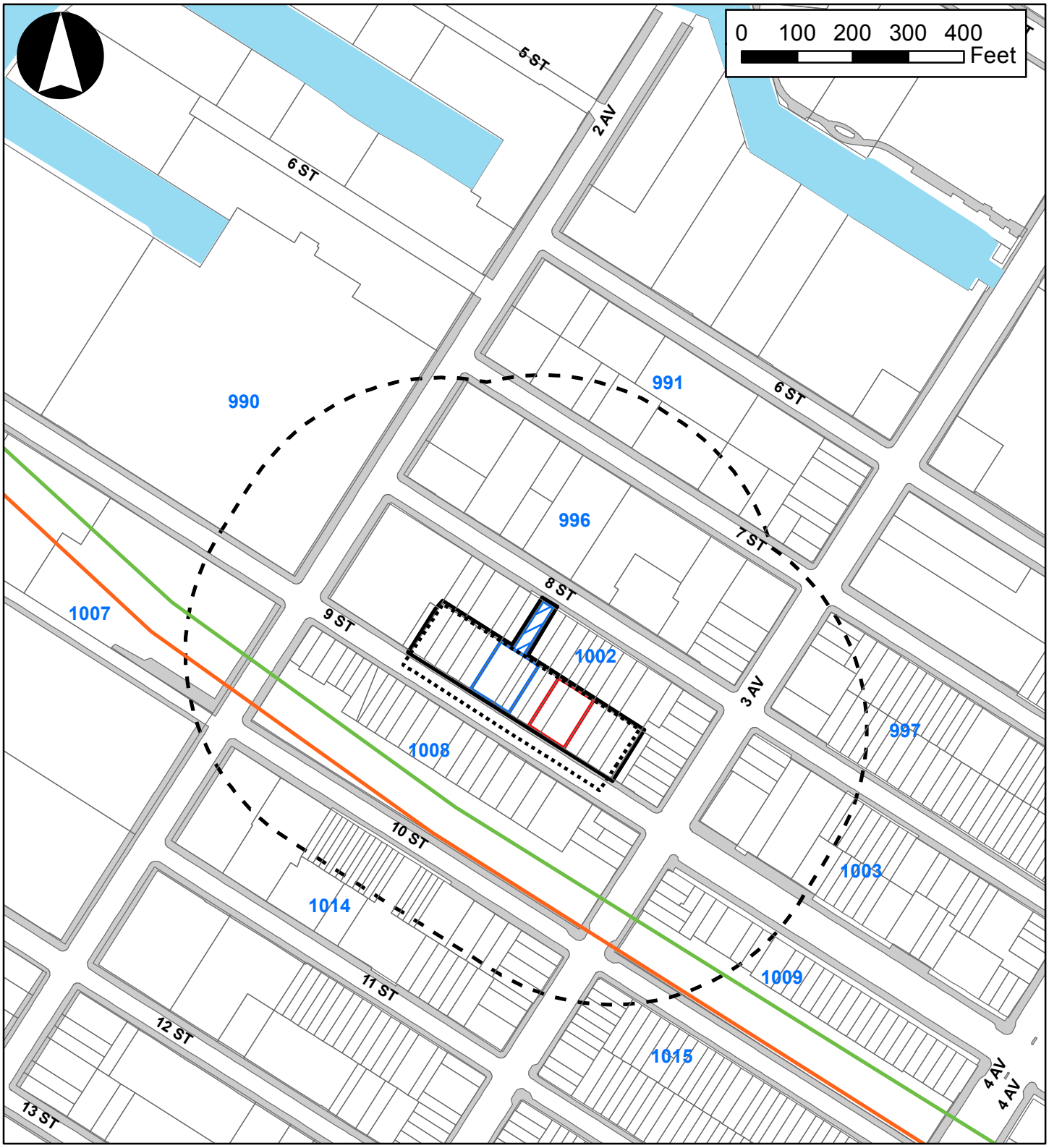
Existing Conditions

Land Use

Primary Study Area (Directly Affected Area)

The primary study area includes an approximately 44,575-sf portion of the midblock of Brooklyn Block 1002, which is bounded by Eighth Street to the north, Third Avenue to the east, Ninth Street to the south, and Second Avenue to the west. It comprises the approximately 42,075- sf proposed rezoning area, which consists of 16 privately owned, rectangular-shaped tax lots (Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of Lot 39 and 56) on the north side of Ninth Street, and a single approximately 2,500-sf rectangular-shaped tax lot (Lot 16) on the south side of Eighth Street, which abuts the proposed rezoning area. The primary study area has approximately 420 feet of frontage on the north side of Ninth Street and 25 feet of frontage on the south side of Eighth Street. Both Ninth and Eighth Streets are defined as narrow streets with widths of 60 feet. Ninth Street is two way, a major east-west arterial and local truck

Study Areas



Legend

- Primary Study Area
- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- Water
- F Train
- G Train
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- 1002 Block

route, whereas Eighth Street is one-way westbound. As shown in **Figure C-2**, land use in the primary study area is predominantly residential and consists of multi-family walkup residential apartment buildings more than a century old. The primary study area includes 49 DUs, approximately 900 gsf of commercial use, and 5,000 gsf of warehouse.

Projected development site 1, which is under the applicant's control, measures approximately 10,742-sf and includes four tax lots, including Lots 48, 49, and 50 ("Development Site"), which are located within the proposed rezoning area, as well as an adjacent Lot 16 ("Development Rights Parcel"), which is located outside of the proposed rezoning area on Eighth Street. The Development Site at 153- 157 Ninth Street comprises a lot area of approximately 8,242 sf with approximately 82 feet of frontage on Ninth Street. It is currently unimproved, paved, enclosed by fencing, and is being used for vehicle storage/parking uses with a single curb cut on Ninth Street. The Development Site is the only unimproved property in the primary study area. The Development Rights Parcel at 124 Eighth Street (Lot 16) comprises approximately 2,500 sf with 25 feet of frontage on Eighth Street. It is occupied by a legally, non-conforming, two-story, and two-family residential building fronting on Eighth Street and an accessory building in the rear of the lot. The Development Rights Parcel has a FAR of 0.69. Both of the existing buildings on the Development Rights Parcel would remain in the future with or without the proposed actions.

The remaining 13 lots (Lots 40, 41, 42, 43, 45, 46, 47, 52, 53, 54, and 55, and part of Lot 39 and 56) included in the primary study area are not under the control of the applicant and are each under separate private ownership. All of the lots are rectangular-shaped interior lots with frontage on Ninth Street, and are improved with existing low-rise buildings. Most of the lots are occupied by two- to four-story multiunit walkup residential buildings constructed in the early 1900s or late 1890s. There are also two single-family homes at 163 9th Street (Lot 45) and at 141 9th Street (Lot 56), a single-story warehouse at 167 9th Street (Lot 43), and single-story commercial building and two-story two-family residence at 149 9th Street (Lot 52).

Projected development site 2 comprises 7,500 sf and includes Lots 43 and 45 with approximately 75 feet of frontage on Ninth Street. Lot 43 at 167 Ninth Street is occupied by a single-story, approximately 5,000 sf industrial building (1.00 FAR), constructed in 1999 that is utilized by a construction contractor for storage purposes. Lot 45 at 163 Ninth Street is occupied by a two-story, approximately 1,000 sf, single-family residence (0.40 FAR), constructed in 1899.

Secondary Study Area

As show in **Figure C-2**, land uses within the secondary study area are varied, and include a mix one- and two-family, as well as multiunit housing, light industrial/manufacturing, transportation-related, parking, mixed-use commercial and residential, and commercial uses. There is a single community facility use, the American Legion, at 193 9th Street (Block 1003, Lot 64) near the eastern edge of the study area. In addition, although most of the lots within the secondary study area are improved with existing buildings or support active uses, there are a few vacant properties located along the north and south sides of 9th Street.

Residential uses are located to the east of Second Avenue and generally occupy narrow rectangular-shaped lots with frontage along Tenth, Ninth and Eighth Streets. Industrial/manufacturing uses are generally clustered to the west of Third Avenue and largely occupy expansive lots with low-rise buildings that occupy the entire property. Recently a single-story warehouse at 109 Second Avenue at the southwestern edge of the study area underwent an expansion to add a second and third floor and currently serves as the distribution center for Salvation Army stores in Brooklyn and Manhattan.

Figure C-2
Study Area Land Uses



Source: PLUTO 2020 (NYCDCP)

Legend

- Proposed Rezoning Area
- Primary Study Area
- 400- Foot Buffer (Secondary Study Area)
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- Water

Land Use

- One & Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- All Others or No Data

Mixed-use commercial and residential uses are generally clustered along Third Avenue, which is a major corridor and truck route. A half a block south of the primary study area, the elevated tracks that serve the G and F subway lines extend through the secondary study area along the north side of Tenth Street. Office and other commercial uses are generally clustered in the northern portion of the study area comprising much of the mid-block of the block bounded by Second and Third Avenue between Seventh and Eighth Streets, as well as the superblock located to the south of Ninth Street and west of Second Avenue, which is occupied by a Lowes hardware store.

Table C-1 provides a description of existing land use within the secondary study area. As shown in **Table C-1**, residential uses are the most prevalent use throughout the study area and constitute the highest percentage of tax lots (nearly 42 percent). Industrial/manufacturing use comprises the largest percentage of lot area, accounting for approximately 30 percent of lot area within the secondary study area, and the highest percentage of building area (nearly 27 percent). Transportation/Utility uses comprise the second largest percentage of lot area (at nearly 18 percent), but account for less than two percent of building area and include the elevated structure that carries the F and G subway lines extending on the north side of Tenth Street. Commercial/office uses account for roughly a quarter of building area within the study area, and mixed-use commercial and residential building account for approximately 15 percent of the building area.

TABLE C-1: Existing Land Uses in the Secondary Study Area

Land Use Categories	Number of Lots	Percentage of Total Lots	Lot Area (sf)	Percentage of Total Lot Area	Building Area (sf)	Percentage of Total Building Area
One & Two Family Buildings	32	26.7%	51,587	10.2%	49,907	8.5%
Multi-Family Walkup Buildings	17	14.2%	35,110	7.0%	69,343	11.8%
Multi-Family Elevator Buildings	1	0.8%	8,370	1.7%	29,737	5.0%
Mixed Commercial/Residential Buildings	21	17.5%	38,496	7.6%	88,751	15.1%
Commercial/Office Buildings	5	4.2%	62,366	12.4%	149,641	25.4%
Industrial/Manufacturing	23	19.2%	150,957	30.0%	157,990	26.8%
Transportation/Utility	6	5.0%	88,527	17.6%	10,983	1.9%
Public Facilities & Institutions	1	0.8%	7,335	1.5%	4,895	0.8%
Open Space	0	0.0%	0	0.0%	0	0.0%
Parking Facilities	11	9.2%	43,562	8.6%	27,874	4.7%
Vacant Land	3	2.5%	17,500	3.5%	0	0.0%
Total	***120***	***100.0%***	***503,810***	***100.0%***	***589,121***	***100.0%***
Total Residential	50	41.7%	95,067	18.9%	148,987	25.3%

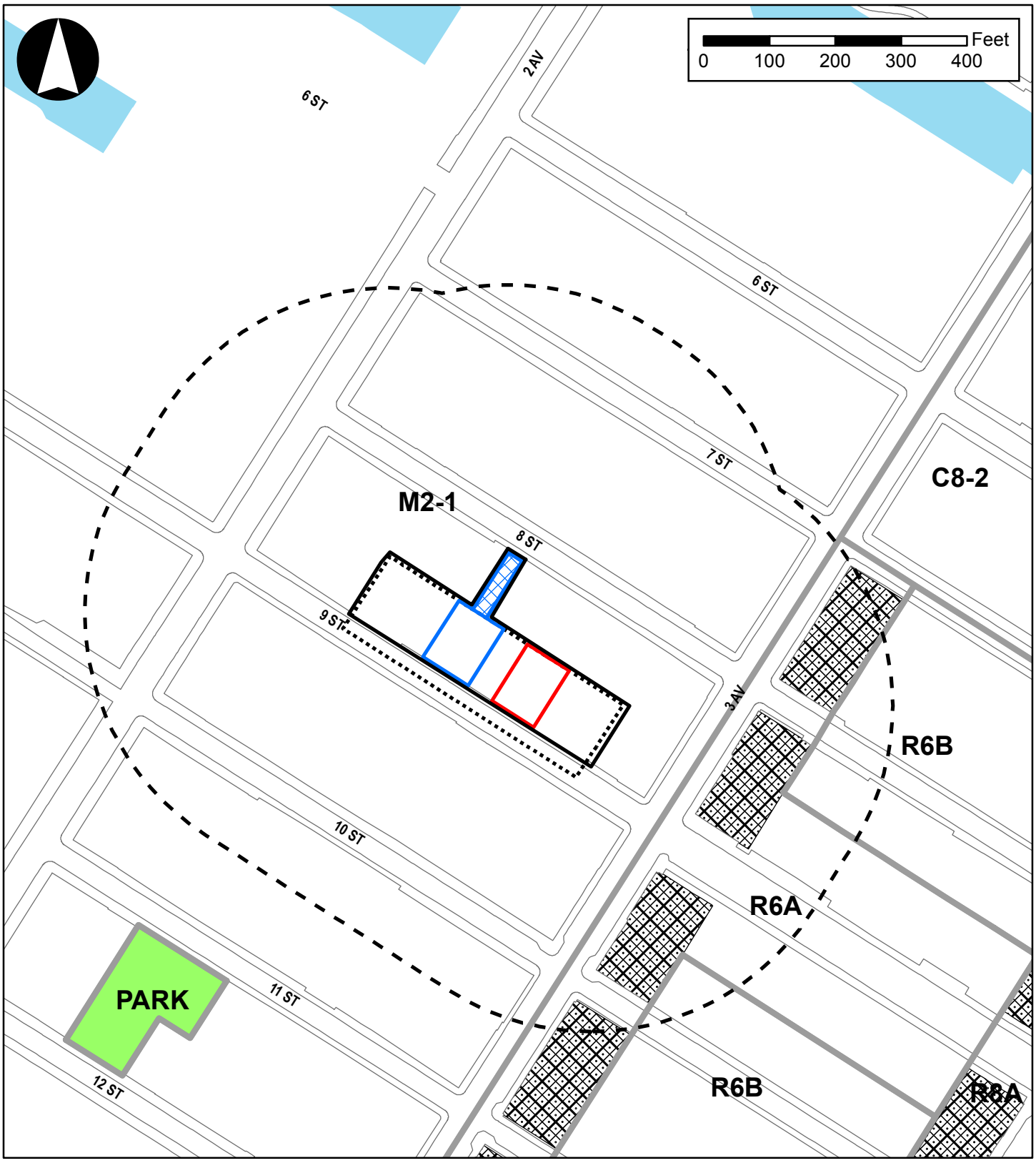
Source: NYC Department of City Planning (PLUTO 2020v3)

Zoning

Primary Study Area

As shown in **Figure C-3**, the primary study area is currently zoned M2-1, which does not permit residential or community facility uses. M2 zoning denotes a medium-performance manufacturing district, which occupies the middle ground between light and heavy manufacturing/industrial areas. M2-1 allows a maximum floor area ratio (FAR) of 2.0 for commercial and manufacturing/industrial uses. M2-1 districts

Figure C-3
Study Area Existing Zoning



Source: PLUTO 2020 (NYCDCP)

Legend

- Primary Study Area
- Secondary Study Area (400-Foot Radius)
- Development Rights Parcel
- Proposed Rezoning Area
- Projected Development Site 1
- Projected Development Site 2
- Zoning District Boundaries
- Water
- C2-4 Overlay

are subject to parking requirements based on the type of use and size of an establishment. M2-1 zoning allows a maximum front wall of 60 feet.

Secondary Study Area

Zoning classifications within the secondary study area are also shown in **Figure C-3** and described in **Table C-2**, and consist of manufacturing, residential and commercial zoning districts. M2-1 zoning is mapped to the west of Third Avenue and overlays most of the secondary study area. R6A and R6B contextual residential districts are mapped to the east of Third Avenue with R6A extending along the east side of Third Avenue and along the north and south sides of Ninth Street to the east of Third Avenue. C2-4 commercial overlays are also mapped along the east side of Third Avenue.

TABLE C-2: Existing Zoning Districts within the Secondary Study Area

Name	Definition/General Use	Maximum FAR
Residential Districts		
R6A	R6A districts are widely mapped in built-up, medium-density areas with wide streets. R6A districts are contextual residential zoning districts that mandate Quality Housing and typically result in high lot coverage six-to seven-story apartment buildings. Allow Use Groups 1 to 4. Maximum building height of 70 feet with a maximum streetwall height of 40 feet.	R: 3.0 (Quality Housing); 3.6 (IH); CF: 3.0; C/M: 0.0
R6B	R6B are contextual lower-density residential zoning districts that mandate Quality Housing and typically produce four- to five-story attached row houses setback from the street with stoops and small front yards. Allow Use Groups 1 to 4. Maximum building height of 50 feet with a minimum streetwall height of 30 feet and maximum streetwall height of 40 feet.	R: 2.0 (2.2 FAR is allowed in IH); CF: 2.0; C/M: 0.0
Commercial Districts		
C2-4 (overlay)	C2 commercial overlays are mapped within residential districts along streets that serve local retail needs, as well as meet broader shopping and service needs. In mixed-use buildings, commercial uses are limited to one or two floors and must always be located below the residential uses. C2 commercial overlay districts permit a slightly wider range of uses than C1 districts.	R & CF: Same as underlying R district; C: 1.0 within R1-R5 districts & 2.0 within R6-R10 districts; M: 0.0
Manufacturing Districts		
M2-1	M2-1 districts are generally mapped in older industrial neighborhoods and along waterfronts.	C/M: 2.0; R/CF: 0.0

Source: Zoning Resolution of the City of New York
Notes: R=Residential; C=Commercial; CF=Community Facility; M=Manufacturing; IH=Inclusionary Housing
[1] Nursing homes and non-profit residential facilities limited to residential FAR, except by special permit

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 or published reports, which pertain to the study area. If a proposed project could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

The primary and secondary study areas are located within New York City's designated Coastal Zone, and therefore, the proposed actions are subject to review of consistency with the City's Waterfront Revitalization Program (WRP). In addition, portions of the secondary study area are mapped within the Southwest Brooklyn Industrial Business Zone (IBZ) and within the New York State designated Southwest Brooklyn Empire Zone. While there are not specific initiatives and goals in the City's *Housing New York 2.0* plan that relate specifically to the primary or secondary study areas, it is citywide initiative that would be applicable to the study areas and is, therefore, included also in this analysis. The study areas are not part

of, or subject to, an Urban Renewal Plan, adopted community 197-a Plan, Business Improvement District (BID), or the New York City Landmarks Law. The proposed actions also do not include a largely publicly sponsored project, and as such, consistency with the City's OneNYC for sustainability is not warranted.

Waterfront Revitalization Program (WRP)

As illustrated in **Figure C-4**, the entirety of the primary study area, as well as portions of the secondary study area, are located within the City's designated Coastal Zone. 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 Waterfront Revitalization Program (WRP).

Legislative and Regulatory Background

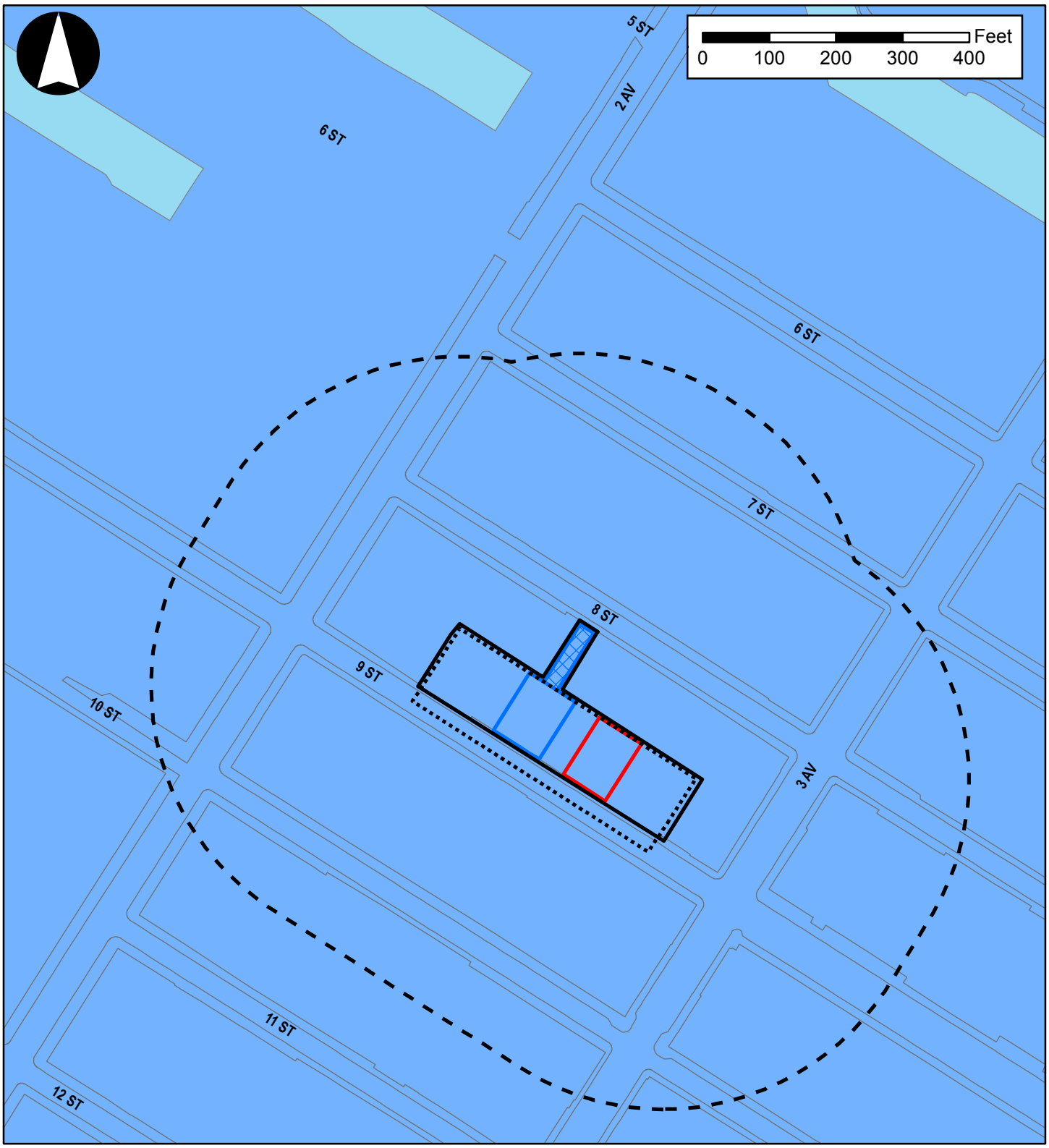
The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and Federal concerns about the deterioration 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 the New York City Department of City Planning (NYCDCP) administers it at the City level. 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 to advance proactively 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 NYSDOS 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.

New York City Panel on Climate Change: Projections

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, 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 includes temperature, precipitation, sea level, and extreme event frequency predictions for 2081 to 2100. While the projections will continue to be refined in the future, current projections are useful for present planning purposes and to facilitate

Figure C-4
Coastal Zone Boundary Map



Source: PLUTO 2020 (NYCDCP)

Legend

- Water
- Secondary Study Area (400-Foot Radius)
- Primary Study Area
- Proposed Rezoning Area
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- Coastal Zone

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 one to eight percent, four to 11 percent, five to 13 percent, and -one to +19 percent by the 2020s, 2050s, 2080s, and 2100, respectively; sea level will rise by four to eight 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.

Southwest Brooklyn IBZ

As shown in **Figure C-5**, a portion of the secondary study area is located within the Southwest Brooklyn IBZ. The primary study area is adjacent to, but not within the IBZ. The City created the Southwest Brooklyn IBZ in 1978, which encompasses large portions of Red Hook, Sunset Park, and Bay Ridge, comprising a hub of commercial and industrial uses.

An IBZ is a non-zoning designation that identifies the City's commitment to public policies that encourage the retention and growth of industrial businesses. In 2006, the Mayor's Office for Industrial and Manufacturing Businesses ratified the establishment of 16 IBZs in which the City provides expanded assistance services to industrial firms in partnership with local development groups. Since 2006, additional IBZs have been established and the boundaries of select IBZs modified. There are currently 21 IBZs throughout New York City. IBZs offer various incentives to prevent industrial uses from relocating outside of the City and represent a commitment by the City not to rezone these areas for residential uses.

Within an IBZ, local service providers, such as the Southwest Brooklyn Industrial Development Corporation, offer industrial firms guidance on accessing appropriate financial and business assistance programs, navigating and complying with regulatory requirements, developing workforces, and ensuring the neighborhood is well maintained.

Southwest Brooklyn Empire Zone

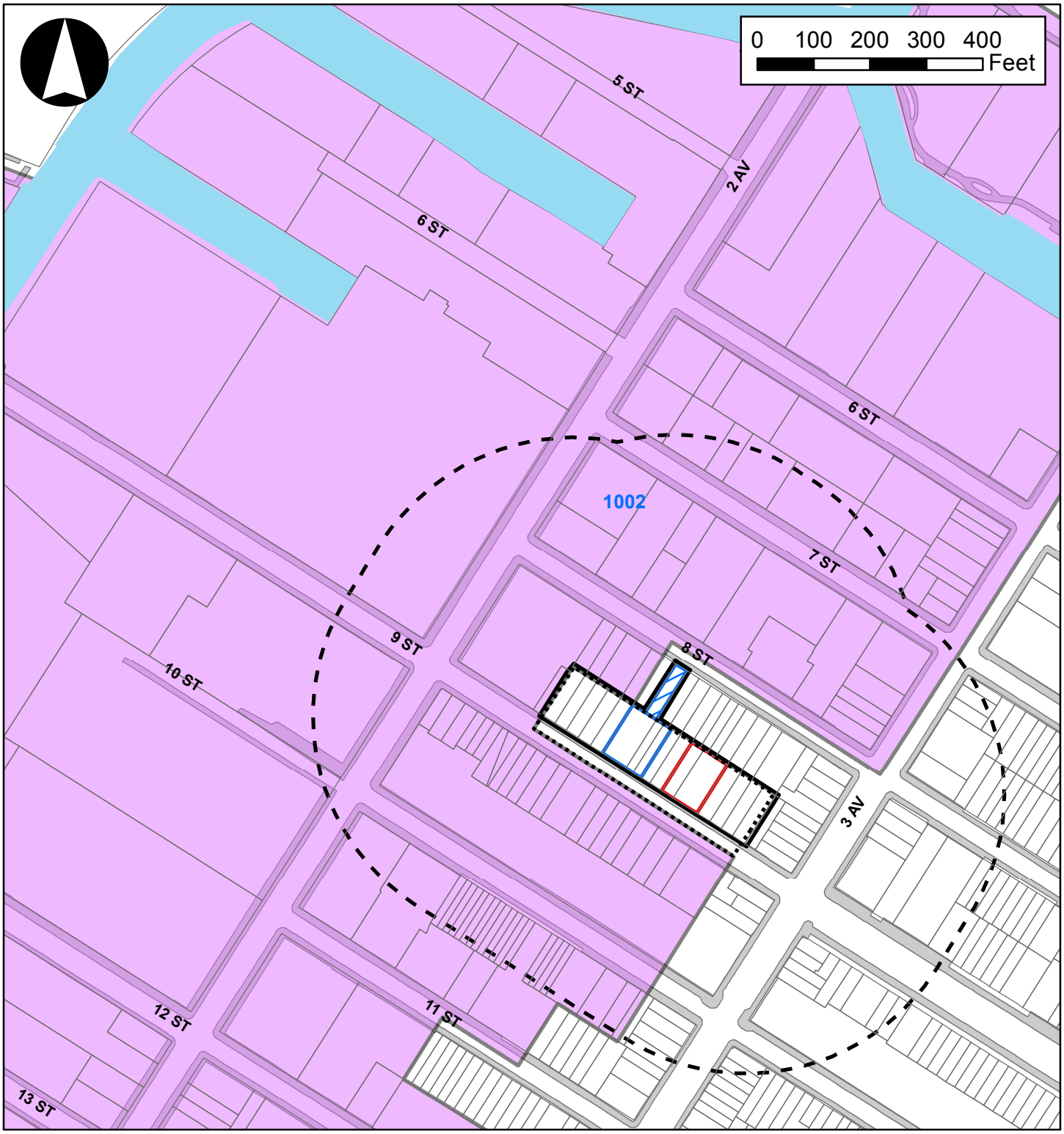
Empire Zones are designated areas throughout the state that offer special incentives to encourage economic and community development, business investment, and job creation. As an Empire Zone, Southwest Brooklyn receives numerous financial incentives intended to attract new businesses and enable existing businesses to expand their operations in the communities of Sunset Park, Red Hook and Gowanus (see **Figure C-6**). These incentives typically extend for a fixed number of years and may include items such as tax credits, sales tax exemptions, utility rate reductions, and low-interest loans.

Housing New York 2.0

In 2014, the de Blasio administration released *Housing New York: A Five-Borough, Ten-Year Plan Housing Plan* (*Housing New York*), a plan to build or preserve 200,000 affordable residential units. Building on the foundation laid by *Housing New York*, in 2017 the de Blasio administration released *Housing New York 2.0*, a new plan intending to complete the initial goal of 200,000 affordable homes two years ahead of schedule by 2022, and generate an additional 100,000 homes over the following four years. To achieve this goal, the plan aims to prioritize construction of residences for seniors, create new programs and modernize existing ones to encourage homeownership, develop neighborhood-based anti-displacement

Figure C-5

Southwest Brooklyn Industrial Business Zone Boundaries



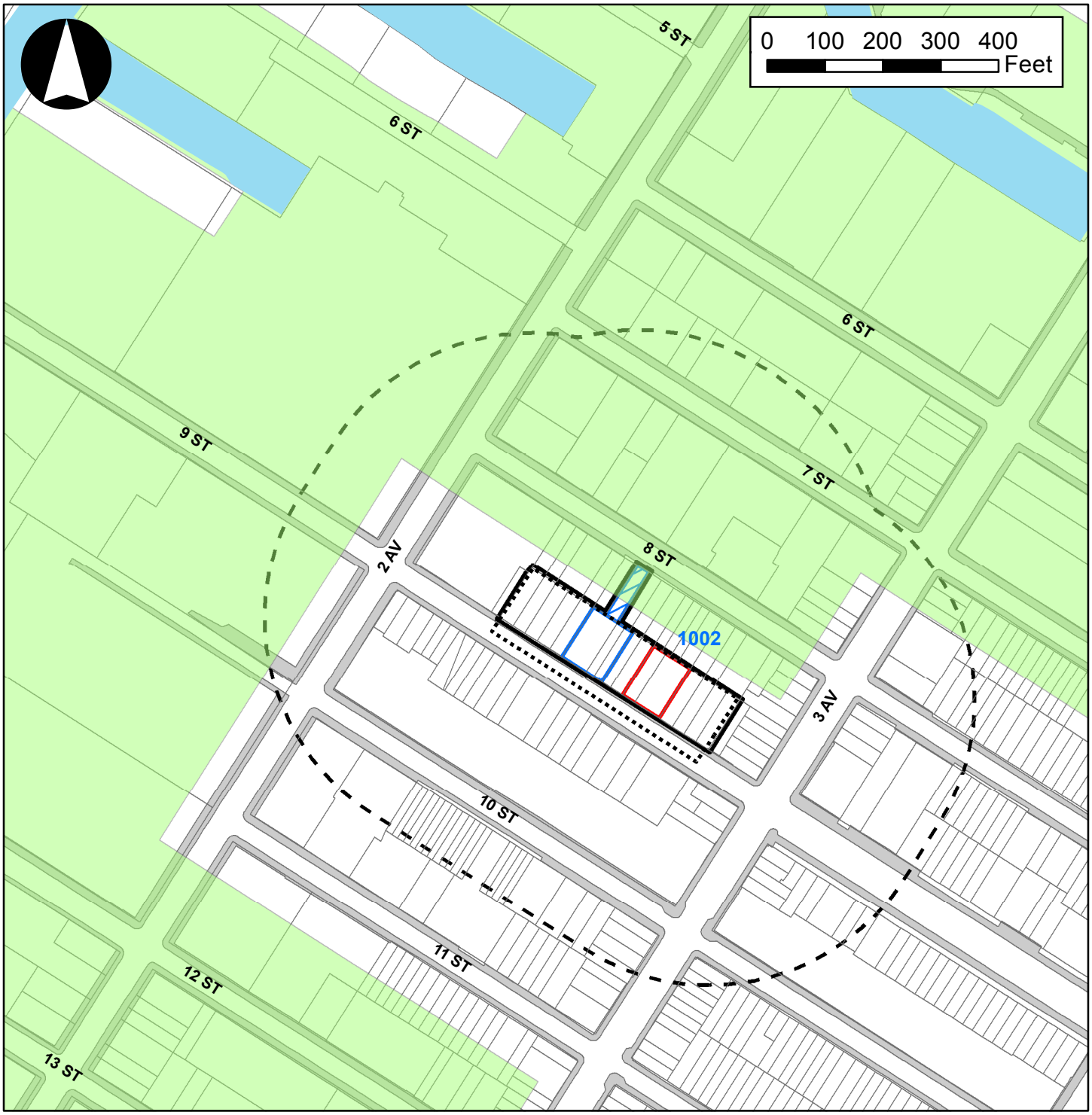
Source: PLUTO 2020 (NYCDCP)

Legend

- Southwest Brooklyn Industrial Business District
- Proposed Rezoning Area
- Primary Study Area
- Secondary Study Area (400-Foot Radius)
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- Water
- 1002 Block

Figure C-6

Southwest Brooklyn Empire Zone



Source: PLUTO 2020 (NYCDCP)

Legend

- Proposed Rezoning Area
- Southwest Brooklyn Empire Zone
- Primary Study Area
- Secondary Study Area (400-Foot Radius)
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- Water
- 1002 Block

strategies, promote innovation in new construction methods, activate underutilized sites for new housing, create new partnerships and draw on resources from the State, and protect and expand federal resources for affordable housing. The plan details the key policies and programs for implementation.

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

Land Use and Zoning

Primary Study Area

As presented in **Attachment A, "Project Description,"** in the 2026 future without the proposed actions, it is anticipated that no zoning changes would occur within the directly affected area, and the existing uses would remain the same. The primary study area would continue to be zoned M2-1 and no residential or community facility development would be permitted.

Secondary Study Area

Existing land use patterns are anticipated to continue in the surrounding area. There are no known zoning changes proposed, and only one new development anticipated to be completed by the 2026 analysis year in the secondary study area. One block east of the primary study area, the New York City School Construction Authority is constructing a three-story school building on a through lot at 197 Ninth Street (Block 1003, Lot 11). The new approximately 28,000 sf community facility building (#35 in **Figure C-7**) is anticipated to accommodate a pre-K facility with roughly 180 seats that would serve the surrounding Park Slope and Gowanus neighborhoods.

In addition, according to New York City Department of Buildings (DOB) records, the ongoing construction at 69 Second Avenue (Block 1002, Lot 1) on the subject block involves structural improvements to the existing two-story, approximately 40,000 gsf industrial building. No change in use, occupancy or building expansion is being considered at this time.

Just beyond the secondary study area, the City undertook a major rezoning of the Gowanus neighborhood (adopted in November 2021), which affected an approximately 80 block area in Brooklyn CD 2 and 6 that is generally bounded by Bond, Hoyt, and Smith Streets to the west, Third and Fourth Avenues to the east, Huntington, Third, Seventh, and 15th Streets to the south, and Warren, Baltic and Pacific Streets to the north. In June 2018, the City released Gowanus: A Framework for a Sustainable, Inclusive, Mixed-use Neighborhood, which identified goals and strategies around community priorities including sustainability and resiliency, community and cultural resources, housing, economic development, and transportation. As set forth there, "[t]he vision laid out in this framework aims to foster a thriving, inclusive and more resilient Gowanus where existing and future residents and workers are able to participate in civic, cultural and economic activities and where a wholly unique resource – the Gowanus Canal – can thrive and play an active role in that equitable and sustainable growth." Specifically, the Gowanus rezoning created a substantial area of mixed-use zoning, primarily by combining M1 and R6/R7 zoning, within several blocks at the top of the Gowanus Canal and in the area south of Baltic Street and north of Fourth Street between Fourth Avenue and Nevins Street. The rezoning of these areas to include mixed-use districts paired with the implementation of MIH to generate new mixed-income housing, including market-rate and permanently affordable units. The Gowanus Neighborhood Rezoning and Related Actions (CEQR #19DCP157K) entered the City's public review process, known as ULURP, on April 19, 2021. The Final Environmental Impact Statement was issued on September 10, 2021. Thirteen of the identified projected

development sites are located within a half-mile radius of the primary study area, which are anticipated to be completed by 2026.

In addition, there was a small rezoning proposal (506 Third Avenue) by a private applicant that affected the eastern portions of two blocks (part of Brooklyn Blocks 1020 and 1026) located to the south of the secondary study area, which was approved at the end of 2021. This zoning map amendment from M2-1 to C4-4A and related zoning text amendment to Appendix F of the ZR is intended to facilitate the construction of a five-story, approximately 18,000 sf commercial development at 506 Third Avenue.

For the purposes of other technical analyses that assess conditions in a larger study area, developments anticipated within an approximately ½-mile of the proposed rezoning area are summarized in **Table C-3** and shown graphically in **Figure C-7**. As presented in **Table C-3**, in the future without the proposed actions, it is anticipated that more than 1,800 residential DUs, nearly 48,000 sf of community facility space, more than 450,000 sf of commercial, and more than 157,000 sf of industrial uses would be developed within a ½-mile of the proposed rezoning area at 36 sites.

Public Policy

In absence of the proposed actions, no changes to public policies are anticipated in the primary or secondary study areas.

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

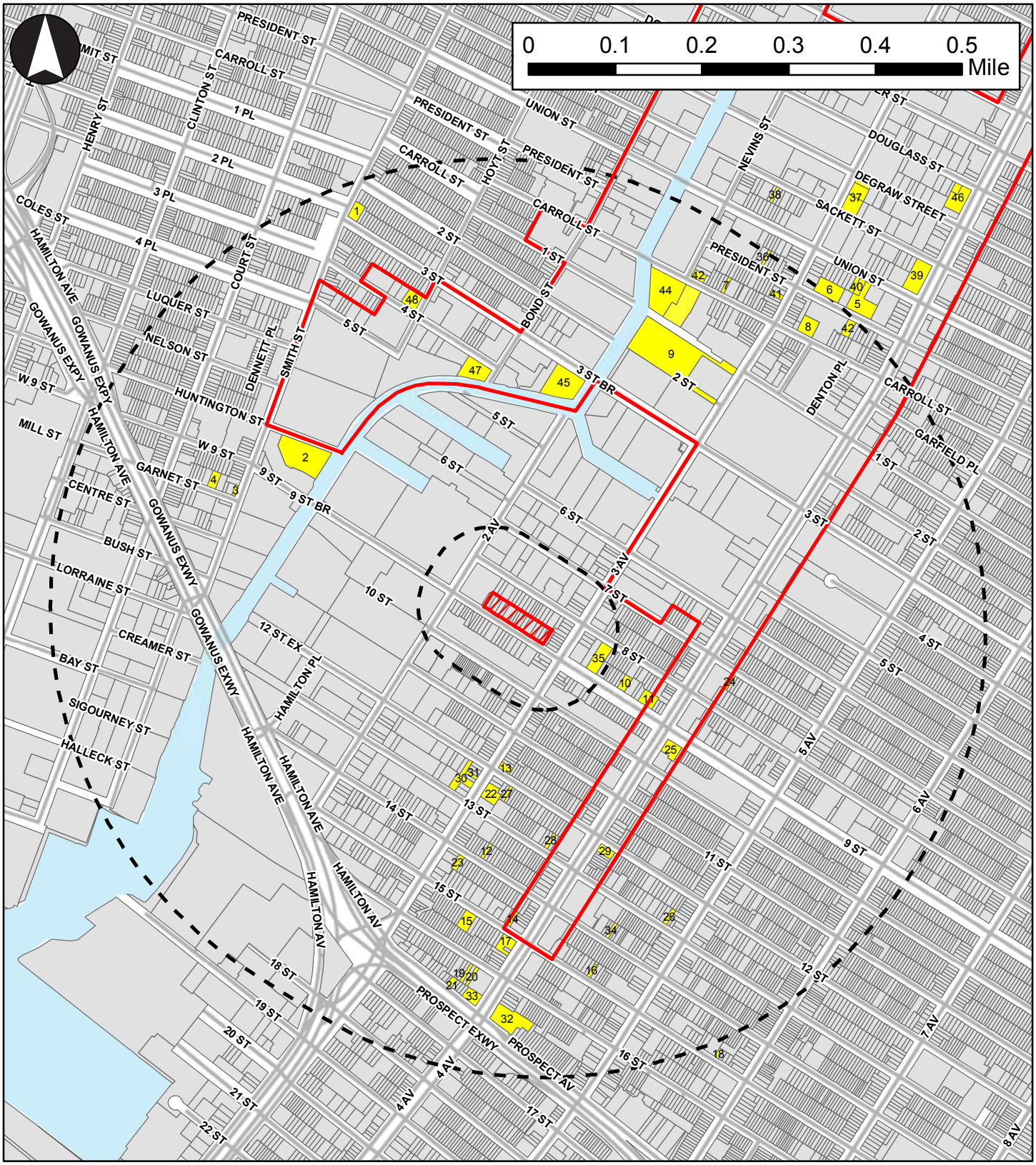
Under the With-Action condition, the proposed actions, which include zoning map and text amendments and a special permit, would be approved. As described in **Attachment A, "Project Description,**" under the RWCDS, the proposed actions would facilitate the incremental development of 84 DUS (including a net increase of up to approximately 21 affordable DUs), and approximately 22,469 gsf of commercial space at two projected development sites, and a net decrease of 5,000 gsf of warehouse. No off-street accessory parking spaces would be provided at either development site.

Land Use

Primary Study Area

The proposed actions would result in changes to land use within the primary study area by increasing the allowable density and introducing new residential uses, which are not currently allowed in the No-Action. Under the RWCDS, two projected development sites would be redeveloped to their maximum allowable FAR. The proposed actions would facilitate new mixed-use residential and commercial developments on underutilized sites. It is the applicant's opinion that the proposed residential and commercial uses, including a supermarket and local retail, would be consistent with the existing mixed-use character and support existing uses already present in the surrounding area. The proposed residential and commercial uses are expected to complement existing one-and two family homes, multiunit walkup residential apartment buildings, and mixed-use residential and commercial buildings in the immediate vicinity of the rezoning area located on the subject block along the south side of Eighth Street, directly south of the proposed rezoning area on south side of Ninth Street, and along both east and west sides of the Third Avenue corridor.

Figure C-7
No Build Sites



Legend

- No-Build Sites
- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- Half-Mile Radius
- Gowanus Rezoning
- Water

TABLE C-3: No-Action Developments within ½-Mile of the Primary Study Area

Map ID	Block	Lot(s)	Address	Residential (DU)	Retail (GSF)	Office (GSF)	Other Commercial (GSF)	Hotel (Rooms)	Community Facility (GSF)	Manufact. (GSF)
1	460	63	375 Smith St.	11						
2	477	8	300 Huntington St.		12,288	80,219				3,471
3	478	31	498 Smith St.	2	811					
4	478	38	45 Garnet St.	8						
5	441	42	561 President St.					113		
6	441	53	529 President St.					101		
7	447	53	445 Carroll St.			5,680				
8	448	65	497 Carroll St.							61,741
9	967	1	153 2nd St./322 3rd Ave.							79,443
10	1003	51	217 9th St.	13					1,737	
11	1003	7505	229 9th Street/ 227 9th St.	39						
12	1033	63	145 14th St.	6						
13	1021	7505	161 12th St.	8	513					
14	1040	51	139 15th St.	8						
15	1046	25	114 15th St.	19						
16	1041	60	179 15th St.	2						
17	1046	7501	554 4th Ave.	40	5,461					
18	1042	56	262 15th St.	2						
19	1051	28	96 16th St.	4						
20	1051	30	100 16th St.	4						
21	1051	48	165 Prospect Ave.	1						
22	1027	5	521 3rd Ave.		7,638				5,563	7,638
23	1040	13	136 14th St.	10						
24	998	12	266 7th St.	3						
25	1010	10	262 9th St.	67	4,302				260	
26	1028	49	257 13th St.	4						
27	1027	11	160 12th St.	7						
28	1027	50	193 13th St.	4						
29	1028	7	487 4th Ave.	44	2,477					
30	1026	32	530 3rd Ave.			27,420				
31	1026	36	506 3rd Ave		4,500	15,300				
32	1052	7503	575 4th Ave	70	4,850					
33	1051	39	584 4th Ave.	46	5,210					
34	1034	61	213 14th St.	2						
35	1003	11	197 9th St.						28,027	
36	440	47	499 President St.	350	18,438					
37	427	1, 7, 10	209-215 3rd Ave.	110	15,654	3,913	3,913			
38	433	18	Sackett St			6,000				
39	434	35	204 4th Ave	210	15,200					
40	441	16, 18	588-590 Union St	32	5,753					
41	447	32	208 3rd Ave.	4	1,920					
42	447	1	341 Nevins St	14	3,280					
43	448	25	562 President St.		4,000	11,000				
44	453	1	404 Carroll St.	335	6,538	11,441	11,441		6,538	
45	466	19	152 3rd St.	183	7,400	5,550	5,550		5,550	5,550
46	420	34, 37	164 4th Ave.	145	12,800					
47	471	125	98 4th St.			36297				
48	464	41, 45	404 Hoyt St.	34	8,202					
			Totals	***1,841***	***147,235***	***202,820***	***20,904***	***214***	***47,675***	***157,843***

Source: NYCDOB, January 2022; Gowanus Neighborhood Rezoning and Related Actions FEIS (CEQR No. 19DCP157K), 506 Third Avenue EAS (CEQR No. 20DCP129K), 300 Huntington Street EAS (CEQR No. 20DCP080K)

The proposed zoning changes would also bring into conformance a number of existing residential buildings in the rezoning area. Additionally, the proposed ground floor commercial uses would also help further activate Ninth Street. The proposed MX district would continue to allow high performance manufacturing/industrial and commercial uses, and would permit community facility uses.

The Proposed Actions would not generate land uses that would be incompatible with surrounding uses, nor would they directly displace land uses in such a way as to adversely affect surrounding land uses. It is the applicant's opinion that the introduction of housing in a transit accessible area would further contribute to the mission and purpose of integrating housing with transportation and jobs, thus encouraging live-work communities and transit-oriented development. Therefore, the Proposed Actions would support land use trends, and no significant adverse land use impacts are expected.

Secondary Study Area

The proposed actions are not expected to alter development trends or patterns in the secondary study area. The secondary study area would not undergo any changes because of the proposed actions. The proposed actions would have no direct effect on land use nor zoning in the secondary study area. As noted above, land uses in the secondary study area are varied with a dense mix of residential, industrial/manufacturing, transportation-related, parking, and commercial uses.

Therefore, the Proposed Actions would not introduce any new land uses that would be incompatible with their surroundings, and the proposed actions would not represent a significant adverse impact on land use in the secondary study area in accordance with the criteria set forth in the *CEQR Technical Manual.*

Zoning

In the future with the proposed action, the existing zoning in the primary study area would change along Ninth Street between Second and Third Avenues. The existing M2-1 district extending along Ninth Street would be rezoned to a Special MX (M1-4/R7A) District (see **Figure A-1** in **Attachment A, "Project Description"**).

The proposed actions would map a Special MX District that would pair an R7A zoning designation with a M1-4 zoning designation to allow a mix of uses reflective of the broader Gowanus neighborhood. The proposed zoning district would allow residential and community facility uses (Use Groups 1-4), which are not permitted under the existing M2-1, as well continue to permit commercial and high performance industrial/manufacturing uses (Use Groups 5-14, 16 and 17). It would also increase the allowable density and would create additional zoning capacity in a transit-accessible area to support new housing creation and increase the number of affordable housing units available in New York City. The proposed rezoning area along Ninth Street is well-suited for additional development, given its proximity to public transit and as Ninth Street is major east-west arterial.

The proposed MX (M1-4/R7A) zoning district would permit residential FAR of 4.6 (with the Mandatory Inclusionary Housing (MIH) Program), community facilities up to 6.5 FAR, and commercial and manufacturing uses would continue to be allowed up to 2.0 FAR. The proposed zoning change would also establish a contextual mixed-use district that would have minimum and maximum base height requirements as well as a maximum building height. Buildings would have a maximum height of 95 feet

(with MIH and a qualifying ground floor). Building would setback above a maximum base height of 75 feet (with MIH and a qualifying ground floor) to a depth of 15 feet (on a narrow street). Off-street accessory parking would be required for 50 percent of market-rate units and 15 percent of MIH units within the Transit Zone. The proposed special permit would waive this parking requirement for the applicant-owned projected development site 1.

The proposed zoning map change would bring into conformance existing residential uses within the rezoning area and permit new development consistent with land uses in the surrounding area and existing medium density contextual residential districts (R6A and R6B) mapped to the east of Third Avenue with C2 commercial overlays mapped along Third Avenue. The proposed zoning change would allow for the redevelopment of underutilized land for new market-rate and affordable housing in an area that is well served by transit, as well as continue to permit commercial and light industrial/manufacturing development. The proposed MX district is consistent with the City's policy to support additional development in transit accessible area

The proposed zoning text amendment would establish an MIH area coterminous with the rezoning area through ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 6. The proposed text amendment would require the applicant to develop in accordance with the MIH program, and would mandate the provision of affordable housing. Future qualifying development of all sites within the rezoning area would also be required to adhere to the requirements of the MIH program. Pursuant to the MIH program, a percentage of the new dwelling units in the projected developments must be affordable units, resulting in an affordable housing set-aside for either 25 percent of the residential floor area at an average of 60 percent of the Average Median Income (AMI) (Option 1) or 30 percent of the residential floor area at an average of 80 percent of AMI (Option 2). The applicant is seeking to map MIH Option 1. The final MIH Option will be chosen by the City Council through the ULURP. The proposed affordable housing set asides would ensure that the development within the rezoning area would help to address the need for housing to serve a broad change of the City's diverse incomes.

Secondary Study Area

The proposed zoning actions would only apply in the primary study area and would not affect lots beyond this area. The proposed zoning map and text amendments would be in keeping with the City's land use, zoning, and public policy objective to encourage denser development in area served by public transit and facilitate the development of affordable housing. The proposed zoning changes would be consistent with and have the effect of extending the principles of the Gowanus rezoning and the City's contextual changes to the east of Third Avenue two blocks further south to a small area on the north side of Ninth Street (i.e., primary study area) characterized by residential land uses west of Third Avenue. The proposed M1-4/R7A zoning would be comparable to the proposed rezoning of the Union Street Corridor, which like Ninth Street is another Canal crossing with a similar existing scale. The proposed actions would not result in any significant impacts to zoning patterns in the area, nor have a significant impact on the extent of conformity within the current surrounding area.

Public Policy

As detailed below, the proposed actions would not result in any significant adverse public policy impacts to the primary or secondary study areas.

WRP

As noted above, both the primary and secondary study areas are located within the City's Coastal Zone, and therefore, the proposed actions are subject to review for consistency with the policies of the WRP. The WRP includes policies designed to maximum 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) is provided in **Appendix 2,** which lists the WRP policies and indicates whether the proposed actions would promote or hinder that 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.

Compliance Statement: The primary study area and projected development sites are not located on the waterfront. They are located in an upland area that is roughly 0.23 miles east of the shoreline and separated from Gowanus Canal by a large superblock improved with commercial and industrial uses.

The two projected development sites are located in an appropriate location for mixed-use development as it is located in Gowanus, a diverse neighborhood with a mix of residential, commercial, and industrial land uses and building types that is well-served by existing infrastructure and public transportation. The proposed actions would introduce land uses and zoning that would be consistent with the surrounding area. The directly affected 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 that may be inappropriate for the development of new residential, commercial and industrial uses.

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

Compliance Statement: The proposed actions would encourage new development in an area served by existing public facilities and infrastructure. The density of the RWCDS is compatible with the capacity of surrounding roadways, mass transit, infrastructure, and essential community services. It is anticipated that the mix of residential and commercial uses and the scale of the resultant development would not overburden the surrounding area. Overall, the proposed actions would encourage redevelopment in an area adequately served by existing public facilities and infrastructure and would promote Policy 1.3 of the WRP. Directly adjacent to the Project Area, the F and G subway lines run elevated along the north side of Tenth Street. The B61 bus runs along 9th Street. At the intersection of 9th Street and 4th Avenue there is an underground subway station for the D, N, R, W subway lines. The proposed actions would encourage mixed-use development in an area adequately served by existing public facilities and infrastructure and would promote Policy 1.3 of the WRP.

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.

Compliance Statement: Refer to WRP Policy 6.2 below. Most of the applicant-owned projected development site 1, Development Rights Parcel and the portion of the proposed rezoning area to the west of the applicant's site is located within the FEMA- designated 500-year floodplain (see **Figure C-9**). This portion of the primary study area is within Zone X of the 500-year floodplain, which has a 0.2 percent-annual-change of flooding and does not require a Base Floor Elevation (BFE). As shown in **Figure C-8**, the primary study area is not within the 100-year floodplain (the area with a one percent annual change of flooding).

The New York City Panel on Climate Change (NPCC) recommends assessing the impacts of projected sea level rise on the lifespan of projects. The NPCC developed a series of maps incorporating projections for sea level rise with FEMA's 2013 Preliminary Work Maps. The NPCC estimates that in the New York City area, sea level will rise up to a high estimate of 11 inches by the 2020s, and up to a high estimate of 31 inches by the 2050s. As such, areas not currently within the currently applicable 100-year and 500-year flood zones will be in the future based on the NPCC projections. Furthermore, the NPCC projects that the frequency, extent, and height of 100-year and 500-year floods will increase by the 2050s. Based on future 100-year and 500-year flood zone projections for the 2020s and 2050s, a portion of the primary study area and a portion of a projected development site 1 would be located within the 100-year future floodplain projections (see **Figures C-8 and C-9**)

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.

Compliance Statement: 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

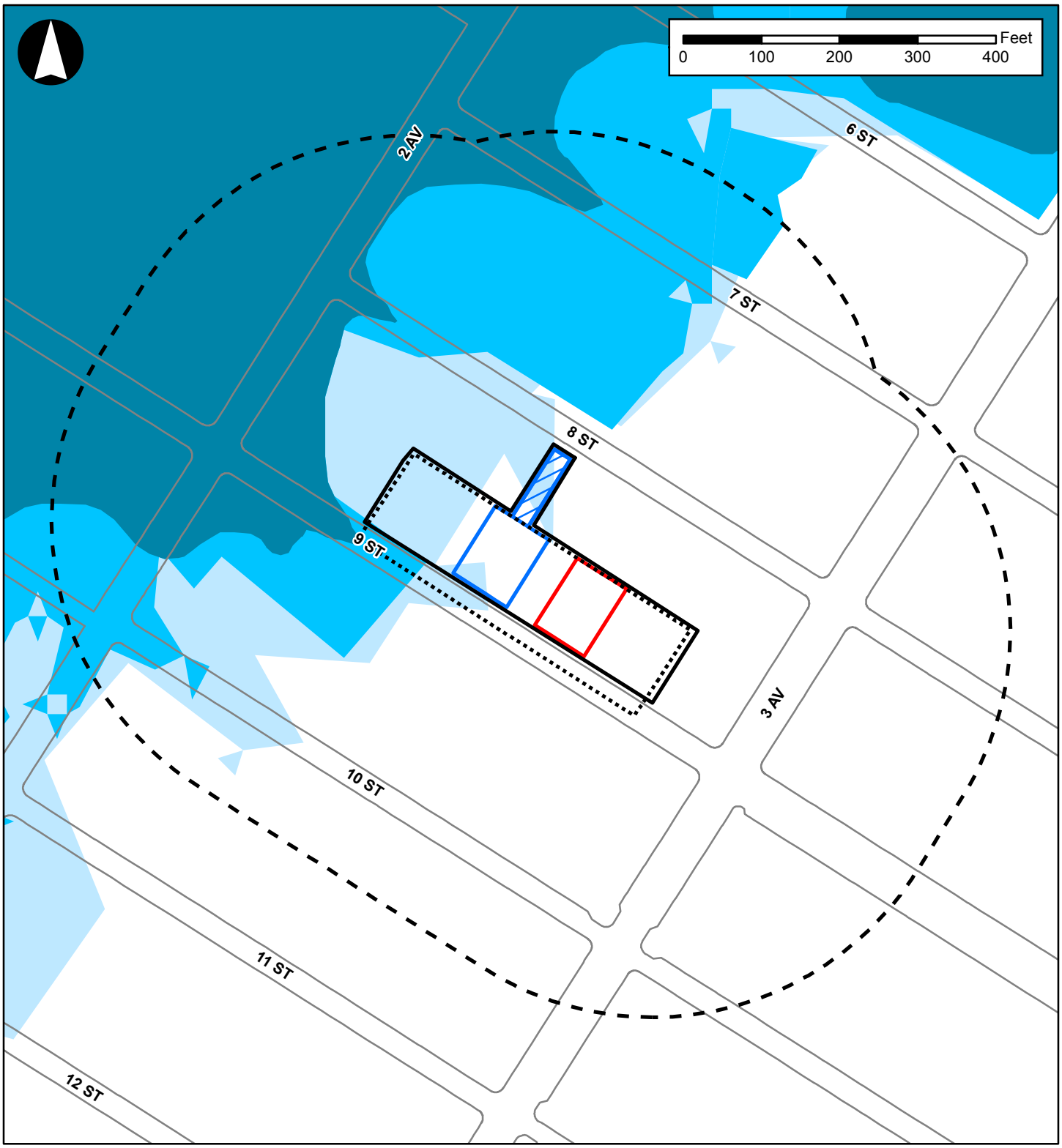
1. *Identify vulnerabilities and consequences.* The goal of this first step is to assess the project's vulnerabilities to future coastal hazards and what potential consequences may result.

As noted previously, the primary study area, while located within the Coastal Zone, is not located within the currently applicable 100-year of floodplain (see **Figure C-8**) and therefore, there is no base flood elevation or design flood elevation. The base plan elevation of the closest area adjacent to the primary study area is 11 feet and height measurements would be made from this base plane.

The primary study area is located upland from any shore and does not contain any publicly accessible waterfront. The primary study area is located roughly 0.23 miles from the nearest existing shoreline and is separated from the Gowanus Canal by a large superblock containing developed urban land. Portions of

Figure C-8

NPCC 100-Year Floodplain Projections



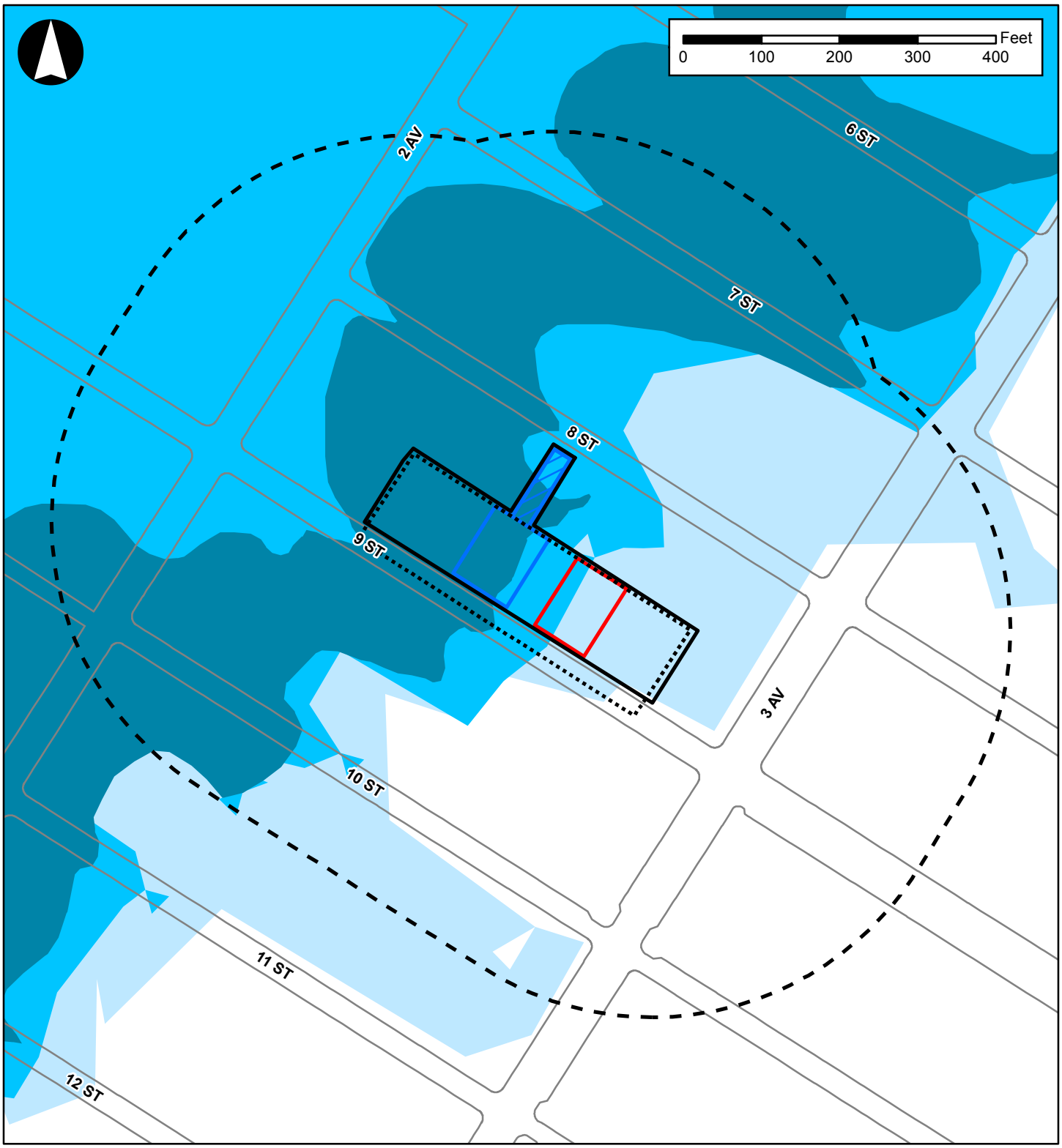
Source: NYCDCP (PLUTO 2020, Version VI); DoITT 2020; FEMA 2015

Legend

- Primary Study Area
- Secondary Study Area (400-Foot Radius)
- Rezoning Area
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- FEMA PFIRM
- 2020s Projection
- 2050s Projection

Figure C-9

NPCC 500-Year Floodplain Projections



Source: NYCDCP (PLUTO 2020, Version VI); DoITT 2020; FEMA 2015

Legend

- Primary Study Area
- Secondary Study Area (400-Foot Radius)
- Rezoning Area
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2
- FEMA PFIRM
- 2020s Projection
- 2050s Projection

the primary study area and projected development site 1 are located within the 500-year floodplain (Zone X per the 2015 PFIRM), which is the area with a 0.2 percent-annual-chance of flooding (see **Figure C-9**).

Coastal storms could bring high winds in addition to flood hazards. The primary study area is not within a Coastal A or V zone. The proposed actions are not expected to make flooding on adjacent sites worse, nor would they conflict with other plans for flood protection on adjacent sites.

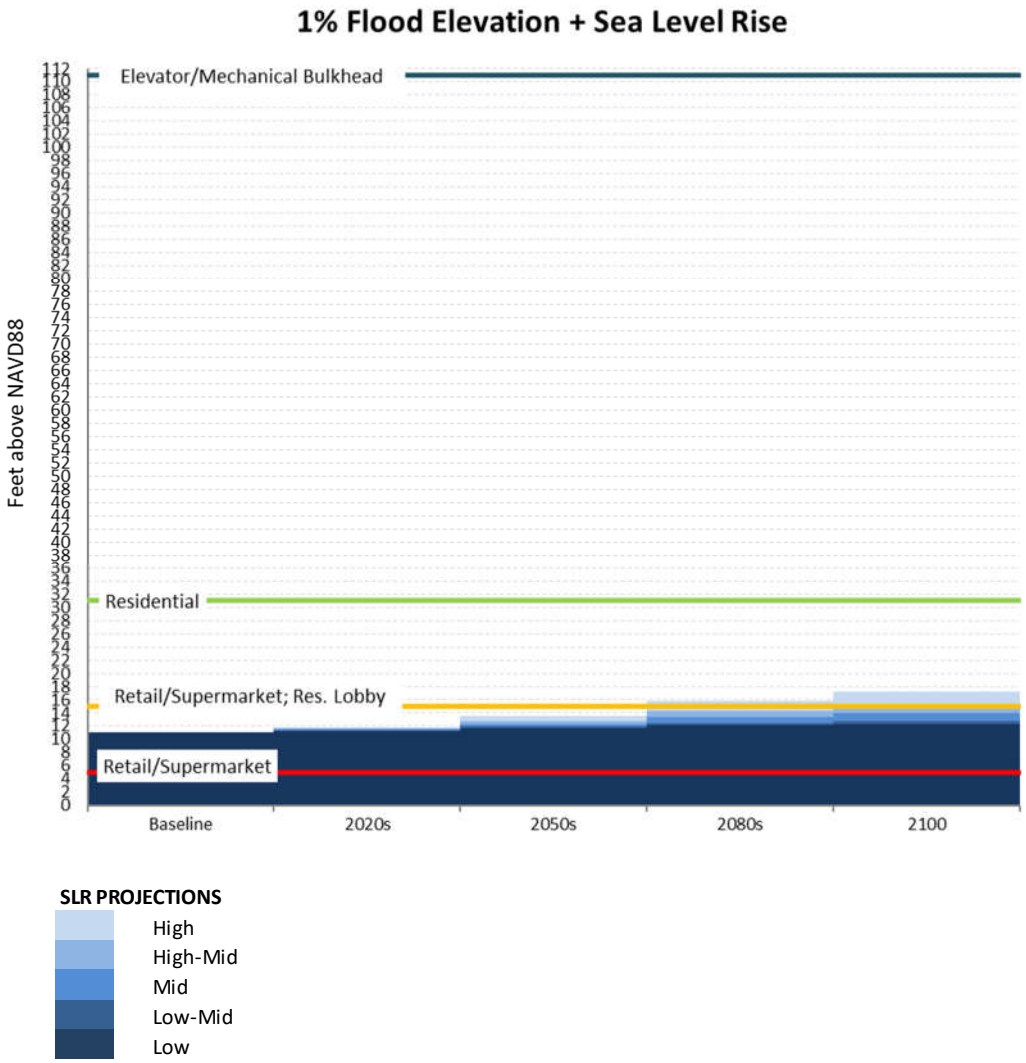
The Gowanus Canal and Bay are tidal, and the flood elevation is controlled by the tidal conditions within the New York Bay, Long Island Sound, and the Atlantic Ocean. Because the floodplain adjacent to the primary study area is affected by coastal flooding, rather than local or fluvial flooding, the operation of the projected development sites would not exacerbate flooding conditions on or near the development sites. Further, coastal floodplains are influenced by astronomic tide and meteorological forces (e.g., northeasters and hurricanes) and not by fluvial flooding (e.g., rivers and streams overflowing their banks), and as such are not affected by the placement of obstructions (e.g., buildings) within the floodplain. Therefore, redevelopment of the projected developments is not expected to exacerbate future projected flooding conditions.

The proposed development on the projected development sites would comply with all applicable flood zone building code requirements. The cellar of the applicant's development at projected development site 1, which would accommodate commercial space, would be constructed at an elevation of 5 feet and would be located below the elevation of the baseline one percent annual change floodplain (100-year floodplain). The building's cellar would be designed to meet New York City Building Code standards for flood resistant construction, including dry flood proofed walls, floodgates at building openings, and a foundation system designed to resist hydrostatic pressure. All critical mechanical equipment for the proposed building would be located on the second floor or above and on rooftop of the building.

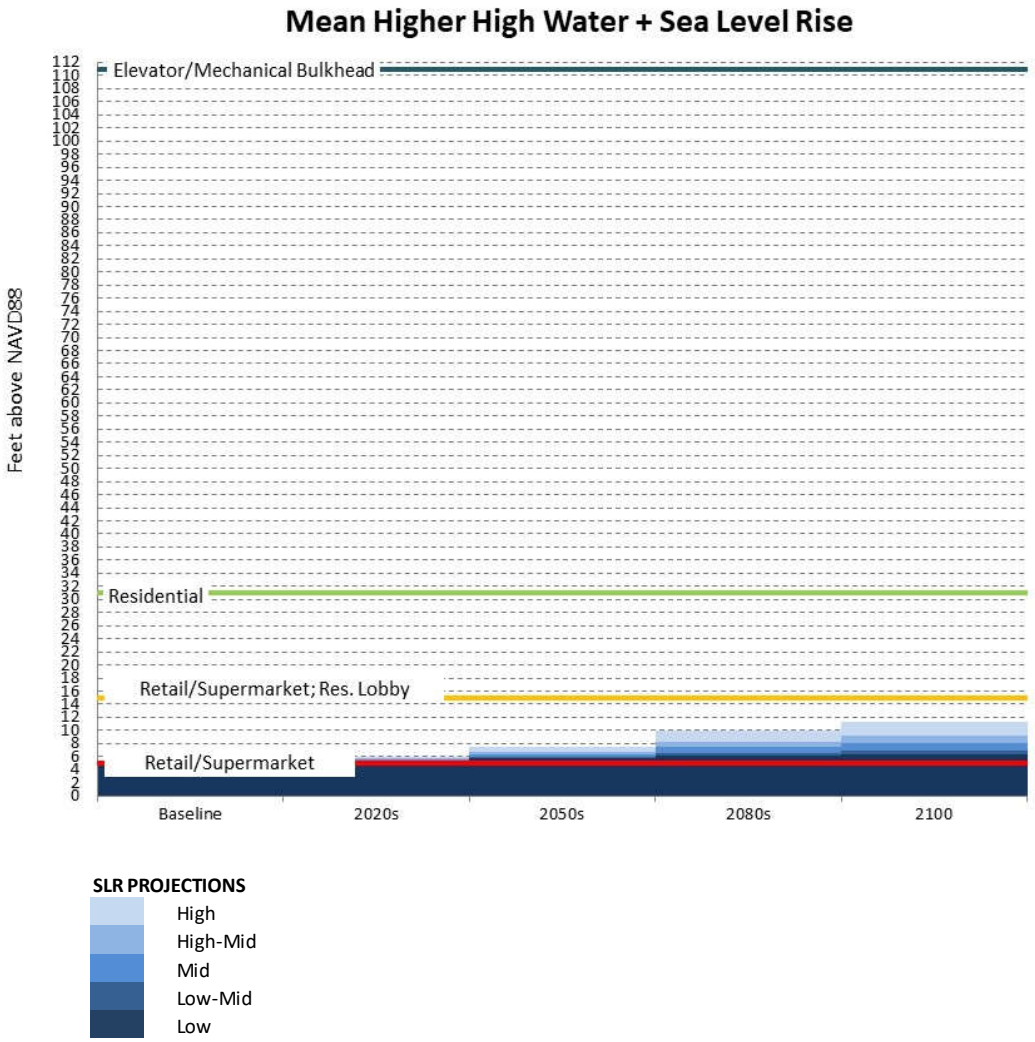
Although not expected to be necessary, adaptive measures to protect the projected developments from future flooding could include elevation of the sites or the construction of a floodwall to protect the site from higher water levels. Although elevation of the site may not feasible, construction of a floodwall or installation of water barriers could be given consideration as water levels continue to rise.

As presented in **Figure C-8**, portions of the primary study area and projected development site 1 are expected to fall within the projected 100-year floodplain by the 2050s, as published by the NPCC. The Flood Elevation Worksheet was prepared for projected development site 1, and is provided in **Appendix 2**.

As shown in the following graph, the lowest floor of the projected development site 1's residential units and mechanical equipment would be well above the one percent annual chance floodplain (I.e., the "100-year floodplain) projections. However, the lowest floors of the development on site 1 including the residential lobby and retail/supermarket could be below the 100-year floodplain elevation. If it were, there could be damage to property and loss of inventory, as well as the temporary displacement of building users. Specifically, the lowest floors of the proposed development's residential lobby and retail/supermarket on the ground floor could be below the 100-year floodplain by the 2080s under the high sea level rise projections. Retail/supermarket space in the cellar level would be below the 100-year floodplain. In the event of a 100-year flood, there could be damage to the property and loss of inventory in the cellar level of the building on the development site.



As presented in the graph below, the cellar level of the project's residential amenity space and mechanicals could also be below the elevation of the Mean Higher High Water (MHHW) by 2050s under the high sea level rise projections.



STEP 2: IDENTIFY ADAPTIVE STRATEGIES

If the elevation of the floodplain increases, additional protection could be provided through temporary barriers or subsequent retrofits to extend dry flood proofed materials to higher elevations. The proposed actions and associated RWCDS 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 would be consistent with Policy 6.2 of the WRP. All new vulnerable, critical, or potentially hazardous features would be protected through future adaptive actions. The Project Area is susceptible to minimal flooding risk, and would continue to be so in the future according to NPCC projections. In addition, the NPCC recommends that these maps not be used to judge site-specific risks and they are subject to change. Therefore, the proposed actions would be consistent with New York City policies regarding adaptation to climate change.

Based on the Consistency Assessment Form completed for the proposed actions, which is provided in **Appendix 2**, two policies required further assessment. As indicated above, the assessment provided

herein found that the proposed actions and RWCDS would be consistent with all applicable policies. Therefore, the proposed actions are not expected to result in any significant adverse impacts related to the WRP. DCP's Waterfront Open Space Division, on behalf of the New York City Coastal Commission, has reviewed the waterfront aspect of this action, and has found that the Proposed Actions would not substantially hinder the achievement of any WRP policy and has determined that the project is consistent with WRP policies. The project was assigned WRP # 20-030.

Southwest Brooklyn IBZ

As the Southwest Brooklyn IBZ falls outside of the primary study area, it would not be directly affected by the proposed actions, and the proposed actions would not alter or conflict with its policies. Although the proposed actions would change zoning in the primary study area to permit residential and community facility uses, the proposed MX district would continue to permit high performance manufacturing and industrial uses up to 2.0 FAR.

Southwest Brooklyn Empire Zone

Under the RWCDS, the proposed action would result in the introduction of commercial and local retail uses that would provide an opportunity for economic development and help further the objectives of the Southwest Brooklyn Empire Zone. Therefore, the proposed actions would not conflict with the goals or objectives of the Southwest Brooklyn Empire Zone.

Housing New York 2.0

The proposed zoning actions would be consistent with the *Housing New York 2.0* plan and would result in a net increase of approximately 84 DUs. Depending on which MIH option is selected, approximately 25 to 30 percent of the new residential units would be permanently affordable to specified income bands. The affordable dwelling units under the With-Action condition would provide the area with a mix of new affordable housing and market-rate units and would support the City's efforts to increase the overall amount of affordable housing. Therefore, the proposed actions would be supportive of this key public policy goal and further analysis is not warranted.

ATTACHMENT D

OPEN SPACE

I. INTRODUCTION

An open space assessment may be necessary if a proposed action(s) 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 diminish noticeably the ability of an area's open space to serve the existing or future population. According to the Brooklyn Open Space Maps included within the Appendices of the 2020 *City Environmental Quality Review* (CEQR) *Technical Manual,* the proposed rezoning area is located in an area defined as underserved by open space resources (see **Figure D-1**).[1] Per *CEQR Technical Manual* guidance, a project located in an area underserved by open space resources in the City that would add fewer than 50 residents or 125 employees, or a similar number of other users, is typically not considered to have indirect effects on open space.

Although the proposed actions would not have a direct effect on existing open space resources, development facilitated by the proposed actions is expected to result in an incremental increase of up to 84 dwelling units (DUs) over the 2026 No-Action condition. This would result in an increase of up to approximately 191 residents[2], as compared to the No-Action condition, which exceeds the *CEQR Technical Manual* threshold for an indirect open space analysis. A detailed analysis including both quantitative and qualitative assessments were conducted to determine whether the proposed actions and associated reasonable worst-case development scenario (RWCDS) would significantly reduce the amount of open space available for the area's residential population. While, the RWCDS is also expected to introduce a net increment of 65 employees to the proposed rezoning area, as compared to the No-Action condition, based on standard planning assumptions used in CEQR analyses, this is below the *CEQR Technical Manual* threshold for analysis based on employee numbers. Therefore, the analysis of indirect open space impacts focuses exclusively on the open space needs of the area's residential population.

II. PRINCIPAL CONCLUSIONS

The proposed actions would not result in significant adverse open space impacts. While the residential open space study area would continue to have a shortfall of open space in the future with the proposed actions, the demand for open space generated by the RWCDS is not expected to significantly exacerbate the No-Action deficiency. Moreover, the population added due to the proposed actions is not expected to affect significantly the utilization of the area's open spaces. The proposed actions and RWCDS would result in less than a one percent decrease in total open space ratio as compared to No-Action conditions.

The study area's open space resources are numerous and in very good to excellent condition, offering a range of amenities, and therefore, would be expected to have the capacity to handle limited additional demand. Residents of the study area would also continue to use additional open space resources not

[1] According to the *CEQR Technical Manual*, underserved open space areas are areas of high population density in the City that are generally the greatest distance from publicly accessible parkland where the amount of open space per 1,000 residents is less than 2.5 acres.

[2] The estimated number of residents is based on the average household size of 2.27 persons for the Carroll Gardens-Cobble Hill-Gowanus-Red Hook Neighborhood Tabulation Area (NTA) (2020 Census).

Underserved Open Space Area



Source: 2020 CEQR Technical Manual Appendix Open Space Maps

included in the quantitative assessment. Therefore, while the proposed actions would result in an incremental decrease in open space ratios in the future, given the level of decrease anticipated, the number, condition and array of amenities of study area open spaces, and the availability of additional open spaces conservatively not included in the quantitative analysis, the proposed actions are not expected result in a significant adverse impact on open space. In addition, the proposed actions would not have a direct effect on any study area open spaces due to construction or operation. The proposed actions would not result in the imposition of noise, air pollutant emissions, odors, or significant new shadows on public open spaces that may alter usability. Therefore, the proposed actions would not result in a significant adverse open space impact, and further analysis is not needed.

III. METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidance established in the *CEQR Technical Manual*. Using CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio (OSR). This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the proposed actions. In addition, qualitative factors are considered in assessing the proposed actions' effects on open space resources.

In accordance with *CEQR Technical Manual* methodologies*,* the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a worker population. Because the worker population generated by the proposed actions falls below the analysis threshold of 125 additional employees in an area that is defined as "underserved", a half-mile radius is the appropriate study area boundary for the proposed actions.

Open Space Study Area

Pursuant to *CEQR Technical Manual* guidance, the residential open space study area includes all census tracts that have at least 50 percent of their area located within a half mile of the proposed rezoning area and all open spaces within it that are publicly accessible. As described above, residents typically walk up to a half-mile for recreational spaces.

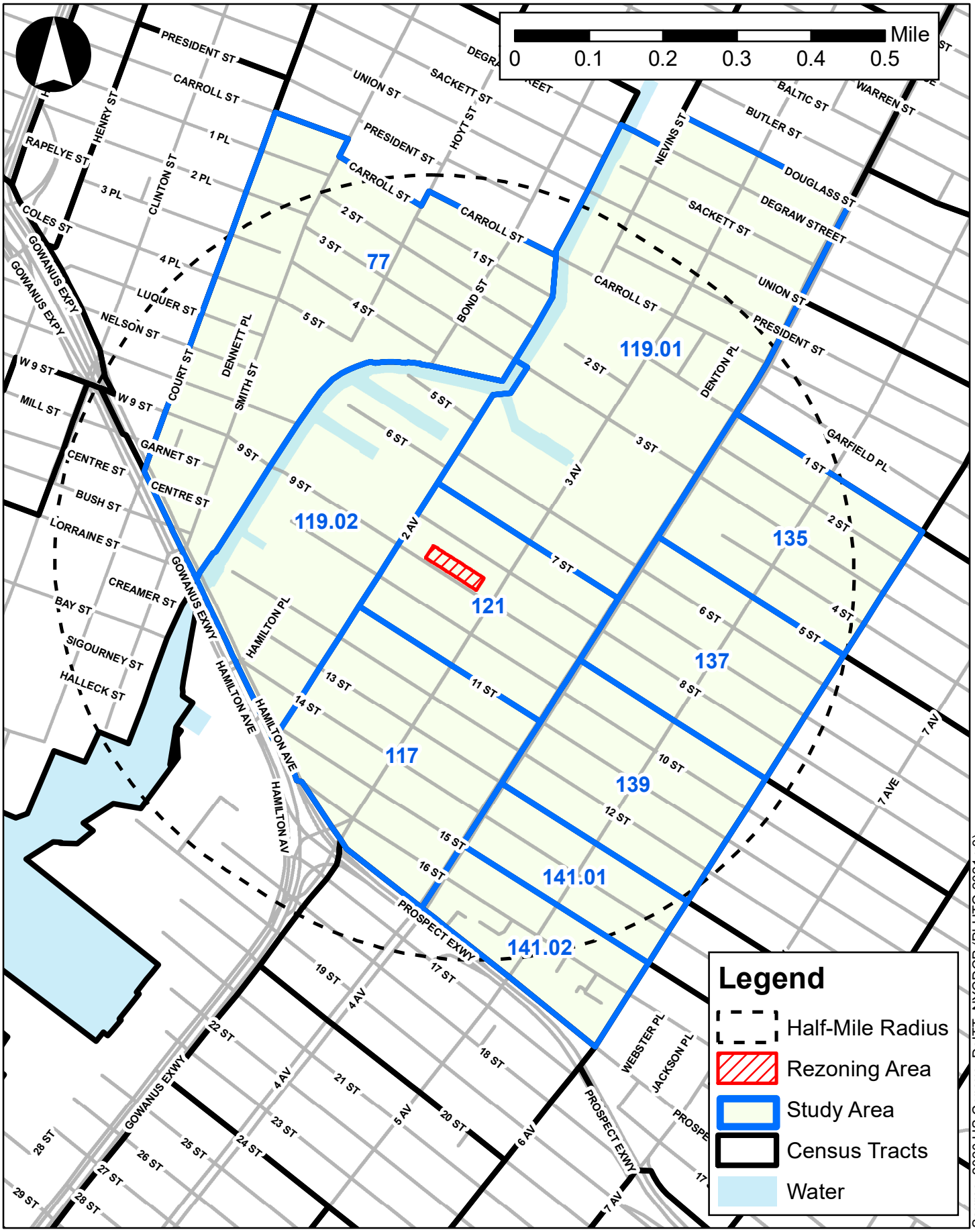
The proposed rezoning area comprises the mid-block of Brooklyn Block 1002 along the north side of Ninth Street between Second and Third Avenues. As shown in **Figure D-2**, the half-mile open space study area includes the following census tracts in their entirety: census tracts 77, 117, 119.01, 119.02, 121, 135, 137, 139, 141.01 and 141.02. The open space study area extends approximately to Carroll, Douglass, and First Streets in the north, Fourth and Sixth Avenues in the east, Gowanus and Prospect Expressways and Hamilton Avenue in the south, and Court Street and the Gowanus Canal in the west.

Analysis Framework

Direct Effects Analysis

According to the *CEQR Technical Manual*, a proposed action(s) would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions,

Figure D-2
Open Space Study Area



odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. This attachment uses information from other attachments of this EAS to determine whether the proposed actions would directly affect any open spaces near the proposed rezoning area. The direct effects analysis is included in the "The Future with the Proposed Actions (With-Action Condition)" section of this attachment.

Indirect Effects Analysis

Indirect effects occur to an area's open spaces when a proposed action(s) would add enough population, either workers or residents, to diminish noticeably the ability of an area's open space to serve the existing or future population. The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether a more detailed analysis is appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full detailed analysis should be conducted. As noted previously, the study area is located within an underserved open space area as determined by the *CEQR Technical Manual*, where the amount of open space per 1,000 residents is less than 2.5 acres, and therefore a detailed analysis is provided.

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

- Characteristics of the residential users. To determine the number of residents in the study area, 2020 Census data have been compiled for the census tracts comprising the open space study area. Because the study area is mixed-use, and characterized by a workforce that may also use open spaces, the number of employees in the study area has also been calculated, based on U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) employment data for 2019.
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidelines.
    - As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well served by open spaces and is consequently used by the City as an optimal benchmark for residential populations in large-scale plans and proposals. Ideally, this would be comprised of a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents).
    - Local open space ratios vary widely, and the median ratio at the citywide community district level is 1.5 acres of open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the residential open space study area.

Impact Assessment

As described in the *CEQR Technical Manual,* the significance of an action's effects on an area's open spaces is determined using both quantitative and qualitative factors, as compared to the No-Action condition.

The determination of significance is based upon the context of an action, including its location, the quality and quantity of the open space in the future With-Action condition, the types of open space provided, and any new open space provided by the action.

The quantitative assessment considers how a project would change the open space ratios in the study area. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement or alteration of existing open space within the study area that has a significant adverse effect on existing users. In areas that are underserved by open space (as identified in the *CEQR Technical Manual*), a reduction as small as one percent may be considered significant, depending on the area of the City. Furthermore, in areas that are well served by open space, a greater change in the open space ratio may be tolerated. As noted above, the proposed rezoning area and two projected development sites are in an area that is underserved by open space, as identified in the *CEQR Technical Manual*.

The qualitative assessment supplements the quantitative assessment and considers nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, a comparison of projected open space ratios with established City guidelines, and open spaces created by the proposed actions not available to the public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

IV. DETAILED ANALYSIS

Existing Conditions

Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, 2020 Census data were compiled for the census tracts comprising the half-mile study area. As shown in **Table D-1**, the study area has a total residential population of approximately 26,278. **Table D-1** also provides an estimate for the workers in the study area based on U.S. Census Bureau, LEHD employment data for 2019. As shown in **Table D-1**, the existing worker population for the open space study area is estimated at approximately 13,366 workers. The study area's total population is estimated to be 39,644. Although this analysis conservatively assumes that residents and daytime users are separate populations, it is possible that some of the residents live near their workplace or work from home. As a result, there is likely to be some double counting of the daily user population in the study area, resulting in a more conservative analysis.

TABLE D-1: Total Population in the Half-Mile Study Area

Census Tract	Population
77	5,690
117	2,672
119.01	1,589
119.02	0
121	1,916
135	3,799
137	3,406
139	3,727
141.01	1,621
141.02	1,858
Total Residential Population	***26,278***
Total Worker Population	***13,366***
½-Mile Study Area Total Population	***39.644***

* Census tract 119.02 includes too few residential units to report any residential population.
Sources: Residential data obtained from the 2020 Census, and 2019 employment data obtained from the U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

Table D-2 summarizes the age distribution of the residential population within the half-mile study area and compares this distribution to the age distributions of Brooklyn and New York City overall. Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages ten through 14 use playground equipment, court spaces, Little League fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee®, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

TABLE D-2: Residential Population Age Distribution in the Half-Mile Study Area, Brooklyn and New York City

	Study Area		Brooklyn		New York City	
Age Category	**Persons**	**Percent**	**Persons**	**Percent**	**Persons**	**Percent**
Under 5 Years	2,330	8.9%	201,731	7.4%	569,878	6.5%
5 to 9 Years	1,601	6.1%	168,415	6.2%	489,993	5.6%
10 to 14 Years	1,142	4.3%	164,716	6.0%	491,366	5.6%
15 to 19 Years	851	3.2%	146,777	5.4%	470,662	5.3%
20 to 64 Years	17,979	68.4%	1,682,268	61.5%	5,504,082	62.5%
65 years and Over	2,375	9.0%	372,167	13.6%	1,278,129	14.5%
Total	***26,278***	***100.0%***	***2,736,074***	***100.0%***	***8,804,109***	***100.0%***

Source: Residential data obtained from the 2015-2019 Five-Year ACS and 2020 Census data.

As shown in **Table D-2**, people between the ages of 20 and 64 make up the majority (approximately 68 percent) of the residential study area population. Children and teenagers (0 to 19 years old) account for nearly 23 percent of the entire residential population, and persons 65 years and over account for approximately 9 percent of the residential study area population. Based on this data, the peak hours of

open space demand would be expected to be concentrated during weekends and the early morning and late afternoon to evening hours during the week, as it could be assumed that most residents aged 20 to 64 would work or attend school on weekdays.

Inventory of Publicly Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the *CEQR Technical Manual*, public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR guidance, whereas private open space is not accessible to the public on a regular basis, and is therefore only considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the study area.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, and multi-purpose play areas (open lawns and paved areas for active recreation such as running games, informal ball-playing, skipping rope, etc.). Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways, and picnicking areas.

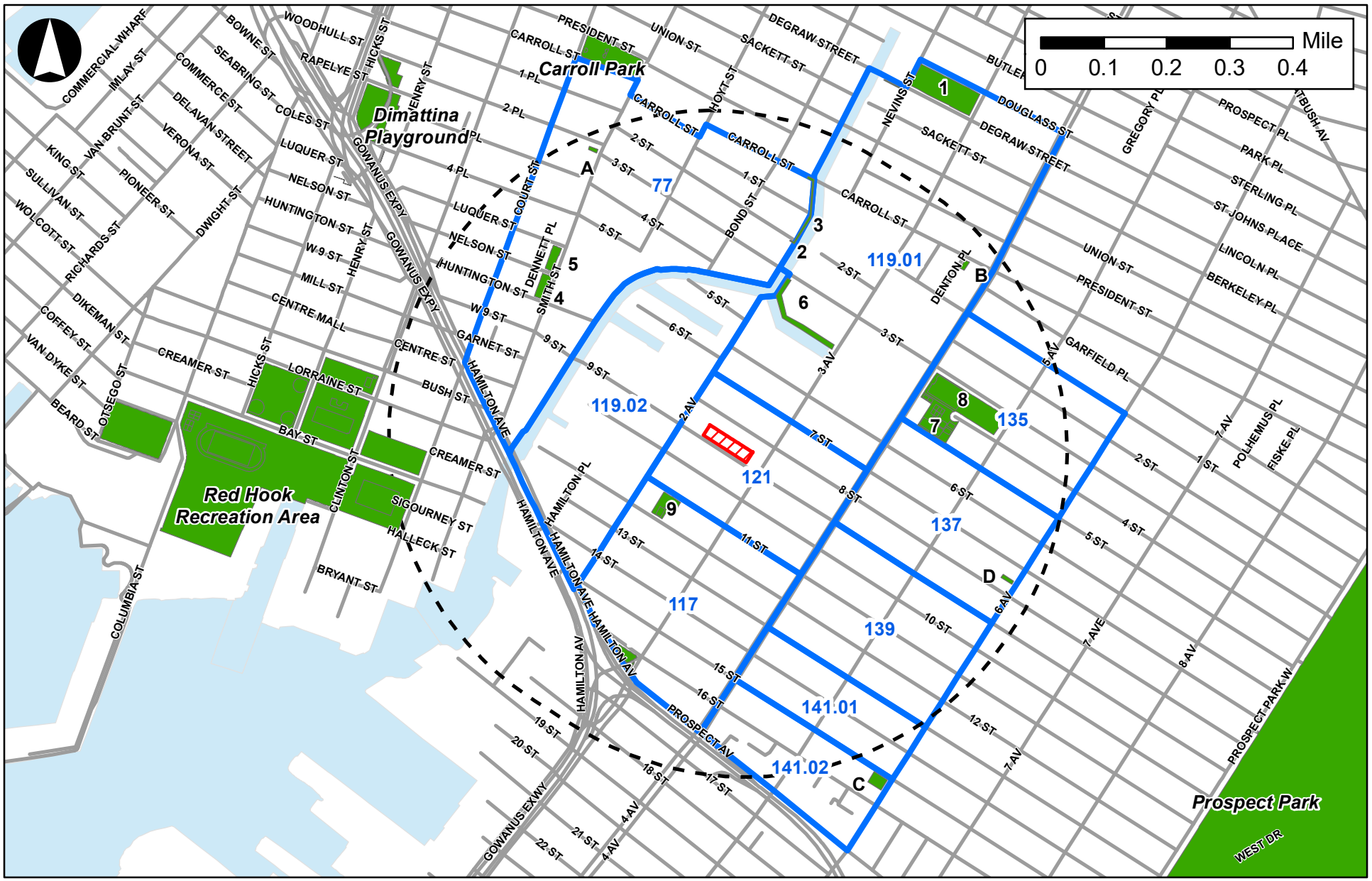
Within the defined study area, all publicly accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in July 2020, DPR's website, and other secondary sources of information.

The condition of each open space facility was categorized as "Excellent," "Good," "Fair," or "Poor." A facility was considered in excellent condition if the area was clean and attractive and if all equipment was present and in good repair. A good facility had minor problems such as litter or older but operative equipment. A fair or poor facility was one that was poorly maintained, had broken or missing equipment or lack of security, or other factors that would diminish the facility's attractiveness. Determinations were made subjectively, based on a visual assessment of the facilities.

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday afternoon, which is considered peak utilization period for a weekday according to the *CEQR Technical Manual*. If a facility seemed to be at or near capacity (i.e. the majority of benches or equipment was in use), then utilization was considered heavy. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. **Table D-3** identifies the address, ownership, hours, and acreage of active and passive open spaces in the study area, as well as their condition and utilization. **Figure D-3** maps their location in the study area.

Open Space Resources

As shown in **Table D-3**, slightly more than ten acres of open space are included in the quantitative analysis, of which nearly seven acres are active open space and slightly more than three acres are passive open space. Most of the open spaces in the study area are neighborhood playgrounds and parks. The playgrounds generally feature play equipment, benches, and drinking fountains, and the seating areas typically offer green spaces and benches. There are two primarily active recreational playgrounds within



Legend

Half-Mile Radius | Rezoning Area | Study Area | 1 Open Space Resources

Gowanus Ninth Street Rezoning EAS

Figure D-3
Open Space Resources

the open space study area: J.J. Byrne Playground and Thomas Greene Playground, which, combined, constitute the majority of the open space available for recreation in the study area.

TABLE D-3: Existing Open Space Resources

Map No.	Name	Address	Owner/ Agency	Amenities	User Groups	Hours of Access	Total Acres	Passive		Active		Condition & Utilization
								%	Acres	%	Acres	
Open Space Resources included in the Study Area												
1	Thomas Greene Playground	Nevins St, 3 Ave btw De Graw St & Douglas St	DPR	Basketball Courts, Handball Courts, Outdoor Pools, Playgrounds, Spray Showers, Picnic Tables, Skate Park	Children, Adults, Seniors	6am - 9pm (pool hrs. 11am - 3pm, 4pm - 7pm)	2.52	30%	0.76	70%	1.76	Very Good & High
2	365 Bond St. Public Access Area (WPAA)	2 St btw Bond St & Gowanus Canal	Privately Owned	Waterfront Esplanade, Plantings, Seating and Tables	Children, Adults, Seniors	24 hours	0.40	100%	0.40	0%	0.00	Very Good & Moderate
3	363 Public Access Area	1 St and Gowanus Canal	Privately Owned	Planted Areas, Seating, Walking Path	Children, Adults, Seniors	24 hours	0.67	100%	0.67	0%	0.00	Excellent & Moderate
4	St. Mary's Playground (South)	Smith St btw Nelson St & Huntington St	DPR	Playgrounds, Chess, Seating	Children, Adults, Seniors	6am - 9pm	0.37	10%	0.04	90%	0.33	Very Good & High
5	St. Mary's Park (North)	Smith St btw Nelson St & Luquer St.	DPR	Playgrounds, Exercise Equipment, Basketball Courts, Skate Park, Seating	Children, Adults, Seniors	6am - 9pm	0.34	10%	0.03	90%	0.31	Very Good & High
6	Whole Foods Third St. Public Access Area	3rd Street btw 3rd Ave and Waterfront	Privately Owned	Waterfront Esplanade, plantings, seating	Children, Adults, Seniors	24 hours	0.68	100%	0.68	0%	0.00	Excellent & High
7	Washington Park	5 St, 4 St btw 4 ave & 5 ave	DPR/DOE	Turf Field, Handball Courts, Playground, Skate Park	Children, Adults, Seniors	6am - 10pm	1.55	5%	0.08	95%	1.47	Very Good & High
8	J.J. Byrne Playground	3 st, 4 st bet 4 ave and 5 ave	DPR	Playgrounds, Ballfields, Bathrooms, Historic Houses, Spray Showers, Turf Field, Garden	Children, Adults, Seniors	6am - 9pm	3.03	10%	0.30	90%	2.73	Excellent & High
9	Ennis Playground	11 st, 12 st btw. 2nd & 3rd Aves	DPR	Basketball Courts, Playgrounds, Spray Showers, Turf Field, Seating	Children, Adults, Seniors	6am - 9pm	0.55	40%	0.22	60%	0.33	Excellent & High
Total Included in the Quantitative Analysis							10.11	31%	3.18	69%	6.93	
Open Space Resources not included in Quantitative Analysis												
A	The Transit Garden	Smith St and 2nd Pl	Community-run	Community Garden	Adults, Seniors	Passive	0.09	100%	0.09	0%	0.00	Very Good & Low
B	Gil Hodges Community Garden	534 Carrol St	NYRP	Community Garden	Adults, Seniors	20 hours a week	0.07	100%	0.07	0%	0.00	Very Good & Low
C	6/15 Green	6th Ave at 15th St	Community-run	Community Garden	Adults, Seniors	Passive	0.28	100%	0.28	0%	0.00	Very Good & Low
D	Schaef Earth Garden	416 6th Ave	Community-run	Community Garden/Church Yard	Adults, Seniors	Passive	0.25	100%	0.25	0%	0.00	Very Good & Low
Total Excluded from Quantitative Analysis							0.69	100%	0.69	100%	0.00	

Source: NYC OASIS, DPR, July 2020 field visits.
Notes: DPR = New York City Department of Parks and Recreation; DOE = New York City Department of Education

As noted in **Table D-3**, all nine of the publicly accessible open space resources included in the quantitative indirect open space impact assessment are in very good to excellent condition. In terms of utilization, all of the study are open space resources exhibit relatively high utilization.

Assessment of Open Space Adequacy

Quantitative Assessment

The following analysis of the adequacy of existing open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As an optimal planning goal, the City tries to achieve an overall residential open space ratio of 2.5 acres per 1,000 residents (80 percent [2 acres] active and 20 percent [0.5 acres] passive) for large-scale plans and proposals. Although a typical population mix may call for such a goal, it is often not feasible for many areas of the City (especially higher density areas). Therefore, the City does not consider these ratios as open

space policy for every neighborhood. Rather, the ratios serve as benchmarks that represent how well an area is served by open space. For assessment purposes, DCP generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres per 1,000 residents.

In calculating the open space ratio per 1,000-user population for the study area, all of the resources listed in the "Open Space Resources Included in the Quantitative Analysis" section of **Table D-3** were included. Resources A to D were not included in the calculations pursuant to *CEQR Technical Manual* guidance, as they have limited accessibility/hours. **Table D-4** shows that, with an existing study area residential population of approximately 26,278 people, the existing total open space ratio in the study area is approximately 0.385 acres per 1,000 residents; the study area has 0.264 acres of active open space per 1,000 residents and 0.121 acres of passive open space per 1,000 residents. As indicated in **Table D-4**, the existing total residential open space ratio is below the City's open space planning goals of 2.5 acres per 1,000 residents and the 1.5 acres per 1,000 residents, the citywide community district median.

TABLE D-4: Adequacy of Open Space Resource in the Study Area – Existing Conditions

	Total Population	Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	26,278	10.11	3.18	6.93	0.385	0.121	0.264	2.50	0.50	2.00
Combined Residents & Workers	39,644				N.A.	0.080	N.A.	N.A.	0.382 *	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City's guidance of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis.

When the employees who work within the area are added to the population, the combined passive open space ratio is lower. As described earlier, workers and other daytime users typically use passive open spaces during the workday, so the passive open space ratio is the relevant ratio for consideration. With a combined worker and residential population of 39,644, the combined passive open space ratio in the residential study area is 0.080 per 1,000 users, which is below the recommended weighted average guideline ratio of 0.382 acres per 1,000 residents and workers.

Qualitative Assessment

The open space resources that exist within the open space study area are deficient in meeting the community's open space needs according to the City's guidelines for the provision of publicly accessible open space. The existing open space ratios per 1,000 residents fall well below the planning goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents.

The quantitative deficiency of open space resources within the defined study area may be partially ameliorated by several factors. First, all of the open spaces in the study area are considered in very good or excellent condition. The 0.55-acre Ennis Playground, which recently underwent a $3 million renovation, is located two blocks south of the proposed rezoning area. The study area also contains a good mix of recreational facilities that include play equipment, a skate park, a pool, esplanade, and basketball and handball courts serving the study area's population, with nearly 70 percent dedicated to active uses and 31 percent to passive recreation. This mix of recreational facilities approaches the City's optimal planning goal of 80 percent active and 20 percent passive uses. As noted above, nearly 23 percent of the study area's residents are below the age of 20, indicating a need for playgrounds, and court game facilities.

As shown in **Figure D-3** and listed in **Table D-3**, there are a few additional open space resources located within the study area boundary, which provide an additional 0.69 acres of open space that are not included in the quantitative analysis. These are four small community gardens. All are passive open spaces.

It should also be noted that there are a few significant publicly accessible open spaces located just beyond the study area boundary, which could add considerable accessible active and passive open spaces for the study area's population. The 1.87-acre Carroll Park, which occupies the block bounded by Court, Smith, Carroll, and President Streets, is located directly north of the study area. It is one of the City's oldest neighborhood parks, and features a large asphalt yard that includes a baseball diamond and basketball nets, play equipment, spray showers, seating, and restrooms. DiMattina Playground, which comprises portions of two irregular-shaped blocks along Rapelye, Woodhill, Hicks, and Cole Streets, is located three blocks west of the study area. It includes nearly two acres and includes play equipment, seating, and spray showers. In addition, the approximately 58-acre Red Hook Recreational Area, which is centered on Halleck and Bush Streets between Otsego and Court Streets, is located three blocks to the southwest of the study area. This expansive neighborhood park includes a number of amenities including handball and basketball courts, ballfields, a pool and recreation center, a track and exercise equipment. All three open spaces provide additional open space destinations for residents in the study area. It is expected that a proportion of open space users in the study would frequent these spaces given their proximity, size, and range of amenities.

In addition, Prospect Park is located approximately three blocks east of the study area (roughly a ten-minute walk) to the east of Prospect Park West, stretching from Eastern Parkway to Prospect Park Southwest. Prospect Park, Brooklyn's flagship destination park, is the second largest park in Brooklyn. Comprising more than 526 acres, it contains a range of amenities including Prospect Park Zoo, Prospect Park Bandshell, Brooklyn's only lake, and 90-acre Long Meadow. The park also has sports facilities, Prospect Park Tennis Center, basketball courts, baseball fields, ice rinks, and soccer fields, play equipment, spray showers, hiking trails, and bike pathways. It is reasonable to assume that many residents in the study area frequent this destination park.

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

In the absence of the proposed actions, it is expected that the two projected development sites would not be redeveloped, and the existing uses and buildings would remain. No other changes would take place within the proposed rezoning area by 2026.

Study Area Population

As presented below in **Table D-5**, a considerable amount of new development is currently planned and expected to be completed within the half-mile open space study area in the future without the proposed actions by 2026, which would increase the residential and worker populations within the study area. It should be noted that most of these No-Action developments are located outside of the 400-foot land use study area discussed in **Attachment C, "Land Use, Zoning, and Public Policy,"** and were, therefore, not included in the land use analysis. These No-Action developments have been added to the existing conditions residential and worker populations. **Table D-5** shows that these No-Action developments are anticipated to increase the half-mile study area population by approximately 4,318 residents[3] to residents by 2026. In addition, No-Action developments are anticipated to increase the half-mile study area workers by 1,806 workers[4], to 15,172 workers. The study area's total residential and worker population is estimated to be 45,768 in the 2026 No-Action condition.

[3] The estimated number of residents added due to No-Action development is based on average household sizes of 2.27 and 3.01 persons per household for Brooklyn CDs 6 and 7, respectively (2020 Census).

[4] The estimated number of workers added due to No-Action development is based on standard rates of one worker per 250 sf of office, one worker per 2.67 hotel rooms, one worker per 333 sf of retail, one worker per 700 sf of auto sales space, one worker per 450 sf of community facility space, and one worker per 1,000 sf of industrial/warehouse space.

TABLE D-5: Known Planned No-Action Study Area Developments

Map ID	Block	Lot(s)	Address	Residential (DU)	Retail (GSF)	Office (GSF)	Other Commercial (GSF)	Hotel (Rooms)	Community Facility (GSF)	Manufact. (GSF)	Residents	Workers
1	460	63	375 Smith St.	11							25	0
2	477	8	300 Huntington St.		12,288	80,219				3,471	0	362
3	478	31	498 Smith St.	2	811						5	2
4	478	38	45 Garnet St.	8							18	0
5	441	42	561 President St.					113			0	42
6	441	53	529 President St.					101			0	38
7	447	53	445 Carroll St.			5,680					0	23
8	448	65	497 Carroll St.							61,741	0	77
9	967	1	153 2nd St./322 3rd Ave.							79,443	0	99
10	1003	51	217 9th St.	13					1,737		30	5
11	1003	7505	229 9th Street/ 227 9th St.	39							89	2
12	1033	63	145 14th St.	6							14	0
13	1021	7505	161 12th St.	8	513						18	2
14	1040	51	139 15th St.	8							18	0
15	1046	25	114 15th St.	19							57	1
16	1041	60	179 15th St.	2							5	0
17	1046	7501	554 4th Ave.	40	5,461						120	18
18	1042	56	262 15th St.	2							5	0
19	1051	28	96 16th St.	4							12	0
20	1051	30	100 16th St.	4							12	0
21	1051	48	165 Prospect Ave.	1							3	0
22	1027	5	521 3rd Ave.		7,638				5,563	7,638	0	47
23	1040	13	136 14th St.	10							23	0
24	998	12	266 7th St.	3							7	0
25	1010	10	262 9th St.	67	4,302				260		152	17
26	1028	49	257 13th St.	4							9	0
27	1027	11	160 12th St.	7							16	0
28	1027	50	193 13th St.	4							9	0
29	1028	7	487 4th Ave.	44	2,477						100	9
30	1026	32	530 3rd Ave.			27,420					0	110
31	1026	36	506 3rd Ave		4,500	15,300					0	75
32	1052	7503	575 4th Ave	70	4,850						211	18
33	1051	39	584 4th Ave.	46	5,210						138	18
34	1034	61	213 14th St.	2							5	0
35	1003	11	197 9th St.						28,027		0	70
36	440	47	499 President St.	350	18,438						795	69
37	427	1, 7, 10	209-215 3rd Ave.	110	15,654	3,913	3,913				250	83
38	433	18	Sackett St			6,000					0	24
39	434	35	204 4th Ave	210	15,200						477	54
40	441	16, 18	588-590 Union St	32	5,753						73	18
41	447	32	208 3rd Ave.	4	1,920						9	6
42	447	1	341 Nevins St	14	3,280						32	11
43	448	25	562 President St.		4,000	11,000					0	56
44	453	1	404 Carroll St.	335	6,538	11,441	11,441		6,538		760	141
45	466	19	152 3rd St.	183	7,400	5,550	5,550		5,550	5,550	415	94
46	420	34, 37	164 4th Ave.	145	12,800						329	44
47	471	125	98 4th St.			36297					0	145
48	464	41, 45	404 Hoyt St.	34	8,202						77	26
			Totals	***1,841***	***147,235***	***202,820***	***20,904***	***214***	***47,675***	***157,843***	***4,318***	***1,806***

Notes: Refer to Figure C-7 in Attachment C, "Land Use, Zoning and Public Policy."
Source: NYCDOB, January 2021; Gowanus Neighborhood Rezoning and Related Actions FEIS (CEQR No. 19DCP157K), 506 Third Avenue EAS (CEQR No. 20DCP129K), 300 Huntington Street EAS (CEQR No. 20DCP080K)

Open Space Resources

Open space is anticipated to increase in the 2026 No-Action condition within the study area as result of No-Build developments. The planned development at 300 Huntington Street is anticipated to add

approximately 7,548 sf (0.17-acres) of shore public walkway by 2023.[5] The 300 Huntington Street shore public walkway would be 100 percent passive open space and include circulation paths, planted areas and seating. In addition, three projected development sites along the waterfront within the Gowanus Rezoning area (identified as Sites 44, 45, and 47 in **Table D-5**) are anticipated to be completed by 2026, which would introduce new open space as part of the Gowanus Waterfront Access Plan (WAP).[6] The Gowanus WAP institutionalized a framework for a continuous public walkway that would be constructed over time through a mix of public and private investment. For conservative analysis purposes, these three projected development sites are anticipated to account for roughly 15 percent (or approximately 0.60-acres) of the 3.98-acres of the public walkway. As the specific breakdown of passive and active open space uses to be provided at these three sites is unknown, consistent with the Gowanus Neighborhood Rezoning and Related Actions FEIS and per *CEQR Technical Manual* guidance, it is assumed that 50 percent would consist of passive open space uses and 50 percent would consist of active open space uses for analysis purposes. As such, open space in the half-mile open space study area would total 10.88 acres, comprised of 3.65 acres of passive open space and 7.23 acres of active open space.

Open Space Adequacy

Table D-6, below, presents the No-Action open space ratios for the half-mile study area, based on the anticipated population increases outlined previously. As indicated in **Table D-4**, as under existing conditions, the total, passive, and active open space ratios would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents (including 0.5 acres of passive open space and two acres of active open space). The total open space ratio is expected to decrease to 0.380 acres per 1,000 residents in the No-Action condition, with No-Action passive and active open space ratios of 0.096 and 0.283 acres per 1,000 residents, respectively. As under existing conditions, residents of the study area are expected to continue to utilize other study area open space resources conservatively not included in the quantitative assessment.

TABLE D-6: Adequacy of Open Space Resource in the Study Area – No-Action Conditions

	Total Population	Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residential Study Area										
Residents	30,596	10.88	3.65	7.23	0.356	0.119	0.236	2.50	0.50	2.00
Combined Residents & Workers	45,768				N.A.	0.080	N.A.	N.A.	0.384 *	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City's guidance of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this

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

This section describes the open space conditions that would result from the RWCDS associated with the proposed actions by 2026. It evaluates the potential for the proposed actions to result in significant adverse impacts to open space resources directly or indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

[5] 300 Huntington Street EAS (CEQR No. 20DCP080K), November 2020.

[6] Projected Development Sites 37a/b, 44 and 59 of the Gowanus Neighborhood Rezoning and Related Actions FEIS (CEQR 19DCP157K) would be completed by 2026 and are anticipated to introduce shore public walkway.

Study Area Population

As described in **Attachment A, "Project Description,"** in the future with the proposed actions, the RWCDS would introduce approximately 84 DUs to the proposed rezoning area. Using the same planning assumptions as the No-Action conditions of 2.27 residents per DU, the proposed actions are expected to introduce a net increase of up to approximately 191 residents, and would therefore increase the study area's population to a total of 30,787 residents in the 2026 With-Action condition.

Direct Effects Analysis

The proposed actions would not have a direct effect on any study area open spaces. Construction and operation of the RWCDS would not cause the physical loss of any 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 attachments 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 Analysis

As noted above, the open space impact analysis consists of both quantitative and qualitative assessments. The quantitative assessment considers how a proposed action(s) could change the open space ratios in the study area. As the study area open space ratios are less than both the City's optimal benchmark of 2.5 acres of open space per 1,000 residents and the City's median community district open space ratio of 1.5 acres of open space per 1,000 residents, a reduction in the open space ratio as small as one percent may be considered significant, depending on the area of the City, and in consideration of qualitative factors, including proximity to nearby destination open space resources, the connectivity of open space, the effects of new public open space provided by the proposed actions, and open spaces created by the proposed actions not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

Quantitative Assessment

Under the With-Action condition, the total open space ratio in the study area would decrease from 0.356 acres per 1,000 residents in the No-Action to 0.353 acres per 1,000 residents (-0.84% percent) in the With-Action (see **Table D-7**). The active open space ratio would also decrease compared to No-Action conditions, from 0.236 acres per 1,000 residents to 0.235 acres per 1,000 residents (-0.42 percent), which would continue to be below the city's guidance ratio of 2.0 acres per 1,000 residents. The passive open space ratio per 1,000 residents would remain the same as the No-Action condition, and continue to remain below the city's guideline ratio of 0.50. The passive open space ratio for combined residential and worker populations would decrease from 0.080 to 0.079 acres per 1,000 users as compared to the No-Action condition, and would continue to be below the calculated guidance ratio of 0.384. As noted above, the city's guidelines are seldom achieved in densely built portions of New York City, and therefore do not constitute impact thresholds.

TABLE D-7: Adequacy of Open Space Resource in the Study Area – With-Action Conditions

	Total Population	Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	30,787	10.88	3.65	7.23	0.353	0.119	0.235	2.50	0.50	2.00
Combined Residents & Workers	46,024				N.A.	0.079	N.A.	N.A.	0.384 *	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis. Workers typically use passive spaces; therefore, for the nonresidential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated.

Qualitative Assessment

In the future with the proposed actions, the study area would continue to have a shortfall of open space. Although the open space ratios in the study area would remain less than the DCP planning goals and the citywide community district median both without and with the proposed actions, the deficiency of open space resources in the study area would be ameliorated by several factors. Most of the open space resources included in the quantitative analysis were found to be in very good or excellent condition. In addition, the open spaces offer a variety of passive and active recreational amenities, ranging from sitting areas, playgrounds, basketball and handball courts, spray showers, and an outdoor pool.

The demand for open space generated by the proposed actions is not expected to significantly exacerbate the No-Action deficiency, with less than a one percent decrease in the study area's total and active open space ratios, the equivalent of 0.003 and 0.001 fewer acres of total and active open space per 1,000 residents, respectively. The population added as a result of the proposed actions is not expected to affect noticeably the utilization of the area's open spaces. As noted above, most of the study area open space resources are in good condition, and therefore, could likely handle some additional demand. In addition, the population generated by the proposed actions is not expected to have any special characteristics, such as a disproportionately older or younger population, that would place heavy demands on facilities that cater to specific user groups. The residents in the future with the proposed actions are expected to exhibit similar characteristics to the current residents of the study area and the breakdown of the population is expected to remain the same.

It should be noted that, as the proposed actions would map a MX (M1-4/R7A) zoning district, which is a contextual zoning district governed by Quality Housing bulk regulations, indoor recreational space and exterior open space would be required for any residential development. This private indoor and outdoor recreation space would also serve to satisfy some of the open space demand created by the proposed actions.

Additionally, the proximity of the approximately 1.87-acre Carroll Park, 1.9-acre DiMattina Playground and 58-acre Red Hook Recreational Area would continue to be factors in alleviating the study area's open space deficiency. These open spaces are neighborhood and regional parks located just one to three blocks outside of the study area boundary that contain a wide range of recreational amenities. A portion of the 58-acre Red Hook Recreational Area falls within the boundaries of a ½-mile radius from the proposed rezoning area. There are more than 60-acres of open space contained within these three parks. Although Prospect Park is located about a mile (a 22-minute walk) from the applicant's projected development site 1, the eastern edge of the study area is located approximately three blocks east of (a 10 minute walk from) the approximately 526-acre Prospect Park. As described previously, Prospect Park is a flagship destination park within the City and would likely regularly attract residents from at least the eastern portion of the study area.

As such, demand for open space generated by the proposed actions is not expected to significantly exacerbate the No-Action deficiency, and the population added as a result of the RWCDS associated with proposed actions is not expected to affect noticeably the utilization of the area's open spaces. Therefore, while the proposed actions would result in an incremental decrease in the total, active, and passive open space ratios in the future, given the level of decrease anticipated, the condition of many of the study area's open spaces, and the availability of additional open spaces conservatively not included in the quantitative analysis, the proposed actions would not result in a significant adverse impact on open space.

Potential Effects of the Proposed Actions on Publicly Accessible Open Space

A significant adverse open space impact may occur if a proposed action(s) would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as small as one percent may be considered significant, depending on the area of the City. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. **Table D-8** expresses the percentage change from No-Action to With-Action conditions for the study area.

In the future with the proposed actions, ratios of open spaces to residents would continue to be lower than both the 1.5 acres per 1,000 residents measure of open space adequacy and the optimal planning goals furnished by DCP.

As shown in **Table D-8**, the study area's total open space ratio in the future with the proposed actions would be 0.353 acres per 1,000 residents, which represents a reduction of approximately 0.84 percent (0.003 acres per 1,000 residents) from No-Action conditions. The active open space ratio in the study area would decrease from 0.236 acres per 1,000 residents to 0.235 acres per 1,000 residents in the With-Action condition, a 0.42 percent decrease. The passive open space ratio for residents would remain the same as the No-Action condition.

TABLE D-8: Comparison of No-Action to With-Action Open Space Ratios

	DCP Open Space Guideline	Open Space Ratios Per 1,000			Percent Change
		Existing	No-Action	With-Action	Future No-Action to Future With Action
Total - Residents	2.5	0.385	0.356	0.353	-0.84%
Passive - Residents	0.5	0.121	0.119	0.119	0.00%
Active - Residents	2.0	0.264	0.236	0.235	-0.42%
Combined		0.080	0.080	0.079	-1.25%

The proposed actions would not result in an appreciable decrease in the study area open space ratios, resulting in less than one percent decrease in total and active open space ratios. Therefore, the proposed actions are not expected to result in a significant adverse open space impact per *CEQR Technical Manual* guidance. The qualitative assessment also indicates that the quality and number of the study area open spaces combined with the availability of open spaces outside the study area would help to alleviate the burden on open spaces in the future With-Action conditions.

ATTACHMENT E

URBAN DESIGN & 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. In the future with the proposed actions, the applicant would construct a mixed-use residential and commercial building with nine-stories at 153-157 Ninth Street (Block 1002, Lots 48, 49, and 50) in the Gowanus neighborhood of Brooklyn Community District (CD) 6. The mixed-use development would use approximately 3,300 square feet (sf) of commercial development rights transferred from an abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16) also under the applicant's control.

In accordance with *CEQR Technical Manual* guidance, the assessment focuses on the components of the proposed actions and associated reasonable worst-case development scenario (RWCDS) that may have the potential to alter the arrangement, appearance, and functionality of the built environment (the With-Action Condition). As described in **Attachment A, "Project Description,"** the proposed actions and RWCDS would facilitate the construction of two nine-story (95-feet tall) mixed-use residential and commercial buildings at two development sites (projected development sites 1 and 2), which are expected to be constructed and fully occupied by 2026. None of the other tax lots affected by the proposed zoning map and text changes is expected to be redeveloped or enlarged in the future with the proposed actions, nor would any changes occur to the Development Rights Parcel (Lot 16). As compared to the No-Action condition, the RWCDS would introduce a net increase of 84 dwelling units (DUs) and 22,469 gsf of commercial uses, and a net decrease of 5,000 gsf of warehouse use.

II. PRINCIPAL CONCLUSIONS

The proposed actions and RWCDS would not have a significant adverse impact on the area's urban design and visual resources. Under the RWCDS, the proposed actions would facilitate new development at two projected development sites, including residential and commercial uses adjacent to existing residential development, and along a major east-west arterial roadway in Gowanus, Brooklyn. The RWCDS would replace an underutilized vehicle storage/parking lot at projected development site 1, as well as a single-story industrial building and a two-story residential building at projected development site 2, with two nine-story (95-feet tall) mixed-use residential and commercial buildings. Consistent with the proposed Special Mixed-Use (MX) M1-4/R7A contextual zoning district, the With-Action development would be constructed at the street line along Ninth Street creating a strong streetwall consistent with surrounding development. The proposed ground floor uses with entrances along Ninth Street would further activate the streetscape by increasing pedestrian traffic.

The proposed actions would not result in any significant adverse impacts on the existing street network or grid, nor would they affect any view corridors. The developments in the With-Action condition would

be larger and taller than the development in the No-Action condition and existing buildings in the study area, but are expected to complement the existing varied context, which includes a diverse mix of building typologies and uses. The With-Action buildings would also be consistent with surrounding neighborhood context in terms of use and lot placement, forming consistent streetwalls with buildings lining Ninth Street.

Although the proposed actions would result in a building that is larger in height and bulk (scale) than those found in the immediate surrounding neighborhood, from a pedestrian's perspective, the building would not obstruct important view corridors. The With-Action development would be prominent along Ninth Street. However, located just one block north of the elevated F/G subway line and less than one block from the cross-section of Third Avenue and Ninth Street (a busy corridor where Ninth Street widens to allow for more traffic and building scale increases), it is the applicant's opinion that the scale of future development would be appropriate for the scale of the streets adjacent to the development sites and study area.

The proposed actions would not result in any development that would obstruct or eliminate any public views or affect any existing view corridors or views of visual resources in the study areas. As such, the proposed actions would not result in any significant adverse impacts to visual resources.

III. METHODOLOGY

Pursuant to the *CEQR Technical Manual*, an assessment of urban design is appropriate when a proposed action(s) 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(s) 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.

Per criteria of Section 230 of the *CEQR Technical Manual,* a wind condition analysis is not warranted for the proposed actions. The proposed rezoning area and projected development sites are not located in a high wind location (such as along west and northwest-facing waterfronts), and the RWCDS would not result in the construction of multiple tall buildings that would have the potential to alter wind conditions.

Following *CEQR Technical Manual* guidance, the analysis is based on field visits, aerial views, photographs, and other graphic images of the proposed rezoning area and surrounding area. Zoning calculations, including floor area calculations, building heights and lot coverage information is also provided.

The following preliminary analysis also considers the effects of the proposed actions and RWCDS on the area's visual resources, which are generally considered 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* guidance, the study area for urban design is the area where the proposed actions 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 this assessment, the primary study area encompasses the proposed rezoning area and Development Rights Parcel. Consistent with the analysis of land use, zoning, and public policy, the secondary study area for urban design resources has been defined as being within approximately 400 feet of the proposed rezoning area (see **Figure E-1**).

As stated in the *CEQR Technical Manual*, for visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. While the land use study area may serve as the initial basis for analysis, in many cases where significant visual resources exist, it may be appropriate to look beyond the land use study area to encompass views outside of the area, as is often the case with waterfront sites or sites within or near historic districts. For this analysis, prominent visual resources (both within and outside of the urban design study area) that are visible from the proposed rezoning area and secondary study area were identified. The primary view sheds of these visual resources that would be affected by construction of the RWCDS were the focus.

IV. PRELIMINARY ASSESSMENT

Existing Conditions

As noted above, **Figure E-1** shows both the primary (i.e., proposed rezoning area and Development Rights Parcel) and 400-foot secondary study areas. **Figure E-2** provides a photograph key for the approximate locations of where each of the photographs included in **Figure E-3 and E-4** had been taken.

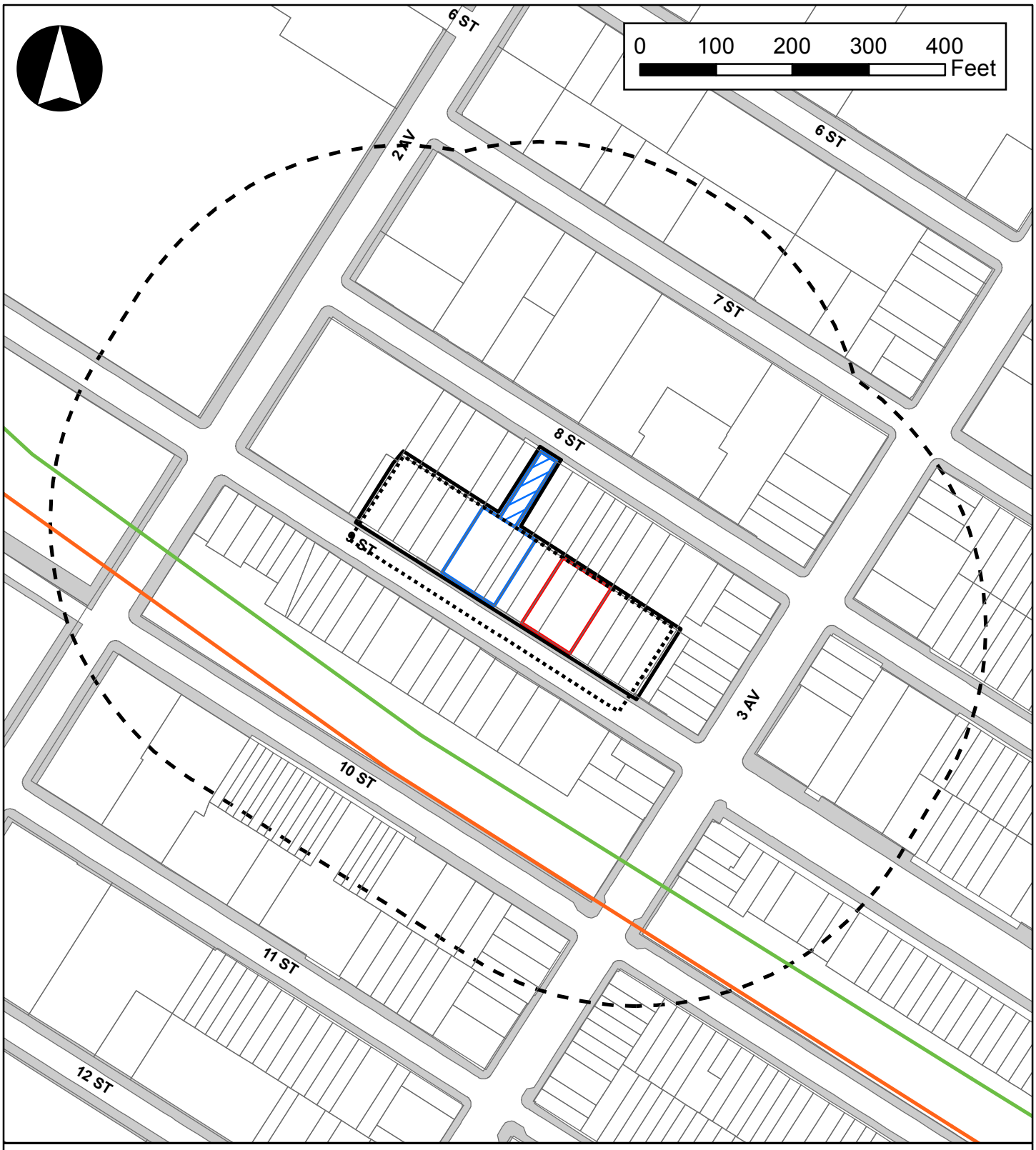
Urban Design

Primary Study Area

The primary study area comprises the proposed rezoning area (approximately 42,075 sf), which is located midblock on the north side of Ninth Street between Second and Third Avenues and includes portions of Lots 39 and 56, as well as Lots 40-43, 45-50, and 52-55 in their entirety, as well as the Development Rights Parcel (Lot 16, 2,500 sf). Most of the lots in the primary study area have frontage on Ninth Street (a narrow street) to the northeast; one lot has frontage on Eighth Street (a narrow street) to the southwest (see **Figure E-1**). Accordingly, the primary study area contains projected development site 1 (Lots 48-50) and is associated Development Rights Parcel (Lot 16, applicant-owned) and projected development site 2 (Lots 43 and 45, not applicant-owned).

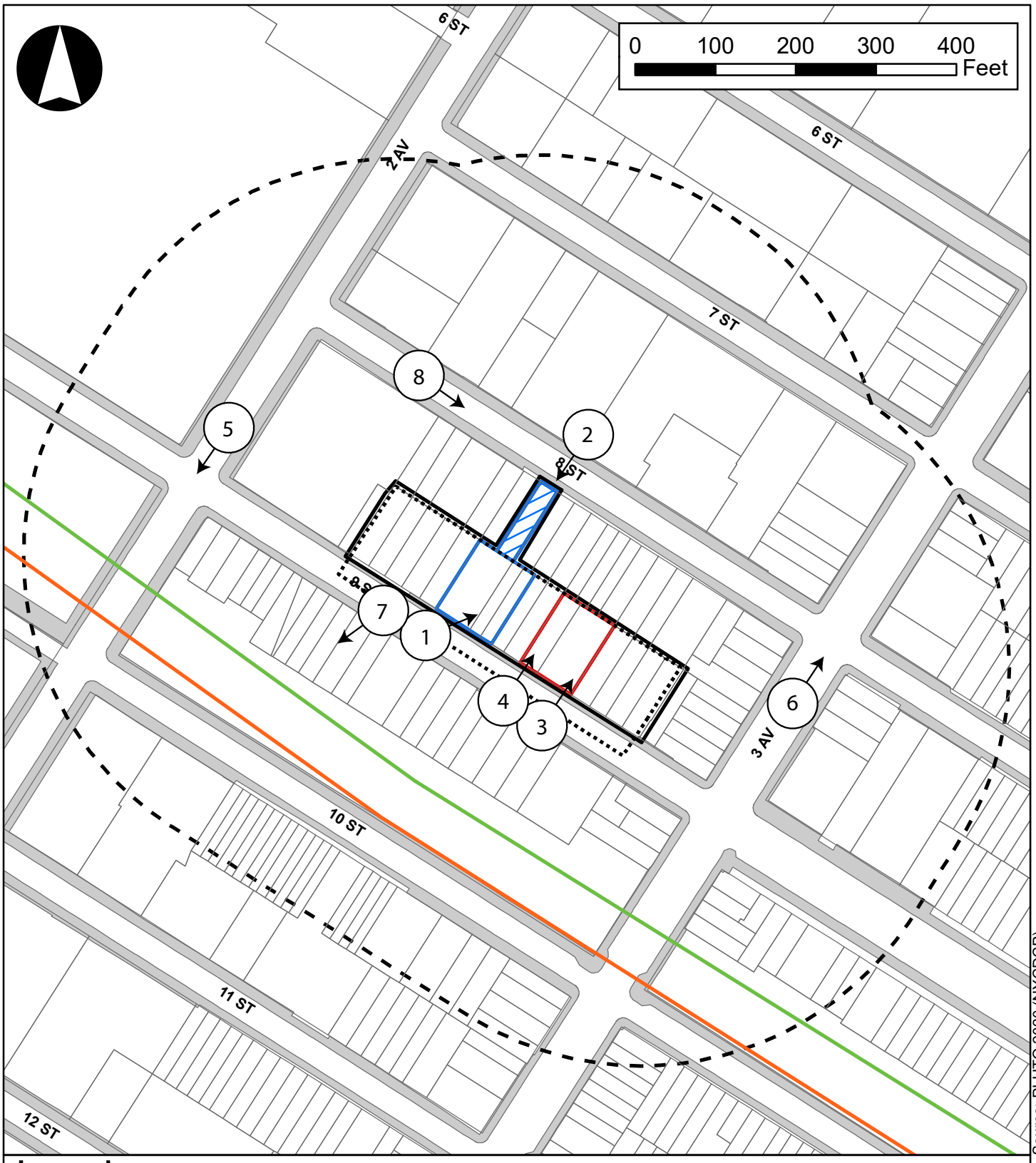
Building Bulk, Use, Type, and Arrangement

Projected development site 1 is comprised of three adjacent rectangular-shaped lots at 153-157 Ninth Street (Lots 48-50), which abut the rectangular-shaped Development Rights Parcel to the northeast at 124 Eighth Street (Lot 16). Lot 50 (5,000 sf) has 50 feet of frontage on the north side of Ninth Street, while Lots 48-49 (1,642 sf and 1,608 sf, respectively) each have approximately 16 feet of frontage. Lot 48 to 50 are underbuilt, and occupied by an underutilized vehicle storage/parking lot. As shown in **Figure E-3**, the



Source: PLUTO 2020 (NYCDCP)

Figure E-2
Photo Location Map





1. View from Ninth Street looking toward Projected Development Site 1 (Block 1002, Lots 48 and 50).



2. View of Development Rights Parcel (Block 2001, Lot 16) on Eighth Street.



3. View from Ninth Street to Projected Development Site 2 (Block 1002, Lot 43).



4. View from Ninth Street to Projected Development Site 2 (Block 1002, Lots 45).



5. View of the 9th Street Bridge from 2nd Avenue between 9th and 8th Streets.



6. Looking north along 3rd Avenue from between 9th and 8th Streets.



7. View of the 9th Street Bridge from 9th Street between 2nd and 3rd Avenues.



8. Looking east along 8th Street from between 2nd and 3rd Avenues.

parking lot is set back from Ninth Street and encased by a wire fence with green privacy fence screens and barbed wire on top (see photo #1); there is one entry point to the site via a curb cut.

Lot 16 (2,500 sf) has 25 feet of frontage on Eighth Street and is occupied by a two-family, three-story (28 feet tall) residential building and accessory building, approximately 1,716 gsf (0.69 FAR) with two DUs. As shown in **Figure E-3, Photo #2**, the building is a wood-frame row house, a typology common to the neighborhood and block. The New York City Department of Buildings (DOB) estimates that it was constructed in 1899 with alterations in 1946. The proposed mixed-use development at projected development site 1 would use 3,300 sf of commercial development rights from the site.

Projected development site 2 is located at 163-167 Ninth Street (Lots 43 and 45), approximately 40 feet from projected development site 1. Lot 43 has 50 feet of frontage and is occupied by a single-story, approximately 5,000 gsf (1.0 FAR) industrial warehouse building. The adjacent Lot 45 has 25 feet of frontage and is occupied by a one-family, two-story (28 feet tall) residential building with approximately 1,000 gsf (0.4 FAR). The warehouse's exterior is a mixture of red brick, cinder, and concrete; DOB estimates that it was built in 1923 with alterations in 1924 and 1969. It is largely built to the street line along Ninth Street and there is a curb cut to one of its two entrances, one for vehicles and the other for people. The residential building, in contrast, is a wood-frame row house with a small second-story porch; DOB estimates that it was built in 1899. It is set back with a front patio that is enclosed by a low-rise black fence; it has a curb cut leading to an on-site parking area in the patio.

The remaining lots within the primary rezoning area (Block 1002, Lots 39-42, 46-47, and 52-56) are rectangular-shaped with frontage along Ninth Street. **Table E-1** provides a description of each lot.

TABLE E-1: Existing Conditions of the Remaining Lots in the Proposed Rezoning Area

Lot	Address	Area (sf)	Land Use	Typology	Building (sf)	Built FAR	Frontage (sf)	Height (feet)[1]	Build Year
39*	175 9th St.	2,417	2-story residential (4 DUs)	Wood-frame	2,375	0.98	24.17	25	1931
40	173 9th St.	2,500	3-story residential (3 DUs)	Red brick, cinder, concrete	1,650	0.66	25	29	1899
41	171 9th St.	2,500	3-story residential (3 DUs)	Cinder, concrete	1,980	0.79	25	32	1899
42	169 9th St.	2,500	4-story residential (5 DUs)	Red brick, cinder, concrete	5,544	2.21	25	48	1931, altered 1985
46	161 9th St.	2,500	3-story residential (4 DUs)	Red brick, cinder, concrete	3,375	1.35	25	32	1931, altered 1987
47	159 9th St.	1,750	3-story residential (3 DUs)	Red brick, cinder, concrete	2,856	1.63	17.5	38	1899
52	149 9th St.	2,500	2 buildings, 1-story commercial & 2-story 2-family (2 DUs)	Red brick, cinder, concrete	2,100	0.84	25	10, 21	1910
53	147 9th St.	2,500	4-story residential (8 DU)	Brick, cinder, concrete	5,500	2.20	25	45	1931, altered 1988
54	145 9th St.	2,500	3-story residential (5 DU)	Wood-frame	4,850	1.94	25	34	1866, altered 1990
55	143 9th St.	2,500	3-story residential (5 DU)	Wood-frame	2,820	1.12	25	33	1931
56*	141 9th St.	2,500	2-story single-family home (1 DU)	Wood-frame	2,205	0.58	25	32	1899

[1] Height is approximate measurement in feet

*Lot is partially included within the proposed rezoning area

Block Form, Street Pattern, and Street Hierarchy

Ninth Street is a two-way, east-west major arterial, running roughly from the Brooklyn-Queens Expressway (BQE) to Prospect Park West. Eighth Street is a one-way eastbound roadway running between Second Avenue and Prospect Park West. Both streets are considered by zoning to be "narrow streets." Ninth Street is one of few through-streets in Gowanus that connects it to adjacent neighborhoods- Carroll Gardens to the west and Park Slope to the east. It also includes one travel lane in each direction with parking and a bike lane along either side. Near the proposed rezoning area, Eighth and Ninth Streets are lined with a mix of residential, commercial, and industrial buildings (refer to **Figure E-3, Photos #7-8**).

Streetscape Elements

Streetscape elements along the proposed rezoning area's street frontages include several street trees (some with enlarged tree pits), parking signage, historic street lamps, and fire hydrants. The sidewalks are narrow at about 10 feet. Projected development site 1 has a single curb cut along the north side of Ninth Street near the center of the site and projected development site 2 includes two curb cuts on the north side of Ninth Street,

Topography, Natural Features and Open Space

The topography of the primary study area is generally flat. There are no natural features or open spaces within the proposed rezoning area or on the Development Rights Parcel.

Secondary Study Area

As discussed above, the secondary study area has been defined as the area within an approximate 400-foot radius of the proposed rezoning area. As show in **Figure E-1**, it is generally bound by Seventh Street to the northeast, Third Avenue to the southeast, Tenth Street to the southwest, and Second Avenue to the northwest.

Building Bulk, Use, Type, and Arrangement

Table C-1 in **Attachment C, "Land Use, Zoning, and Public Policy,"** summarizes the existing generalized land uses within the 400-foot land use study area by tax lots and land area. Overall, as reflected in **Table C-1** and shown in **Figure E-4**, residential uses are the most prevalent land use in the secondary study area and constitute the highest percentage of tax lots. Residential uses include attached and detached two- and three-story single- to two-family homes, as well as taller, higher-density four- to six-story multifamily walkup and elevator residential buildings. Higher-density multifamily residential buildings are generally located closer to the avenues, and one- and two-family homes generally characterize the mid-blocks between the avenues.

Industrial/manufacturing use comprises the largest percentage of lot area, accounting for approximately 30 percent of lot area within the secondary study area, and the highest percentage of building area. They are distributed throughout the study area, located to the west of Second Avenue and along the mid-blocks of Seventh, Eighth, Ninth, and Tenth Streets. Most properties in the study area are developed though there are several vacant, undeveloped properties and parking facilities (like projected development site 1). Commercial and mixed residential uses with ground-floor retail are concentrated along Third Avenue

and generally range between one- and four-stories in height. Second Avenue is lined with low-rise industrial/manufacturing buildings and a few lots of office/commercial uses.

As shown in **Figure E-4 and Figure E-6**, most buildings within the study area contain six or fewer stories. Higher-density, four-to-six story, multifamily residential apartment buildings and mixed-use residential buildings with ground-floor retail are located primarily along Third Avenue (**Figure E-4, Photo #6**), and low-rise one- and two-family wood-frame homes generally characterize the side streets; many have patios, porches, or small stoops, but generally do not include driveways or garages. Third Avenue is an active corridor that also features low-rise commercial and industrial uses, like restaurants and auto shops, and prominent building signage.

Most buildings are oriented to the street, and largely built at the street line, or include shallow-fenced front yards. Various built FARs are scattered throughout the study area, and range in between 0 and 3.55 (see **Figure E-5**).

Block Form, Street Pattern, and Street Hierarchy

Streets in the study area generally follow a grid pattern alignment that is broken up by the Gowanus Canal and superblocks along the waterfront. This block form has generally resulted in regular rectangular-shaped lots that vary in size and width. Second Avenue, Third Avenue, and Ninth Street are two-way streets with a combination of protected, conventional, and shared bike lanes. Seventh, Eighth, and Tenth Streets are one-way streets. Both Ninth Street and Third Avenue are designated local truck routes. All streets generally have on-street parking.

Streetscape Elements

Concrete sidewalks flank all streets in the secondary study are and are generally in good condition. All sidewalks in the secondary study accommodate street lights, street signs, fire hydrants, mail boxes, and street trees.

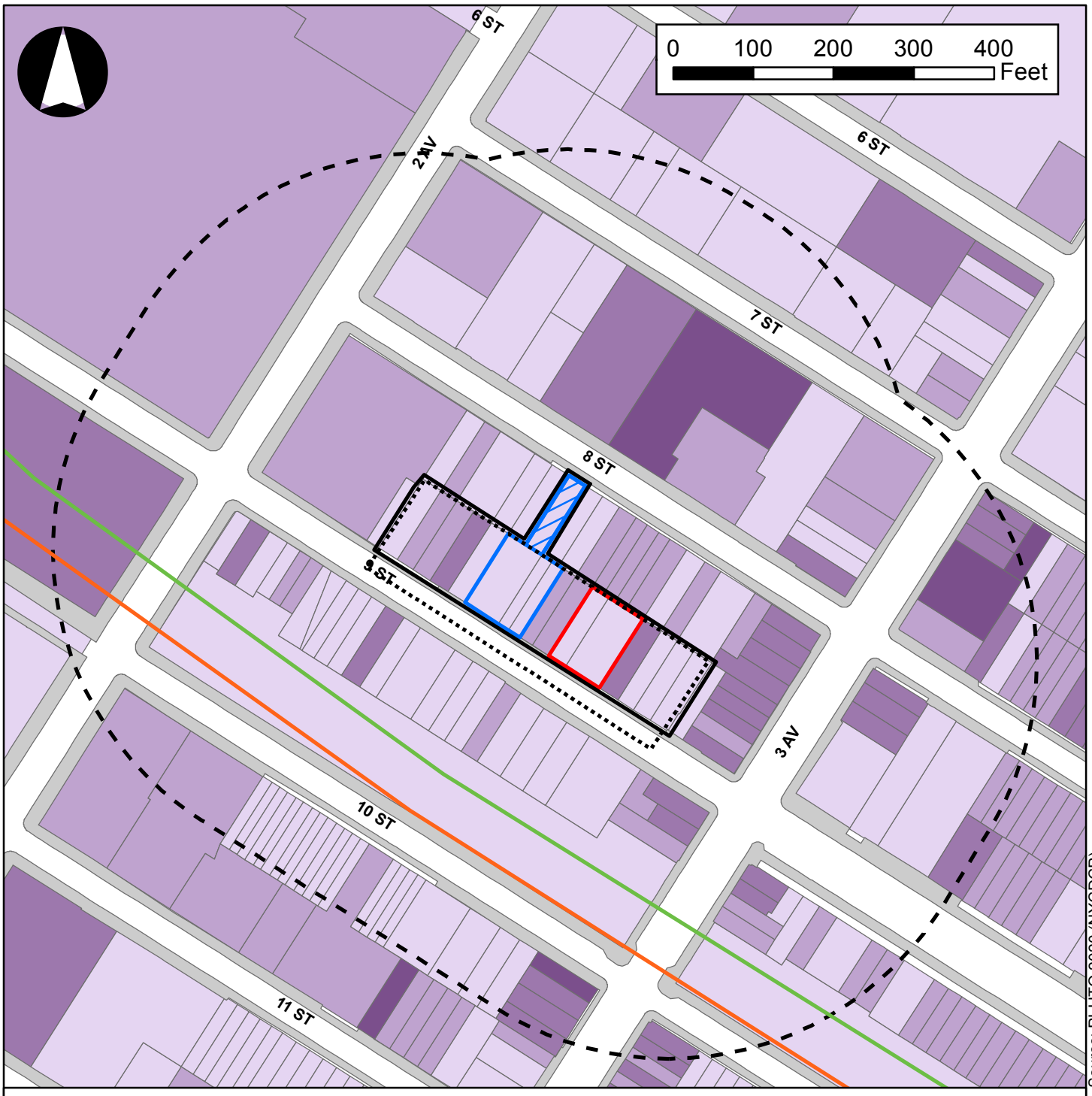
Topography, Natural Features and Open Space

As the area is an urbanized location, the topography of the secondary study area is generally flat. There are no natural features or publicly accessible open spaces.

Visual Resources

Primary Study Area

There are no significant natural or built features, including views of the waterfront, public parks, designated landmark structures or districts, or otherwise distinctive buildings or groups of buildings in the primary study area. However, a number of visual resources can be seen from Ninth Street, including the Gowanus Canal, the Ninth Street Bridge, and the elevated F/G train (see **Figure E-4**). The visual resources that can be viewed are generally partially obstructed by existing buildings, fences, trees, and other streetscape elements. Of note, the proposed rezoning area is located adjacent to and southeast of the Gowanus Canal Historic District, which is eligible for listing on the State and National Registers of Historic



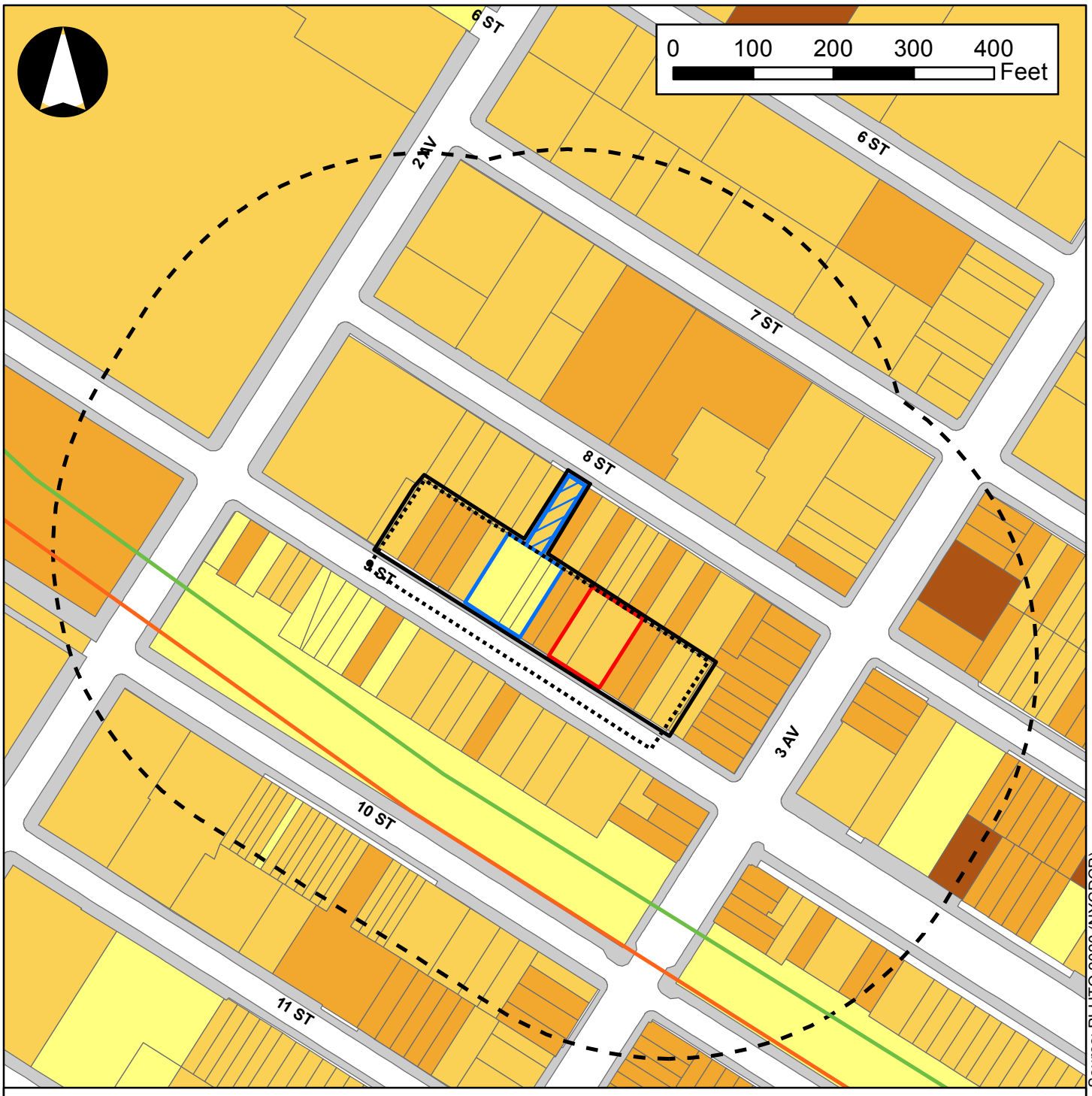
Source: PLUTO 2020 (NYCDCP)

Legend

- F Train
- G Train
- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- Primary Study Area
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2

Built FAR

- 0 - 1
- 1.01 - 2
- 2.01 - 3
- 3.01 - 4
- Greater than 4.01



Legend

- F Train
- G Train
- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- Primary Study Area
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2

Number of Stories

- 0 Stories
- 1 - 2 Stories
- 3 - 4 Stories
- 5 - 6 Stories
- Greater than 6 Stories

Places (S/NR-eligible). The S/NR-eligible Gowanus Canal Historic District is irregularly shaped, and encompasses approximately 6.2 million square feet surrounding the Gowanus Canal. Its southernmost point is at the end of Smith Street, extending below the Gowanus Expressway to the east of the Canal; its northernmost point extends beyond the northern edge of the canal to include lots located on the north side of Baltic Street. Above the expressway and on the east side of the Canal, the S/NR-eligible district is primarily bounded by Bond Street, although there are two rectangular-shaped boundaries that extend westward: one encompasses lots located between Bond and Hoyt Streets, Fifth and Third Streets, while the other includes a handful of lots located between Carroll and President Streets, just west of Bond Street. On the west side of the canal, there are a series of jutting boundaries that can extend as far east as midblock between Third and Fourth Avenues.

Secondary Study Area

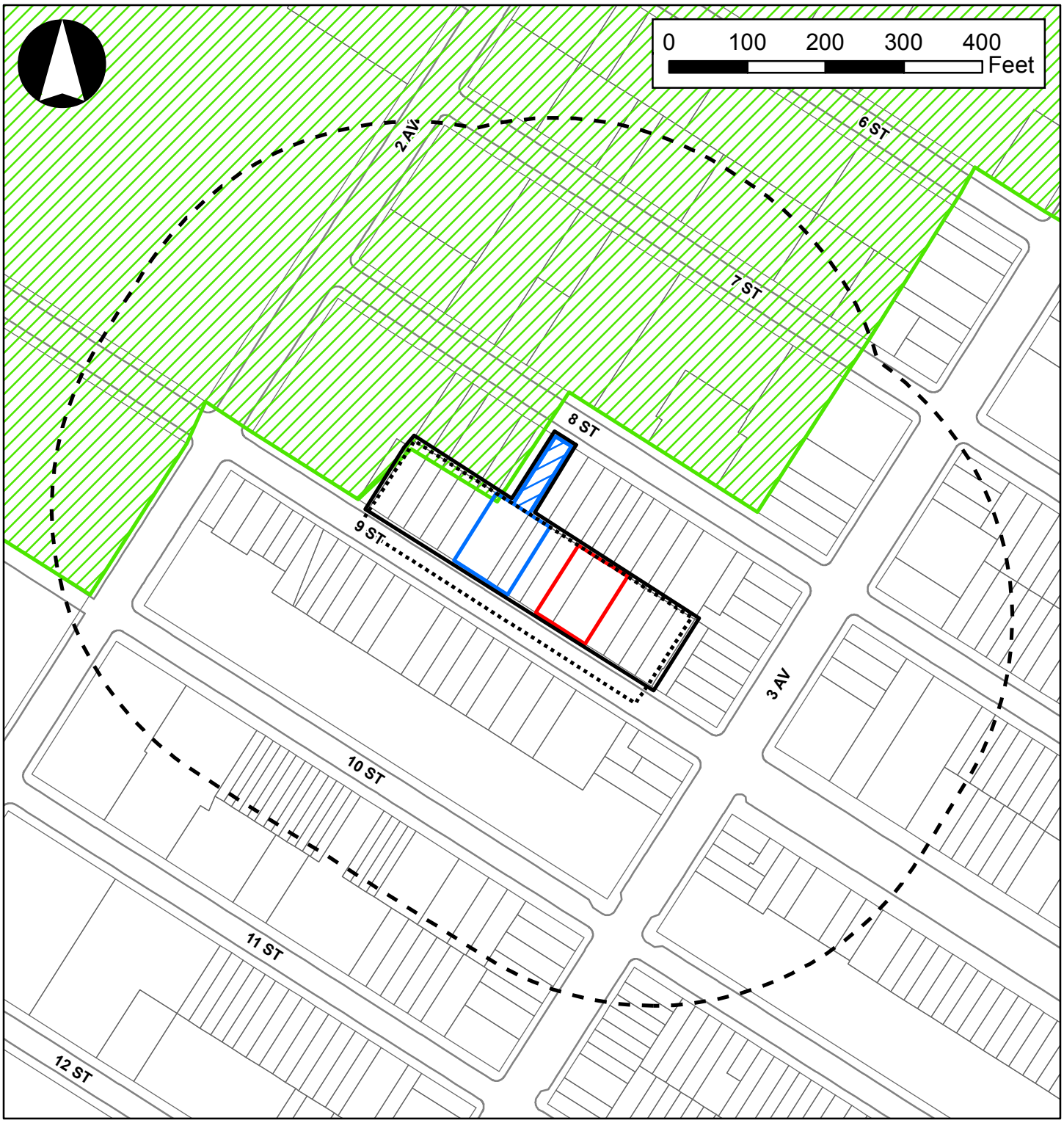
The secondary study area includes a small portion of the S/NR-eligible Gowanus Canal Historic District, as well as the S/NR-listed Fourth Avenue Station (IND), which extends along the north side of Tenth Street between Third and Fourth Avenues with entrances on 10th Street and Fourth Avenue. As shown in **Figure E-7**, the western portion of Block 1002, most of Block 996 directly north of the proposed rezoning area, and the area immediately west of Second Avenue is included in the S/NR-eligible historic district. Visual resources within the eligible district that are visible from the secondary study area include the Gowanus Canal, the Ninth Street Bridge, the Old American Can Factory (LPC-designated), and the Montauk Paint Manufacturing Company Building (LPC-designated).

The Gowanus Canal and Ninth Street Bridge are visible from the intersection of Ninth Street and Second Avenue. The Gowanus Canal is a 1.8-mile-long waterway that borders the neighborhoods of Red Hook, Carroll Gardens, and Gowanus to the west, Park Slope to the east, Boerum Hill and Cobble Hill to the north, and Sunset Park to the south; it was once a vital cargo transportation hub in the nineteenth and early-twentieth centuries. Heavy industrial use during that time caused large amounts of pollutants to drain into the canal, making it one of the most polluted bodies of water in the United States. In 2009, it was designated a federal Superfund site, and work to clean up the canal began in 2013. The Ninth Street Bridge is one of five bridges that allows pedestrian and/or vehicular passage over the Canal, connecting the Gowanus and Carroll Gardens Neighborhoods. It is a vertical lift bridge that went under rehabilitation from 1995 to 1999. The improved structure uses electronically-controlled machinery to provide a wide channel for unobstructed vessel passage and carries three lanes of traffic, two lanes westbound and one eastbound.

The Old American Can Factory (originally, the Somers Brothers Tinware Factory at 238-246 Third Street) can be seen from the intersection of Seventh Street and Third Avenue, looking north. It is a six building, 130,000 sf industrial complex that once manufactured cans, built in phases between 1884 and 1910, and designated a landmark in 2019. Today, the historic facility has been repurposed as a center for the arts, curating a community of more than 300 artists and nonprofit organizations working in the creative industries; it is operated by XØ Projects Inc. The building remains largely intact, representative of nineteenth-century industrial architecture with its L-shaped plan, flat roof, and use of polychromatic brick in American Round Arch style.

Looking south from the intersection of Tenth Street and Second Avenue, the Montauk Paint Manufacturing Company Building (170 Second Avenue) is visible. Once a leading paint manufacturing center, the building was erected in 1908 as part of the growing industrial development surrounding the Gowanus Canal and designated a landmark in 2019. The building was designed in a simplified version of

Gowanus Historic District



Source: PLUTO 2020 (NYCDCP); SHPO (2020)

Legend

- Rezoning Area
- 400-Foot Radius (Secondary Study Area)
- Primary Study Area
- S/NR-Eligible Gowanus Canal Historic District
- Development Rights Parcel
- Projected Development Site 1
- Projected Development Site 2

the American Round Arch style, and is notable for the ornamentation of its street façade using red brick arches. Except for minor improvements, the building is intact and a distinctive reminder of the Gowanus neighborhood's industrial history.

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

In the absence of the proposed actions, the proposed rezoning area would remain as under existing conditions. Projected development site 1 would continue to be occupied by an underutilized parking/vehicle storage lot, and the Development Rights Parcel would remain as is. Projected development site 2 would continue to be occupied by a single-story industrial building and a two-story single-family home. In addition, and as described in **Attachment C, "Land Use, Zoning, and Public Policy,"** there are no anticipated developments by the 2026 analysis year in the secondary study area. According to Department of Buildings (DOB) records, the ongoing construction at 69 Second Avenue (Block 1002, Lot 1) on the subject block involves structural improvements to the existing two-story, approximately 40,000 gsf industrial building. No change in use, occupancy or building expansion is being considered at this time.

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

This section describes the effects of the proposed actions and associated RWCDS on the urban design and visual resources conditions in the primary and secondary study areas by 2026 and evaluates the potential for the Proposed Actions to result in significant adverse impacts.

In the future with the proposed actions, the proposed zoning map and zoning text amendments and special permit would be approved and implemented. As such, the proposed rezoning area would be mapped with a M1-4/R7A Special Mixed-Use (MX) zoning district and the proposed MX zoning district would be designated as an MIH Area. As part of the proposed actions, no accessory parking would be provided for the applicant's site (projected development site 1) pursuant to the requested special permit, which would waive accessory parking requirements for the proposed residential uses. Moreover, the proposed mixed-use development would use approximately 3,300 sf of commercial development rights transferred from the abutting, applicant-owned Development Rights Parcel (Lot 16), which is located outside of the proposed rezoning area. The existing uses and buildings on Lot 16 would remain.

Under With-Action conditions, the proposed MX zoning would allow residential and community facilities uses as-of-right, which are not currently permitted under the existing M2-1 zoning. The allowable density in the rezoning area would also increase. Residential uses would be permitted up to a maximum 4.6 FAR with MIH and community facility use up to 6.5 FAR. The maximum FAR for commercial and manufacturing uses would remain the same at 2.0. The two developments built under the RWCDS would have FARs of 3.99 (projected development site 1)[1] and 4.6 (projected development site 2), consistent with the maximum permitted FAR in a M1-4/R7A district under the proposed zoning map and text amendments. In addition, the two developments would be built to the street line, have qualifying ground floors, and rise to the maximum height of approximately 95 feet.

As detailed in **Attachment A, "Project Description,"** the proposed actions would facilitate new development, including market-rate and affordable residential units and ground-floor commercial space, at the applicant-owned projected development site 1. It would also bring into compliance several existing

[1] Projected development site 1 would have a permitted maximum blended FAR of 3.99 as Lots 48 to 50 would be mapped in the proposed M1-4/R7A district (with a maximum 4.6 FAR), and Lot 16 would continue to be zoned M2-1 (with a maximum 2.0 FAR).

non-conforming residential uses in the area, as the rezoning would permit zoning use groups 2-17. In addition, as a RWCDS, it is expected that the property at 163-167 Ninth Street (projected development site 2) would be redeveloped because of the proposed actions, and create market-rate and affordable residential units and ground-floor commercial space. Under the RWCDS, the currently underutilized projected development sites would each be redeveloped with a nine-story building with a combined total of approximately 96,120 gsf of floor area, comprised of up to 87 DUs and approximately 22,469 gsf of retail space on the ground floor.

Urban Design

Primary Study Area (Project Area)

Development facilitated by the proposed actions would be built on an existing block, and would not entail any changes to topography, street patterns and hierarchy, block shapes or natural features in the proposed rezoning area. The proposed actions would introduce two new mixed-use residential and commercial buildings with uses, massing and scale that are not permitted under the current zoning.

In accordance with the proposed M1-4/R7A zoning district, the applicant-owned development would be built to the street line along projected development site 1's Ninth Street frontage (86 feet) forming strong street wall presence. The With-Action building would have a maximum height of approximately 95 feet with a base height of 75 feet, introducing new height to the existing scale of Ninth Street. Most of the ground floor would be occupied by "qualifying" local retail space (supermarket) that would also occupy a portion of a single cellar level and residential uses would occupy the floors above. The With-Action development would eliminate a curb cut at projected development site 1 because of the special permit parking waiver action.

As discussed above, as a RWCDS, it is expected that the existing one-story industrial space on Lot 43 and two-story, single-family house on Lot 45 would be redeveloped as projected development site 2 in accordance with the proposed M1-4/R7A zoning district and MIH Area regulations. Projected development site 2 would be redeveloped to the maximum permitted FAR of 4.6 under the M1-4/R7A zoning with an approximately 38,232 gsf mixed-use residential and commercial building with ground-floor retail space and residential located above. As the required number of accessory parking spaces for projected development site 2 would be less than 15 spaces, accessory parking for residential uses would be waived pursuant to ZR Section 25-261.

The proposed actions and subsequent RWCDS would further enhance the pedestrian environment and enliven the streetscape with the introduction of residents and active ground floor uses along Ninth Street. As shown in **Figures E-8, E-9, and E-10**, the proposed actions would not drastically alter the urban design character of the primary study area. The RWCDS would replace an underutilized vehicle storage/parking lot and single-story warehouse and two-story single-family residence with two mid-rise mixed-use residential and commercial buildings. With a maximum building heights of 95 feet and building square footages of 38,232 gsf and 56,000 gsf, respectively, the height and bulk of the RWCDS With-Action buildings would be taller and larger than the surrounding buildings in the primary study area, which do not exceed four stories and are less than 10,000 sf (see **Figure E-6**). The increased scale, both in terms of bulk and height, would be a notable change from the pedestrian's perspective to the appearance and character of the development site compared to the No-Action condition.



NO ACTION

For illustrative purposes only



WITH ACTION Lots 48 to 50

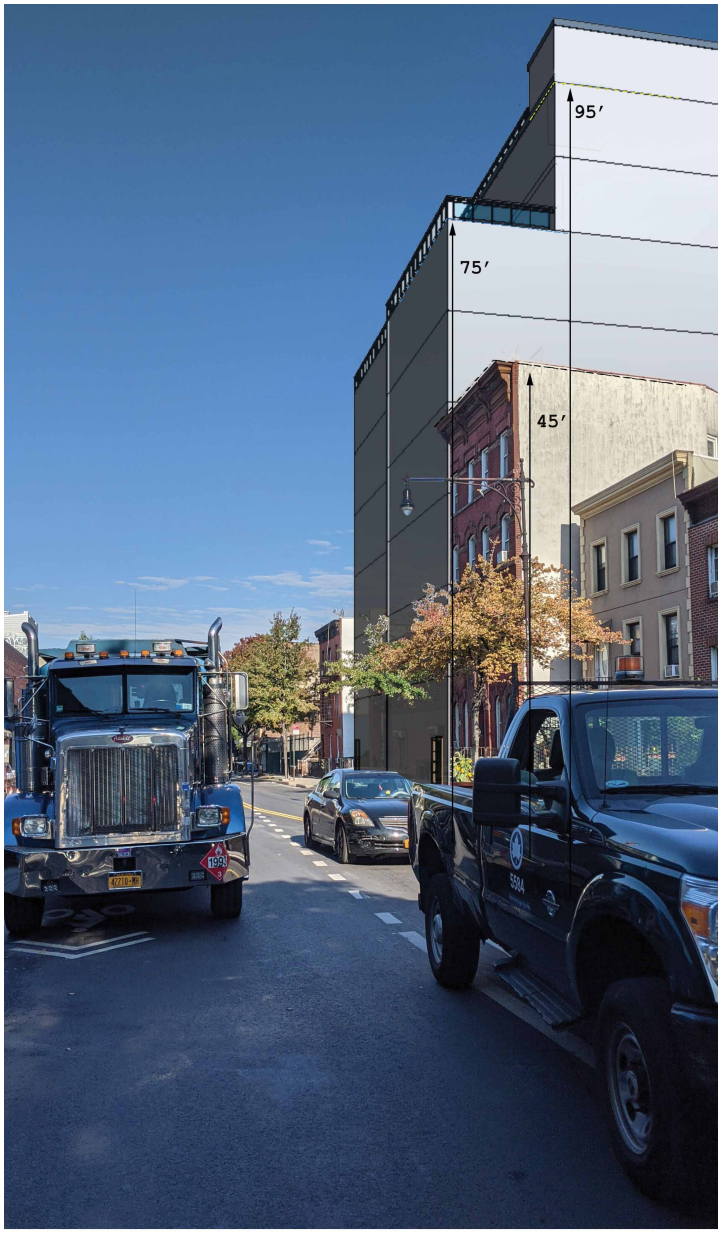
prepared by cycle architecture + planning

Figure E-8
Comparison of the No Action and With Action Condition for Projected Development Site 1



NO ACTION

For illustrative purposes only



WITH ACTION- Lots 43 to 45

prepared by cycle architecture + planning

Figure E-9
Comparison of the No Action and With Action Condition for Projected Development Site 2



With Action - Projected Development Sites 1 and 2

For illustrative purposes only

prepared by cycle architecture + planning

Compared to the future without the proposed actions, in the future with the proposed actions, the visual appearance of the pedestrian experience of the projected development would change as two nine-story buildings would replace a vehicle storage/parking lot (projected development site 1), as well as a single-story industrial building and two-story single-family home (projected development site 2). However, this change would not meet the *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the projected development sites such that the alteration would negatively affect a pedestrian's experience of the area.

Secondary Study Area

As the proposed actions are site-specific, they would not result in any changes in the urban design in the secondary study area. New development facilitated by the proposed actions would be limited to the two projected development sites within the primary study area. The proposed actions would not alter any street patterns, street hierarchies, block forms, building uses, and bulk regulations in the secondary study area. The proposed M1-4/R7A zoning district is a contextual district governed by Quality Housing bulk regulations, which encourages high lot coverage buildings set at or near the street line with height limits. While the RWCDS buildings would represent a departure from the urban design character of the secondary study area in terms of height and bulk, it would be consistent with study area buildings' land uses, including active ground floors uses, and building placement and orientation along the property line.

The proposed zoning changes are intended to facilitate development that would be appropriate for a transit accessible area along a major thoroughfare. Additionally, the proposed actions would facilitate the construction of new buildings that would be in keeping with the largely mixed-use character of the area while also adding ground-floor commercial space. The With-Action development would promote and reaffirm a live-work neighborhood by balancing the preservation of neighborhood scale and allotting a moderate increase in density with the opportunity to increase mixed-income housing. The ground floor commercial uses are also expected to enhance the pedestrian realm making the surrounding area more inviting to pedestrians.

The With-Action development would introduce strong streetwalls along Ninth Street that would be consistent with surrounding development. With a maximum building height of 95 feet, the upper floors of the building would be visible from surrounding streets. As described previously, the surrounding area supports a mix of building types, scales and heights, including low-rise two- to three-story residential buildings, single-story commercial buildings, and four- to six-story multifamily apartment buildings. While the With-Action development would be taller than the existing structures in the secondary study area, the building is located just one block north of the elevated F/G subway line and less than one block from the cross-section of Third Avenue and Ninth Street, a busy corridor where Ninth Street widens to allow for more traffic and building scale increases. In addition, further east along Fourth Avenue buildings are taller. Therefore, the scale of future development would be appropriate for the scale of the streets adjacent to the development sites and study area. As such, the proposed actions are not expected to result in any significant adverse impacts to urban design in the study area surrounding the Project Area, nor would they result in significant adverse impacts to the experience of the pedestrian.

Visual Resources

As discussed above, the proposed rezoning area does not contain any visual resources and this would not change in the future with the proposed actions. The projected development sites would accommodate buildings that would rise to a maximum height of 95 feet under With-Action conditions. However, no view

corridors of significant visual resources would be obstructed as a result of these height and density increases in the proposed rezoning area. All new development would occur within an existing block.

The new buildings on the projected development sites are expected to further define view corridors in the secondary study area by replacing a single-story industrial building, a two-story residential building, and an underutilized vehicle storage/parking lot with new predominantly residential developments that would be constructed along the street line. No changes to visual resources are expected because of the proposed actions. There are no views to the waterfront, and view corridors would be maintained.

In summary, the proposed actions and RWCDS would not change urban design features such that the context of natural or built features are adversely altered and would not partially or fully block any significant public views to a visual resource. Therefore, the proposed actions would not result in significant adverse impacts to study area visual resources.

ATTACHMENT F

TRANSPORTATION

I. INTRODUCTION

This attachment presents the findings from the analysis of traffic, transit, and pedestrian conditions for the proposed actions and associated reasonable worst-case development scenario (RWCDS). As described in **Attachment A, "Project Description,"** the proposed actions would facilitate the development of an approximately 56,000-gross square foot (gsf) mixed-use residential and commercial building with nine-stories at the applicant-owned 153-157 Ninth Street (Brooklyn Block 1002, Lots 48 to 50), which would use approximately 3,300 sf of commercial development rights transferred from the abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16). The RWCDS development at 153-157 Ninth Street (projected development site 1) would include approximately 48 dwelling units (DUs) with approximately 13 affordable units and approximately 16,000 gsf of local retail that would occupy portions of the ground floor and cellar level. This development would replace an underutilized parking lot occupying an approximately 8,242-sf development site. The existing two-family house and accessory building at 124 Eighth Street (Lot 16) would remain at the Development Rights Parcel irrespective of the proposed actions. In addition, for RWCDS analysis purposes, it is assumed that the proposed zoning changes would allow for redevelopment of Block 1002, Lots 43 and 45 ("projected development site 2") pursuant to the proposed M1-4/R7A zoning regulations. Projected development site 2 would be comprised of approximately 38,231 gsf, with approximately 31,763 gsf (37 DUs) of residential use, and 6,469 gsf of local retail.

The projected development sites 1 and 2 are expected to be completed and occupied by 2026. Absent the proposed actions (the "No-Action condition"), the proposed zoning changes and special permit would not be approved and neither projected development site 1 nor 2 would be redeveloped. No changes are anticipated in absence of the proposed actions in the proposed rezoning area and all existing lots and buildings are anticipated to remain in their existing form.

II. PRINCIPAL CONCLUSIONS

The proposed actions and associated RWCDS 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 threshold of 50 vehicle trips, detailed analyses of traffic and transit conditions are not provided in this EAS. As the incremental increase in pedestrian trips would exceed the *CEQR Technical Manual* threshold of 200 pedestrian trips, a detailed analysis of operating conditions is provided for two pedestrian elements (one corner and one sidewalk). Conditions at the northeast corner of Second Avenue and Ninth Street and on the north sidewalk along Ninth Street between Second and Third Avenues have been analyzed during the weekday PM and Saturday midday peak hours. As presented herein, incremental trips generated by the proposed actions and associated RWCDS would not result in any significant adverse pedestrian impacts based on *CEQR Technical Manual* criteria.

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 actions and subsequent development. According to the *CEQR Technical Manual*, if the proposed actions are 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 actions and resultant development would exceed 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 actions 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 exceeded, 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 actions and associated RWCDS. 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

In order to conduct a Level 1 Trip Generation Screening Assessment for the proposed actions, a travel demand forecast was prepared for a typical peak hour during the weekday AM, midday, and PM, and Saturday midday periods. The transportation planning factors used to forecast travel demand for the RWCDS's land uses are summarized in **Table F-1** and discussed below. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factors for each land use were primarily based on the 2020 *CEQR Technical Manual*, factors developed for recent environmental reviews, Census data for census tracts near the directly affected area (tracts 117, 119, 121, 137, and 139), data provided by the New York City Department of Transportation (DOT), and data from other standard professional references. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand), the weekday midday, and the Saturday peak hours (typical peak periods for retail demand).

Local Retail

As shown in **Table F-1**, the forecast of travel demand for local retail pedestrian trips used a weekday trip generation rate of 205 person trips per 1,000 gsf, and a Saturday pedestrian trip generation rate of 240 trips per 1,000 gsf, as per the 2020 *CEQR Technical Manual*. The temporal distributions of 3.0 percent, 19.0 percent, 10.0 percent, and 10.0 percent for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively, were also based on the 2020 *CEQR Technical Manual*. The modal splits for all peak hour periods were estimated to be 11.0 percent private auto, 0.0 percent taxi, 3.0 percent subway,

2.0 percent bus, and 84.0 percent walk/other, based on NYCDOT mode split and vehicle occupancy survey data. The directional in/out splits of 50/50 for weekday peak hours and 55/45 for Saturday midday peak hour were based on the 2015 *East New York Rezoning Proposal FEIS*. The vehicle occupancy rates of 1.20 persons per auto and taxi were on survey data from NYCDOT.

Residential

As shown in **Table F-1**, the forecast of travel demand for the residential pedestrian trips used a weekday trip generation rate of 8.075 person trips per DU, and a Saturday pedestrian trip generation rate of 9.6 trips per DU, as per the *CEQR Technical Manual*. The temporal distributions of 10.0 percent, 5.0 percent, 11.0 percent, and 8.0 percent for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively, were also based on the *CEQR Technical Manual*. The modal splits for all peak hour periods were estimated to be 15.2 percent private auto, 0.2 percent taxi, 71.8 percent subway, 2.1 percent bus, and 10.7 percent walk/other, based on ACS journey-to-work Five-year (2014-2018) census data. The directional in/out splits of 24/76, 50/50, 61/39, and 45/55 for weekday AM, midday, and PM, and Saturday midday peak hours, respectively, were based on NYCDOT citywide residential survey data. The vehicle occupancy rates of 1.09 persons per auto and 1.30 persons per taxi in the weekday AM and PM peak hours were based on the 2015 *East New York Rezoning Proposal FEIS* and ACS journey-to-work Five-year (2014-2018) census data. The vehicle occupancy rates of 1.53 persons per auto and 1.82 persons per taxi in the weekday midday and Saturday midday peak hours were determined by applying a factor of 1.4 to the AM/PM rate. Truck factors for the residential use were based on the *CEQR Technical Manual*.

Supermarket

As shown in **Table F-1**, the forecast of travel demand for the supermarket pedestrian trips used a weekday trip generation rate of 175 person trips per 1,000 gsf, and a Saturday pedestrian trip generation rate of 231 trips per 1,000 gsf, as per the *CEQR Technical Manual*. The temporal distributions of 5.0 percent, 6.0 percent, 10.0 percent, and 9.0 percent for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively, were also based on the *CEQR Technical Manual*. The modal splits for the weekday peak hour periods were estimated to be 21.0 percent private auto, 3.0 percent taxi, 14.0 percent subway, 4.0 percent bus, and 58.0 percent walk/other, based on NYCDOT mode split and vehicle occupancy survey data. The modal splits for the Saturday midday peak hour periods were estimated to be 14.0 percent private auto, 5.0 percent taxi, 8.0 percent subway, 6.0 percent bus, and 67.0 percent walk/other, also based on NYCDOT mode split and vehicle occupancy survey data. The directional in/out splits of 57/43 for the weekday AM peak hour was based on the 2014 *Astoria Cove Development FEIS*. The directional in/out splits of 46/54, 47/53, and 51/49 for weekday midday and PM, and Saturday midday peak hours, respectively, were based on the 2017 *Boulevard at Hylan Plaza Proposal FEIS*. The vehicle occupancy rates of 1.58 persons per auto and taxi in the weekday peak hours, and 1.90 persons per auto and taxi in the Saturday midday peak hour were based on NYCDOT mode split and vehicle occupancy survey data. Truck factors for the supermarket use were based on the *Astoria Cove Development FEIS* for weekday AM peak hours and the Boulevard at *Hylan Plaza Proposal FEIS* for all other peak hours.

Warehouse

As shown in **Table F-1**, the trip generation rates, temporal distributions, directional in/out splits, vehicle occupancies and truck factors for warehouse use were based on survey data provided by NYCDOT. The forecast of travel demand for the warehouse person trips used a weekday trip generation rate of 2.36 person trips per 1,000 gsf, and a Saturday person trip generation rate of 0.20 trips per 1,000 gsf.

TABLE F-1:
Transportation Planning Assumptions

Land Use:	Local Retail		Residential		Supermarket		Warehouse	
Size/Units:	6,469 gsf		84 DU		16,000 gsf		-5,000 gsf	
Trip Generation:	(1)		(1)		(1)		(2)	
Weekday	205.0		8.075		175.0		2.36	
Saturday	240.0		9.6		231.0		0.20	
	per 1,000 sf		per DU		per 1,000 sf		per 1,000 sf	
Temporal Distribution:	(1)		(1)		(1)		(2)	
AM	3.0%		10.0%		5.0%		10.0%	
MD	19.0%		5.0%		6.0%		9.0%	
PM	10.0%		11.0%		10.0%		11.0%	
SAT	10.0%		8.0%		9.0%		33.0%	
Modal Splits:	(2)		(4)		(2)		(9)	
	All Periods		All Periods		AM/MD/PM	SAT	All Periods	
Auto	11.0%		15.2%		21.0%	14.0%	32.2%	
Taxi	0.0%		0.2%		3.0%	5.0%	1.0%	
Subway	3.0%		71.8%		14.0%	8.0%	42.0%	
Bus	2.0%		2.1%		4.0%	6.0%	6.9%	
Walk/Other	84.0%		10.7%		58.0%	67.0%	18.0%	
Total	100.0%		100.0%		100.0%	100.0%	100.0%	
In/Out Splits:	(3)		(5)		(7)(8)		(2)	
	In	Out	In	Out	In	Out	In	Out
AM	50%	50%	24%	76%	57%	43%	77%	23%
MD	50%	50%	50%	50%	46%	54%	53%	47%
PM	50%	50%	61%	39%	47%	53%	27%	73%
SAT	55%	45%	45%	55%	51%	49%	63%	37%
Vehicle Occupancy:	(2)		(3)(4)(6)		(2)		(3)	
			AM/PM	MD/SAT	AM/MD/PM	SAT		
Auto	1.20		1.09	1.53	1.58	1.90	1.30	
Taxi	1.20		1.30	1.82	1.58	1.90	1.30	
Truck Trip Generation:	(1)		(1)		(7)		(2)	
Weekday	0.35		0.06		0.35		0.91	
Saturday	0.04		0.02		0.04		0.08	
	per 1,000 sf		per DU		per 1,000 sf		per 1,000 sf	
Truck Temporal	(1)		(1)		(7)(8)		(2)	
AM	8.0%		12.0%		8.0%		9.9%	
MD	11.0%		9.0%		11.0%		8.0%	
PM	2.0%		2.0%		2.0%		7.0%	
SAT	11.0%		9.0%		11.0%		28.0%	
Truck In/Out Splits:	In	Out	In	Out	In	Out	In	Out
AM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	67.0%	33.0%
MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	57.0%	43.0%
PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	60.0%	40.0%
SAT MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	42.0%	58.0%

(1) Based on data from the 2020 *City Environmental Quality Review* (CEQR) *Technical Manual* .
(2) Based on NYCDOT survey data
(3) Based on data from the 2015 *East New York Rezoning Proposal FEIS* .
(4) Based on ACS journey-to-work 5-Year (2014-2018) data for Brooklyn Census Tracts 117, 119, 121, 137 & 139
(5) Based on NYCDOT citywide residential survey data.
(6) Midday and Saturday vehicle occupancy determined by applying a multiplier (1.4) to the AM/PM rate.
(7) Based on data from the 2017 Boulevard at Hylan Plaza Proposal FEIS.
(8) AM data is based on data from the 2014 *Astoria Cove Development FEIS* .
(9) Based on AASHTO CTPP reverse journey-to-work (2012-2016) data for Brooklyn Tracts 117, 119, 121, 137 & 139

The temporal distributions used in the forecast are 10 percent, 9 percent, 11 percent, and 33 percent for the weekday AM, midday, and PM, and Saturday midday peak hours. The modal splits for all peak hour periods were estimated to be 32.2 percent private auto, 1.0 percent taxi, 42.0 percent subway, 6.9 percent bus, and 18.0 percent walk/other, based on AASHTO CTPP reverse journey-to-work (2012-2016) data. The directional in/out splits used were 77/23, 53/47, 27/73, and 64/36 for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. The vehicle occupancy rate of 1.30 persons per auto and taxi were also based on the 2015 *East New York Rezoning Proposal FEIS*.

Travel Demand Forecast

Table F-2 presents the incremental vehicle trips and person trips expected to be generated by the RWCDS, as compared to conditions in the future without the proposed actions. As shown in **Table F-2**, the RWCDS would generate approximately 35, 48, 69, and 61 incremental vehicle trips in the weekday AM, midday, and PM peak hours, and Saturday midday peak hour, respectively, as compared to the No-Action Condition. It would also generate approximately 236, 390, 454, and 516 incremental person trips in the weekday AM, midday, and PM peak hours, and Saturday midday peak hour, respectively. A discussion of the incremental vehicle trips and person trips, by mode, is provided below.

Traffic

Based on the factors outlined above, an incremental increase of approximately 35, 48, 69, and 61 vehicle trips (in and out combined) would be generated as a result of the proposed actions during the weekday AM, midday, and PM, and Saturday midday peak periods, respectively (refer to **Table F-2**). Under *CEQR Technical Manual* criteria, if a proposed project generates 50 or more vehicle trips per peak hour, there is likely a need for further analysis. As the numbers of vehicle trips in the weekday PM and Saturday midday peak periods would exceed the 50-trip threshold, a Level 2 screening analysis is warranted to determine which, if any, intersections would require quantified analysis.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and cited in the *CEQR Technical Manual*, detailed transit analyses are generally not required if the proposed actions are projected to result in fewer than 200 peak hour rail or bus transit riders. If the proposed actions would result in 50 or more bus passengers being assigned to a single bus route in one direction, or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted. Transit analyses typically focus on the weekday AM and PM commuter peak hours, as it is during these periods that overall demand on the subway and bus systems is usually highest.

Based on the travel demand forecast shown in **Table F-2**, the proposed actions and associated RWCDS are expected to generate a net increase of approximately 67 and 97 incremental subway trips in the weekday AM and PM peak hours, respectively. As these subway trips would not exceed the 200-trip *CEQR Technical Manual* analysis threshold, a Level 2 screening analysis is not warranted. Additionally, the proposed actions are expected to generate six and 15 incremental bus trips in the weekday AM and PM peak hours,

TABLE F-2:
Travel Demand Forecast

Land Use:	Local Retail		Residential		Supermarket		Warehouse		Total	
Size/Units:	6,469 gsf		84 DU		16,000 gsf		-5,000 gsf			
Peak Hour Trips:										
AM	30		68		140		-2		236	
Midday	190		34		168		-2		390	
PM	100		76		280		-2		454	
Saturday	116		66		334		0		516	
Person Trips:										
AM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	2	2	2	8	17	13	-1	0	20	23
Taxi	0	0	0	0	2	2	0	0	2	2
Subway	0	0	12	37	11	8	-1	0	22	45
Bus	0	0	0	1	3	2	0	0	3	3
Walk/Other	13	13	2	6	47	35	0	0	62	54
Total	15	15	16	52	80	60	-2	0	109	127
MD	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	10	10	3	3	16	19	0	0	29	32
Taxi	0	0	0	0	2	3	0	0	2	3
Subway	3	3	12	12	11	13	-1	-1	25	27
Bus	2	2	0	0	3	4	0	0	5	6
Walk/Other	80	80	2	2	45	52	0	0	127	134
Total	95	95	17	17	77	91	-1	-1	188	202
PM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	6	6	7	4	28	31	0	-1	41	40
Taxi	0	0	0	0	4	4	0	0	4	4
Subway	2	2	34	21	18	21	0	-1	54	43
Bus	1	1	1	1	5	6	0	0	7	8
Walk/Other	41	41	5	3	76	87	0	0	122	131
Total	50	50	47	29	131	149	0	-2	228	226
SAT	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	7	6	5	6	24	23	0	0	36	35
Taxi	0	0	0	0	9	8	0	0	9	8
Subway	2	2	21	25	14	13	0	0	37	40
Bus	1	1	1	1	10	10	0	0	12	12
Walk/Other	53	44	3	4	113	110	0	0	169	158
Total	63	53	30	36	170	164	0	0	263	253
Vehicle Trips :										
AM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	2	2	2	7	11	8	-1	0	14	17
Taxi	0	0	0	0	1	1	0	0	1	1
Taxi (Balanced)	0	0	0	0	2	2	0	0	2	2
Truck	0	0	0	0	0	0	0	0	0	0
Total	2	2	2	7	13	10	-1	0	16	19
MD	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	8	8	2	2	10	12	0	0	20	22
Taxi	0	0	0	0	1	2	0	0	1	2
Taxi (Balanced)	0	0	0	0	3	3	0	0	3	3
Truck	0	0	0	0	0	0	0	0	0	0
Total	8	8	2	2	13	15	0	0	23	25
PM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	5	5	6	4	18	20	0	-1	29	28
Taxi	0	0	0	0	3	3	0	0	3	3
Taxi (Balanced)	0	0	0	0	6	6	0	0	6	6
Truck	0	0	0	0	0	0	0	0	0	0
Total	5	5	6	4	24	26	0	-1	35	34
SAT	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	6	5	3	4	13	12	0	0	22	21
Taxi	0	0	0	0	5	4	0	0	5	4
Taxi (Balanced)	0	0	0	0	9	9	0	0	9	9
Truck	0	0	0	0	0	0	0	0	0	0
Total	6	5	3	4	22	21	0	0	31	30

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 F-2**, the RWCDS would generate an incremental demand of approximately 189, 324, 365, and 428 total pedestrian trips (including walk-only trips and pedestrians en route to and from nearby subway stations, and bus stops) in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. As the numbers of trips in the weekday midday, PM, and Saturday midday periods would exceed the 200-trip threshold, a Level 2 screening analysis is warranted to determine which if any pedestrian elements would require quantified analysis.

V. LEVEL 2 SCREENING

Traffic

The assignments of incremental project-generated auto and taxi trips to the street network near the proposed rezoning area were based on the anticipated origins and destinations of vehicle trips associated with the different land uses projected under the RWCDS (i.e., residential, local retail, and supermarket). The origins/destinations of residential trips used for the assignments were based on 2014-2018 American Association of State Highway and Transportation Officials (AASHTO) Census Transportation Planning Products (CTTP) journey-to-work data for Brooklyn census tracts 117, 119, 121, 137, and 139. Origins/destinations for local retail and supermarket (commercial) uses that generate mostly local trips were based on population density in proximity to the rezoning area and surrounding neighborhoods within a half-mile radius. Auto and taxi trips were first assigned to various portals on the periphery of the Gowanus area and then via the most direct route to the project frontage on Ninth Street. Although drivers may park on-street in the area or at nearby off-street public parking facilities, assigning all trips to the project frontage can be considered a conservative approach with respect to the traffic impact analysis as it concentrates project traffic at intersections near the proposed rezoning area rather than dispersing it to outlying streets.

The assignment of net incremental peak hour vehicle trips during the weekday PM and Saturday midday peak hours at intersections near the proposed rezoning area are shown in **Figure F-1**. As shown in **Figure F-1,** no intersection warranted detailed analysis, as none of the intersections near the proposed rezoning area would exceed the 50-trip *CEQR Technical Manual* analysis threshold during any peak hour.

Pedestrians

Incremental project-generated pedestrian trips were assigned to area pedestrian elements during any peak hour. In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to projected development sites, as well as along corridors connecting these development sites to nearby subway station entrances. In the midday and Saturday peak hours, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping, and/or errands. The assignment of net incremental peak hour pedestrians trips during the weekday midday and PM and Saturday midday peak hours are shown in **Figure F-2**.

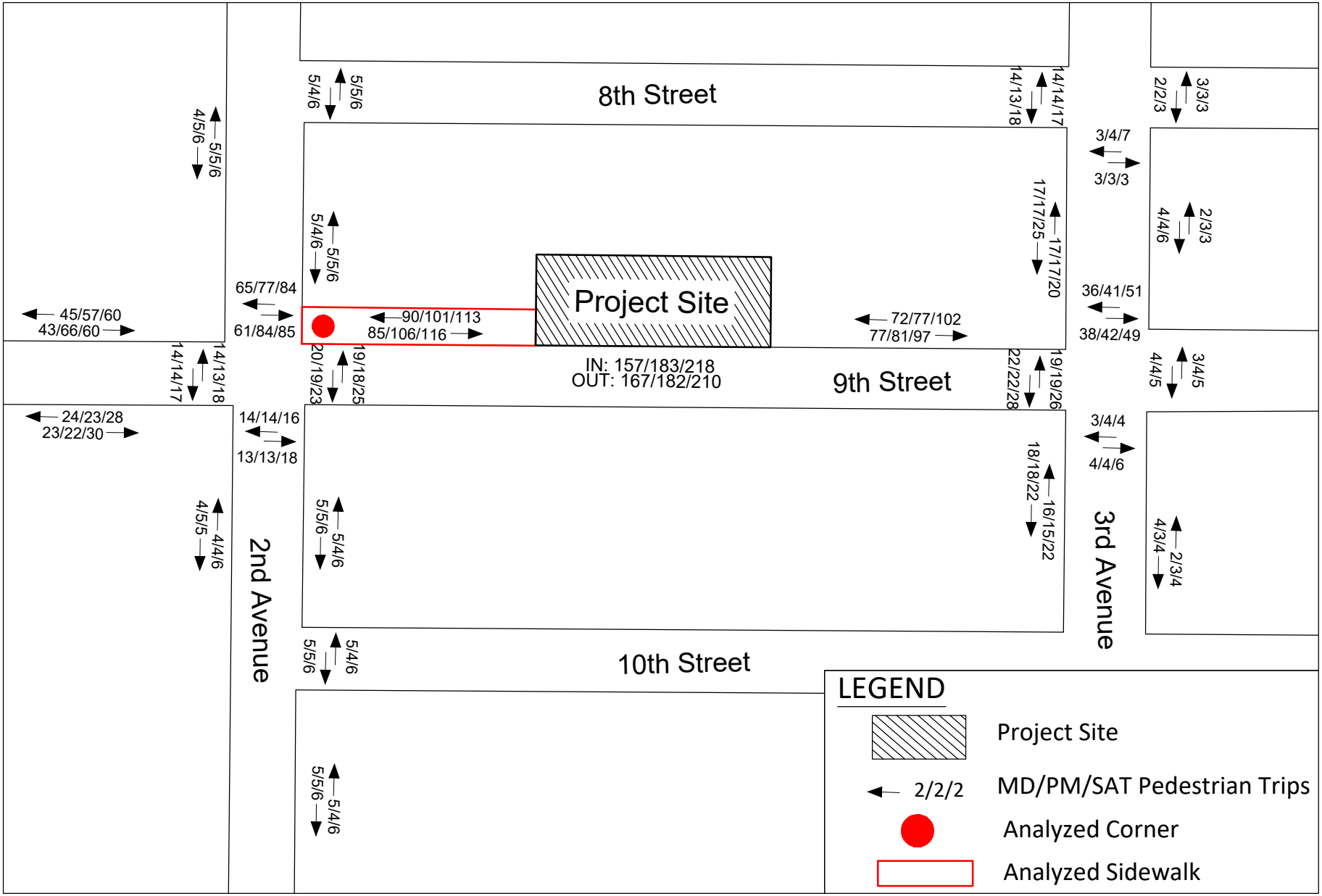
As shown in **Figure F-2**, two pedestrian elements (one corner and one sidewalk) have been selected for detailed analysis as the RWCDS would exceed the 200-trip *CEQR Technical Manual* analysis threshold during any peak hour. Conditions at the northeast corner of Second Avenue and Ninth Street and on the

Project Generated Incremental PM/Saturday Trips



Figure F-2

Project Generated Incremental MD/PM/Saturday Pedestrian Trips



north sidewalk along Ninth Street between Second and Third Avenues have been analyzed during the weekday PM and Saturday midday peak hours.

Parking

Under *CEQR Technical Manual* guidance, on- and off-street parking analyses may be warranted if a quantified traffic analysis is necessary based on the Levels 1 and 2 screening analyses. Based on the screening analyses detailed above, a quantified traffic analysis would not be warranted for the proposed actions and associated RWCDS. Therefore, based on *CEQR Technical Manual* guidance, quantified on- and off-street parking analyses would also not be warranted.

VI. TRANSPORTATION ANALYSES METHODOLOGIES FOR PEDESTRIANS

Analysis Methodology

Data on peak period pedestrian flow volumes were collected along the analyzed elements near the two projected development sites in October/November 2020. The counts were supplemented with crosswalk counts at Second Avenue and Ninth Street from May 2019. It should be noted that these supplemental counts were used to adjust the 2020 counts to reflect volumes before the COVID-19 pandemic and construction adjacent to the northeast corner of Second Avenue and Ninth Street.[1] Peak hours were determined by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were used for analysis. Based on existing peak pedestrian volumes along major corridors in the study area, the peak hours selected for analysis include the weekday PM (4:45 PM - 5:45 PM) and Saturday midday (1:45 PM -2:45 PM) periods.

Peak 15-minute pedestrian flow conditions are analyzed using the *Highway Capacity Manual 2010* 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-minute 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 F-3** defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, using the *Highway Capacity Manual* methodology.

[1] According to Department of Buildings (DOB) records, the construction at 69 Second Avenue (Block 1002, Lot 1) on the subject block involves structural improvements to the existing two-story, approximately 40,000 gsf industrial building. No change in use, occupancy or building expansion is being considered at this time.

TABLE F-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: 2020 *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

Corner Areas and Crosswalks

For CBD areas, *CEQR Technical Manual* impact criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action condition is greater than 21.5 sf/ped and, under the With-Action condition, the average pedestrian space decreases to 19.5 sf/ped or less (mid-LOS D or worse). If the pedestrian space under the With-Action condition is greater than 19.5 sf/ped (mid-LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 21.5 sf/ped, a decrease in pedestrian space under the With- Action condition should be considered significant based on **Table F-4** which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in **Table F-4**, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

TABLE F-4: Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Condition Pedestrian Space (sf/ped)			With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
> 21.5			With-Action Condition < 19.5
21.3	To	21.5	Reduction ≥ 2.1
20.4	To	21.2	Reduction ≥ 2.0
19.5	To	20.3	Reduction ≥ 1.9
18.6	To	19.4	Reduction ≥ 1.8
17.7	To	18.5	Reduction ≥ 1.7
16.8	To	17.6	Reduction ≥ 1.6
15.9	To	16.7	Reduction ≥ 1.5
15	To	15.8	Reduction ≥ 1.4
14.1	To	14.9	Reduction ≥ 1.3
13.2	To	14	Reduction ≥ 1.2
12.3	To	13.1	Reduction ≥ 1.1
11.4	To	12.2	Reduction ≥ 1.0
10.5	To	11.3	Reduction ≥ 0.9
9.6	To	10.4	Reduction ≥ 0.8
8.7	To	9.5	Reduction ≥ 0.7
7.8	To	8.6	Reduction ≥ 0.6
6.9	To	7.7	Reduction ≥ 0.5
6	To	6.8	Reduction ≥ 0.4
5.1	To	5.9	Reduction ≥ 0.3
< 5.1			Reduction ≥ 0.2

Source: 2020 *CEQR Technical Manual*

Sidewalks

The *CEQR Technical Manual* impact criteria for a central business district (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 F-5**, 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 F-5**, 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.

TABLE F-5: 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: *2020 CEQR Technical Manual*

Pedestrian and Vehicular Safety Evaluation

Pursuant to *CEQR Technical Manual* guidance, 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 projected development sites are 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 NYCDOT.

VII. DETAILED PEDESTRIAN ANALYSIS

Existing Conditions

As discussed previously in Section V, "Level 2 Screening Assessment," two pedestrian elements (one corner and one sidewalk) have been selected for detailed analysis, as the RWCDS would exceed the 200-trip *CEQR Technical Manual* analysis threshold during any peak hour. As shown previously in **Figure F-2**, the analyzed pedestrian elements include the northeast corner of Second Avenue and Ninth Street, and the north sidewalk along Ninth Street between Second and Third Avenues near the proposed rezoning area.

Sidewalks

The analyzed sidewalk along the north side of Ninth Street fluctuates between approximately 7.5 feet and 12 feet in width. Existing pedestrian volumes on the analyzed sidewalk are relatively low, with approximately 130 persons per hour or less in each analyzed peak period. **Table F-6** shows the existing peak hour volumes, pedestrian space (in square feet per pedestrian) and LOS at the analyzed corner and sidewalk. As shown in **Table F-6**, the analyzed sidewalk is currently operating at LOS B in weekday PM and Saturday midday peak hours.

TABLE F-6: 2020 Existing Conditions Sidewalk Analysis [1]

No.	Location		Effective Width (ft.)	Peak Hour Volumes [2]		Average Pedestrian Space (ft. [2]/ped)		Platoon-Adjusted LOS	
				PM	SAT	PM	SAT	PM	SAT
S1	9th Street between 2nd and 3rd Avenues	North side	2.0	126	122	191.4	192.4	B	B

Notes: [1] Pedestrian counts were performed in October, 2020 and adjusted based on counts from 2018 (Pre-Covid-19 & corner construction)
[2] Peak hour volumes include both eastbound and westbound pedestrians.

Corner Area

Table F-7 shows the Existing peak hour volumes, average pedestrian space (in sf/ped) and levels of service at the analyzed corner area. As shown in **Table F-6**, the analyzed corner area currently operates at a LOS A in all analyzed peak hours.

TABLE F-7: 2020 Existing Conditions Corner Area Analysis [1]

No.	Location		Peak Hour Volumes [2]		Average Pedestrian Space (ft. [2]/ped)		LOS	
			PM	SAT	PM	SAT	PM	SAT
C1	9th Street and 2nd Avenue	NE	9	3	757.8	837.2	A	A

Notes: [1] Pedestrian counts were performed in October, 2020 and adjusted based on counts from 2018 (Pre-Covid-19 & corner construction)
[2] Peak hour volumes are around the corner

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

Estimates of peak hour volumes in the No-Action condition were developed by applying the *CEQR Technical Manual* recommended annual background growth rate to existing volumes. As *per CEQR Technical Manual* guidance, an annual background growth rate of 0.5 percent was assumed for the first five years and 0.25 percent for remaining period to 2026. This background growth rate is applied to account for general increases in travel demand not attributable to specific development projects in proximity to the study area. Also, two known developments, 521 Third Avenue and 197 9th Street (within a quarter-mile of the Project Area), would be completed by the 2026 and are accounted for in the No-Action condition. It should be noted that all other developments (within a quarter-mile of the Project Area and anticipated to be completed by the 2026) would fall below minimum development densities for potential transportation analysis (as defined in Table 16-1 in the *CEQR Technical Manual*) and are assumed to be accounted for in background growth.

Sidewalks

Table F-8 shows the forecasted No-Action peak hour volumes, average pedestrian space (in square feet per pedestrian) and LOS at the analyzed sidewalk. As shown in **Table F-8,** the analyzed sidewalk is expected to operate at LOS B in the weekday PM and Saturday midday peak hours under 2026 No-Action conditions. As such, no degradation in level of service is expected between the Existing and No-Action conditions on the analyzed sidewalk in any analyzed peak hour.

TABLE F-8: 2026 No-Action Conditions Sidewalk Analysis

No.	Location		Effective Width (ft.)	Peak Hour Volumes [1]		Average Pedestrian Space (ft. 2/ped)		Platoon-Adjusted LOS	
				PM	SAT	PM	SAT	PM	SAT
S1	9th Street and 2nd Avenue	North side	2.0	169	139	142.6	168.8	B	B

Notes:[1] Peak hour volumes include both eastbound and westbound pedestrians

Corner Area

Table F-9 shows the No-Action peak hour volumes, average pedestrian space (in sf/ped) and levels of service at the analyzed corner area. As shown in **Table F-9**, the analyzed corner area would continue to operate at a LOS A in all analyzed peak hours. As such, no degradation in level of service is expected between the Existing and No-Action conditions on the analyzed corner in any analyzed peak hour.

TABLE F-9: 2026 No-Action Conditions Corner Area Analysis

No.	Location		Peak Hour Volumes [2]		Average Pedestrian Space (ft. [2]/ped)		LOS	
			PM	SAT	PM	SAT	PM	SAT
C1	9th Street and 2nd Avenue	NE	13	5	581.8	730.2	A	A

Notes:[1] Peak Hour Volumes are around the corner

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

As shown in **Table F-2**, the proposed actions and associated RWCDS are expected to generate a net total of approximately 253 and 327 walk-only trips in the weekday PM and Saturday midday peak hours, respectively. Persons en route to and from subway station entrances and bus stops would add approximately 112 and 101 additional pedestrian trips to the Project Area during the weekday PM and Saturday midday peak hours. These pedestrian volumes were added to the projected No-Action volumes to generate the With-Action pedestrian volumes for analysis.

Sidewalks

Table F-10 shows the forecasted With-Action peak hour volumes, average pedestrian space (in square feet per pedestrian) and LOS at the analyzed sidewalk. As shown in **Table F-10**, the analyzed sidewalk is expected to experience a degradation of level of service from the No-Action condition to the With-Action conditions from a LOS B to an acceptable LOS C in both analyzed peak hours. No significant adverse impact is therefore anticipated to occur at this sidewalk as a result of the proposed actions and associated RWCDS based on *CEQR Technical Manual* impact criteria.

TABLE F-10: 2026 With-Action Conditions Sidewalk Analysis

No.	Location		Effective Width (ft.)	Peak Hour Volumes [1]		Average Pedestrian Space (ft. [2]/ped)		Platoon-Adjusted LOS	
				PM	SAT	PM	SAT	PM	SAT
S1	9th Street and 2nd Avenue	North side	2.0	376	368	63.4	63.0	C	C

Corner Area

Table F-11 shows the With-Action peak hour volumes, average pedestrian space (in sf/ped) and levels of service at the analyzed corner area. As shown in **Table F-11**, the analyzed corner area would continue to operate at a LOS A in all analyzed peak hours with no degradation in level of service is expected between the No-Action and With-Action conditions. No significant adverse impact is therefore anticipated to occur at this corner as a result of the proposed actions and associated RWCDS based on *CEQR Technical Manual* impact criteria.

TABLE F-11: 2026 With-Action Conditions Corner Area Analysis

No.	Location		Peak Hour Volumes [2]		Average Pedestrian Space (ft. [2]/ped)		LOS	
			PM	SAT	PM	SAT	PM	SAT
C1	9th Street and 2nd Avenue	NE	22	17	280.0	282.0	A	A

Notes:[1] Peak hour volumes are around the corner

VIII. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Per *CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These 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. (Reportable accidents are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage.)

Table F-12 below shows summary crash data for the intersections of Ninth Street and Second Avenue and Ninth Street and Third Avenue for the three-year reporting period between January 1, 2016 and December 31, 2018 that were obtained from NYSDOT.[2] The table shows the total number of crashes each year, the number of crashes each year involving pedestrians and cyclists and the total number of crashes each year involving pedestrians and cyclists at intersections in proximity to the project site where the majority of new vehicular and pedestrian trips would be concentrated.

TABLE F-12: Crash Data Summary 2016 – 2018

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian & Bicycle Injury Crashes			Total Crashes (Reportable & Non-Reportable)		
North-South Roadway	East-West Roadway	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
9th Street	2nd Avenue	0	0	0	1	0	0	1	0	0	2	1	0
	3rd Avenue	3	1	1	0	0	1	3	1	2	4	2	6

Source: NYSDOT/DMV

As shown in **Table F-12**, no intersections were found to have experienced a total of 48 or more crashes or experienced five or more pedestrian and/or bicyclist injury crashes in one or more years. In 2016, the intersection of Ninth Street and Second Avenue experienced a total of two crashes, one of which was bicycle related and another that was motor vehicle related. In the same year, the intersection of Ninth Street and Third Avenue experienced a total of four crashes, consisting of one motor vehicle crash and three pedestrian injury crashes. The intersection of Ninth Street and Second Avenue experienced one vehicle motor crash in 2017 and no crashes in 2018. The intersection of Ninth Street and Third Avenue experienced two crashes (one motor related, one pedestrian related) in 2017 and six crashes (four motor related, one pedestrian related, and one bicycle related) in 2018. Between the two intersections a total of 15 crashes were reported during the three-year period for which data is available. Therefore, neither intersection would be considered a high crash location per *CEQR Technical Manual* guidance.

[2] This is the most recent three-year period for which data is available.

ATTACHMENT G

AIR QUALITY

I. INTRODUCTION

The applicant is seeking a zoning map and zoning text amendments and a special permit to facilitate the development of the applicant-owned site (known as projected development site 1) at 153-157 9th Street (Block 1002, Lots 48, 49, and 50) in the Gowanus neighborhood of Brooklyn. The applicant is proposing to build a 9-story (95-foot tall) mixed-use residential and commercial building with approximately 56,000 gross square feet (gsf).[1] Under the Reasonable Worst Case Development Scenario (RWCDS), the proposed zoning changes would also allow for the development of another mixed-use residential and commercial building on Lots 43 and 45 (known as projected development site 2) of the same block. Lots 43 and 45 would be combined to form a single zoning lot that would be redeveloped with a 9-story, approximately 38,231 gsf, mixed-use residential and commercial building. Projected development sites 1 and 2, represent the RWCDS for the purpose of this analysis. **Figure G-1** shows the location of the two projected development sites and **Figures G-2 and G-3** provide the RWCDS 3-D massing and configurations for the two projected developments.

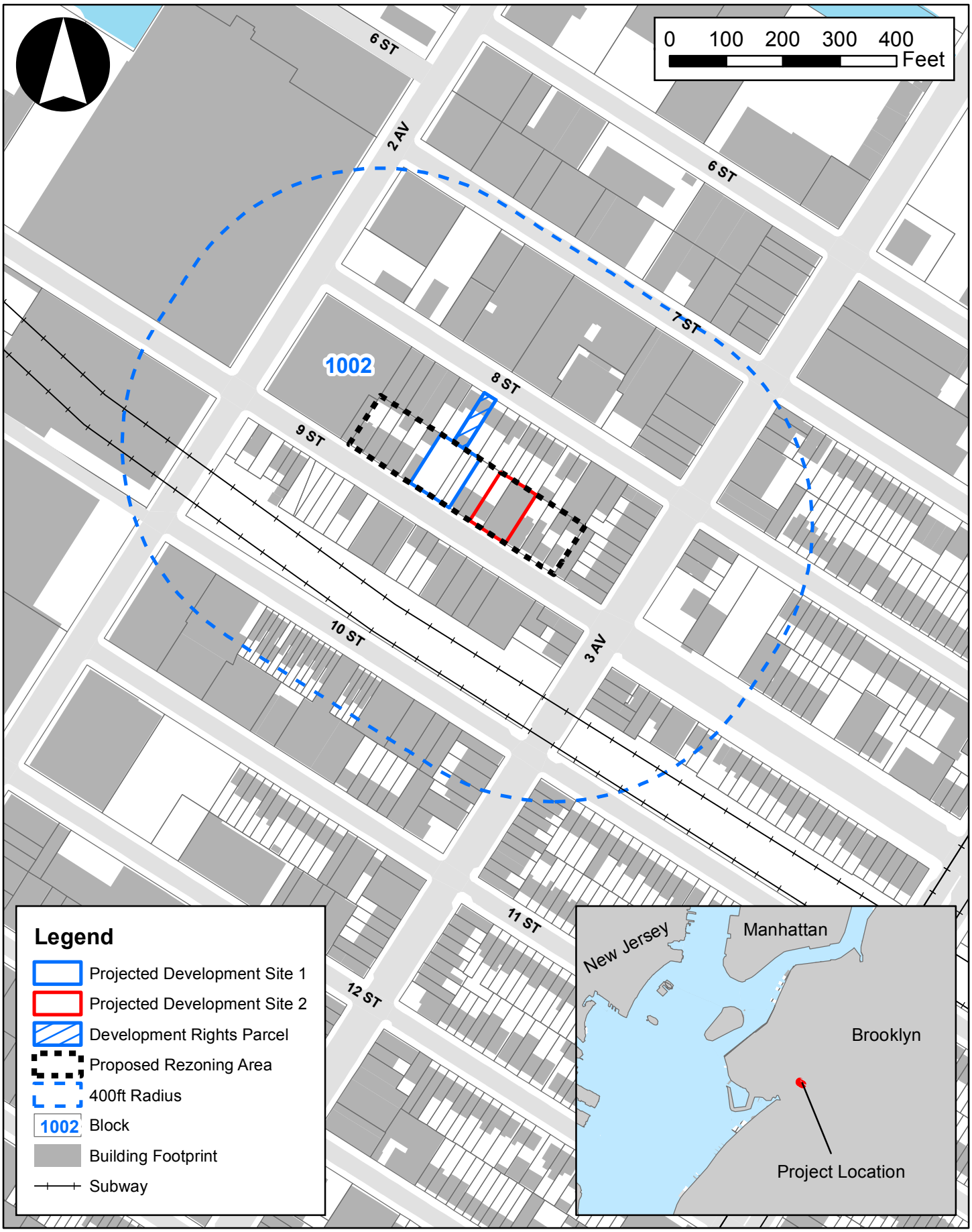
As the two projected development sites would be located near each other (approximately 43 feet apart), emissions from the heating, ventilation, and air conditioning (HVAC) systems of each of the RWCDS buildings could potentially and adversely affect the other RWCDS building. Therefore, pursuant to *New York City Environmental Quality Review (CEQR) Technical Manual* guidance, a project-on-project HVAC analysis was conducted.

As there are no existing or anticipated buildings taller or the same height as the two RWCDS buildings within 400 feet of the proposed rezoning area and no major or large combustion sources are located within 1,000 feet radius of the rezoning area, no project-on-existing HVAC analyses or major source analyses are warranted. However, the presence of existing industrial sources within 400 feet of the projected development sites warrants an analysis to determine whether the air toxic emissions from the industrial sources have the potential to affect significantly the projected development. The air quality project-on-project HVAC analysis and air toxics analysis were conducted following the procedures and methodologies prescribed in the *CEQR Technical Manual*.

As presented in **Attachment B, "Supplemental Screening,"** an analysis of the potential mobile source impacts of the Proposed Actions was not warranted. The maximum hourly incremental traffic volumes generated by the projected developments would not exceed the carbon monoxide (CO) screening threshold of 170 peak hour vehicle trips at a single intersection in the study area. Project-generated volumes would not exceed the particulate matter (PM) emission screening thresholds discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a quantitative assessment of emissions from action-generated traffic was not warranted.

[1] The proposed RWCDS mixed-use development at projected development site 1 would use approximately 3,300 sf of commercial development rights transferred from the abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16), also under the applicant's control, which would not be included within the proposed rezoning area. No changes are anticipated to the Development Rights Parcel with or without the proposed actions.

Figure G-1
Site Location Map





Gowanus Ninth Street Rezoning EAS

Figure G-2
Preliminary 3D-Massing for Projected Development Site 1



Gowanus Ninth Street Rezoning EAS

Figure G-3
Preliminary 3D-Massing for Projected Development Site 2

II. PRINCIPAL CONCLUSIONS

As presented in this attachment, the detailed stationary source HVAC analysis determined that there would be no potential for significant adverse stationary source air quality impacts from the emissions from HVAC systems with the placement of (e) designations on the two projected development sites (Block 1002, Lots 43, 45, 48, 49, and 50). The (e) designation on Block 1002, Lots 43, 45, 48, 49, and 50 would restrict fuel oil and HVAC stack location. In addition, the analysis of emissions from nearby industrial sources determined that no significant adverse impacts would result from air toxics related to industrial sources.

III. STATIONARY SOURCE HVAC ANALYSIS

Relevant Air Pollutants

The U.S. Environmental Protection Agency (EPA) has identified several pollutants, which are known as criteria pollutants, as being of concern nationwide. As the two RWCDS buildings would likely 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 ($PM_{2.5}$) – are considered for analysis.

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants to protect public health and the nation's welfare, and New York has adopted the NAAQS as the State ambient air quality standards. This analysis addressed compliance of the potential impacts with the 1-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 criterion (based on concentration increments) developed by New York City Department of Environmental Protection (DEP) to determine whether 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 significant. This analysis addressed compliance of the potential $PM_{2.5}$ impacts with the 24-hour/annual $PM_{2.5}$ *CEQR* significant impact criteria, as well as its respective NAAQS.

The current standards that were applied to this analysis, together with their health-related averaging periods, are provided in **Table G-1**.

Table G-1: Applicable National Ambient Air Quality Standards and *CEQR* Significant Impacts Criteria

Pollutant	Averaging Period	NAAQS	*CEQR* Significant Impact Criteria
NO_2	1 Hour	0.10 ppm (188 µg/m^3)	
	Annual	.053 ppm (100 µg/m^3)	
$PM_{2.5}$	24 Hour	35 µg/m^3	8.6 µg/m^3
	Annual	12 µg/m^3	0.3 µg/m^3

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter
Source: *US Environmental Protection Agency, "National Primary and Secondary Ambient Air Quality Standards." (49 CFR 50) (www.epa.gov/air/criteria.html) and New York State Department of Environmental Conservation (http://www.dec.ny.gov/chemical/8542.html.*

NO_2 NAAQS

Nitrogen oxide (NOx) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions is then gradually converted to NO_2, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the U.S. EPA has developed a modelling approach for estimating one-hour NO_2 concentrations that are comprised of three tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2; Tier 2 ARM2 applies ambient NOx/NO_2 ratio to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module to account for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

Based on New York City Department of Planning (DCP) guidance, Tier 1, as the most conservative modelling approach, should initially be applied as a preliminary screening tool to determine whether violations of the NAAQS could potentially occur. If exceedances of the 1-hour NO_2 NAAQS occur under Tier 1, the less conservative Tier 2 and then Tier 3 approaches should be applied.

The annual NO_2 standard is 0.053 parts per million (ppm or 100 ug/m^3). To conservatively estimate annual NO_2 impacts, a NO_2 to NOx ratio of 0.75 percent, which is recommended by the DEP for an annual NO_2 analysis, should be applied.

$PM_{2.5}$ 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 latest three-year (2017-2019) average of 98th percentile 24-hour $PM_{2.5}$ background concentration from the nearest monitoring station to the development sites at Brooklyn JHS 126 (F) monitoring station is 17.8 ug/m^3. Half the difference between the 24-hour $PM_{2.5}$ NAAQS of 35 ug/m^3 and the background value of 17.8 ug/m^3 is 8.6 ug/m^3. As such, a significant impact threshold of 8.6 ug/m^3 was used for determining whether the potential 24-hour $PM_{2.5}$ impact for the development is 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 ug/m^3 at any receptor location for stationary sources.*

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

Emissions from the With-Action RWCDS Buildings

The RWCDS developments at projected development sites 1 and 2 would have independent HVAC systems, would be approximately 43 feet from each other, and would be the same height. As such, the HVAC emissions from each building has the potential to adversely affect the other building. The potential for greater effects would likely occur on projected development site 2 given that the RWCDS on projected development site 1 would be a larger development (i.e., include more floor area) and, therefore, would have higher HVAC emissions.

CEQR HVAC Screening Analysis

According to *CEQR Technical Manual* guidance, a preliminary screening analysis is recommended as a first step to predict whether the potential impacts of the project would be significant. Based on *CEQR* guidance, a preliminary screening analysis was conducted to predict whether the potential impacts of the HVAC emissions would be significant, and a detailed analysis would be required. The *CEQR* screening procedure is applicable to single buildings that are more than 30 feet apart from the nearest building of similar or greater height.

The total square footage of each of RWCDS building was used in the analysis, and the conservative generic nomograph shown on Figure 17-3 of the *CEQR Technical Manual* "Stationary Source Screen," for a corresponding stack height, was applied. This nomograph depicts the size of a development versus the distance below which a potential impact could occur and provides a threshold distance. As required by the *CEQR* screening procedure, the curve in Figure 17-3 that was applied is the one with a stack height that is closest to but not higher than the stack height of proposed buildings (with an assumed 3-foot stack above each roof).

If the actual distance between a building with an HVAC stack and an 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.

Results of the screening analysis for the project-on-project are that neither RWCDS building would pass the screening analysis because the actual distance (approximately 43 feet) is less than the threshold distance from Figure 17-3, which would be 110 feet for Site 1 and 95 feet for Site 2, respectively (see **Figure G-4**). As such, a detailed stationary source HVAC analysis is warranted for both projected development sites.

As described previously, there are no existing or planned buildings that are taller than the projected developments at Sites 1 and 2 within 400 feet of the project area. As shown in **Figure G-5**, the plotted point on Figure 17-3 corresponding to the size of projected developments against the distance to the nearest building of a height similar to or greater than the projected buildings would fall below the applicable curve at the maximum 400 feet distance (see Figure G-5). Therefore, both projected development sites would pass the project-on-existing screening analysis because the actual distances between the projected development sites and taller nearby existing buildings would be greater than the maximum 400 feet distance shown in **Figure G-5**.

Figure G-4: Project-on-Project Screening Analysis

WARNING: These printed materials may be out of date.
Please ensure you have the current version that can be found on www.nyc.gov/oec.

Figure 17-3:
Stationary Source Screen

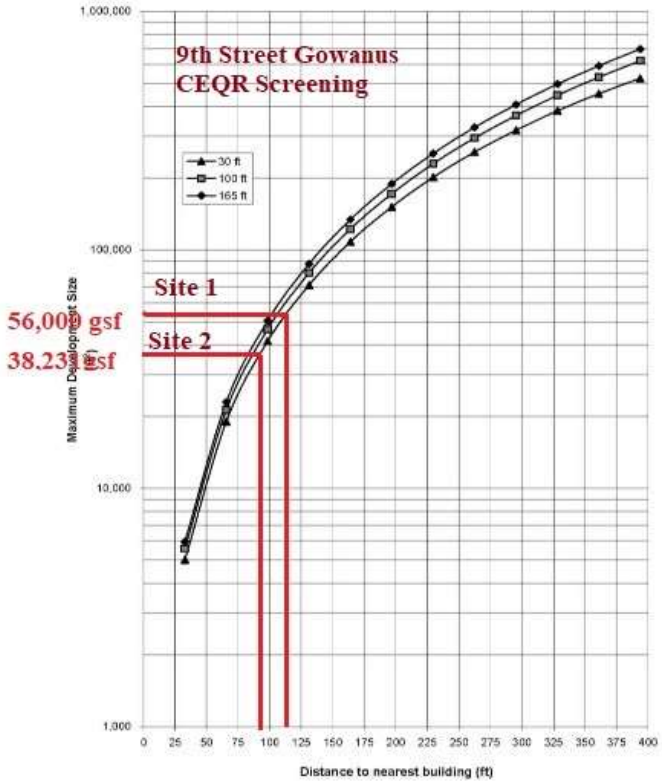
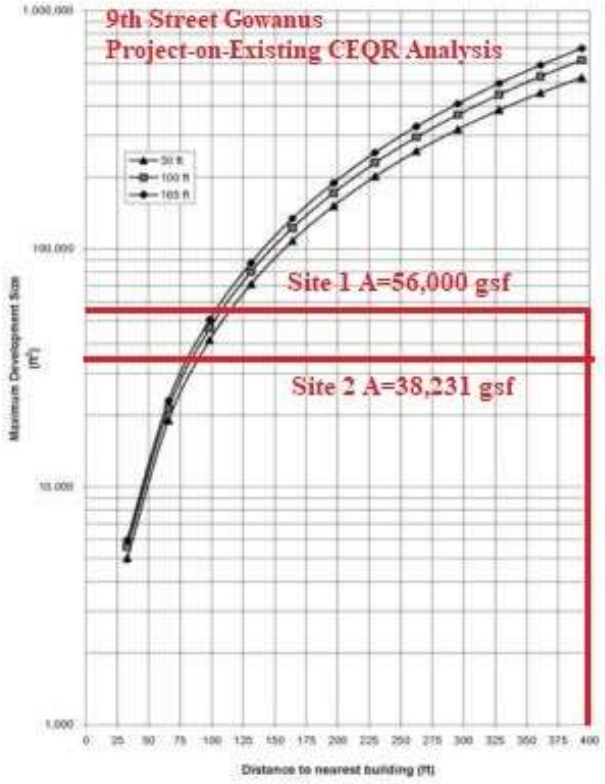


Figure G-5: Project-on-Existing Screening Analysis

WARNING: These printed materials may be out of date.
Please ensure you have the current version that can be found on www.nyc.gov/oec.

Figure 17-3:
Stationary Source Screen



Dispersion Analysis

The dispersion analysis was conducted using the latest version of EPA's AERMOD dispersion model 9.0 (EPA version 19191). AERMOD is a steady-state plume model is an applicable in rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). It can be used to calculate pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability of calculating pollutant concentrations at locations when the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures.

Under *CEQR Technical Manual* guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. The analysis was conducted with and without the effects of wind flow around the With-Action RWCDS buildings (i.e., with and without downwash) and both sets of results are reported.

Emission Rates

Under RWCDS, mixed-use residential and commercial buildings would likely be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to gross square foot (gsf) of building served by the boiler and EPA AP-42 emission factors for firing natural gas combustion in small boilers, as follows:

- $PM_{2.5}$ emission factor from natural gas combustion is 7.6 pounds per million cubic feet (accounted for both filterable and condensable particulates); and

- NO_2 uncontrolled emission factor is 100 pounds per million cubic feet.

The natural gas fuel usage factor of 58.5 cubic feet per square foot per year for residential use was obtained from *CEQR Technical Manual* Air Quality Appendix, Table US1, Total Energy Consumption, Expenditures and Intensities, 2005, Part I: Housing Unit Characteristics and Energy Use Indicators. Although the RWCDS buildings would be mixed-use and include residential and commercial uses, the fuel usage factor for residential use was selected for this analysis, as it is more conservative.

Stack Parameters and Emission Rates

The stack diameter and exit velocity were obtained from DEP's "CA Permit" database that contains data for the various boiler sizes (i.e., rated heat input or MMBtus per hour). The maximum boiler size was estimated based on the assumption that all fuel (natural gas) would be consumed during the 100-days (or 2,400-hour) heating season. A seasonal emission factor for the winter season was set as 1.0 and, based on DCP guidance; seasonal emission factors of 0.5 were applied for each of the three other seasons of the year. The stack exit temperature was assumed to be 300° F (423° K), which is appropriate for building boilers. Estimated $PM_{2.5}$ and NO_2 emission rates for projected development sites 1 and 2 are provided in **Table G-2**.

Table G-2: Estimated Short-term and Annual Pollutant Emission Rates

Building ID	Block/Lot	Receptor Building	Stack Height (1)	Total Floor Area	$PM_{2.5}$ Emission Rate (2)		NO_2 Emission Rate	
			feet	GSF	g/sec	g/sec	g/sec	g/sec
					24-hr.	Annual	1-hr.	Annual
Site 1	1002/48,49,50	Site 2	107	56,000	1.31E-03	3.58E-04	1.72E-02	4.71E-03
Site 2	1002/43,45	Site 1	107	38,231	8.92E-04	2.44E-04	1.17E-02	3.22E-03

1.S tack height would be on the bulkhead at 104 feet above grade plus 3 feet.

2.P $M_{2.5}$ 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).

Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2015-2019). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. These data were processed by Trinity Consultants, Inc. using the current EPA AERMET and EPA procedures. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five years.

Five years of meteorological data were combined into a single multiyear file to conduct 24-hour $PM_{2.5}$ and 1-hour NO_2 modelling. The $PM_{2.5}$ special procedure, which is incorporated into AERMOD, calculates concentrations at each receptor for each year modelled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the five-year averaged highest values.

Background Concentrations

The annual three-year average $PM_{2.5}$ concentration Brooklyn JHS 126 monitoring station is 7.6 ug/m3. However, the Brooklyn station does not monitor hourly NO_2 or ozone background concentrations. Therefore, in case a Tier 3 analysis is required, these data were developed from monitoring data collected by the New York State Department of Conservation (NYSDEC) at Queens College 2 monitoring station for 2015-2019 and compiled into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format for use in the AERMOD modeling runs.

The background concentrations for NO_2 were obtained from Queens College 2 monitoring station for 2017-2019, as follows:

- The average 1-hour NO_2 background concentration is 55.1 ppb or 103.6 ug/m^3 which is three-year average of the 98th percentile of daily maximum 1-hour concentration, and
- The annual NO_2 background concentration is 14.6 ppb or 27.5 ug/m^3.

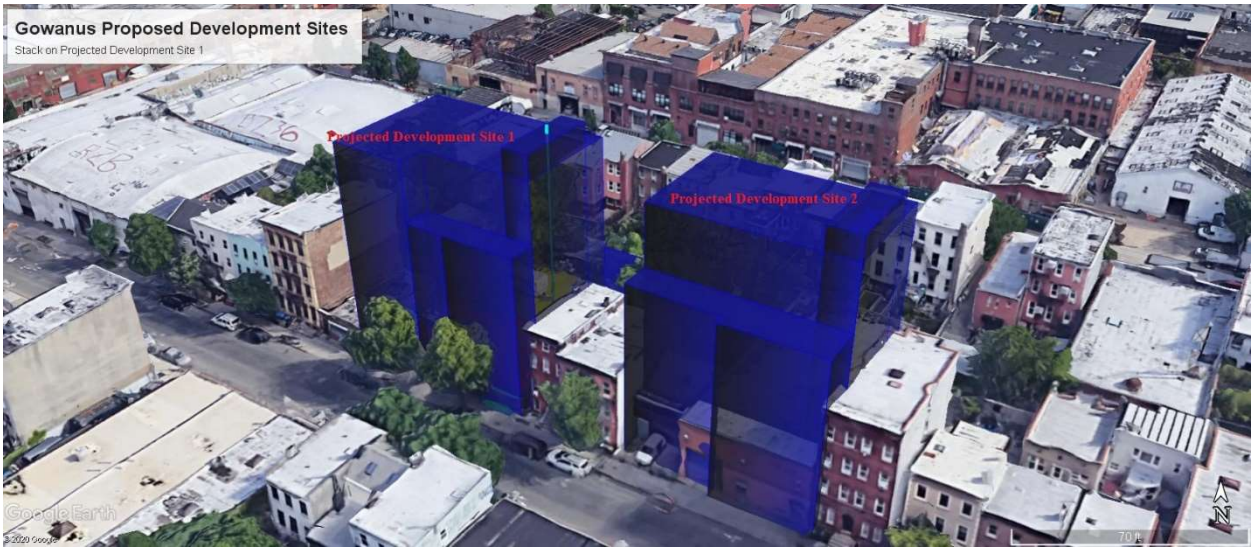
Stack and Receptor Locations

Based on the proposed zoning, the stack on each building is assumed located on a bulkhead that would be approximately 104 feet tall. As such, with three-foot tall stacks above the bulkheads, the height of each stack would be 107 feet.

Receptors were placed around all faces of each impacted building -- in 10-foot increments on all floor levels, starting above the ground and extending up to the height of upper windows (i.e., 90-foot, which would be 5 feet below roof level). Approximately 500 receptors were placed on each RWCDS building to ensure that the maximum impacts would be estimated. Additional receptors were placed on the recreational areas of Site 1 and Site 2 to capture all potential air quality impacts.

Because the windows (receptors) on each impacted building would be below the height of the stack, all receptors on the receptor buildings would be below the rising HVAC plume centerline (i.e., where the highest impacts are likely to occur), which should result in relatively low impacts. The view of the two RWCDS buildings along with existing land uses in Google Map are provided in **Figure G-6**.

Figure G-6: View of RWCDS at Projected Development Sites 1 and 2 in Google Map



Downwash

Building downwash occurs as wind flows over and around buildings and impacts the dispersion of pollution from the exhaust stack. Following *CEQR Technical Manual* guidance, dispersion analyses were
conducted with and without downwash, and both sets of results are reported. However, under the proposed configuration, with both buildings being the same height, downwash does not substantially affect the results.

Results

The predicted pollutant concentrations with and without downwash, which would be almost the same, are expected to be less than the applicable *CEQR* significant impact thresholds and NAAQS. Results of this analysis for both $PM_{2.5}$ and NO_2 are provided in **Tables G-3 through G-6**.

Particulates

With Downwash

Projected Development Site 1 on Projected Development Site 2

The maximum estimated 24-hour $PM_{2.5}$ impact of 0.27 ug/m^3 would be less than the 24-hour *CEQR* significant impact value of 8.6 ug/m^3 and the total concentration (which includes a background value of 17.8 ug/m^3) would be less than the 24-hour $PM_{2.5}$ NAAQS of 35 ug/m^3. The maximum annual $PM_{2.5}$ impact averaged over five years and the total concentration (which includes an annual background value of 7.6

ug/m^3) are expected to be less than *CEQR* annual significant impact value of 0.3 ug/m^3 and the annual $PM_{2.5}$ NAAQS of 12 ug/m^3, respectively.

Projected Development Site 2 on Projected Development Site 1

The maximum estimated 24-hour $PM_{2.5}$ impact of 0.1 ug/m^3 would be less than the 24-hour *CEQR* significant impact value of 8.6 ug/m^3 and the total concentration (which includes a background value of 17.8 ug/m^3) would be less than 24-hour $PM_{2.5}$ NAAQS of 35 ug/m^3. The maximum annual $PM_{2.5}$ impact averaged over five years and the total concentration (which includes a background value of 7.6 ug/m^3) are expected to be less than *CEQR* annual significant impact value of 0.3 ug/m^3 and the annual $PM_{2.5}$ NAAQS of 12 ug/m^3, respectively.

Without Downwash

Projected Development Site 1 on Projected Development Site 2

The maximum estimated 24-hour $PM_{2.5}$ impact of 0.1 ug/m^3 is expected to be less than the 24-hour *CEQR* significant impact value of 8.6 ug/m^3 and the total concentration (which includes a background value of 17.8 ug/m^3) is expected to be less than 24-hour $PM_{2.5}$ NAAQS of 35 ug/m^3. The maximum annual $PM_{2.5}$ impact averaged over five years and the total concentration (with a background value of 7.6 ug/m^3) are expected to be less than *CEQR* annual significant impact value of 0.3 ug/m^3 and the annual $PM_{2.5}$ NAAQS of 12 ug/m^3, respectively.

Projected Development Site 2 on Projected Development Site 1

The maximum estimated 24-hour $PM_{2.5}$ impact of 0.04 ug/m^3 is expected to be less than the 24-hour *CEQR* significant impact value of 8.6 ug/m^3 and the total concentration (which includes a background value of 17.8 ug/m^3) is expected to be less than 24-hour $PM_{2.5}$ NAAQS of 35 ug/m^3. The maximum annual $PM_{2.5}$ impact averaged over five years and the total concentration (with a background value of 7.6 ug/m^3) are expected to be less than *CEQR* annual significant impact value of 0.3 ug/m^3 and the annual $PM_{2.5}$ NAAQS of 12 ug/m^3, respectively.

The results of the $PM_{2.5}$ analysis indicated that with the stacks located on each RWCDS building's bulkhead $PM_{2.5}$ emissions from either building are not expected to significantly affect the other building -- with or without downwash.

Nitrogen Dioxide

With Downwash

Projected Development Site 1 on Projected Development Site 2

A Tier 1 analysis was sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS. The maximum 8th-highest maximum daily total 1-hour NO_2 concentration averaged over five-years, which includes a background concentration of 103.6 ug/m^3, is expected to be less than the 1-hour NO_2 NAAQS of 188 ug/m^3; the maximum total annual NO_2 concentration averaged over five years, which includes annual background concentration of 27.5 ug/m^3, is also expected to be less than the annual NO_2 NAAQS of 100 ug/m^3.

Projected Development Site 2 on Projected Development Site 1

A Tier 1 analysis was sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS. The maximum 8th-highest maximum daily total 1-hour NO_2 concentration averaged over five-years, which includes a background concentration of 103.6 ug/m^3, is expected to be less than the 1-hour NO_2 NAAQS of 188 ug/m^3; the maximum total annual NO_2 concentration averaged over five years, which includes annual background concentration of 27.5 ug/m^3, is also expected to be less than the annual NO_2 NAAQS of 100 ug/m^3.

Without Downwash

Projected Development Site 1 on Projected Development Site 2

A Tier 1 analysis was sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS. The maximum 8th-highest maximum daily total 1-hour NO_2 concentration averaged over 5-years, which includes background concentration of 103.6 ug/m^3, is expected to be less than the 1-hour NO_2 NAAQS of 188 ug/m^3; the maximum total annual NO_2 concentration averaged over 5 years, which includes annual background concentration of 27.5 ug/m^3, is also expected to be less than the annual NO_2 NAAQS of 100 ug/m^3.

Table G-3: $PM_{2.5}$ Analysis Results With Downwash (μg/m^3)

Building ID	Receptor Building	Maximum 24-hr. Impact	Maximum Annual Impact	*CEQR* Significant Impact Criteria	
				24-hour	Annual
Site 1	Site 2	0.27	0.02	8.6	0.3
		24-hour Average Conc.(1)	Annual Average Conc. (2)	NAAQS	
				24-hour	Annual
		18.0	7.6	35	12
Site 2	Site 1	Maximum 24-hour Impact	Maximum Annual Impact	*CEQR* Significant Impact Criteria	
				24-hour	Annual
		0.1	0.009	8.6	0.3
		24-hour Average Conc.(1)	Annual Average Conc. (2)	NAAQS	
				24-hour	Annual
		17.9	7.6	35	12

Note: 1-2. Includes 24-hr. and annual $PM_{2.5}$ background concentrations of 17.8 ug/m^3 and 7.6 ug/m^3, respectively.

Table G-4: $PM_{2.5}$ Analysis Results Without Downwash (µg/m³)

Building ID	Receptor Building	Maximum 24-hr. Impact	Maximum Annual Impact	*CEQR* Significant Impact Criteria	
				24-hour	Annual
Site 1	Site 2	0.1	0.002	8.6	0.3
		24-hour Average Conc. (1)	Annual Average Conc. (2)	NAAQS	
				24-hour	Annual
		µg/m³	µg/m³	µg/m³	µg/m³
		17.9	7.6	35	12
Site 2	Site 1	Maximum 24-hour Impact	Maximum Annual Impact	NAAQS	
				24-hour	Annual
		0.04	<0.001	8.6	0.3
		24-hour Average Conc. (1)	Annual Average Conc. (2)	NAAQS	
				24-hour	Annual
		17.8	7.6	35	12

Note: 1-2. Includes 24-hr. and annual $PM_{2.5}$ background concentrations of 17.8 ug/m³ and 7.6 ug/m³, respectively.

Table G-5: NO_2 Analysis Results With Downwash

Building ID	Receptor Building	1-hour Conc. (1)	Annual Conc. (2)	NAAQS 1-hr./Annual
		µg/m³	µg/m³	µg/m³
Site 1	Site 2	109.2	27.7	188/100
Site 2	Site 1	105.7	27.6	

Table G-6: NO_2 Analysis Results without Downwash

Building ID	Receptor Building	1-hour Conc. (1)	Annual Conc.(2)	NAAQS 1-hr./Annual
		µg/m³	µg/m³	µg/m³
Site 1	Site 2	107.1	27.5	188/100
Site 2	Site 1	104.9	27.5	188/100

Notes:
[1] Tier 1 Analysis
[2] Includes 1-hour and annual NO_2 background concentrations of 103.6 ug/m³ and 27.5 ug/m³, respectively.

Projected Development Site 2 on Projected Development Site 1

A Tier 1 analysis was sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS. The maximum 8th-highest maximum daily total 1-hour NO_2 concentration averaged over five-years, which includes background concentration of 103.6 ug/m³, is expected to be less than the 1-hour NO_2 NAAQS of 188 ug/m³; the maximum total annual NO_2 concentration averaged over five years, which includes annual background concentration of 27.5 ug/m³, is less than the annual NO_2 NAAQS of 100 ug/m³.

Therefore, NO_2 emissions from either RWCDS building would not significantly impact the other building -- with or without downwash.

(E) Designations

Based on the results of the stationary source HVAC analysis, an (E) designation will need to be placed on the applicant-owned projected development site 1 (Block 1002, Lots 48 to 50) and on projected development site 2 (Block 1002, Lots 43 and 45), which would restrict the stack location of each building's associated stack, as well as the limit the use to natural gas in HVAC systems. To ensure that there would be no significant air quality impacts from the proposed actions, the following restrictions would be placed on each of the projected development sites:

Block 1002, Lots 48, 49 and 50 (Applicant-Owned Projected Development Site 1)

> ***Any new residential and/or commercial development on the above-referenced property must utilize natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment, and ensure the stack is located on the highest tier and at least 107 feet above grade to avoid any potential significant adverse air quality impact.***

Block 1002, Lots 43 and 45 (Projected Development Site 2)

> ***Any new residential and/or commercial development on the above-referenced property must utilize natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment, and ensure the stack is located on the highest tier and at least 107 feet above grade and at least 43 feet from the western lot line of Lot 43 facing 2nd Avenue to avoid any potential significant adverse air quality impact.***

Results of the HVAC Analysis

The results of the stationary source HVAC project-on-project analysis indicated that no exceedances of applicable air quality standards or *CEQR* significant impact thresholds are predicted with the placement of an (E) designation on projected development sites 1 and 2 (Block 1002, Lots 43, 45, 48, 49, and 50) with restrictions for fuel oil and stack location requirements.

IV. INDUSTRIAL SOURCE 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. Based on a review of NYC OASIS mapping application land use, several industrial sources located within 400 feet of the projected development sites were identified. As such, an analysis was conducted to determine whether the proposed actions would result in significant air quality impacts. The first step in this analysis was to obtain the permits or permit applications for these industrial uses from DEP to determine type(s) of facilities that are operating nearby, as well as the types and amounts of emissions generated by these facilities. A formal request for this information, with nearby block and lot numbers, was submitted to the DEP, and, based on the information received, it was found that two facilities are permitted (DEP Permits PB005409 and PG001517) and currently operating within 400 feet of the projected development sites. The facility under PB005409 is for Ferraro Collision Corporation located at 442 Third Ave, Brooklyn, and the facility under PG001517 is for Longo Coffee and

Tea Inc. located at 142 Eighth Street, Brooklyn. Ferraro Collision Corp. is involved in car painting via spray booth, while Longo Coffee and Tea Inc. roasts coffee beans.

DEP Permit PB005409 for the Ferraro Collision Corporation

There are two pollutants are listed under PB005409 – solids under CAS NY-079-00 and VOC when VOC is presented as a total group under CAS NY998-00-0 with no individual components comprised the paint.

Based on general DEP recommendations related to the analysis of spray both facilities, the following procedures and assumption were applied:

1. If a permit does not have data on individual solvents (which is a group of volatile organic compounds [VOCs]) and/or if Material Safety Data Sheets (MSDSs) for the paint being used are not available, paint ingredients as representative composition by weight percent obtained from the generic report provided by DCP is used.
2. Unless there is information specifying the amounts of paint ingredients that remain on the painted cars and how much goes into the atmosphere during spray painting operations, 100 percent of the paint ingredients, regardless of volatility, would be evaporated and released into the atmosphere.
3. All 100 percent of particulates specified in the permits would be emitted into the atmosphere.
4. Solids specified in permits are considered as fractions of $PM_{2.5}$ and PM_{10} particles (not total particulate matter), and the percentages of $PM_{2.5}$ and PM_{10} in the total mass of particulate matter are estimated using the cumulative particle size distribution for surface coating operations via spray booths.
5. Separate analyses for $PM_{2.5}$ and PM_{10} from spray booth facility operations need to be conducted, predicted impacts are compared with *CEQR* significant impact criteria (for $PM_{2.5}$) and estimated concentrations (with added background concentrations) to applicable NAAQS (i.e., for $PM_{2.5}$ and PM_{10}).
6. For detailed dispersion analyses, exhaust stacks are to be located according to roof plan drawings. If drawings are not available and a field survey could not determine stack locations, stacks are placed at minimum distances from the impacted building.

According to the description of the spray booth operation under PB005409, Ferraro Collision Corporation uses 0.5 gallons of paint per hour or 750 gallons per year, and emissions of solvents and solids are estimated using material balance calculations based on these values. A weighted fraction of solvents in the paint (which is the total weight of the volatiles in one gallon of the paint, divided by one gallon or pounds of VOC per gallon***)*** is estimated to be 6.20. Based on this ratio, the hourly solvent emission rate is estimated to be 3.1 pounds per hour (0.5 gal/hr x 6.20) and the annual emission rate is estimated to be 4,650 pounds per year (750 gal/yr x 6.20).

A weighted fraction of solids in the paint (which is the total weight of the solids in one gallon of the paint, divided by one gallon) is estimated to be 0.65. Based on this ratio, the uncontrolled hourly emission rate of solids is estimated to be 0.325 lb/hr (0.5 gal/hr x 0.65 lb/gal), and after applying control efficiency of 80 percent, the hourly emission rate of solids is estimated to be 0.065 lb/hr. The annual emission rate of solids is estimated to be 97.6 lb/yr (750 gal/yr x 0.65 lb/gal x 0.2).

Data on the total VOC group were used to estimate emission rates of the individual solvents comprised the VOC (based on its weight percentage obtained from the generic report provided by DCP). Data on

solids content were converted to individual PM2.5/PM10 emission rates by applying factors accounting for PM2.5/PM10 fractions in the total mass of particulate matter (AP-42, Appendix B-1, Section 4.2.2.8).

DEP Permit PG001517 for Longo Coffee and Tea Incorporated

The permit lists only one pollutant -- particulate matter (PM, with no CAS number). This information, together with information on the bean batch roasting process, was used to estimate particulate emissions from the coffee roasting process. According to the permit, 158 lb of coffee beans per batch is roasted for 12 minutes per batch (or 5 batches per hour). Five batches per hour translates to 790 lb/hr of roasted beans (5 batches/hr x 158 lb/batch = 790 lb/hr). Based on the AP-42 total particulate emission factor for a coffee bean roasting process of 0.192 lb/ton (Table 9.13.2-1, "Emission Factors for Coffee Roasting Operations"), the uncontrolled hourly PM emission rate is 0.076 lb/hr (0.395 ton/hr x 0.192 lb/ton), and, after applying a conservative 50 percent control efficiency, the hourly emission rate is 0.038 lb/hr. The AP-42 emission factor of 0.192 lb/ton includes both a filterable PM emission factor of 0.092 lb/ton and a condensable PM emission factor of 0.1 lb/ton. It is conservatively assumed that both the filterable and condensable PM emissions will be $PM_{2.5}$ emissions.

Longo Coffee and Tea is permitted to operate eight hours a day for 260 days a year. This translates to 822 tons/year of roasted beans (i.e., 0.395 tons/hour x 8 hours/day x 260 days/year = 821.6 tons/year). After applying 50 percent control efficiency, the annual estimated particulate emission rate is 78.9 lbs/year (821.6 ton/year x 0.192 lb/ton x 0.5).

Solvent Emission Rates under Permit PB005409 for the Ferraro Collision Corporation

As described above, emission rates of solvents are calculated by multiplying hourly and annual paint usage rates, in pounds per hour or pounds per year (lb/hr, lb/year), by the weight percentage of each solvent in the paint. This approach conservatively assumed that 100 percent of all solvents are released into the atmosphere. The content of each solvent (weight percentage) in the paint was obtained from the generic report provided by DCP, and is presented in **Table G-7**. Estimated hourly and annual emission rates of solvents are presented in **Tables G-8 and G-9**.

Table G-7: Composition of the Paint Used in the Spray Booth Analysis

Chemical Name	CAS No.	Maximum Percent by Weight
Acetone	67-64-1	43
Aromatic Petroleum Distillate [(1)]	64742-94-5	10
Butane	106-97-8	11
Ethanol	64-17-5	3
EER [(2)]	763-69-9	9
Ethylbenzene	100-41-4	5
Methyl Ethyl Ketone [(3)]	78-93-3	8
N-Butyl Acetate	123-86-4	5
Propane	74-98-6	11
Stoddard Solvents	8052-41-3	10
Toluene	108-88-3	10
Xylene	1330-20-7	10

(1) APD = Aromatic Petroleum Distillate; [(2)] EER = Ethyl 3-Ethoxypropionate; and [(3)] MEK = Methyl Ethyl Ketone

Table G-8: Estimated Hourly and Annual Emission Rates for Solvents from Spray Booth Operations under PB005409

Pollutant	Hourly Emission Rate		Annual Emission Rate	
	lb/hr	g/sec	lb/year	g/sec
Acetone	1.3330	0.1680	1999	0.0288
APD [(1)]	0.3100	0.0391	465.0	0.0067
Butane	0.3410	0.0430	511.5	0.0074
Ethanol	0.0930	0.0117	139.5	0.0020
EER [(2)]	0.2790	0.0352	418.5	0.0060
Ethylbenzene	0.1550	0.0195	232.5	0.0033
MEK [(3)]	0.2480	0.0312	372.0	0.0054
N-Butyl Acetate	0.1550	0.0195	232.5	0.0033
Propane	0.3410	0.0430	511.5	0.0074
Stoddard Solvents	0.3100	0.0391	465.0	0.0067
Toluene	0.3100	0.0391	465.0	0.0067
Xylene	0.3100	0.0391	465.0	0.0067

[(1)] APD = Aromatic Petroleum Distillate; [(2)] EER = Ethyl 3-Ethoxypropionate; and [(3)] MEK = Methyl Ethyl Ketone

Table G-9: $PM_{2.5}/PM_{10}$ Estimated Emission Rates from Paint Spray Booth Operations under PB005409 and Coffee Roasting under PG001517

Facility	$PM_{2.5}/PM_{10}$	Permitted Emission Rate		A fraction of $PM_{10}/PM_{2.5}$ in total Solids	Estimated Emission Rates			
					Hourly		Annual	
		lb/hr	lb/year	Percent	lb/hr	g/sec	lb/year	g/sec
Ferraro Collision Corp.	$PM_{2.5}$	0.065	97.5	28.6%	0.019	0.002	27.9	0.0004
	PM_{10}	0.065	97.5	46.7 %	0.030	0.004	45.5	0.0007
Logo Coffee & Tea Inc.	$PM_{2.5}$	0.038	78.9	100%	0.038	0.005	78.9	0.0011

Solvent Assessment Methodology

While no federal standards have been promulgated for toxic air pollutants, the New York State Department of Environmental Conservation (NYSDEC) has issued guidance (DAR-1) that establish acceptable ambient levels for these pollutants. As shown, short-term and annual impacts of the toxic pollutants should be evaluated on a one-hour and annual basis, and maximum estimated values should be compared to applicable short-term (one-hour) guideline concentrations (SGCs) and annual guideline concentrations (AGCs) provided in DAR-1. The SGC and AGC guideline values are the maximum allowable concentrations below which there should be no health-related adverse effects. If no exceedances of the SGCs or AGCs are found, 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.

The current (August 2016) edition of the DAR-1 no longer includes guideline values (SGC and AGC) for $PM_{2.5}$ and PM_{10} – the NAAQS for these pollutants are used instead. The NAAQS for $PM_{2.5}$ is 35 ug/m^3 for 24-hours and 12 ug/m^3 for an annual period, and 150 ug/m^3 for is the 24-hour PM_{10} standard. Federal standards for $PM_{2.5}/PM_{10}$ are not SGCs or AGCs, and are only included in the DAR-1 to facilitate a screening or regulatory analysis. Because the NAAQS, as well as the *CEQR* significant incremental impact criteria

established for $PM_{2.5}$, are based on a 24-hour or annual averaging periods, analyses of $PM_{2.5}$ require the use of the AERMOD dispersion model, which contains a special procedure for this analysis.

CEQR Screening Analysis

For estimating potential impacts of toxic pollutants from industrial sources, *CEQR* recommends using a screening procedure as the first step in the analysis. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of 1 gram per second from Table 17-3, "Industrial Source Screen," of the *CEQR Technical Manual* for the applicable averaging 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 two permitted and non-permitted facilities.

The minimum distance from the industrial source of the Ferraro Collision Corp. to the lot line of the projected development (e.g., Site 2) is estimated to be approximately 250 feet. Conservatively, a shorter distance of 230 feet was used for this analysis. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual generic concentrations were estimated to be 2,657 ug/m^3 and 131 ug/m^3, respectively.

All values obtained from Table 17-3 of the *CEQR Technical Manual* for an emission rate of 1 gram per second were then multiplied by the actual emission rates of each solvent to estimate actual solvent concentration. These values were then compared to the DAR-1 short-term (SGC) and annual (AGC) guideline concentrations (refer to **Tables G-10 and G-11**).

Table G-10: Maximum Estimated 1-hour Solvent Concentrations from the Spray Booth of the Ferraro Collision Corp. under PB005409

Chemical Name	CAS No.	Max Estimated 1-hour Concentration	SGC	Exceed Yes/No
		µg/m³	µg/m³	
Acetone	67-64-1	446.3	180,000	No
APD	64742-94-5	103.8	-	-
Butane	106-97-8	114.2	238,000	No
Ethanol	64-17-5	31.1	-	-
EER	763-69-9	93.4	140	No
Ethyl Benzene	100-41-4	51.9	-	-
Methyl Ethyl Ketone	78-93-3	83.0	13,000	No
N-Butyl Acetate	123-86-4	51.9	95,000	No
Propane	74-98-6	114.2	-	-
Stoddard Solvents	8052-41-3	103.8	-	-
Toluene	108-88-3	103.8	37,000	No
Xylene	1330-20-7	103.8	22,000	No

Table G-11: Maximum Estimated Annual Solvent Concentrations from the Spray Booth of the Ferraro Collision Corp. under PB005409

Chemical Name	CAS No.	Max Estimated Annual Concentration	AGC	Exceed Yes/No
		µg/m³	µg/m³	
Acetone	67-64-1	3.77	30,000	No
APD	64742-94-5	0.88	100	No
Butane	106-97-8	0.96	-	-
Ethanol	64-17-5	0.26	45,000	No
EER	763-69-9	0.79	64	No
Ethyl Benzene	100-41-4	0.44	1,000	No
Methyl Ethyl Ketone	78-93-3	0.70	5,000	No
N-Butyl Acetate	123-86-4	0.44	17,000	No
Propane	74-98-6	0.96	43,000	No
Stoddard Solvents	8052-41-3	0.88	900	No
Toluene	108-88-3	0.88	5,000	No
Xylene	1330-20-7	0.88	100	No

Notes:

- Ferraro Collision Corp**:** The maximum 1-hour and annual concentrations were estimated based on actual emission rate (Table 3) and pre-tabulated concentration of 1 gram per second concentration obtained from *CEQR Technical Manual* Table 17-3 of 2,657 ug/m^3 and 131 ug/m^3, respectively.
- APD, Ethanol, Ethyl Benzene, Propane, and Stoddard Solvents have no SGC values, and butane has no AGC value.

Results of the CEQR Screening Analysis for the Spray Booth

The maximum estimated short-term and annual concentrations of each solvent are expected to be less than the SGC and AGC values, indicating that these pollutants passed the screening analysis. Therefore, no further analysis of the solvents associated with the spray booth operations under PB005409 is required.

Particulate (PM) Emissions Analysis

A detailed dispersion analysis was conducted to estimate the cumulative $PM_{2.5}$/PM_{10} impacts from the two industrial sources. The AERMOD model was used together with the same dispersion options, meteorological data (for 2015-2019), *CEQR* significant impact criteria, and $PM_{2.5}$/PM_{10} background concentrations as those used in the HVAC analysis. Both particulate emission sources were modeled in one modeling run to estimate the cumulative PM impacts of two sources combined. An aerial view of the two industrial sources near the two projected development sites in Google Maps is shown in **Figure G-7**.

Figure G-7: Industrial Sources near Projected Development Sites 1 and 2



Notes: associated exhaust stacks for Longo Coffee and Tea Inc. and Ferraro Collision Corp are shown in light blue.

Stack Parameters

Stack parameters under PB005409 for Ferraro Collision Corp were obtained from the permit and spray booth drawings. These are provided in **Table G-12**. It was conservatively assumed that the exhaust stack for the spray booth is located approximately 10 feet from the building's edge along the side of the building that would be nearest to projected development site 2 (refer to **Figure G-7** for exhaust stack location).

As only the front page of Permit PG001517 for Longo Coffee and Tea Inc. has been provided for analysis, limited information is available regarding this facility. No drawings were included as part PG001517 and stack parameters are missing or confusing (e.g., the stack height shown as one [probably 1 foot above the roof]) and the flow rate is 800 actual cubic feet per minute (ACFM)/unit. The associated exhaust stack for Longo Coffee and Tea Inc. is located on the roof (see **Figure G-7**). For conservative analysis purposes, it was assumed that the exhaust stack for coffee roasting process is located approximately 10 feet from the building's edge along the side of the building that would be nearest to projected development site 2 and is approximately 3 feet above building roof, which is 12-foot tall (i.e., a 1-story building). The flow rate for Longo Coffee and Tea Inc. would be 800 ACFM (as noted in the permit); the temperature would be 70° F; and the diameter 1 foot.

Table G-12: Exhaust Stack Parameters Used in Modeling Analysis for Spray Booth and Coffee Roasting Operations

Facility ID	Emission Rate			Stack Height	Diameter	Temp.	Flow Rate	
	24-hr. $PM_{2.5}$	24-hr. PM_{10}	Annual $PM_{2.5}$					
	g/sec	g/sec	g/sec	feet	Inches	degrees F	ft^3/min	m^3/sec
Ferraro Collision Corp.	0.002	0.004	0.0004	30*	40	160	20,000	9.4389
Longo Coffee & Tea	0.005	-	0.0011	15**	12	70	800	0.3776

Notes: * Stack height was assumed to be six feet above 24-foot-tall building, as shown on drawing.
** Stack height was assumed to be three feet above 12-foot-tall building.
Source: DEP permits PB001517 (Ferraro Collision Corp) and PG001517 (Longo Coffee and Tea Inc.)

Receptor Locations

Receptors were located on all facades of the projected developments at Sites 1 and 2 -- in 10-foot increments on all floor levels, starting above the ground and extending up to the height of upper windows (i.e., 90-foot, which would be 5 feet below roof level). Approximately 500 receptors were placed on each building to ensure that the maximum impacts are estimated. Additional receptors were placed on the recreational area boundaries of Site 1 and 2 to capture all potential air quality impacts.

Results of the Detailed $PM_{2.5}$ Analysis

The spray booth under PB005409 would operate six hours per day and 250 hours a year and the coffee roasting facility under PG001517 would operate 8 hours per day for 260 hours a year. As such, emissions from either facility would not be released continuously throughout the day. Therefore, to represent intermittent emissions based on each facility's respective operating hours, hourly emission rates were adjusted based on the facility's permitted operating hours using AERMOD's optional hour/day variable emission rate factors. Annual emission rates were not adjusted. Maximum estimated concentrations, which are higher without downwash than with downwash, are provided in **Tables G-13 and G-14**.

Table G-13: Maximum Estimated 24-hour $PM_{2.5}$ and PM_{10} Cumulative Concentrations

Pollutant	Max. 24-hr. Impact	Background Concentration	Total Concentration	*CEQR* Significant Impact Criteria	NAAQS
	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
$PM_{2.5}$	4.52	17.8	22.3	8.6	35
PM_{10}	0.35	28	28.4	-	150

Table G-14: Maximum Estimated Annual $PM_{2.5}$ Cumulative Impact

Pollutant	Max. Annual Impact	Background Concentration	Total Concentration	CEQR Significant Impact Criteria	NAAQS
	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
$PM_{2.5}$	0.28	7.6	7.9	0.3	12

The results of the analysis indicated that there would be no exceedances of the applicable *CEQR* significant impact thresholds, the 24-hour/annual NAAQS for $PM_{2.5}$ or 24-hour PM_{10} NAAQS from the emissions of nearby industrial sources operating near projected development sites 1 and 2.

Results of the Industrial Source Analysis

The results of the industrial source analysis indicated that emissions released from two existing industrial sources currently operating within 400 feet of the project area would not significantly affect projected development sites 1 and 2.

V. CONCLUSION

The results of the HVAC and Industrial Source analyses indicate that no exceedances of the applicable *CEQR* significant impact criteria, NAAQS, and/or SGC/AGC NYSDEC DAR-1 guideline concentrations would occur in the future with the proposed actions. As such, HVAC-related emissions as well as emissions from the nearby existing industrial sources are not expected to cause significant air quality impacts.

ATTACHMENT H

NOISE

I. INTRODUCTION

This attachment assesses the potential for the proposed actions to result in significant adverse noise impacts. As described in Attachment A, "Project Description," the proposed actions include a zoning map and text amendments, and special permit to rezone a portion of Block 1002 (Lots 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, and 55, and part of Lot 39 and 56) from M2-1 to M1-4/R7A, to establish a Special Mixed-Use (MX) District, to waive the accessory parking for the proposed residential uses at the applicant-owned projected development site 1, and to designate the proposed rezoning area as a Mandatory Inclusionary Housing (MIH) Area. Together, the approval of the proposed actions would facilitate the development of a mixed-used building containing 48 dwelling units (DUs) and approximately 16,000 gross square feet (gsf) of commercial space that occupies potions of the ground floor and cellar level on projected development site 1.[1] In addition, for RWCDS analysis purposes, it is assumed that the proposed zoning changes would allow for redevelopment of Lots 43 and 45 on Block 1002 ("projected development site 2") pursuant to the proposed M1-4/R7A zoning. Projected development site 2 would be comprised of approximately 38,231 gsf, with approximately 31,763 gsf (37 DUs) of residential use, and 6,469 gsf of local retail. It is expected that both projected development sites 1 and 2 would be completely constructed and fully occupied by 2026.

Approval of the proposed actions would change traffic volumes near the proposed rezoning area. As the proposed actions would create new noise-sensitive uses within the proposed rezoning area, a detailed noise analysis was conducted in order to determine the level of building attenuation required to ensure that future interior noise levels would satisfy applicable noise criteria.

II. PRINCIPAL CONCLUSIONS

Noise from increased traffic generated by the With-Action condition would not cause noise level impacts at sensitive receptors along the adjacent roadway as the relative increases in noise levels would fall below the impact criterion of 3.0 dBA between No-Action and With-Action conditions.

Based on the detailed noise analysis presented herein, the maximum predicted L_{10} noise level adjacent to the proposed rezoning area is expected to be 72.4 dBA along the Ninth Street frontage. Based on the maximum predicted With-Action noise levels, 28.0 dBA of window/wall attenuation on any southern frontages facing Ninth Street and any eastern frontages facing Third Avenue or western frontages facing Second Avenue within 50 feet of 9th Street would be needed to maintain interior noise levels of 50 dBA or lower for any commercial office uses generated by the proposed actions. The proposed special MX (M1-4/R7A) zoning district, which would be subject to New York City Zoning Resolution (ZR) Section 123-

[1] The proposed mixed-use development at projected development site 1 (Lots 48 to 50 on Block 1002) would use approximately 3,300 sf of commercial development rights transferred from the abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16), also under the applicant's control, which would not be included within the proposed rezoning area.

32, requires residential DUs be provided with a minimum window-wall attenuation level of 35 dBA and an alternate means of ventilation to maintain an interior noise level of 45 dBA or less for a closed window condition. As the resulting noise levels would be below 80 dBA, ZR Section 123-32 would require a minimum of 35 dBA window-wall attenuation for all residential DUs and no (E) designation would be warranted for the residential portion of the RWCDS. However, as the RWCDS for the two projected development sites also assumes commercial uses (which may include commercial office uses) as part of the With-Action condition and as ZR Section 123-32 does not protect any uses other than residential DUs, an (E) designation would be mapped to require 23 dBA of attenuation for commercial office uses at Projected Development Sites 1 and 2 to maintain interior noise level not greater than 50 dBA for commercial office uses. To ensure acceptable noise levels for the RWCDS, noise attenuation specifications would be required pursuant to ZR Section 123-32 and mandated through the assignment of an (E) designation (E-670) to the two projected development sites (Block 1002, Lots 43, 45, 48, 49, and 50) that are expected to be developed as a result of the proposed actions. The requirements of the (E) designation resulting from the noise analysis are outlined in Section VIII of this attachment. With implementation of the attenuation levels required pursuant to the (E) designation and compliance with ZR Section 123-32, the RWCDS would provide sufficient attenuation to achieve the 2020 *CEQR Technical Manual* interior noise level guidance of 45 dBA or lower for residential uses and 50 dBA for commercial office uses. Therefore, the proposed actions would not result in any significant adverse noise impacts related to building attenuation requirements.

III. NOISE FUNDAMENTALS

Quantitative information on the effects of airborne noise on people is well documented. If sufficiently loud, noise may adversely affect people in several ways. For example, noise may interfere with human activities such as sleep, speech communication, and tasks requiring concentration or coordination. It may also cause annoyance, hearing damage, and other physiological problems. Although it is possible to study these effects on people on an average or statistical basis, it must be remembered that all the stated effects of noise on people vary greatly with the individual. Several noise scales and rating methods are used to quantify the effects of noise on people. These scales and methods consider factors such as loudness, duration, time of occurrence, and changes in noise level with time.

"A"-Weighted Sound Level (dBA)

Noise is typically measured in units called decibels (dB), which are ten times the logarithm of the ratio of the sound pressure squared to a standard reference pressure squared. Because loudness is important in the assessment of the effects of noise on people, the dependence of loudness on frequency must be taken into account in the noise scale used in environmental assessments. Frequency is the rate at which sound pressures fluctuate in a cycle over a given quantity of time, and is measured in Hertz (Hz), where 1 Hz equals 1 cycle per second. Frequency defines sound in terms of pitch components. In the measurement system, one of the simplified scales that accounts for the dependence of perceived loudness on frequency is the use of a weighting network - known as A-weighting - that simulates the response of the human ear. For most noise assessments, the A-weighted sound pressure level in units of dBA is used due to its widespread recognition and its close correlation to perception. In this analysis, all measured noise levels are reported in dBA or A-weighted decibels. Common noise levels in dBA are shown in **Table H-1**.

Community Response to Changes in Noise Levels

Table H-2 shows the average ability of an individual to perceive changes in noise. Generally, changes in noise levels less than 3 dBA are barely perceptible to most listeners. However, as illustrated in **Table H-2**, 5 dBA changes are readily noticeable. Ten dBA changes are normally perceived as doublings (or halvings) of noise levels. These guidelines permit direct estimation of an individual's probable perception of changes in noise levels.

TABLE H-1: Common Noise Levels

Sound Source	(dBA)
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Soft Whisper at 5 meters	30
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0

Source: *2020 CEQR Technical Manual* / Cowan, James P. Handbook of Environmental Acoustics. Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.

Note: A 10 dBA increase appears to double the loudness, and a 10 dBA decrease appears to halve the apparent loudness.

TABLE H-2: Average Ability to Perceive Changes in Noise Levels

Change (dBA)	Human Perception of Sound
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A dramatic change
40	Difference between a faintly audible sound and a very loud sound

Source: Bolt Beranek and Neuman, Inc., Fundamentals and Abatement of Highway Traffic Noise, Report No. PB-222-703. Prepared for Federal Highway Administration, June 1973.

Noise Descriptors Used in Impact Assessment

As the sound pressure level unit, dBA, describes a noise level at just one moment, and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level", L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted as $L_{eq(24)}$), conveys the same sound-energy as the actual time-varying sound. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are sometimes used to indicate noise levels that are exceeded 1, 10, 50, 90 and x percent of the time, respectively. Discrete event peak levels are given as L_1 levels. L_{eq} is used in the prediction of future noise levels, by adding the

contributions from new sources of noise (i.e., increases in traffic volumes) to the existing levels and in relating annoyance to increases in noise levels.

The one-hour equivalent continuous noise level ($L_{eq\ (1h)}$ in dBA), the tenth percentile level L_{10} and the day-night average sound level L_{dn} were selected as the noise descriptors for the purposes of this analysis. Hourly statistical noise levels (particularly L_{10} and L_{eq} levels) were used to characterize the relevant noise sources and their relative importance at each receptor location.

Applicable Noise Codes and Impact Criteria

New York City Noise Code

The New York City Noise Control Code, as amended in December 2005, contains prohibitions regarding unreasonable noise and specific noise standards, including plainly audible criteria for specific noise sources. In addition, the amended code specifies that no sound source operating in connection with any commercial or business enterprise may exceed the decibel levels in the designated octave bands at specified receiving properties.

CEQR Technical Manual Noise Standards

The New York City Department of Environmental Protection (DEP) has set external noise exposure standards. These standards are shown in **Table H-3**.

Noise Exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The standards shown are based on maintaining an interior noise level for the worst-case hour L_{10} of less than or equal to 45 dBA. Attenuation requirements are shown in **Table H-4**.

Impact Criteria

In addition, the *CEQR Technical Manual* uses the following criteria to determine whether a noise sensitive receptor not introduced by the project would be subject to a significant adverse noise impact: (1) the impact assessments compare the projected future With-Action condition $L_{eq(1)}$ noise levels to those calculated for the No-Action condition; (2) if the No-Action levels are less than 60 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period, the threshold for a significant impact would be an increase of at least 5 dBA $L_{eq(1)}$ (for the 5 dBA threshold to be valid, the resultant With-Action condition noise level would have to be equal to or less than 65 dBA); if the No-Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$ or if the analysis period is a nighttime period (defined under CEQR standards as being between 10 PM and 7 AM), the incremental significant impact threshold would be 3 dBA $L_{eq(1)}$ (if the No-Action noise level is 61 dBA $L_{eq(1)}$, the maximum incremental increase would be 4 dBA, since an increase higher than this would result in a noise level higher than the 65 dBA $L_{eq(1)}$ threshold).

TABLE H-3: Noise Exposure Guidance for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1. Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	---------- Ldn ≤ 60 dBA ----------		---------- 60 < Ldn ≤ 65 dBA ----------		(1) 65 < Ldn ≤ 70 dBA, (II) 70 ≤ Ldn		---------- Ldn ≤ 75 dBA ----------
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 65$ dBA		65 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel or motel	7 AM to 10 PM	$L_{10} \leq 65$ dBA		65 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 PM to 7 AM	$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Source: New York City Department of Environmental Protection (adopted policy 1983).

Notes: (i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.

[3] One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Noise Exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The standards shown are based on maintaining an interior noise level for the worst-case hour L_{10} of less than or equal to 45 dBA. Attenuation requirements are shown in **Table H-4.**

TABLE H-4: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise level with proposed development	$70< L_{10} \leq 73$	$73< L_{10} \leq 76$	$76< L_{10} \leq 78$	$78< L_{10} \leq 80$	$80<L_{10}$
Attenuation	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^B$ dB(A)

Note: [A] The above composite window-wall attenuation values are for residential dwellings. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.

[B] Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.

Source: New York City Department of Environmental Protection / 2020 *CEQR Technical Manual*

IV. NOISE PREDICTION METHODOLOGY

Future noise levels resulting from traffic were calculated with a proportional modeling technique used as a screening tool to estimate changes in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual*. The noise analysis examined the weekday AM, midday, and PM peak hours. A distance correction formula was used to calculate projected noise levels at an elevation on the Projected Development Sites similar to the elevated IND Culver Line (F/G-Train). Each of these techniques are described in detail below.

Proportional Modeling

Proportional modeling was used to determine No-Action and With-Action noise levels at the receptor locations adjacent to the proposed rezoning area, as discussed in more detail below. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels (where traffic is the dominant noise source) is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No-Action and With-Action noise levels. Vehicular traffic volumes (counted during the noise recording), are converted into PCE values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of thirteen cars, one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of eighteen cars. Future noise levels are calculated using the following equation:

$$FNA\ NL = 10 \log (NA\ PCE / E\ PCE) + E\ NL$$

where:

FNA NL = Future No-Action Noise Level
NA PCE = No-Action PCEs
E PCE = Existing PCEs
E NL = Existing Noise Level

Sound levels are measured in decibels and therefore increase logarithmically with sound source strength. In this case, the sound source is traffic volumes measured in PCEs. For example, assume that traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs and if the future traffic volumes were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCEs, or doubled to a total of 200 PCEs, the noise level would increase by 3.0 dBA.

To calculate the No-Action noise levels, an annual background growth rate of 0.50 percent for years 1-5 and 0.25 percent for beyond year 5 for the 2026 Build year was applied to the PCE noise values based on counted vehicles.[2] In order to obtain the necessary With-Action PCE values to calculate the With-Action noise levels, a trip generation was prepared based on the projected amount of incremental floor area generated by the 2026 With-Action development, utilizing existing modal split data for the census tract within which the proposed rezoning area is located.[3] This trip generation with the 2026 With-Action traffic increment assignments was converted into PCE values and added to the calculated No-Action PCE values for the weekday AM, MD, and PM peak hours.[4]

Distance Correction Formula

Noise readings taken at an elevation equal to and adjacent from the elevated IND Culver Line (F/G-Train) from the *300 Huntington Street EAS (20DCP080K)* were used in this analysis in order to project noise levels at the proposed rezoning area at an elevation equal to the elevated IND Culver Line (F/G-Train) tracks. Noise readings taken adjacent to the elevated tracks were adjusted based on the distance between the track and the proposed rezoning area using the following distance curve adjustment formula:

L_{eq} Original – (10*log(D Project/D Original))

where:

L_{eq} Original	= The L_{eq} value monitored adjacent to the elevated rail
D Project	= The distance between the elevated rail and the proposed rezoning area
D Original	= The distance between the elevated rail and the original monitoring location

V. EXISTING CONDITIONS

Selection of Noise Receptor Locations

The proposed rezoning area extends along Ninth Street and is located on the block bound by Eighth Street to the north, Third Avenue to the east, and Ninth Street to the south, and Second Avenue to the west. The elevated IND Culver Line (F/G-Train) runs along the north side of Tenth Street, approximately 175 feet from the proposed rezoning area and has a direct line of site from the directly affected area (see **Figure**

[2] The background growth rate is based on information provided in Table 16-4 of the 2020 *CEQR Technical Manual.*
[3] Based on American Community Survey (ACS) Means of Transportation 5-Year data for Kings county census tracts 117, 119, 121, 137, and 139.
[4] The total increment of vehicles around the proposed rezoning area at the noise monitoring location was used for conservative analysis.

H-1). As discussed, train noise from the elevated IND Culver Line (F/G-Train) and local traffic are the dominant sources of noise near the proposed rezoning area.

Noise Monitoring

At receptor location 1, a 1-hour spot measurement of existing noise levels was conducted for each of the three noise analysis time periods - weekday AM peak hour (8:00AM to 9:00AM), weekday midday (MD) peak hour (12:00PM to 1:00PM), and weekday PM peak hour (5:00PM to 6:00PM). Noise measurement equipment at receptor location 1 was placed with a clear direct line-of-site to the elevated IND Culver Line directly south of the projected development site 1 to capture noise from the MTA F/G trains. Noise monitoring at receptor location 1 was performed on Tuesday, October 27th, 2020. On October 27th, the weather was partly cloudy with a high temperature of 59 ºF.

At receptor location 2, at the midblock on 8th Street between 2nd and 3rd Avenue, 20-minute spot measurements of existing noise levels were conducted for each of the previously described noise analysis time periods. Noise monitoring at receptor location 2 was performed on Thursday, November 19th, 2020. On November 19th, the weather was sunny with a high temperature of 48 ºF.

As the applicant-owned site is currently unimproved and is used for vehicle storage, elevated noise spot measurements could not be conducted at the applicant-owned site. Therefore, in order to estimate noise levels at an elevation equal to the elevated IND Culver Line (F/G-train) at the proposed rezoning area, spot measurements from the *300 Huntington Street EAS (CEQR No. 20DCPK080K)* were used to project elevated noise levels.[5] Elevated 1-hour spot measurements of existing noise levels were taken from the roof at 204 Huntington Street.[6] At receptor location 3, measurements were conducted on Wednesday, June 12th, 2019. On June 12th 2019, the weather was sunny with a high temperature of 74 ºF. In order to estimate elevated noise levels at the proposed rezoning area, the distance curve adjustment formula presented above in Section IV were applied to the readings at 204 Huntington Street, adjacent to the elevated IND Culver Line (F/G-Train).

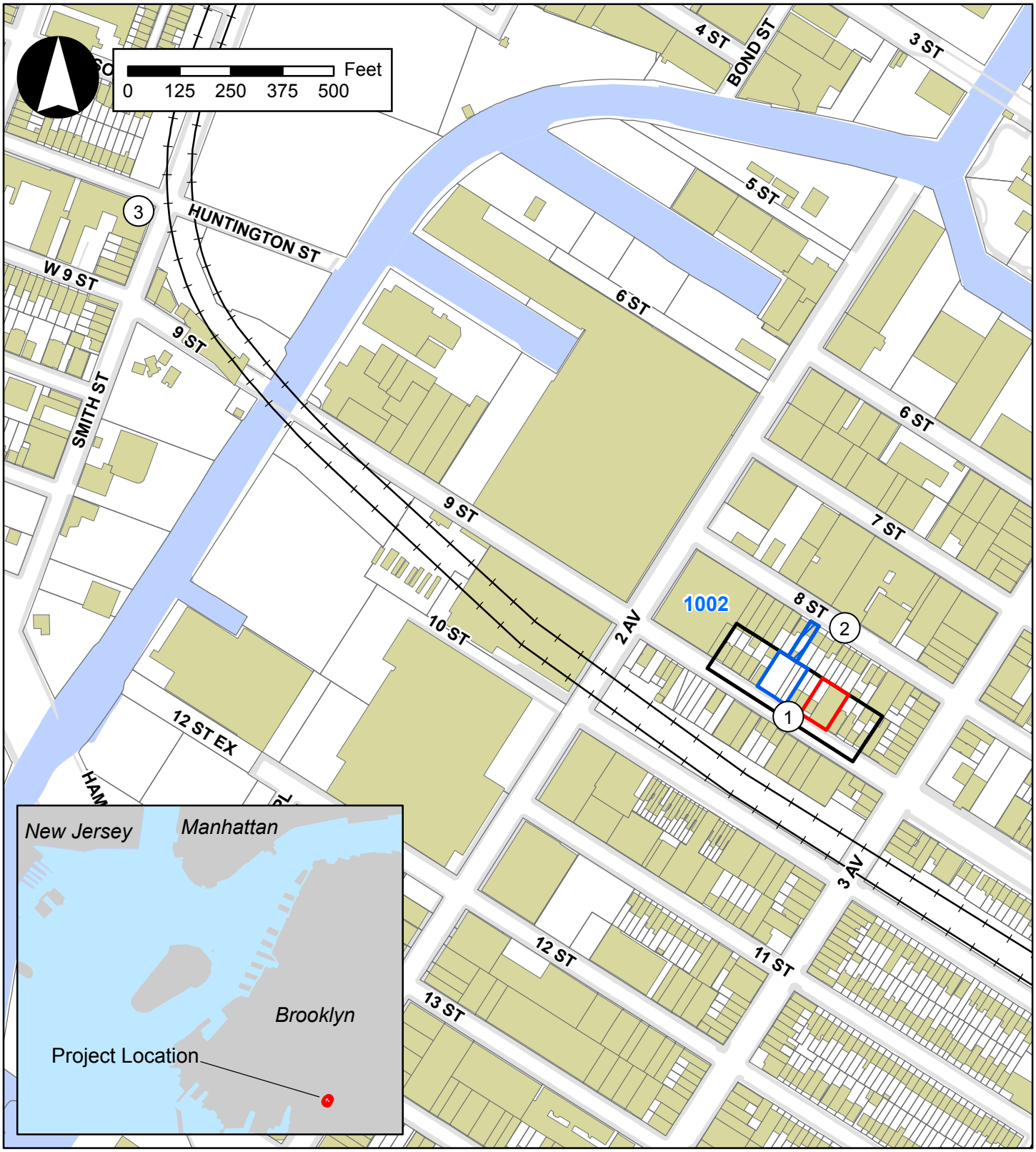
Equipment Used During Noise Monitoring

The instrumentation used for the measurements at receptor locations 1 and 2 was a Brüel & Kjær Type 4189 ½-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by the American National Standards Institute) sound level meter. This assembly was mounted at a height of 5 feet above the ground surface on a tripod and at least 6 feet away from any sound-reflecting surfaces to avoid major interference with source sound level that is being measured. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound-level calibrator using the appropriate adaptor. Measurements at the receptor location were made on the A-scale (dBA). The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. Only traffic-related noise was measured; noise from other sources (e.g., emergency sirens, irregular aircraft flyovers, etc.) was excluded from the measured noise levels. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14ºF and below 122ºF (pursuant to ANSI Standard S1.13-2005).

[5] The *300 Huntington Street EAS* received a Negative Declaration in November 2020 and was prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C.

[6] Receptor location #3 in the *300 Huntington Street EAS (CEQR No. 20 DCP080K).*

Noise Receptor Location



Source: NYCDCP (2020); DoITT (2018)

Legend

- Projected Development Site 1
- Projected Development Site 2
- Development Rights Parcel
- Proposed Rezoning Area
- 1002 Block
- Existing Buildings
- (1) Noise Receptor Location
- Subway

Existing Noise Levels at the Noise Receptor Locations

Measured Noise Levels

The noise monitoring results are shown in **Table H-5**. Noise from the elevated rail and vehicular traffic were the dominant sources of noise at receptor location 1. The existing noise levels reflect the level of vehicular activity on the roadways and train activity on the elevated rail approximately 175 feet southwest of the proposed rezoning area, with the highest existing noise levels observed at receptor location 1 during the midday monitoring period. Noise from vehicular traffic was the dominant source of noise at receptor location 2. The existing noise levels reflect the minimal amount of vehicular activity on 8th Street. As shown in **Table H-5**, the highest existing noise levels were observed at receptor location 2 during the PM monitoring period.

As shown in **Table H-5**, the highest L_{10} value at receptor location 1 was recorded in the MD peak hour (72.2 dBA), placing this receptor location in the "Marginally Unacceptable (I)" CEQR Noise Exposure category pursuant to the guidance of the *CEQR Technical Manual*. The highest L_{10} value at receptor location 2 was recorded in the PM peak hour (62.4 dBA), placing this receptor location in the "Acceptable" CEQR Noise Exposure category pursuant to the guidance of the *CEQR Technical Manual*.

Noise from the elevated rail was the dominant source of noise at receptor location 3. The highest L_{10} value at the receptor location (75.6 dBA) occurred during the AM peak hour.

TABLE H-5: Existing Noise Levels (in dBA) at the Receptor Locations

Receptor Location	Time	L_{eq}	L_{max}	L_{min}	L_1	L_{10}[2]	L_{50}	L_{90}	CEQR Noise Exposure Category
1	AM	68.0	86.7	52.2	78.3	71.0	63.5	56.9	Marginally Unacceptable (I)
	MD	69.1	88.2	49.4	80.4	**72.2**	63.5	54.6	
	PM	66.0	89.5	50.0	74.5	68.5	62.1	54.8	
2	AM	56.9	68.8	48.1	66.3	60.7	53.6	50.3	Acceptable
	MD	59.4	75.2	52.8	69.1	62.0	56.5	54.2	
	PM	59.6	74.2	50.0	71.2	**62.4**	55.9	52.6	
3[3]	AM	70.7	83.3	58.2	81.6	**75.6**	63.0	60.0	Refer to Table H-6
	MD	69.2	82.7	60.7	81.4	72.7	63.8	62.1	
	PM	70.6	83.0	58.0	81.5	75.0	62.3	60.1	

Notes: Field measurements for receptor locations 1 and 2 were performed by Philip Habib & Associates on October 27th, 2020 & November 19th, 2020.

[1] Refer to **Figure H-1** for noise monitoring receptor location.

[2] The highest L_{10} noise levels at each monitoring location are shown in **bold**.

[3] Field measurements for receptor location 3 was performed by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C.

Distance Corrected Noise Levels (Receptor Location 3)

As shown in **Table H-6**, after applying the distance curve adjustment formula to the monitored values at receptor location 3, the projected maximum L_{10} value at the proposed rezoning area at an elevation equal to the elevated IND Culver Line (F/G-Train) tracks is 70.2 dBA. A value of 70.2 dBA would be considered in the "Marginally Unacceptable (I)" CEQR Noise Exposure Category under the guidance of the *CEQR Technical Manual*.

TABLE H-6: Distance Corrected L_{eq} and L_{10} values at Receptor Location 3 (in dBA)

	Monitored Value		Distance Correction Value[1]		CEQR Noise Exposure Category
	L_{eq}	L_{10}	L_{eq}	L_{10}	
AM	70.7	75.6	65.3	**70.2**	Marginally Unacceptable (I)
MD	69.2	72.7	63.8	67.3	
PM	70.6	75.0	65.2	69.6	

Notes:
[1] Based on a distance of approximately 175 feet between the elevated IND Culver Line (F/G-Train) Tracks and the proposed rezoning area.
[2] The highest L_{10} value is shown in **bold**.

VI. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

Using the methodology described in Section IV, "Noise Prediction Methodology," future noise levels in the No-Action condition were calculated for the three analysis periods for the 2026 Build year. **Table H-7** shows the measured existing noise levels, as well as the projected No-Action PCE values and the No-Action noise levels at the receptor locations.

TABLE H-7: Future No-Action Noise Levels and Total PCE Values at the Receptor Locations (in dBA)

Noise Receptor Location	Time	Existing PCEs	No-Action PCEs	Existing L_{eq}	No-Action L_{eq}	Change [1]	No-Action L_{10}[2]	CEQR Noise Exposure Category
1	AM	2428	2496	68.0	68.1	0.12	71.1	Marginally Unacceptable (I)
	MD	1912	1965	69.1	69.2	0.12	**72.3**	
	PM	1160	1192	66.0	66.2	0.12	68.6	
2	AM	75	77	56.9	57.0	0.12	60.8	Acceptable
	MD	237	244	59.4	59.5	0.12	62.1	
	PM	57	59	59.6	59.7	0.12	62.5	
3[3]	AM	N/A	N/A	65.3	65.3	0.00	**70.2**	Marginally Unacceptable (I)
	MD	N/A	N/A	63.8	63.8	0.00	67.3	
	PM	N/A	N/A	65.2	65.2	0.00	69.6	

Notes: All PCE and noise value are shown for a weekday.
[1] No-Action Leq - Existing Leq
[2] The highest L_{10} noise levels at each monitoring location are shown in **bold**.
[3] The existing L_{eq} value for receptor location 3 is based on the distance corrected L_{10} value in Table H-6.

Comparing future No-Action noise levels with existing noise levels, the increases in L_{eq} noise level would equal approximately 0.12 dBA during each analysis period at receptor locations 1 and 2. Increases of this magnitude would be barely perceptible, and based upon the *CEQR Technical Manual* impact criteria, would not be significant. The projected No-Action L_{10} noise levels would remain in the same respective CEQR Noise Exposure categories as under existing conditions. No significant changes in train operations are expected to occur between the existing conditions and the 2026 build year, therefore no changes in noise levels at an elevation equal to the elevated IND Culver Line (F/G-Train) tracks is expected to occur at the proposed rezoning area.

VII. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)

Using the methodology described in Section IV, "Noise Prediction Methodology future noise levels in the With-Action condition were calculated for the three analysis periods at the receptor location for the 2026

Build year. No significant changes in train operations at the elevated IND Culver Line (F/G-Train) are expected as a result of the proposed actions.

As shown in **Table H-8**, after accounting for incremental traffic (refer to **Table F-2** and **Figure F-1** provided in **Attachment F, "Transportation"**) introduced by the proposed actions, the maximum projected L_{10} noise level in the With-Action condition would be 72.4 dBA during the MD peak hour at receptor location 1. Therefore, the receptor location would be categorized under the "Marginally Unacceptable (I)" CEQR Noise Exposure Category, as under existing and No-Action conditions.

As no incremental vehicle trips generated by the proposed actions would occur on 8th Street, the maximum projected L_{10} noise level in the With-Action condition would be 62.5 dBA at receptor location 2. Therefore, receptor location 2 would be categorized under the "Acceptable" CEQR Noise Exposure Category, as under existing and No-Action conditions.

No significant changes in train operations are expected to occur as a result of the Proposed Actions, therefore no changes in noise levels at an elevation equal to the elevated IND Culver Line (F/G-Train) tracks is expected to occur at the proposed rezoning area. The maximum L_{10} value would be 70.2 dBA after applying the distance correction formula.

As the noise levels at these receptor locations would not experience increases of more than 3.0 dBA in any analyzed peak hour, the overall changes to noise levels as a result of the proposed actions would not result in any significant adverse impacts.

TABLE H-8: Future With-Action Noise Levels and Total PCE Values at the Receptor Locations (in dBA)

Receptor Location	Time	With-Action PCEs	No-Action L_{eq}	With-Action L_{eq}	Change [1]	With-Action L_{10} [2]	CEQR Noise Exposure Category
1	AM	2531	68.1	68.1	0.06	71.2	Marginally Unacceptable (I)
	MD	2013	69.2	69.3	0.10	**72.4**	
	PM	1261	66.2	66.4	0.24	68.9	
2	AM	77	57.0	57.0	0.00	60.8	Acceptable
	MD	244	59.5	59.5	0.00	62.1	
	PM	59	59.7	59.7	0.00	**62.5**	
3[4]	AM	N/A	65.3	65.3	0.00	**70.2**	Marginally Unacceptable (I)
	MD	N/A	63.8	63.8	0.00	67.3	
	PM	N/A	65.2	65.2	0.00	69.6	

Notes: All PCE and noise value are shown for a weekday.

[1] With-Action Leq – No-Action Leq

[2] The highest L_{10} noise levels at each monitoring location are shown in **bold.**

[3] No incremental vehicle trips would occur on 8th Street (receptor location 2).

[4] The No-Action L_{eq} value for receptor location 3 is based on the distance corrected L_{10} value in Table H-6.

VIII. ATTENUATION REQUIREMENTS

As shown above in **Table H-4**, the *CEQR Technical Manual* has set noise attenuation requirements for buildings based on exterior noise levels. Recommended noise attenuation values for buildings are designed to maintain a maximum interior noise level of 45 dBA or lower for residential uses and 50 dBA or lower for commercial office uses, and are determined based on exterior L_{10} noise levels.

The proposed special MX zoning district would be subject to ZR Section 123-32, which would require a minimum of 35 dBA window-wall attenuation and an alternate means of ventilation to maintain an interior noise level of 45 dBA or less for a closed-window condition for all residential DUs. As the noise analysis shows noise levels less than 80 dBA, residential DUs would not need noise (E) designation since higher attenuation is provided by ZR Section 123-32. However, as ZR Section 123-32 only applies to residential DUs, commercial office uses would require an (E) designation.

Figure H-2 illustrates the noise attenuation requirements.

(E) Designation

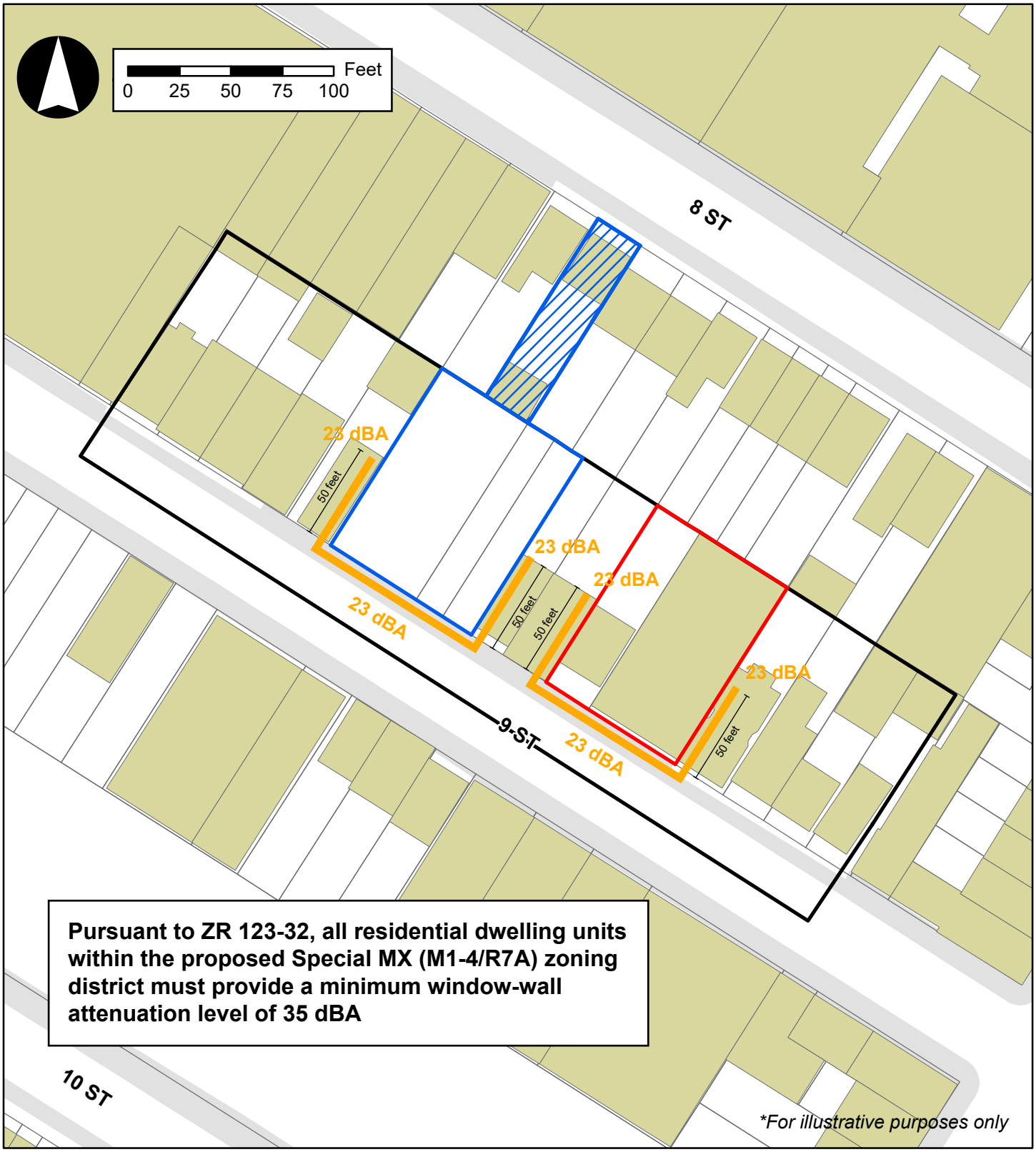
A (E) designation for noise provides a notice of the presence of an environmental requirement pertaining to high ambient noise levels on a particular tax lot. If an area is proposed to be rezoned, and the accompanying environmental analysis indicates that development on a property may be adversely affected by noise, then an (E) designation for window/wall attenuation and alternate means of ventilation may be placed on the property by the lead agency in order to address such issues in conjunction with any new development or new use of the property. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit until the environmental requirements of the (E) designation are satisfied. The Office of Environmental Remediation (OER) administers the (E) Designation Environmental Review Program

For this project, considering the application of ZR Section 123-32 and as Projected Development Sites 1 and 2 are also projected with commercial uses (which may include commercial office uses) and as ZR Section 123-32 does not protect any uses other than residential dwelling units, an (E) designation is proposed for commercial office. To avoid any potential impacts associated with noise on the projected development sites (Block 1002, Lots 43, 45, 48, 49, and 50), as part of the proposed actions, an (E) designation for noise would be recorded against the properties.[7] The text for the (E) designation E-670 will be as follows:

> **Block 1002; Lots: 48, 49, and 50 (Projected Development Site 1)**
>
> **In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 23 dBA window/wall attenuation on the façades facing Ninth Street and the facades facing Second Avenue within 50 feet of Ninth Street and the facades facing Third Avenue within 50 feet of Ninth Street to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.**

[7] As a RWCDS, the applicant is proposing to transfer approximately 3,300 sf of commercial development rights from the abutting Development Rights Parcel at 124 8th Street (Lot 16, Block 1002), which is owned by the applicant and located outside of the proposed rezoning area, to projected development site 1 at 153-157 Ninth Street (Lots 48 to 50 on Block 1002). Therefore, Lot 16 would become part of the zoning lot with Lots 48, 49, and 50. The exiting two-family home and accessory building at Lot 16 would remain at the Development Rights Parcel irrespective of the proposed actions. This site would continue to be zoned M2-1, and there would be no change in use or new development on Lot 16 as a result of the proposed actions.

Noise Attenuation Requirements



Source: NYCDCP (2020); DoITT (2018)

Legend

- Projected Development Site 1
- Development Rights Parcel
- Projected Development Site 2
- Proposed Rezoning Area
- Existing Buildings

Attenuation Requirements for Commercial Office Uses

- 23 dBA

**Community Facility uses without dwelling units would require 5 dBA more*

Block 1002; Lots: 43 and 45 (Projected Development Site 2)

In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 23 dBA window/wall attenuation on the façades facing Ninth Street and the facades facing Second Avenue within 50 feet of Ninth Street and the facades facing Third Avenue within 50 feet of Ninth Street to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Per the (E) designation requirements, in order to receive a Certificate of Occupancy from the NYC Department of Buildings (DOB) the proposed actions and associated RWCDS must comply with these required composite window/wall attenuation values to maintain proper interior noise levels. With this institutional control in place, the proposed actions and RWCDS would not result in any significant adverse noise impacts related to building attenuation and no further analysis is necessary.

IX. OTHER NOISE CONCERNS

Mechanical Equipment

No detailed designs of the building's mechanical systems (i.e., heating, ventilation, and air conditioning systems) are available at this time. However, those systems would be designed to meet all applicable noise regulations and requirements and would be designed to produce noise levels that would not result in any significant increase in ambient noise levels. In addition, building mechanical systems would be designed with enclosures where necessary to meet all applicable noise regulations (i.e., Subchapter 5 §24-227 of the New York City Noise Control Code and the NYC DOB Building Code) and to avoid producing levels that would result in any significant increase in ambient noise levels.

Aircraft Noise

An initial aircraft noise impact screening analysis would be warranted if the new receptor would be located within one mile of an existing flight path, or cause aircraft to fly through existing or new flight paths over or within one mile of a receptor. Since the proposed rezoning area is not within one mile of an existing flight path, no initial aircraft noise impact screening analysis is warranted.

APPENDIX I

CITY AGENCY CORRESPONDENCE

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: GOWANUS_NINTHST
Date Received: 9/3/2020

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

Properties with no Architectural or Archaeological significance:

1) 167 9 STREET, BBL: 3010020043
2) 163 9 STREET, BBL: 3010020045
3) 157 9 STREET, BBL: 3010020048
4) 155 9 STREET, BBL: 3010020049
5) 153 9 STREET, BBL: 3010020050

Comments:

S/NR ELIGIBLE GOWANUS CANAL HISTORIC DISTRICT WITHIN RADIUS.

Gina Santucci 9/10/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35153_FSO_DNP_09102020.docx

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 22DCP091K
Project: GOWANUS_NINTHST
Date Received: 1/24/2022

Comments: LPC is in receipt of the Shadow chapter of the EAS dated 2/19/21. There are no concerns.

Gina Santucci

1/24/2022

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35153_FSO_GS_01242022.docx

Environmental Protection

Vincent Sapienza, P.E.
Commissioner

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Deputy Commissioner of Sustainability

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February 18, 2021

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New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: Gowanus 9th Street Rezoning
Block 1002, Lots 48, 49, and 50 (Projected Development Site 1)
Block 1002, Lots 43 and 45 (Projected Development Site 2)
CEQR # 77DCP771K

Dear Ms. Kenny:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the January 2021 Environmental Assessment Statement (EAS) and the October 2020 Phase I Environmental Site Assessment (Phase I) prepared by ALC Environmental for the above referenced project. It is our understanding that the proposed project is a private application for a proposed zoning map amendment from M1-2 to M1-4/R7A, a special permit pursuant to ZR 74-533 to waive required residential off-street parking, and a zoning text amendment to designate a Mandatory Inclusionary Housing (MIH) Area and Mixed Use district in order to facilitate a nine-story mixed-use development with approximately 48 dwelling units and ground floor commercial space in the Gowanus neighborhood of Brooklyn Community District 6. In the future with the proposed actions, as a reasonable worst case development scenario, the applicant-controlled Projected Development Site 1 (Block 1002, Lots 48 to 50) would be redeveloped with a nine-story, mixed-use residential and commercial building at 153-157 Ninth Street (Block 1002, Lots 48, 49, and 50), which would use approximately 3,300 square feet (sf) of commercial development rights transferred from an abutting Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16). The mixed-use building at Projected Development Site 1 would include approximately 48 dwelling units (DUs) and 16,000 gross square feet (gsf) of commercial space on portions of the ground floor and cellar level. No off-street accessory parking at Projected Development site 1 pursuant to the requested special permit to waive parking requirements for the residential uses. The proposed actions are also assumed to facilitate the development of a nine-story, approximately 38,231-gsf building, including 37 DUs and 6,469 gsf of ground floor retail use at Projected Development Site 2 (Block 1002, Lots 43 and 45). None of the other tax lots affected by the proposed zoning map and text changes are expected to be redeveloped or enlarged in the future with the proposed actions, nor would these other tax lots be expected to transfer developments rights given the lack of potential recipient parcels and the local market trends.

Block 1002, Lots 16, 48, 49, and 50

The October 2020 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including residential buildings, commercial buildings, light to heavy industrial/warehouse buildings, electric switchboard manufacturing, feather and down manufacturing, knitting mills, a textile converting company, a tag manufacturer, a metals furniture company, a metal box company, can and iron works, woodworking, balm manufacturing, auto detailing, auto paint components, automotive repair shops, auto wheels works, tire and truck service, electric companies, tire repair, an automobile storage yard, a used automobile sales lot, etc. Regulatory databases identified 51 spills, 5 historical auto sites, and 1 historical cleaner site within 1/8 mile; 1 dry cleaner, 18 underground storage tank sites, and 22 aboveground storage tank sites within 1/4 mile; 39 leaking storage tank sites, 9 voluntary cleanup program sites, and 22 brownfield sites within 1/2 mile; and 1 Record of Decision site and 5 manufactured gas plant sites within 1 mile of the subject property.

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

Projected Development Site 1: Block 1002, Lots 48, 49, and 50 (Site under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination and testing is not physically possible during the CEQR process, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Projected Development Site 2: Block 1002, Lots 43 and 45 (Site not under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **77DCP771K**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
R. Lucas
M. Wimbish
O. Abinader – DCP
M. Bertini - OER

APPENDIX II

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM

CONSISTENCY ASSESSMENT FORM (CAF)

FOR INTERNAL USE ONLY	WRP No. WRP #20-030
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: Angelina Gatto Trust

Name of Applicant Representative: Paul J Proulx, Land Use Counsel, Cater Ledyard & Milburn

Address: 2 Wall Street, New York, NY 1005

Telephone: 212.238.8763 Email: proulx@clm.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The applicant is proposing zoning map and text amendments and a special permit to waive the accessory parking requirement along 9th Street between Second and Third Avenues in Gowanus, Brooklyn. The associated RWCDS would include a total of 87 dwelling units (DUs), approximately 22,469 gsf of commercial use, and no off-street accessory parking. The applicant owned projected development site 1 would be developed with a 9-story mixed-use building containing 48 DUs and 16,000 gsf of commercial use on the ground floor and cellar level at 153-157 Ninth Street (Block 1002, Lots 48 to 50). The existing two-family residence and accessory building on the Development Rights Parcel at 124 Eighth Street (Block 1002, Lot 16) would remain in the future with the proposed actions. Projected development site 2 (Block 1002, Lots 43 and 45) would be developed with a 9-story mixed-use building containing 37 DUs and approximately 6,469 gsf of commercial use on the ground floor. It is expected that both projected development sites 1 and 2 would be completely constructed and fully occupied by 2026.

2. Purpose of activity

The proposed actions are intended to facilitate the development of new housing, including much-needed affordable housing units, in an area where there is a strong demand and which is in close proximity to public transportation.The proposed zoning change would also bring into compliance several existing residential uses. Under the current M2-1 zoning, only commercial and industrial/manufacturing uses are permitted, and no new residential or community facility development is allowed. The proposed actions would be consistent with existing land uses, as most of the directly affected area consists of residential and commercial uses. The proposed actions would promote and reaffirm a live-work neighborhood, by balancing the preservation of neighborhood scale and allowing a moderate increase in density with the opportunity to increase mixed-income housing. The proposed actions, according to the applicant, would help to address the continuing need for affordable housing for a range of household income levels in Gowanus. The proposed development would be constructed on underbuilt property in close proximity to public transportation and other public amenities.

C. PROJECT LOCATION

Borough: Brooklyn Tax Block/Lot(s): Block 1002, 16, 40 to 43, 45 to 50, 52 to 55, p/o 39 and 56

Street Address: 128 Eighth Street, 141 to 175 Ninth Street

Name of water body (if located on the waterfront): N.A.

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

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

Board of Standards and Appeals ☐ Yes ☑ No

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

Other City Approvals

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

State Actions/Approvals/Funding

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

Federal Actions/Approvals/Funding

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

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

E. LOCATION QUESTIONS

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

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
   ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
   ☐ Recognized Ecological Complex (REC) (*4.4*)
   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

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

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

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

		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.	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: Philip Habib

Address: 102 Madison Avenue 11th Floor, New York, NY, 10016

Telephone: 212-929-5656 Email: phabib@phaeng.com

Applicant/Agent's Signature 

Date: 11/19/21

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
212-720-3696
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.
- ☑ Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

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	Gowanus Ninth Street Rezoning
Location	Brooklyn Community District 6 (p/o Block 1002, including Lots 40 to 50, 52 to 55 and p/o Lots 39/56
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 is requesting a series of zoning actions to facilitate a 9-story building containing 48 DUs and 16,000 gsf of commercial use on the ground floor and cellar at 153-157 9th St. (Block 1002, Lots 48-50), which would use approximately 3,300 sf of commercial development rights transferred from an abutting Development Rights Parcel at 124 8th St. (Block 1002, Lot 16). The 2-family residence on the Development Rights Parcel at 124 8th St. (Block 1002, Lot 16) would remain in the future with the proposed actions. Projected development site 2 (Block 1002, Lots 43/45) would be developed with a 9-story building containing 37 DUs and 6,469 gsf of commercial use on the ground floor.
Planned Completion date	2026

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	5.05	**5.05**	**NAVD88**	*NOAA, The Battery, NY (8518750)*
1% flood height	11.00	**11.00**	**NAVD88**	*2015 FEMA pFIRMS for nearest 1% flood zone*
As relevant:				
0.2% flood height	13.00	13.00	**NAVD88**	*Estimate based on 1% flood elevation*
MHW	4.73	4.73	**NAVD88**	*NOAA, The Battery, NY (8518750)*
MSL	2.57	2.57	**NAVD88**	*NOAA, The Battery, NY (8518750)*
MLLW	0.00	0.00	**NAVD88**	*NOAA, The Battery, NY (8518750)*

Data will be converted based on the following datums:

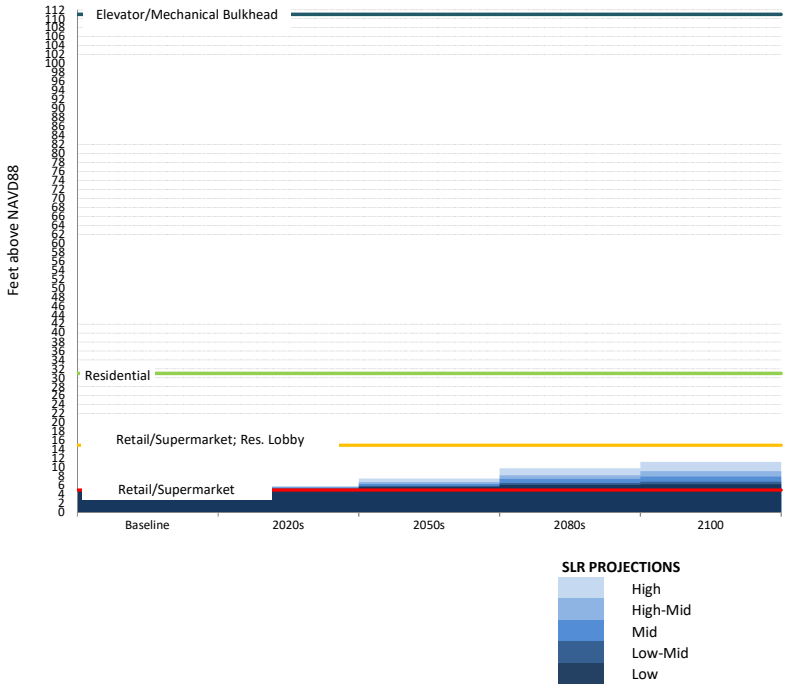
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*
Station	0.00
MLLW	0.00

Describe key physical features of the project.

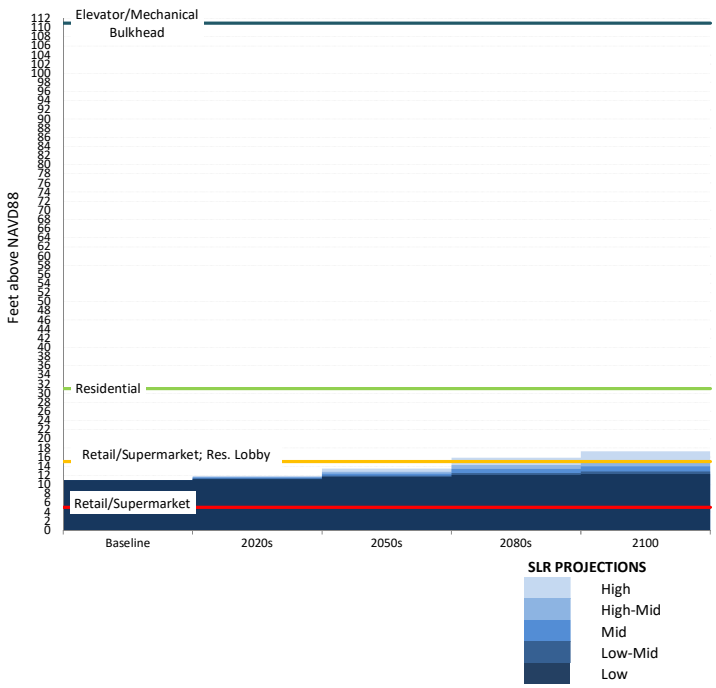
Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 1% flood height	Ft Above 0.2% flood height
Retail/Supermarket	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2073	5.0	Feet	NAVD88	*5.0*	*5.0*	*0.0*	*-6.0*	*-8.0*
Located in the cellar.										
Retail/Supermarket; Res. Lobby	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2073	15.0	Feet	NAVD88	*15.0*	*15.0*	*10.0*	*4.0*	*2.0*
Located on the ground floor.										
Residential	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2073	31.0	Feet	NAVD88	*31.0*	*31.0*	*26.0*	*20.0*	*18.0*
Located on Floors 2 through 9.										
Elevator/Mechanical Bulkhead	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	2073	111.0	Feet	NAVD88	*111.0*	*111.0*	*106.0*	*100.0*	*98.0*
Bulkhead containing elevator machinery and building mechanical space. The bulkhead would be located on the rooftop.										
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88					

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

Mean Higher High Water + Sea Level Rise



1% Flood Elevation + Sea Level Rise



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	5.05	5.05	5.05	5.05	5.05	**Baseline**
2020s	5.22	5.38	5.55	5.72	5.88	**2020s**
2050s	5.72	5.97	6.38	6.80	7.55	**2050s**
2080s	6.13	6.55	7.47	8.30	9.88	**2080s**
2100	6.30	6.88	8.05	9.22	11.30	**2100**

1%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High	
Baseline	11.00	11.00	11.00	11.00	11.00	**Baseline**
2020s	11.17	11.33	11.50	11.67	11.83	**2020s**
2050s	11.67	11.92	12.33	12.75	13.50	**2050s**
2080s	12.08	12.50	13.42	14.25	15.83	**2080s**
2100	12.25	12.83	14.00	15.17	17.25	**2100**

0.2%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	13.00	13.00	13.00	13.00	13.00
2020s	13.17	13.33	13.50	13.67	13.83
2050s	13.67	13.92	14.33	14.75	15.50
2080s	14.08	14.50	15.42	16.25	17.83
2100	14.25	14.83	16.00	17.17	19.25

	0	1
Retail/Supermarket	5	5
Retail/Supermarket; Res. Lobb	15	15
Residential	31	31
Elevator/Mechanical Bulkhead	111	111
0	0	0
0	0	0
0	0	0
0	0	0

SLR (in)

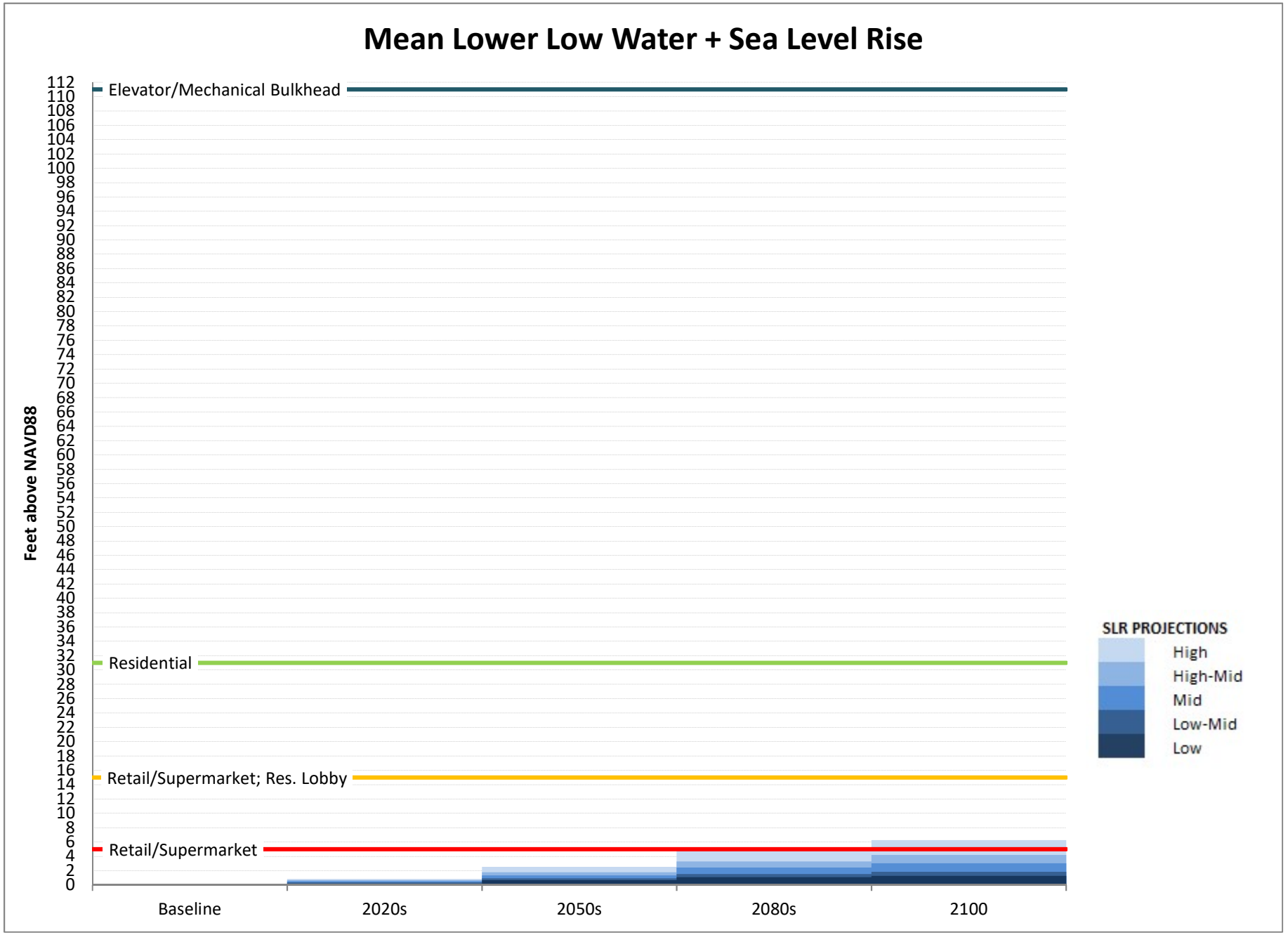
Low	Low-Mid	Mid	High-Mid	High
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

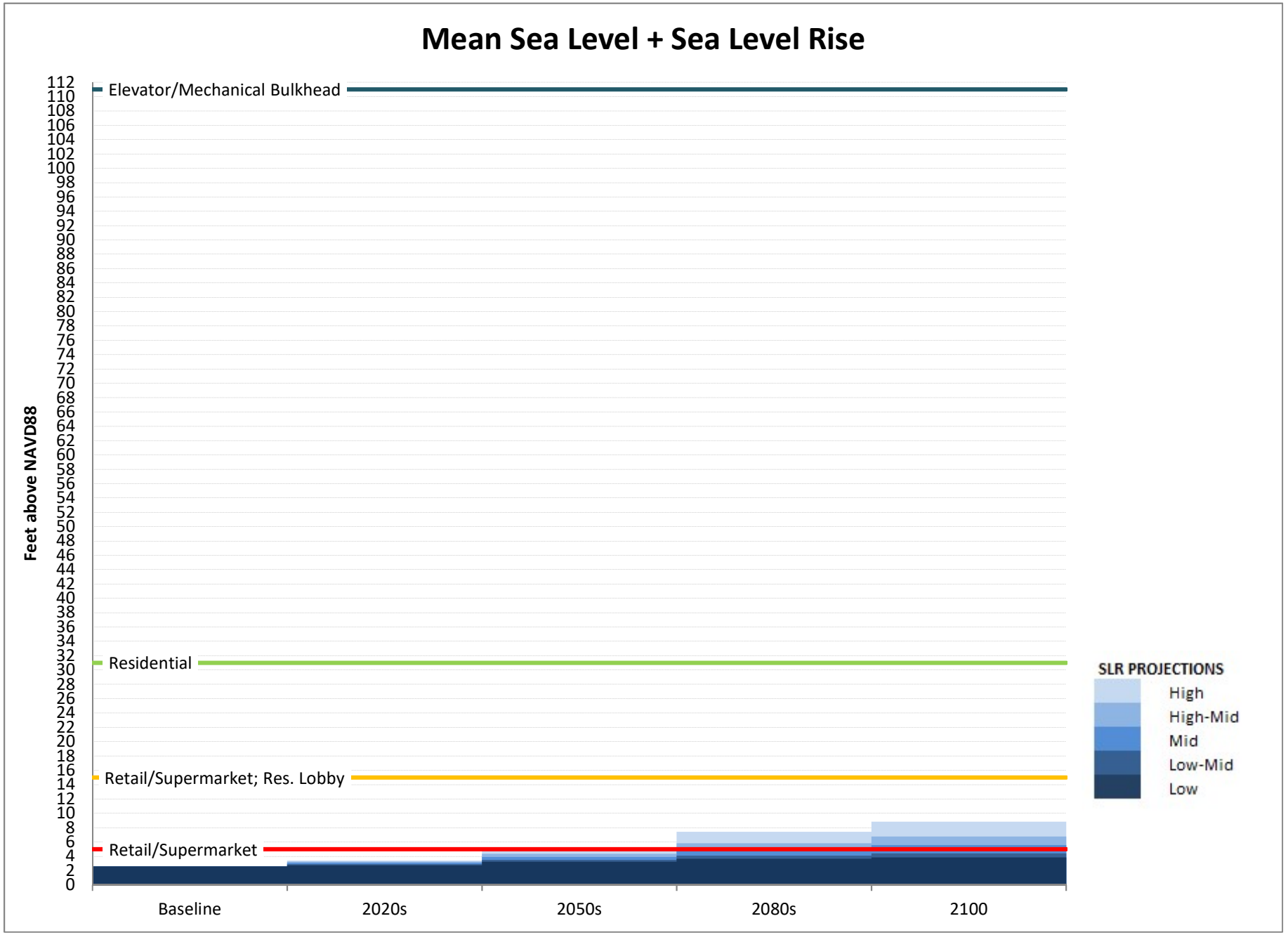
MLLW+SLR (ft above NAVD88)

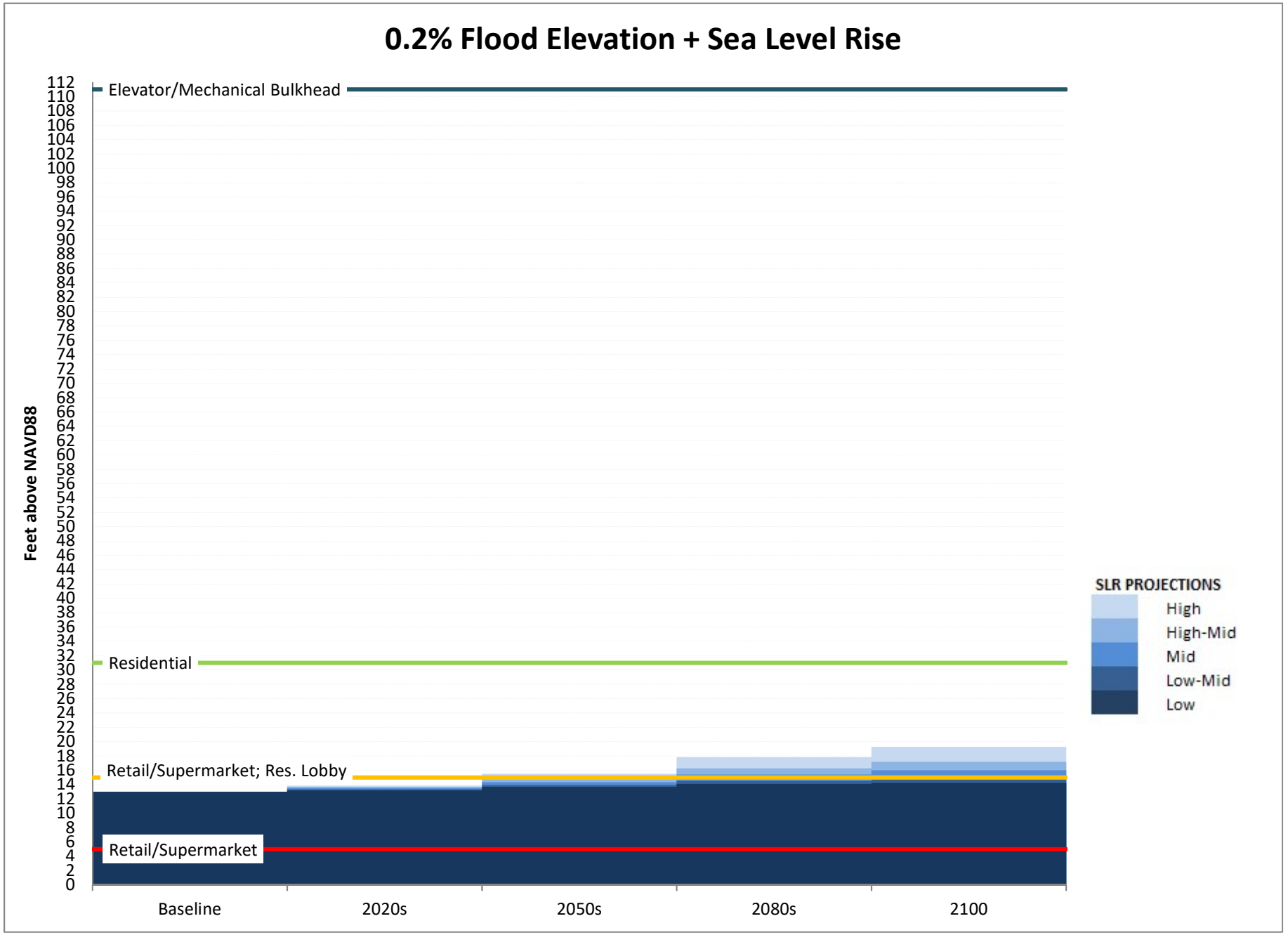
Low	Low-Mid	Mid	High-Mid	High
0.00	0.00	0.00	0.00	0.00
0.17	0.33	0.50	0.67	0.83
0.67	0.92	1.33	1.75	2.50
1.08	1.50	2.42	3.25	4.83
1.25	1.83	3.00	4.17	6.25

MSL+SLR (ft above NAVD88)

Low	Low-Mid	Mid	High-Mid	High
2.57	2.57	2.57	2.57	2.57
2.74	2.90	3.07	3.24	3.40
3.24	3.49	3.90	4.32	5.07
3.65	4.07	4.99	5.82	7.40
3.82	4.40	5.57	6.74	8.82


Mean Lower Low Water + Sea Level Rise
Feet above NAVD88
112
110
108
106
104
102
100
98
96
94
92
90
88
86
84
82
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Elevator/Mechanical Bulkhead
Residential
Retail/Supermarket; Res. Lobby
Retail/Supermarket
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low


Mean Sea Level + Sea Level Rise
Feet above NAVD88
112
110
108
106
104
102
100
98
96
94
92
90
88
86
84
82
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Elevator/Mechanical Bulkhead
Residential
Retail/Supermarket; Res. Lobby
Retail/Supermarket
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low


0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
112
110
108
106
104
102
100
98
96
94
92
90
88
86
84
82
80
78
76
74
72
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12
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8
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4
2
0
Elevator/Mechanical Bulkhead
Residential
Retail/Supermarket; Res. Lobby
Retail/Supermarket
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low