Environmental Assessment Statement (EAS)

40-25 Crescent Street Rezoning

CEQR No. 22DCP065Q

ULURP Nos. 220169ZMQ
N220170ZRQ

prepared for:
Crescent Street Associates, LLC
43-02 Ditmars Boulevard, 2nd Floor
Astoria, NY 11105

prepared by:
AKRF, Inc.
440 Park Avenue South, 7th Flr.
New York, NY 10016

May 6, 2022

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

Please fill out and submit to the appropriate agency (see instructions)

Part I: GENERAL INFORMATION

PROJECT NAME 40-25 Crescent Street Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP065Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
220169ZMQ, N220170ZRQ	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Planning Commission			NAME OF APPLICANT Crescent Street Associates, LLC c/o Greenberg Traurig, LLP		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, Deputy Director Environmental Assessment and Review Division New York City Department of City Planning			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Deirdre A. Carson, Greenberg Traurig, LLP		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 200 Park Avenue, 15th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10166
TELEPHONE 212-730-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-801-6855	EMAIL CarsonD@gtlaw.com	

3. *Action Classification and Type*

SEQRA Classification

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

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

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

4. *Project Description*

Crescent Street Associates, LLC (the "Applicant") is seeking a Zoning Map Amendment and a Zoning Text Amendment (the "Proposed Actions") to facilitate a mixed-use residential, commercial and light industrial development at 40-25 Crescent Street, Long Island City, Queens (Block 406, Lot 12; the "Development Site"). The Proposed Actions include: 1) a Zoning Map Amendment to rezone the Development Site and several adjacent properties (Block 406, Lots 9, 10, 11, 29, 38, 40 and parts of Lots 1, 2, 8, 24, 27 and 28; which, collectively with the Development Site, constitute the "Project Area") from M1-2/R5B and M1-2/R5D zoning districts to an M1-2/R6A zoning district; and 2) a Zoning Text Amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area.

The Proposed Actions would facilitate a new approximately 248,419-gross square foot (gsf) mixed-use building (the "Proposed Project") on the Development Site containing up to 233 dwelling units (DUs), including up to 70 affordable DUs (30 percent); approximately 12,960 gsf of manufacturing space for use by the Applicant for pipe manufacturing, fitting and storage; approximately 5,800 gsf of local retail space and approximately 27,800 gsf (118 spaces including 88 residential, 18 retail, and 12 manufacturing) of attended underground accessory parking.

See also Attachment A, "Project Description."

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 1	STREET ADDRESS 40-25 Crescent Street
TAX BLOCK(S) AND LOT(S) Block 406, Lots 9, 10, 11, 29, 38, 40, most of Lot 12 and parts of 1, 2, 8, 24, 27 and 28		ZIP CODE 11101

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Portion of the block bounded by 40th Avenue to the north, 27th Street to the east, 41st Avenue to the south, and Crescent Street to the west

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2/R5D and M1-2/R5B (Dutch Kills Subdistrict)	ZONING SECTIONAL MAP NUMBER 9b

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

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Appendix F

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

☐ VARIANCE (use)

☐ VARIANCE (bulk)

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

☐ LEGISLATION
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:

☐ FUNDING OF CONSTRUCTION, specify:
☐ POLICY OR PLAN, specify:
☐ FUNDING OF PROGRAMS, specify:
☐ PERMITS, specify:

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

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

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

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

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

☒ SITE LOCATION MAP ☒ 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.): Approx. 64,152 sf
Waterbody area (sq. ft.) and type:
Roads, buildings, and other paved surfaces (sq. ft.): Approx. 64,152 sf
Other, describe (sq. ft.):

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 248,419 gsf
NUMBER OF BUILDINGS: 1
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 248,419 sf
HEIGHT OF EACH BUILDING (ft.): 75 feet
NUMBER OF STORIES OF EACH BUILDING: 7 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: 45,533 sf
The total square feet not owned or controlled by the applicant: Approx. 18,619 sf

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 45,533 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 679,256 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 45,533 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

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

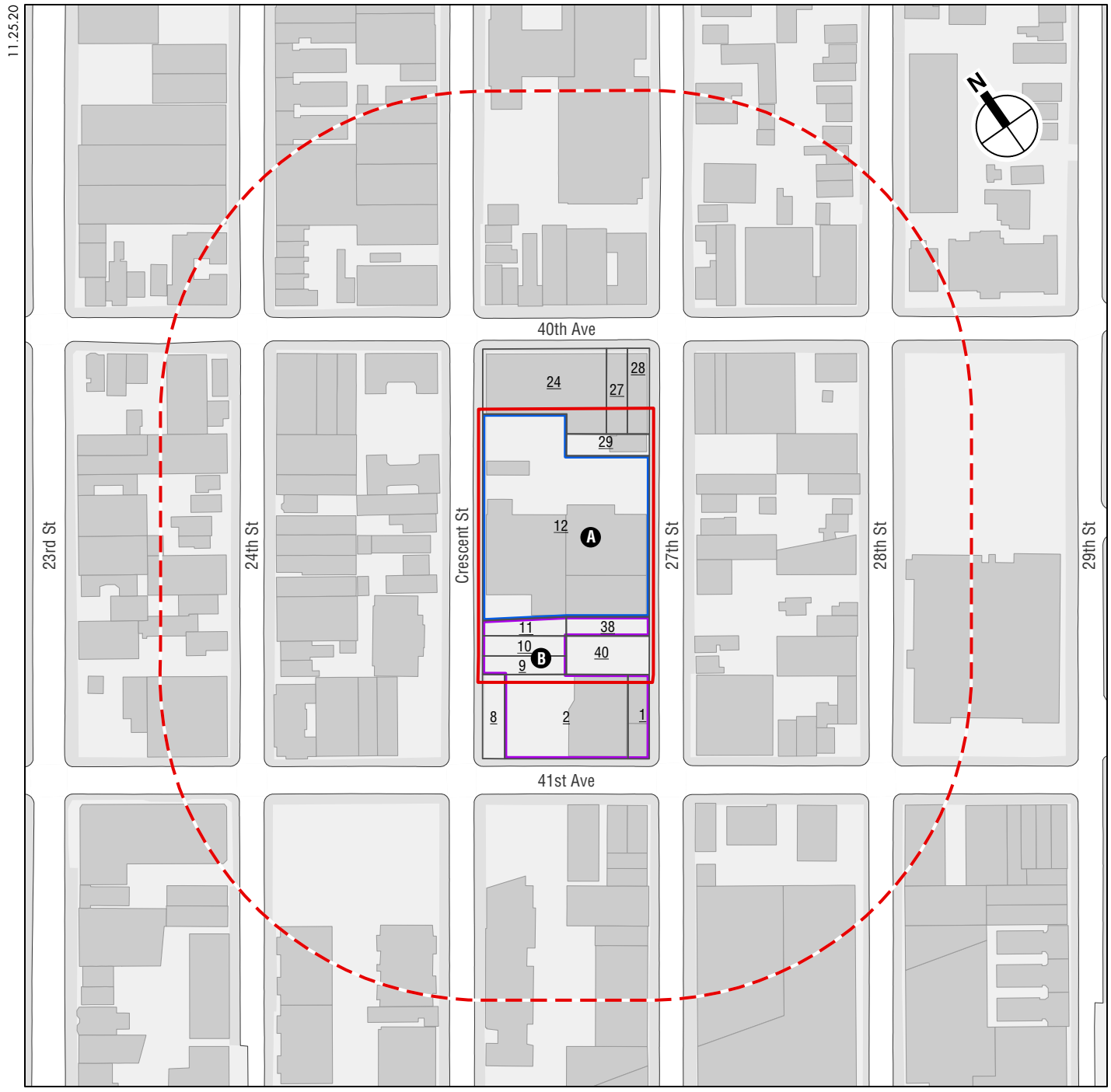
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Assuming approval of the requested Proposed Actions in 2022 and commencement of construction shortly thereafter, demolition through construction of the proposed project is expected to occur in one phase over a period of approximately 22 months, with construction completion and occupancy expected in 2025.

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

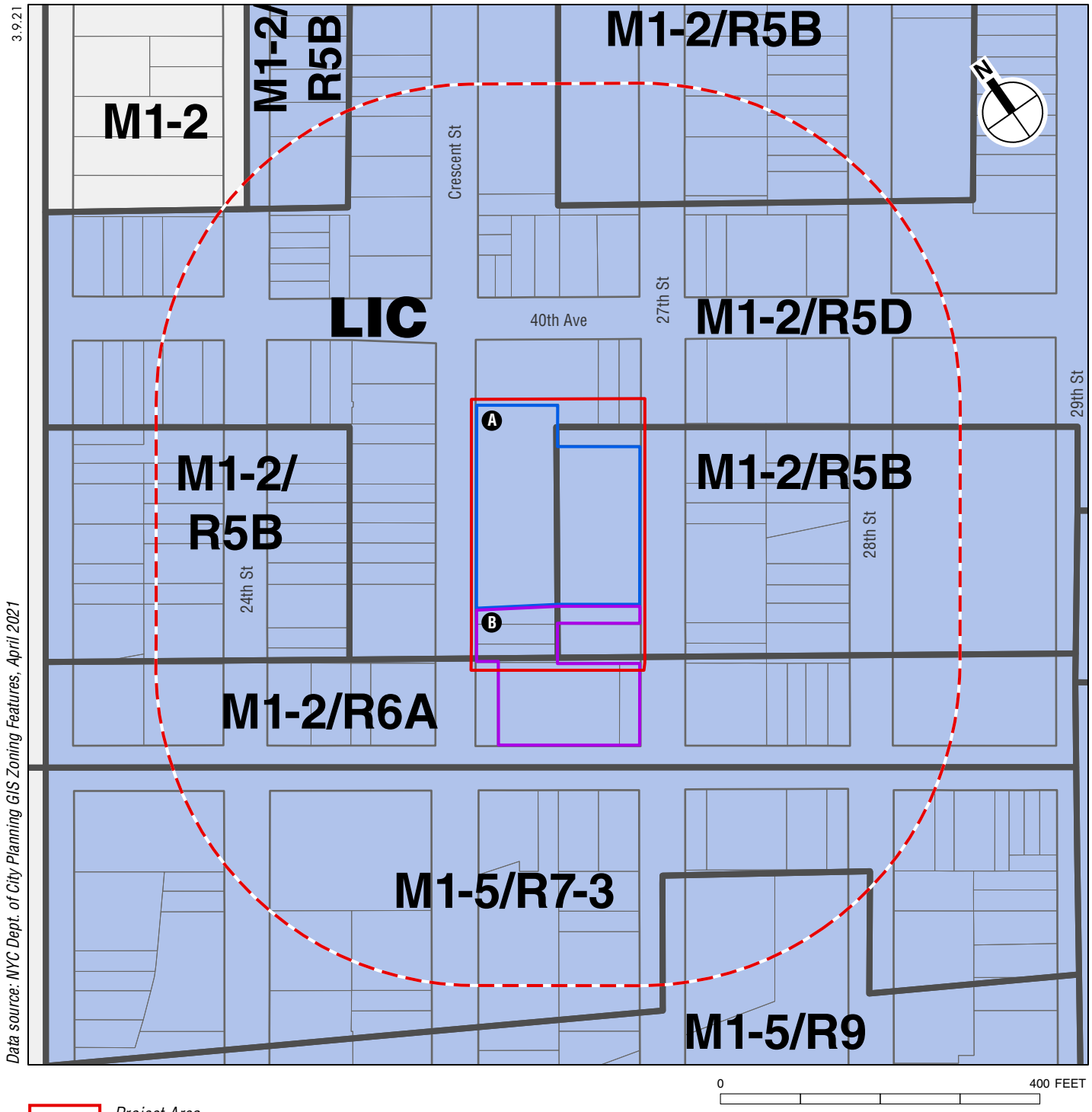
☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:



Project Location

40-25 CRESCENT STREET REZONING

Figure 1



Project Area

Development Site

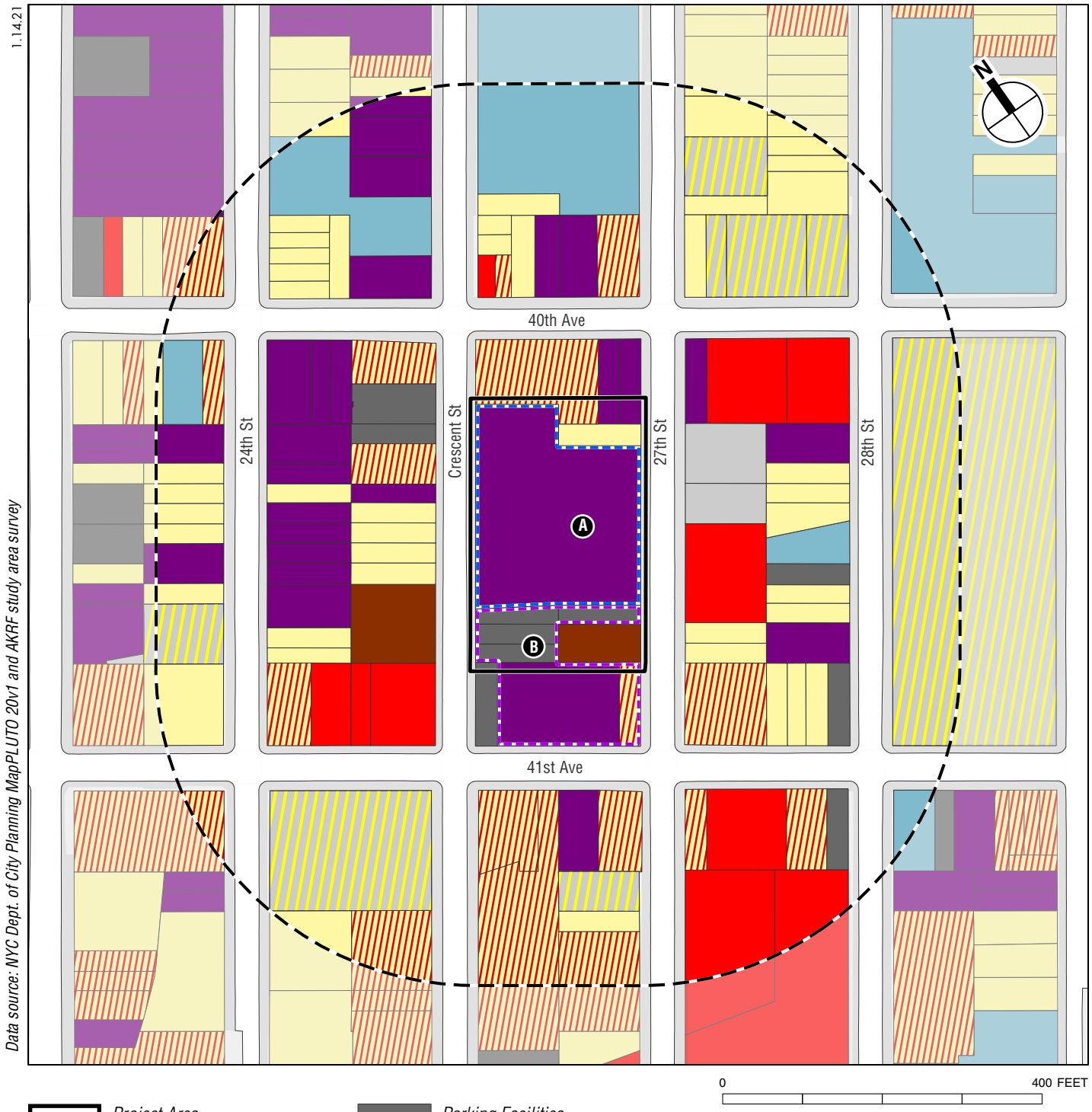
Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

Zoning District Boundaries

Special Long Island City Mixed Use District (LIC) - Dutch Kills Subdistrict

Existing Zoning



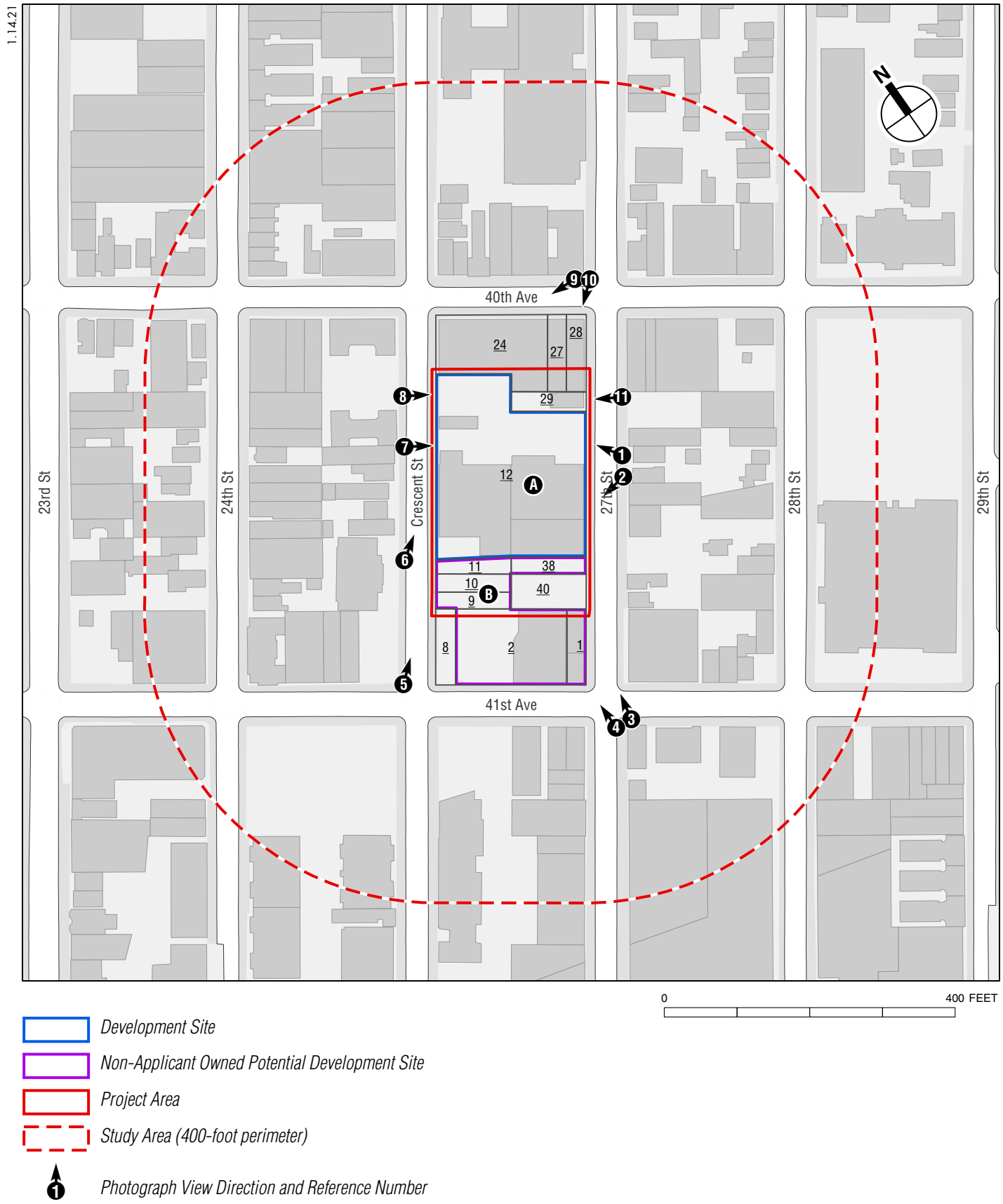
Existing Land Use



Tax Map

40-25 CRESCENT STREET REZONING

Figure 4



Photograph Locations

40-25 CRESCENT STREET REZONING

Figure 5



1



2

Photographs
Figure 6a



3



4

Photographs
Figure 6b



5



6

Photographs
Figure 6c



7



8

Photographs
Figure 8-6d



9



10

Photographs

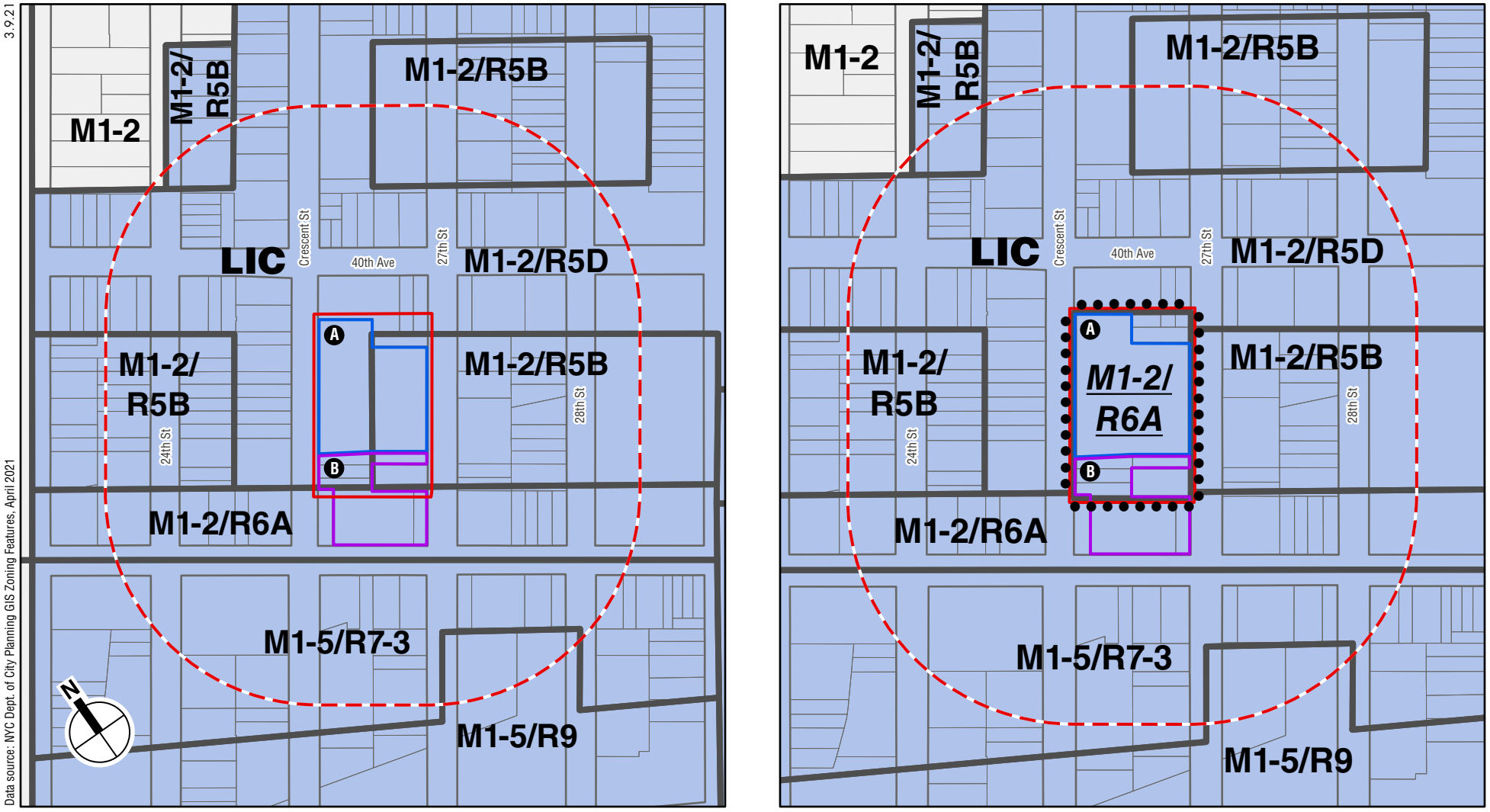
Figure 8-6e



11

Photographs

Figure 6f



40-25 CRESCENT STREET REZONING

Existing and Proposed Zoning

Figure 7

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Elevator Apartments	
No. of dwelling units	0	0	233	+233
No. of low- to moderate-income units	0	0	47	+47
Gross floor area (sq. ft.)	0	0	201,859 sf	+201,859 sf
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Office	Office	Retail	
Gross floor area (sq. ft.)	6,000 sf	6,000 sf	5,800 sf	-6,000 sf (Office) +5,800 sf (Retail)
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type of use	Storage and Maintenance	Storage and Maintenance	Pipe Manufacturing, Storage and Maintenance	
Gross floor area (sq. ft.)	18,000 sf	18,000 sf	12,960 sf	-5,040 sf
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	0	0	118	+118
Operating hours			24/7	+24/7
Attended or non-attended			Attended	+Attended
Lots	☒ YES ☐ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	20	20	0	-20
Operating hours				
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
POPULATION				
Residents	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
If "yes," specify number:	0	0	545	+545
Briefly explain how the number of residents was calculated:	233 DUs x 2.23 Persons Per Household (Queens CD1 Avg Household Size) = 520 persons			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	3 Total: 1 office; 1 food truck storage and maintenance; 1 water tank storage	3 Total: 1 office; 1 food truck storage and maintenance; 1 water tank storage	3 Total: 2 retail establishment; 1 pipe manufacturing, fitting and storage facility	
No. and type of workers by business	42 Total: 24-office; 18-light manufacturing	42 Total: 24-office; 18-light manufacturing	37 Total: 9-residential; 15-retail; 13-light manufacturing	-5
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	No Action assumes continuation of existing conditions and businesses. With Action assumes a total of 1 light manufacturing (pipe manufacturing, fitting and storage) establishment and 2 retail business on the Development Site. Employment multipiers were applied to gross floor area of retail and light manufacturing space to determine number of workers. Office: 250 sf/employee; Retail: 400 gsf/employee; Light Manufacturing: 1,000 gsf/employee; Residential: 25 DUs/worker			
Other (students, visitors, concert-goers, *etc.*)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	M1-2/R5B, M1-2/R5D, and M1-2/R6A	M1-2/R5B, M1-2/R5D, and M1-2/R6A	M1-2/R6A	-M1-2/R5B -M1-2/R5D
Maximum amount of floor area that can be developed	236,652	236,652	291,312	+54,660
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, Commercial, Manufacturing, Public Facilities, Vacant Land; Mixed Commercial and Residential Zoning: M1-2/R5B, M1-2/R5D, M1-2/R6A, M1-5/R7-3, M1-5/R9 and M1-2 overlays	Residential, Commercial, Manufacturing, Public Facilities, Vacant Land; Mixed Commercial and Residential Zoning: M1-2/R5B, M1-2/R5D, M1-2/R6A, M1-5/R7-3, M1-5/R9 and M1-2 overlays	Residential, Commercial, Manufacturing, Public Facilities, Vacant Land; Mixed Commercial and Residential Zoning: M1-2/R5B, M1-2/R5D, M1-2/R6A, M1-5/R7-3, M1-5/R9 and M1-2 overlays	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Full EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☒	☐
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See Attachment B		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of more than 200 residential units *or* 200,000 square feet of commercial space?	☒	☐
▪ If "yes," answer *both* questions 2(b)(ii) and 2(b)(iv) below.		
○ Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
○ Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
○ Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
○ If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
○ If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
○ Would expected average incomes of the new population exceed the average incomes of study area populations?	☒	☐
○ If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☒
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☒
○ If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☒
iii. Direct Business Displacement		
○ Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☒
○ Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?	☐	☒

	YES	NO
iv. Indirect Business Displacement		
○ Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
○ Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☒
v. Effects on Industry		
○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☒
○ Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
○ Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Libraries		
○ Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
○ If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. Public Schools		
○ Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
○ If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iv. Health Care Facilities		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☐	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
○ If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☒
○ If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5 percent?	☐	☒

	YES	NO
○ If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify: See Attachment D	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Attachment E		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment A.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10. See Attachment F		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☒	☐
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: On-site pest control company with a hazardous waste generator listing; historical on-site manufacturing; past and present off-site manufacturing, dry cleaning and dyeing, auto-related uses, fuel oil businesses, and appliance repair. Off-site regulatory listings including petroleum bulk storage, petroleum spills, and City and State cleanup sites with chlorinated solvents detected in groundwater and soil vapor.	☒	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed? Yes but may be conducted after CEQR completion; this will be ensured by the existing hazardous materials E designation (E-218) on the Development Site.	☒	☐
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?	☐	☒

	YES	NO
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
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): 9,553		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 29,633,323		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Attachemnt I.	☒	☐
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☒	☐
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment I.		
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) Would the proposed project result in the development of 350,000 square feet or more?	☐	☒

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

20. *APPLICANT'S CERTIFICATION*

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

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	SIGNATURE	DATE
Noah Bernstein, AICP AKRF, Inc.		May 6, 2022

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

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

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

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

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

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

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

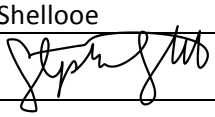
3. Check determination to be issued by the lead agency:

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

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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME: Stephanie Shellooe	DATE: May 6, 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 the EAS. The proposed actions are a Zoning Map Amendment to rezone the project area, Block 406, Lots 9, 10, 11, 12, 29, 38, 40, and part of Lots 1, 2, 8, 24, 27, and 28 from M1-2/R5B and M1-2/R5D zoning districts to M1-2/R6A, and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing (MIH) area coterminous with the project area in the Dutch Kills neighborhood of Long Island City, Queens, Community District 1. The proposed actions would facilitate the development of a new mixed-use building on Queens Block 406, Lot 12 (Site A), containing 233 dwelling units, up to 70 of which would be permanently affordable pursuant to MIH, approximately 13,000 gross square feet (GSF) of manufacturing space, 5,800 GSF of local retail space, and 118 parking spaces. Lots 1, 2, 9, 10, 11, and 38 (collectively Site B) are fully or partially within the project area and have been under common ownership since 1998. Because a large portion of the lot area is outside of the project area, Site B is analyzed as a potential development site. Zoning controls would also be modified on the remaining lots in the project area, but these lots are not projected for redevelopment as a result of the proposed actions because of the existing size, uses, or because only a small portion of the lot area is within the project area to be rezoned. The proposed actions would result in a change in land use within the project area, however, given the existing mixed-use character of the surrounding area, as well as the existing adjacent M1-2/R6A zoning district, the change in land use and zoning would be consistent with trend of the area and would not constitute a significant adverse impact. Additionally, there would be no impact to public policy as a result of the proposed actions.

Open Space

A detailed analysis related to open space is included in this EAS. The proposed actions would result in an increase of approximately 520 new residents, which is above the threshold described in the CEQR Technical Manual for a detailed analysis of residential open space. The open space ratio for residents in the study area would decrease from 0.144 to 0.142 acres per thousand residents, a decrease of approximately 1.39%, as a result of the proposed actions, which is below the 5% threshold for impacts to open space, but above 1%, which is considered in this case because the existing open space ratio is low compared to the City's planning goal of 2.5 acres per thousand residents. The analysis finds that while there would be a decrease in the 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 several open space resources that are just outside of the open space study area including Queensbridge Park, Murray Playground, Spirit Playground, Ravenswood Playground, One Court Square, McKenna Triangle, and Albert Triangle – all not included in the quantitative analysis. Additionally, the analysis finds low to moderate usage of existing open spaces within the study area, suggesting that these resources can absorb additional open space users. Therefore, with the consideration of these qualitative factors, the proposed actions would not result in any significant adverse impacts to open space, and no further analysis is required.

Hazardous Materials and Air Quality

An (E) designation (E-677) related to hazardous materials and air quality 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 and air quality analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials or air quality.

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 Rachel Antelmi at rantelmi@planning.nyc.gov.

TITLE Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe	DATE May 6, 2022
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE May 9, 2022
SIGNATURE	

Project Name: 40-25 Crescent Street Rezoning
CEQR # 22DCP065Q
SEQRA Classification: Unlisted

Determination of Significance Appendix

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

Development Site	Borough	Block and Lot
Projected Development Site A	Queens	Block 406, Lot 12
Potential Development Site B	Queens	Block 406, Lots 1, 2, 9, 10, 11, 38

(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-677**) would be established as part of approval of the proposed actions on **Projected Development Site A** and **Potential Development Site B** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site A	X	X	
Potential Development Site B	X	X	

Hazardous Materials

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

Task 1-Sampling Protocol
The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol
A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

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

Project Name: 40-25 Crescent Street Rezoning
CEQR # 22DCP065Q
SEQRA Classification: Unlisted

Air Quality

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

HVAC Systems

Projected Development Site A
Any new residential, commercial and/or light industrial development on Site A (Block 406, Lot 12) must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NOx burners (30 ppm), and heating and hot water exhaust stack(s) located at least 78 feet above grade. In addition, if located on the tower segment along 27th Street, the heating and hot water systems stack(s) must be at least 60 feet from the lot line facing 40th Avenue and at least 123 feet from the lot line facing 41st Avenue; OR if located on the tower along Crescent Street, the heating and hot water systems stack(s) must be at least 76 feet from the lot line facing 41st Avenue, to avoid potential significant adverse air quality impacts.

Potential Development Site B
Site B1 (Block 406, Lots 1, 2, 9, 10, and 11): Any new residential and/or light industrial development on Potential Development Site B1 – Block 406, Lots 1, 2, 9, 10, and 11, must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NOx burners (30 ppm) and ensure that fossil fuel-fired heating and hot water exhaust stacks are located at least 100 feet above grade, and be located at least 66 feet from the lot line facing 40th Avenue, to avoid potential significant adverse air quality impacts.

Site B2 (Block 406, Lot 38): Any new light industrial development on the Potential Development Site B2 – Block 406, Lot 38, must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NOx burners (30 ppm) and ensure that fossil fuel-fired heating and hot water exhaust stacks are located at least 48 feet above grade, to avoid potential significant adverse air quality impacts.

Proposed Light Industrial Uses

Projected Development Site A
Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 78 feet above grade to avoid any potential significant adverse air quality impact.

Odor/vapor barrier and prevention: a mechanical ventilation system separate from the residential and/or commercial building will provide fresh air to and exhaust from the ground-floor, with vents running above the roof line of the residential and/or commercial towers. An odor/vapor barrier would also be applied to the structural slab separating the light industrial and residential and/or commercial spaces.

Potential Development Site B
Site B1 (Block 406, Lots 1, 2, 9, 10, and 11): Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 100 feet above grade to avoid any potential significant adverse air quality impact.

Site B2 (Block 406, Lot 38): Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 48 feet above grade to avoid any potential significant adverse air quality impact. Odor/vapor barrier and prevention: a mechanical ventilation system separate from the residential and/or commercial building will provide fresh air to and exhaust from the ground-floor, with vents running above the roof line of the residential and/or commercial towers. An odor/vapor barrier would also be applied to the structural slab separating the light industrial and residential and/or commercial spaces.

A. INTRODUCTION

Crescent Street Associates, LLC (the "Applicant") is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") to facilitate the development of a mixed-use building at 40-25 Crescent Street in the Dutch Kills neighborhood of Long Island City, Queens. The Applicant owns the property at 40-25 Crescent Street (Block 406, Lot 12; the "Development Site" or "Site A"). The Proposed Actions include a zoning map amendment that would rezone the Development Site and several adjacent properties to the north and south (Block 406, Lots 9, 10, 11, 29, 38, 40, and portions of [p/o] Lots 1, 2, 8, 24, 27, and 28) from the existing M1-2/R5B and M1-2/R5D zoning to M1-2/R6A. For the purposes of this assessment, the Development Site and the additional lots to be rezoned collectively constitute the "Project Area" (see **Figure A-1**). The Proposed Actions would also include a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing Area. The Proposed Actions would facilitate the development of a 7-story (75-foot tall), approximately 248,419 gross square foot (gsf), mixed-use building on the Development Site (the "Proposed Project").

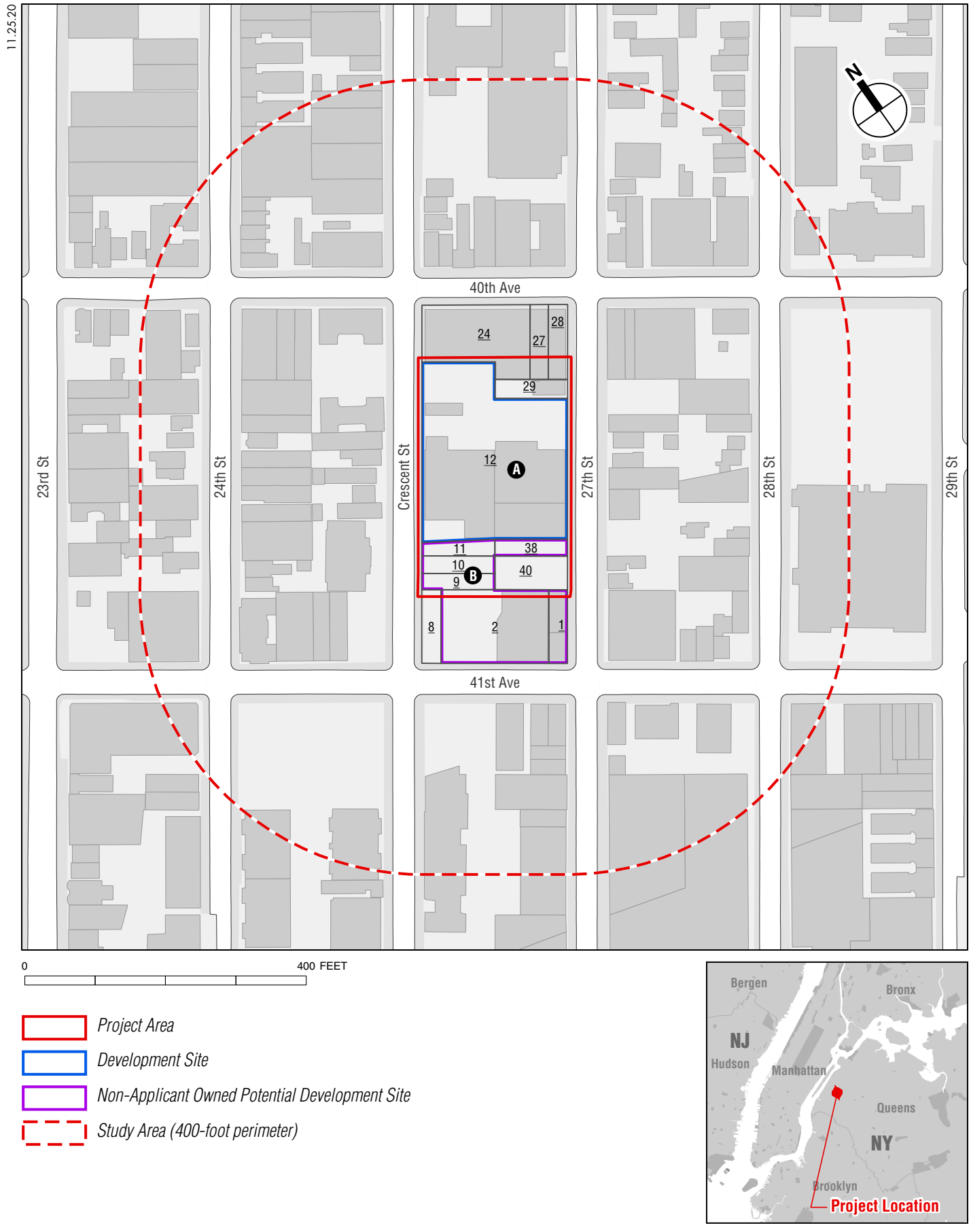
B. PROJECT DESCRIPTION

DESCRIPTION OF THE PROJECT AREA

The Project Area includes the Development Site (Block 406, Lot 12), which is owned by the Applicant, as well adjacent properties to the north and south (Block 406, Lots 9, 10, 11, 29, 38, 40, and [p/o] Lots 1, 2, 8, 24, 27, and 28) that would also be rezoned under the Proposed Actions, some of which are anticipated to see development as a result (see **Figure A-2**).

The Development Site (also known as Site A) is approximately 45,200 square feet (sf) in size with approximately 255 feet of frontage on Crescent Street and 200 feet of frontage on 27th Street. The Development Site is occupied by four one-story buildings (23,840 sf of floor area) used as an office space for Orkin (an exterminating service), a facility for the Applicant to store and test water storage and cooling tower products, and a parking lot and service area (unenclosed area) for food trucks and carts.

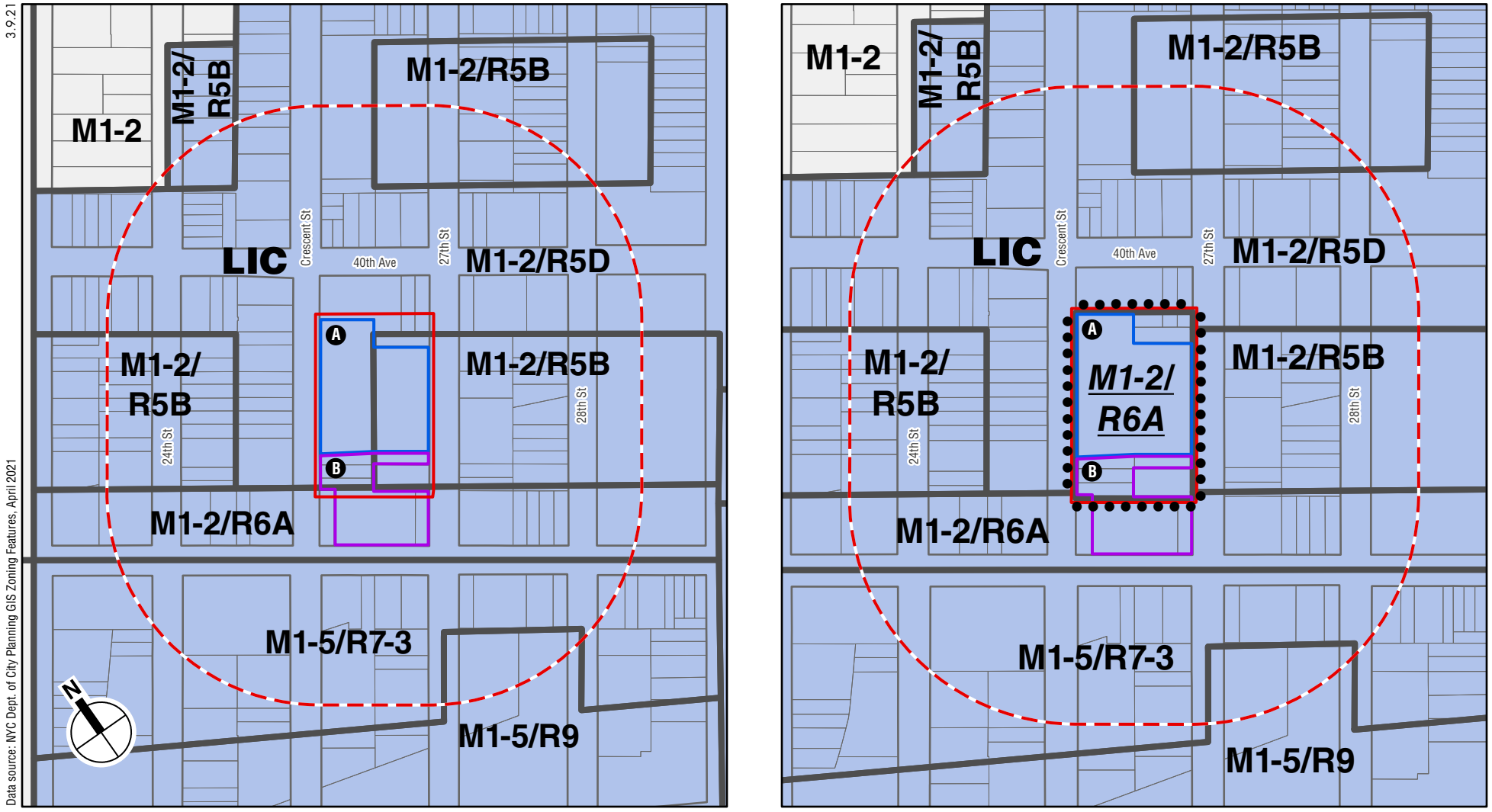
The remainder of the Project Area is composed of Lots 9, 10, 11, 29, 38, and 40, and p/o Lots 1, 2, 8, 24, 27, and 28 which are not anticipated to see development. Several lots on the southern portion of the Project Area (Lots 1, 2, 8, 9, 10, and 38) are owned by a single ownership entity encompassing an area of 27,335 sf and currently contain four unimproved lots that are being used for vehicle storage and create a combined area of approximately 9,800 sf (Lots 9, 10 and 38 are each approximately 2,500 sf, Lot 11 is approximately 2,300 sf). Lot 1 includes an approximately 4,500-sf three-story mixed-use residential and commercial building and Lot 2 contains an approximately 9,750-sf one-story commercial building. Lot 29 is approximately 2,500 sf and is



Project Location

40-25 CRESCENT STREET REZONING

Figure A-1



40-25 CRESCENT STREET REZONING

Existing and Proposed Zoning

Figure A-2

occupied by an approximately 1,400-sf three-story multi-family residence that fronts on 27th Street, while Lot 40 is improved with an approximately 31,383-sf nine-story hotel.

Small portions of Lots 8, 24, 27, and 28 that would be rezoned under the Proposed Actions are included in the Project Area. Lot 8 is an approximately 2,500-sf vacant lot at the northeast corner of the intersection of Crescent Street and 41st Avenue. Along 40th Avenue, Lot 24 is occupied by an approximately 70,275 sf five-story apartment building with ground floor commercial space. To the east, Lot 27 includes an approximately 2,500-sf one-story industrial building. On the southwest corner of the intersection of 40th Avenue and 27th Street is a two-story, approximately 5,000-sf industrial building.

PROPOSED ACTIONS

The Proposed Actions are:

1. Zoning map amendment to rezone the Project Area from the existing M1-2/R5B and M1-2/R5D special mixed use residential and manufacturing (MX) zoning districts to a M1-2/R6A MX district, see **Figure A-2**.
2. Zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing Area (MIHA).

BACKGROUND AND PRIOR ACTIONS

The Project Area is currently split into M1-2/R5B and M1-2/R5D zoning districts within the boundaries of the Dutch Kills Subdistrict of the Special Long Island City Mixed Use District. In 2008, the New York City Department of City Planning (DCP) rezoned a 40-block area of Long Island City as the Dutch Kills Subdistrict of the Special Long Island City Mixed Use District. The new subdistrict encompassed the area bounded by 36th Avenue to the north, Northern Boulevard to the east, 41st Avenue to the south and 23rd Street to the west. The rezoning was intended to create more predictable building scales commensurate with existing contexts, expand the mix of permitted uses and encourage an increase in residential development.

Prior to 2008, the Project Area had been zoned an M1-3D zoning district since 1989, and before that an M1-3 zoning district since the introduction of the Zoning Resolution of the City of New York in 1961.

DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Actions would facilitate a new approximately 248,419-gsf mixed-use building on the Development Site containing up to 233 DUs, including up to 70 affordable DUs (30 percent), approximately 12,960 gsf of manufacturing space for use by the Applicant for pipe fitting and storage in support of their water tank and cooling tower operations, approximately 5,800 gsf of local retail space, and approximately 27,800 gsf (118 spaces) of underground parking. Local retail space would be situated at street level along Crescent Street. The manufacturing space would also front along Crescent Street and would span the depth of the lot (to 27th Street), occupying the northern portion of the Development Site's ground floor level with entrances on both Crescent and 27th Streets (see **Figures A-3 and A-4**). A loading dock would be provided next to the manufacturing entrance on Crescent Street.

The residential component would be comprised of two building wings on a single one-story base (one along Crescent Street and one along 27th Street), each with five full floors (floors 2–6) and

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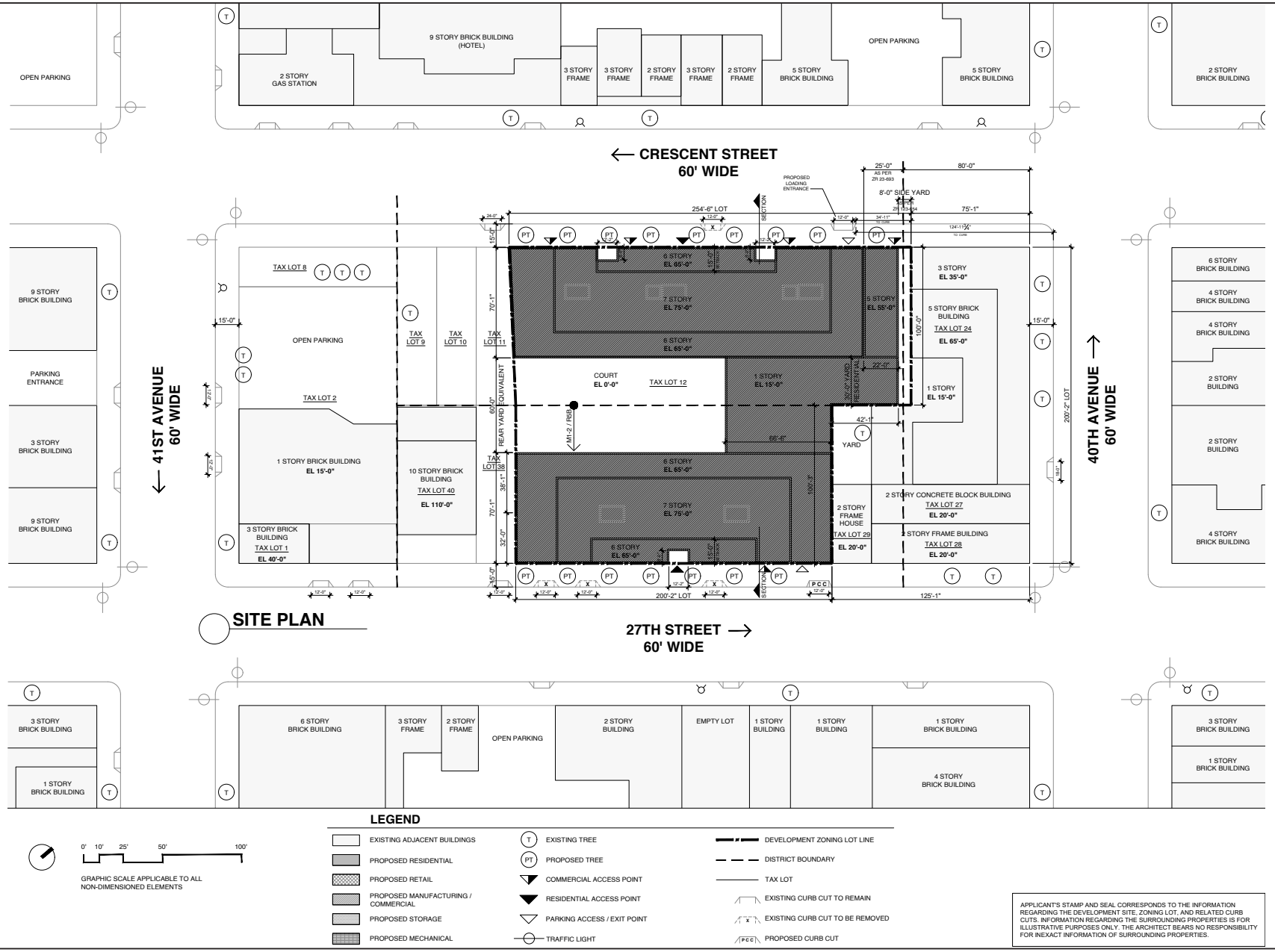

Source: Gene Kaufman Architect PC

Proposed Development Site Plan

Figure A-3

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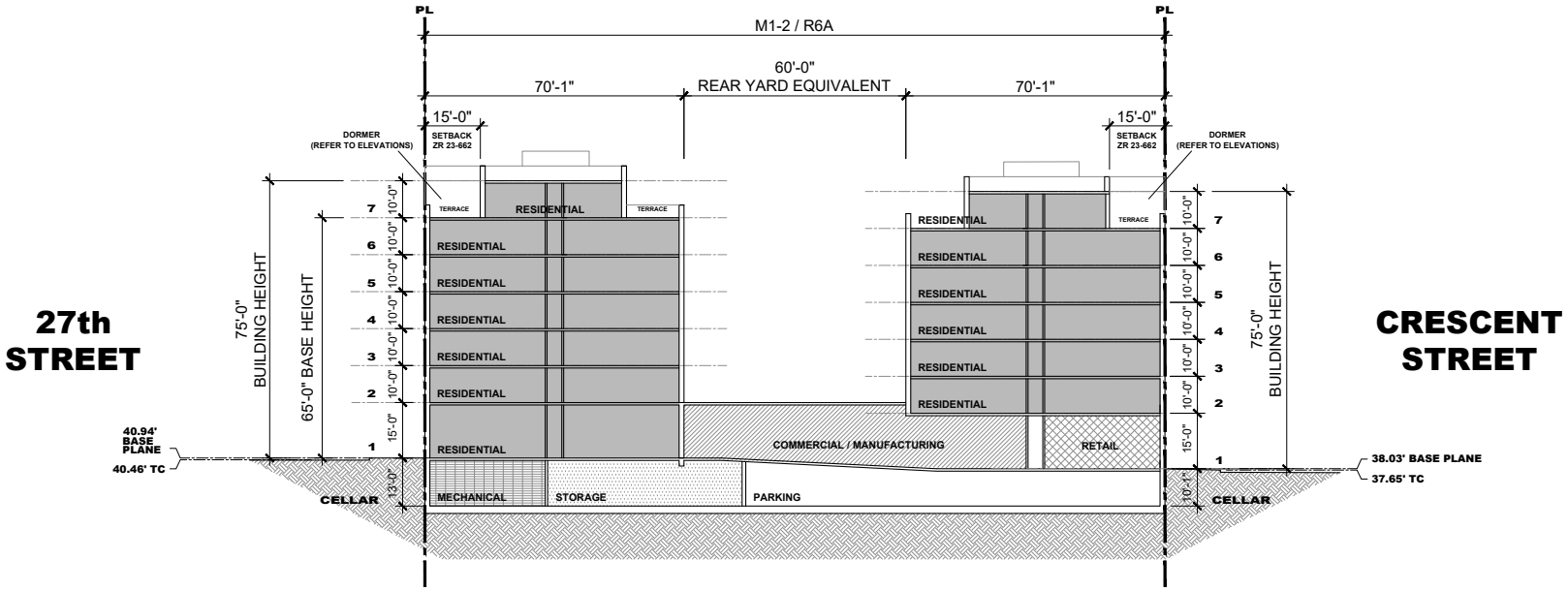


ZONING DISTRICT: M1-2 / R6A
SPECIAL LONG ISLAND CITY
(DUTCH KILLS SUBDISTRICT)

FOR ILLUSTRATIVE USE ONLY

SECTION
SCALE: 1'-0" = 1/16"

Source: Gene Kaufman Architect PC

Proposed Development Section Drawing

one partial floor setback from the street (floor 7) above the ground floor base (see **Figure A-4**). Ground floor commercial space would extend almost the full length of the Development Site along Crescent Street (approximately 280 feet), with a centrally located residential lobby. An additional ground floor residential lobby would be located along 27th Street. Each residential segment would have ground floor dwelling units and access to a common interior rear courtyard. These ground floor dwelling units would be located along the interior of the Crescent Street tower segment, and along the interior and exterior of the 27th Street tower segment.

The Proposed Project would provide 118 attended accessory parking spaces (88 residential, 18 retail, and 12 manufacturing) located in the cellar, and would be accessible via a ramp located along 27th Street at the northeast corner of the Development Site. In total, the Development Site would have two curb cuts: one for the loading dock on Crescent Street and one for the attended parking spaces on 27th Street.

PURPOSE AND NEED

The Proposed Actions would facilitate the development of a mixed-use building on Site A providing needed residential space with affordable units and continued commercial and light manufacturing uses on the ground floor.

The proposed zoning map amendment is required to facilitate the Proposed Project as the existing M1-2/R5B and M1-2/R5D zoning within the Project Area provides for lower residential density and building height. The proposed M1-2/R6A zoning would facilitate the proposed new DUs, and its allowance of both residential, commercial, and light manufacturing uses is in line with the emerging mixed-use nature of the Dutch Kills neighborhood. The permitted bulk and uses in a M1-2/R6A district are consistent with the other existing zoning districts mapped along 41st Avenue just south of the Project Area and with the prevailing trend towards mixed-uses at higher densities in the surrounding area. Furthermore, the proposed district's contextual nature would be respectful to the neighborhoods existing residential and industrial nature north of 41st Avenue.

The mapping of the Project Area as an MIH area would ensure the provision of permanently affordable housing and advance New York City's goal of preserving and/or creating 300,000 affordable housing units by 2026. The zoning text amendment's application of an MIH area to the Project Area would require new development to set aside 25 to 30 percent of residential floor area for permanently affordable housing, ensuring that new development addresses the need for new permanently affordable housing in Queens Community District 1.

C. FRAMEWORK FOR ANALYSIS

DEVELOPMENT SITE AND PROJECT AREA ASSUMPTIONS

The Proposed Actions, which include zoning changes, would affect the Development Site as well as other adjacent properties to the south of the Development Site that are within or partially within the Project Area. However, as explained below, in addition to facilitating new development on the Development Site, the Proposed Actions and additional FAR allowed by them are not projected to likely result in a new development on other properties in the Project Area. One site was determined to be a "potential" Development Site, which is a site that may, but is less likely to, be redeveloped as a result of the Proposed Actions. The following information and assumptions were used to make this determination:

- The Development Site (also known as Site A), would be developed with the Proposed Project built to an FAR of 3.86. The maximum height of the proposed development on the Development Site would be approximately 75 feet; however, the environmental analysis conservatively assumes a height of 85 feet, which is the maximum permitted under the proposed M1-2/R6A zoning.
- Lots 1, 2, 9, 10, 11, and 38 (collectively, Site B) comprise an assemblage of lots that have been under common ownership since 1998. There has been no development on this site since the lots have come under common ownership nor are there any known development plans for this site. Additionally, based on calculations of the additional development potential that would be provided by the proposed rezoning for Lots 9, 10, 11, and 38 as compared to the existing underlying zoning regulations, maximizing the residential floor area pursuant to the Proposed Actions would allow for an extra approximately 7 market-rate units to the assemblage, plus 12 to 13 MIH units. Therefore, it is not likely that the Proposed Actions alone would induce a redevelopment of the assemblage. However, for purposes of this environmental review, Site B will be analyzed as a Potential Development Site. The RWCDS assumes that development on Site B would contain mixed-use residential development that would provide enough qualifying ground-floor manufacturing space to maximize the bonus residential FAR allowed under the proposed zoning for including qualifying manufacturing space.
- Lot 40 contains the nine-story, 70-room LIC Plaza Hotel, a non-complying building that was deemed vested under prior zoning pursuant to a New York City Board of Standards and Appeals (BSA) resolution. Since this lot was recently developed and would remain non-complying under the proposed rezoning, it is not considered a projected or Potential Development Site.
- Lot 29 has an area of approximately 2,500 sf and contains a three-story multi-family residence with 3 DUs and a front yard that extends past the lot line into the sidewalk along 27th Street. The lot does not have a curb cut. Based on a search of the surrounding area, no similarly sized (2,500 sf) lots were redeveloped in the last 15 years. Additionally, this lot is likely too small to accommodate a qualifying use that would enable the site to take advantage of the Subdistrict's FAR bonus. Therefore, this site is not considered a projected or Potential Development Site.
- The small portions of Lots 8, 24, 27, and 28 within the Project Area are not controlled by the Applicant and are not under common ownership. Therefore, they are not expected to be redeveloped as a result of the Proposed Actions.

Properties affected in by the Proposed Actions are also summarized in **Table A-1**.

Table A-1
Properties Affected by the Proposed Actions

Block	Lot	Address
Development Site (Site A)		
406	12	40-25 Crescent Street
Potential Development Site (Site B)		
406	1**	40-39 Crescent Street
	2**	
	9	
	10	
	11	
	38	
Additional Properties in the Project Area*		
406	p/o 8**	41st Avenue
	p/o 24**	40-05 Crescent Street
	p/o 27**	25-18 40th Avenue
	p/o 28**	25-20 40th Avenue
	29	40-14 27th Street
	40	40-40 27th Street

Notes:
*No development is anticipated on Block 406, p/o Lots 8, 24, 27, and 28 or Lots 29 and 40 as a result of the Proposed Actions
** The proposed rezoning area has a depth of 100 feet from 41st Avenue and a depth of 80 feet from 40th Avenue, which includes portions of Lots 8, 24, 27, and 28 and therefore is included within the Project Area. Portions of Lots 1 and 2 are included within the Project Area, but included as a whole under Site B as Lots 1, 2, 9, 10, 11, and 38 are owned by a single entity.

BUILD YEAR

The build year for the Proposed Actions is 2025. This assumes project approvals in 2022 for the Development Site and an approximately 22-month construction period beginning in 2022 and ending in 2024, with full occupancy and lease-up also by 2025.

NO ACTION CONDITION

In the future without the Proposed Actions (the "No Action" condition), the Development Site and Potential Development Site B within the Project Area are assumed to remain in their existing condition, and the Applicant would continue to conduct its business on the Development Site. The existing M1-2/R5B and M1-2/R5D zoning, with their maximum permitted FAR of 3.0, would remain in place and there is no indication that the Development Site or Site B would be redeveloped absent approval of the Proposed Actions; therefore, it is assumed that existing uses would continue on these sites.

WITH ACTION CONDITION

In the future with the Proposed Actions (the "With Action" condition), the Development Site would be redeveloped with the approximately 248,419-gsf Proposed Project. This development would contain approximately 233 DUs, of which up to 70 DUs would be permanently affordable in 201,859 gsf of residential space, 5,800 gsf of local retail uses, 12,960 gsf of light manufacturing space, and 118 accessory parking spaces (see **Table A-2**). The building would have 7 stories and would be 75 feet tall; however, since the Proposed Actions would allow the development of a

building with a maximum building height of 85 feet, the EAS analyzes a building with a height of up to 85 feet on the Development Site under the With Action condition (see **Figure A-4**).

Table A-2
Reasonable Worst-Case Development Scenario

Use	Existing/ No Action Condition	With Action Condition	Increment
Residential–Total DUs	0	233	233
Residential–Affordable DUs	0	70	70
Office (sf)	6,000	0	-6,000
Retail (sf)	0	5,800	5,800
Light Manufacturing (sf)	18,000 (excluding parking lot/unenclosed area)	12,960	-5,040
Accessory Parking	20	118	98

In accordance with the City's MIH program either 25 percent (MIH Option 1) or 30 percent (MIH Option 2) of the residential floor area would be designated as affordable housing units for residents with a range of incomes. The applicant is proposing to pursue to MIH Option 1 for the Proposed Project; however, since the exact MIH option will not be confirmed until later in the Uniform Land Use Review Procedure (ULURP) process, this environmental analysis conservatively assumes that the Proposed Project would include up to 70 affordable DUs (30 percent). For early childhood programs analysis purposes, it is assumed that 20 percent of the overall residential floor area (approximately 47 DUs) would be affordable to low-income households earning 80 percent or below the Area Median Income (AMI).

In the With Action condition, Site B would also potentially be redeveloped with two buildings. In such a scenario, it is projected that Lots 1, 2, 9, 10, and 11 would be developed with a building of up to 137,380 gsf, including 104 DUs (89,121 gsf residential), of which up to 30 percent (approximately 32 DUs) would be affordable under MIH; 20,931 gsf of light manufacturing use on the ground floor; and 72 accessory underground parking spaces. The building is assumed to be up to 85 feet tall. The building on Lot 38 would include 6,006 gsf of light manufacturing space and would be 45 feet tall.[1] However, as Site B is identified as a "Potential Development Site" that is less likely to be developed, the potential impacts of this site on environmental conditions are not considered for density-related CEQR analysis categories (such as socioeconomic conditions, community facilities and transportation). This Potential Development Site is only analyzed for potential physical impacts such as shadows and urban design.

The other remaining properties in the Project Area (Block 406, Lots 29 and 40, and p/o Lots 8, 24, 27, and 28) are not expected to be developed as a result of the Proposed Actions.

Under the With Action condition, the Proposed Actions would result in a development increment of 233 DUs on the Development Site (Site A) compared to the No Action condition. Additionally, there would be an overall net decrease of 200 gsf of commercial use, resulting from a 5,800-gsf increase in retail space and a 6,000-gsf decrease in office space. Compared to the No Action condition, the With Action condition would also be a net decrease of 5,040 gsf of light

[1] The assumed building height is based on reasonable development assumptions for a manufacturing facility on a site this size, which would not need more than three stories (one to two stories of manufacturing and storage/warehousing plus one story for accessory offices).

manufacturing. There would also be an overall increase of 98 parking spaces compared to the No Action condition.

D. ENVIRONMENTAL ANALYSES

All analyses were performed in accordance with the guidance contained in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*. For environmental categories in which the Proposed Project would not have the potential to result in any significant adverse impacts, no further analysis is necessary. Further assessments of Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Shadows; Urban Design and Visual Resources; Hazardous Materials; Transportation; Air Quality; and Noise are provided as part of this EAS.

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

Subsequent to the filing of this EAS, an update to the *CEQR Technical Manual* was issued in December 2021 (the 2021 Manual). While some of the environmental analysis methodologies (including Community Facilities and Services, Socioeconomic Conditions, Open Space, and Transportation) were modified in the 2021 Manual, none of these changes would affect the overall findings of the environmental analyses prepared for this EAS. Therefore, the Proposed Actions would also not result in any significant adverse environmental impacts under the 2021 Manual guidelines.

LAND USE, ZONING, AND PUBLIC POLICY

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

SOCIOECONOMIC CONDITIONS

See Attachment C, "Socioeconomic Conditions."

COMMUNITY FACILITIES AND SERVICES

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

- Public Schools and Early Childhood Programming: The Proposed Actions would introduce 233 additional DUs to the Project Area, of which 47 would be affordable to low- to moderate-income households.[2] This would result in approximately 26 new elementary school students, 10 new intermediate school students, 24 new high school students, and 7 children eligible for

[2] For early childhood programs analysis purposes, following CEQR guidance, it is assumed that 20 percent of the overall residential floor area (approximately 47 DUs) would be affordable to households with income levels 80 percent or below the Area Median Income (AMI) regardless of which MIH option is used.

publicly funded child care, and would be below the thresholds for analysis (50 or more elementary/intermediate school students and 20 or more children eligible for publicly funded early childhood programs). Therefore, no further analyses are warranted.

- Libraries: The number of DUs generated by the Proposed Actions does not meet the threshold listed in the *CEQR Technical Manual* (663 DUs for projects in Queens) requiring analysis of indirect impacts to libraries in the area; therefore, an assessment of libraries is not warranted.
- Police/Fire Protection Services and Health Care Facilities: Because the Proposed Actions would not introduce a sizeable new neighborhood, an assessment of police/fire protection services and health care facilities is not warranted.

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

OPEN SPACE

See Attachment D, "Open Space."

SHADOWS

See Attachment E, "Shadows."

HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources include both archaeological and architectural resources. The study area for archaeological resources is the Project Area where disturbance from excavation and construction can be anticipated. In a letter dated December 11, 2020, the New York City Landmarks Preservation Commission (LPC) determined that the Project Area is not archaeologically sensitive (see **Appendix 1**).

To evaluate potential effects due to on-site construction activities and to account for visual or contextual impacts, the study area for architectural resources is defined as extending 400 feet from the Project Area. As defined in the New York City Department of Buildings' (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88,* adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource.[3] Consistent with the guidance of the *CEQR Technical Manual*, designated architectural resources that were analyzed include New York City Landmarks (NYCL), Interior Landmarks, Scenic Landmarks, and New York City Historic Districts (NYCHD); resources calendared for consideration as one of the above by the LPC; resources listed on or formally determined eligible for inclusion on the State and National Registers of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for listing on the S/NR; resources recommended by the New York State Board for listing on the S/NR; and National Historic Landmarks (NHL). Additionally, a survey was conducted to identify any previously undesignated properties in the study area that appear to be potentially eligible for NYCL designation or S/NR listing ("potential architectural resources").

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

The Project Area includes the Development Site (Site A) and a potential development (Site B). Each site is occupied by one- or three-story brick buildings of utilitarian design. The buildings are not architecturally or historically significant and do not meet S/NR eligibility criteria. Therefore, there are no architectural resources in the Project Area.

There is one known architectural resource located within the study area-—the former Brewster Building (S/NR-eligible, NYCL-eligible) located at 27-01 Queens Plaza North. A portion of the building's northern wing, which fronts on 28th Street, is located within the study area; however, the building's primary frontage and massing are located outside the study area to the south. The seven-story brick-faced building was designed by Stephenson & Wheeler and was built in 1910 by the Brewster Company, one of the first Manhattan-based companies to relocate to Queens after the opening of the Queensboro Bridge. The Brewster Company was founded in 1856 and manufactured carriages, later switching to automobile body manufacture. The brick-faced building's base has three-story, multi-paned window openings divided by decorative horizontal metal panels delineating floor levels; the fourth through sixth floors have similar window groupings; the seventh floor is more modest and extends above the projecting cornice. The building's reinforced concrete structure provided unobstructed open spaces required for automobile assembly. During the 1920s, the building served as a Rolls Royce assembly plant and, during the Great Depression, for the production of a variety of goods, ranging from pots and pans to airplane fuselages.

No potential architectural resources (properties that appear to meet eligibility criteria for S/NR listing or NYCL designation) have been identified in the study area. The majority of buildings in the study area are a mix of newer construction and altered older structures, and the buildings in the study area do not meet S/NR eligibility criteria.

The small portion of the former Brewster Building that is located in the study area faces away from the Project Area. It has no visual or contextual relationship with the Project Area. Therefore, the Proposed Project would not have the potential to result in any significant adverse impacts on the former Brewster Building. As there are no other known or potential architectural resources in the Project Area or the study area, there would be no significant adverse impacts on any such resources.

URBAN DESIGN AND VISUAL RESOURCES

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

HAZARDOUS MATERIALS

See Attachment G, "Hazardous Materials."

TRANSPORTATION

See Attachment H, "Transportation."

AIR QUALITY

See Attachment I, "Air Quality."

NOISE

See Attachment J, "Noise."

PUBLIC HEALTH

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

NEIGHBORHOOD CHARACTER

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

CONSTRUCTION

The activities associated with construction of the Proposed Project would be expected to result in conditions typical of construction projects in New York City, over a period of less than 24 months. Construction activities would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays. If work is required outside of normal hours, necessary approvals would be obtained from the appropriate agencies (i.e., the New York City Department of Buildings and New York City Department of Environmental Protection). All necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code regulating construction-related dust emissions and the New York City Noise Control Code regulating construction noise. If needed, Maintenance and Protection of Traffic plans would be developed for any curb-lane and/or sidewalk closures. Approval of these plans and implementation of all temporary closures during construction would be coordinated with the New York City Department of Transportation's Office of Construction Mitigation and Coordination.

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

A. INTRODUCTION

This attachment assesses the potential impacts of the proposed actions on land use, zoning, and public policy as compared with conditions in the future without the proposed actions (the "No Action" condition). As described in Attachment A, "Project Description," the proposed actions would facilitate the construction of market rate and affordable housing, light manufacturing space, and retail space on Site A (also known as "Development Site") and may result in a potential development on an adjacent site (Site B). The assessment concludes that the Proposed Project would be compatible with existing uses in the surrounding area, and it would not result in any significant adverse impacts to land use, zoning, or public policy.

B. METHODOLOGY

The Project Area is located in the Dutch Kills neighborhood of Long Island City in Queens. The analysis of land use, zoning, and public policy assesses the area within 400 feet of the Project Area, which is where the proposed actions could reasonably be expected to cause potential effects, according to the 2020 *City Environmental Quality Review (CEQR) Technical Manual*. The land use study area is generally bounded by the midblock between 40th and 39th Avenues to the north, midblock between 41st Avenue and Queens Plaza North to the south, midblock between 24th and 23rd Streets to the west, and midblock between 28th and 29th Streets to the east (see **Figure B-1**).

The analysis begins by considering existing conditions in the study area in terms of land use, zoning, and public policy. The analysis then considers land use, zoning, and public policy in the No Action condition in the 2025 Analysis Year by identifying developments and potential policy changes expected to occur within that timeframe. Probable impacts of the proposed actions are then identified by comparing conditions in the future with the proposed actions (the "With Action" condition) with those conditions in the No Action condition.

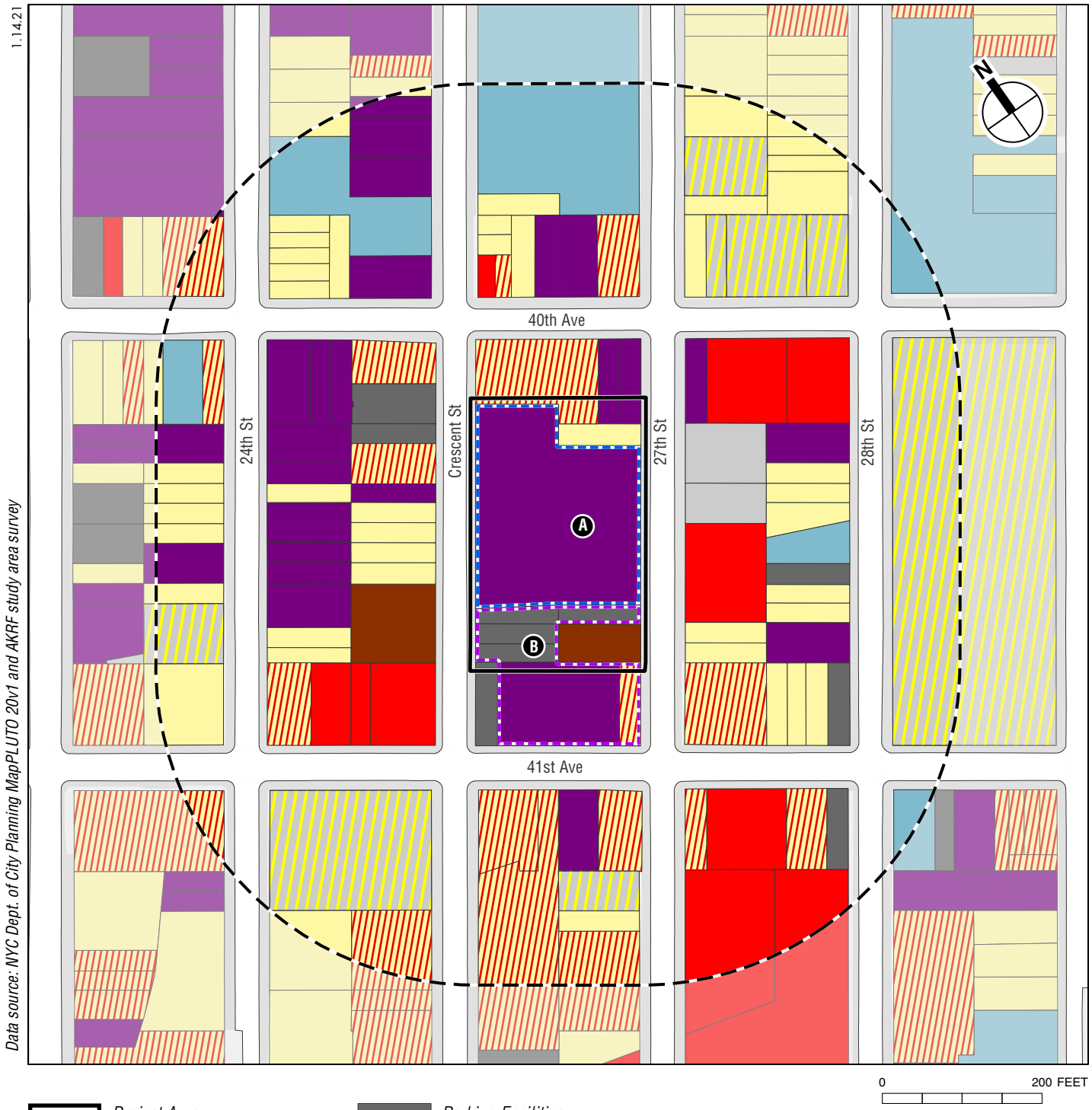
C. EXISTING CONDITIONS

LAND USE

PROJECT AREA

The Project Area is the proposed rezoning area which includes the Development Site (Site A), portions of a Potential Development Site (Site B),[1] and several lots within the rezoning area that are not expected to be redeveloped as a result of the proposed actions. Site A (Lot 12) is a through lot located midblock between 40th and 41st Avenues, with frontage along both Crescent Street and 27th Street. The Development Site measures approximately 45,200 square feet (sf) and is

[1] Portions of Site B, which is an assemblage of tax lots, are not within the Project Area.



- Project Area
- Development Site
- Projected Development Sites
- Study Area (400-foot perimeter)
- Commercial and Office Buildings
- Hotels
- Industrial and Manufacturing
- Parking Facilities
- Public Facilities and Institutions
- Residential
- Residential with Commercial Below
- Vacant Land
- Under Construction

Existing Land Use

occupied by four one-story buildings (23,840 sf of floor area) utilized as an office space for an exterminating service (Orkin), a facility for the applicant to store and test water storage and cooling tower products, and a parking lot and service area for food trucks and carts. Site B (Lots 1, 2, 9, 10, 11, and 38) has frontage along Crescent Street, 27th Street, and 41st Avenue. Site B contains four unimproved lots that create a combined area of approximately 9,800 sf (Lots 9, 10, and 38 are each approximately 2,500 sf, Lot 11 is approximately 2,300 sf). In addition, Site B includes an approximately 4,500-sf three-story mixed-use residential and commercial building (Lot 1), as well as an approximately 9,750-sf one-story industrial building occupied by Auto Dynamic (Lot 2). In addition to Sites A and B, the Project Area includes the approximately 31,383-sf nine-story LIC Plaza Hotel on Lot 40 along 27th Street, and Lot 29, which is approximately 2,500 sf and is occupied by an approximately 1,400-sf three-story multi-family residence that fronts along 27th Street. The Project Area also includes small portions of Lots 8, 24, 27, and 28. Lot 8 is an approximately 2,500-sf unimproved lot at the northeast corner of Crescent Street and 41st Avenue. Along 40th Avenue, Lot 24 is occupied by an approximately 70,275-sf five-story apartment building with ground floor commercial space. To the east, Lot 27 includes an approximately 2,500-sf one-story industrial building tenanted by Central Construction Management. On the southwest corner of the intersection of 40th Avenue and 27th Street is a two-story, approximately 5,000-sf industrial building occupied by Rayana Designs, Inc. (see **Figure B-1**).

STUDY AREA

The primary land uses within the 400-foot study area are industrial and manufacturing, as well as residential and mixed use residential with ground floor commercial space (see **Figure B-1**). One- to two-story industrial buildings are located throughout the surrounding streets. There are two- and three-story attached row houses along 24th, Crescent, and 28th Streets and some single-family detached homes along 27th and 28th Streets. Medium- and high-rise residential uses including 4- to 6-story, 9-story, and 17-story apartment buildings with ground floor commercial space are located along 40th and 41st Avenues, and south of 41st Avenue along Crescent and 27th Streets.

Institutional and public facility uses are primarily located around the perimeter of the study area. The Academy of American Studies (southeast corner of 41st Avenue and 28th Street) and Newcomers High School (on the block bounded by 40th Avenue, 29th Street, 41st Avenue, and 28th Street) are located in the eastern portion of the study area, and Growing Up Green Charter School, the P.S. 166 Annex and St. Patrick Roman Catholic Church are located in the northeast section of the study area. West of the Project Area, near the southwest corner of the intersection of 40th Avenue and 24th Street is Zion Mission. North of the Project Area, midblock between 40th and 39th Avenues is the Evangel Christian School and Church, which has frontage along Crescent and 27th Streets.

Commercial uses in the study area are primarily located along 41st Avenue, and to a lesser extent along 27th Street and 40th Avenue. Commercial uses generally include neighborhood retail establishments such as grocery stores and delis, as well as a rock-climbing center, a New York City Department of Transportation office building, and small businesses (see **Figure B-1**). There are also two hotels in the study area along Crescent and 27th Streets just north of 41st Avenue. One of the hotels (currently being used as a homeless shelter), LIC Plaza Hotel, is located adjacent to the Project Area. Parking facility uses are found primarily along Crescent Street and 41st Avenue, providing surface parking.

ZONING

PROJECT AREA

The Project Area is located in the Dutch Kills Subdistrict of the Special Long Island City Mixed-Use (LIC) District, which comprises several "MX" districts, pairing a manufacturing district with a low-to-mid density residential district. In 2008, the Department of City Planning (DCP) established this 40-block subdistrict in Long Island City, intending to create more predictable building scales commensurate with existing contexts, expand the mix of permitted uses and encourage an increase in residential development. Affordable housing may be developed in the subdistrict through the Inclusionary Housing Program (IHP).

The Project Area is currently mapped partially within an M1-2/R5B district and partially within an M1-2/R5D district. M1-2 zoning districts are manufacturing districts that typically include light industrial uses such as woodworking shops, repair shops, and wholesale service and storage facilities. Industrial uses are allowed in M1 districts provided they meet the stringent M1 performance standards. Office, hotels, and most retail uses are also permitted. M1-2 districts have a floor area ratio (FAR) of 2.0 for commercial and manufacturing uses, with heights and setbacks governed by a sky exposure plane. Parking is usually required; however, parking is not required in Long Island City. In December 2018, the New York City Council adopted a zoning text amendment to require a New York City Planning Commission (CPC) Special Permit for new hotels in M1 districts citywide to limit the potential for conflicts between uses as well as achieve a balanced mix of uses and jobs in neighborhoods by ensuring that sufficient opportunities for industrial, commercial, and institutional growth remain. Another zoning text amendment is currently proposed that would require a CPC Special Permit for new and enlarged hotels and motels, tourist cabins, and boatels in commercial, mixed-use, and paired M1/R districts. This amendment is currently under review through the ULURP process.

R5B zoning districts are residential districts that permit detached and semi-detached buildings, but typically include three-story rowhouses. R5B districts generally have a maximum FAR of 1.35, with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum building height of 33 feet; however, when paired with an M1-2 in the Dutch Kills Subdistrict, the maximum residential FAR is 1.65. On-site parking spaces must be provided for two-thirds of the dwelling units (DUs), with lower requirements for income-restricted housing units (IRHU).

R5D zoning districts are contextual districts designed to encourage residential growth along major corridors in auto-dependent areas of the city. This district serves as a transition between lower- and moderate-density districts, typically characterized by multi-family housing. R5D districts have maximum FARs of 2.0, with a height limitation of 40 feet or 45 feet with a qualifying ground floor.[2] Similar to the parking requirements for R5B districts, parking must be provided for two-thirds of the DUs, with lower requirements for IRHU; however, off-street parking is not permitted in front of a building.

[2] According to the Zoning Resolution of the City of New York, a Qualifying Ground Floor is a ground floor of a development or enlargement of a Quality Housing building, where the start of the second story is 13 feet or more above the level of the sidewalk and, in certain instances, where additional supplementary use provisions are met.

The M1-2/R5B portion of the Project Area allows a maximum FAR of 2.0 for manufacturing uses and 1.65 FAR for residential. The M1-2/R5D portion of the Project Area allows a maximum FAR of 2.0 for both manufacturing and residential uses. A potential boost to the maximum FAR (to 3.0) in both districts is permitted provided the additional floor area is comprised of certain commercial and manufacturing uses, including photographic or motion picture production studios and radio or television studios in Use Group 10A; and uses listed in Use Groups 16A, 16D, 17A, and 17B as set forth in Section 123-22. Existing zoning is shown in **Figure B-2**.

STUDY AREA

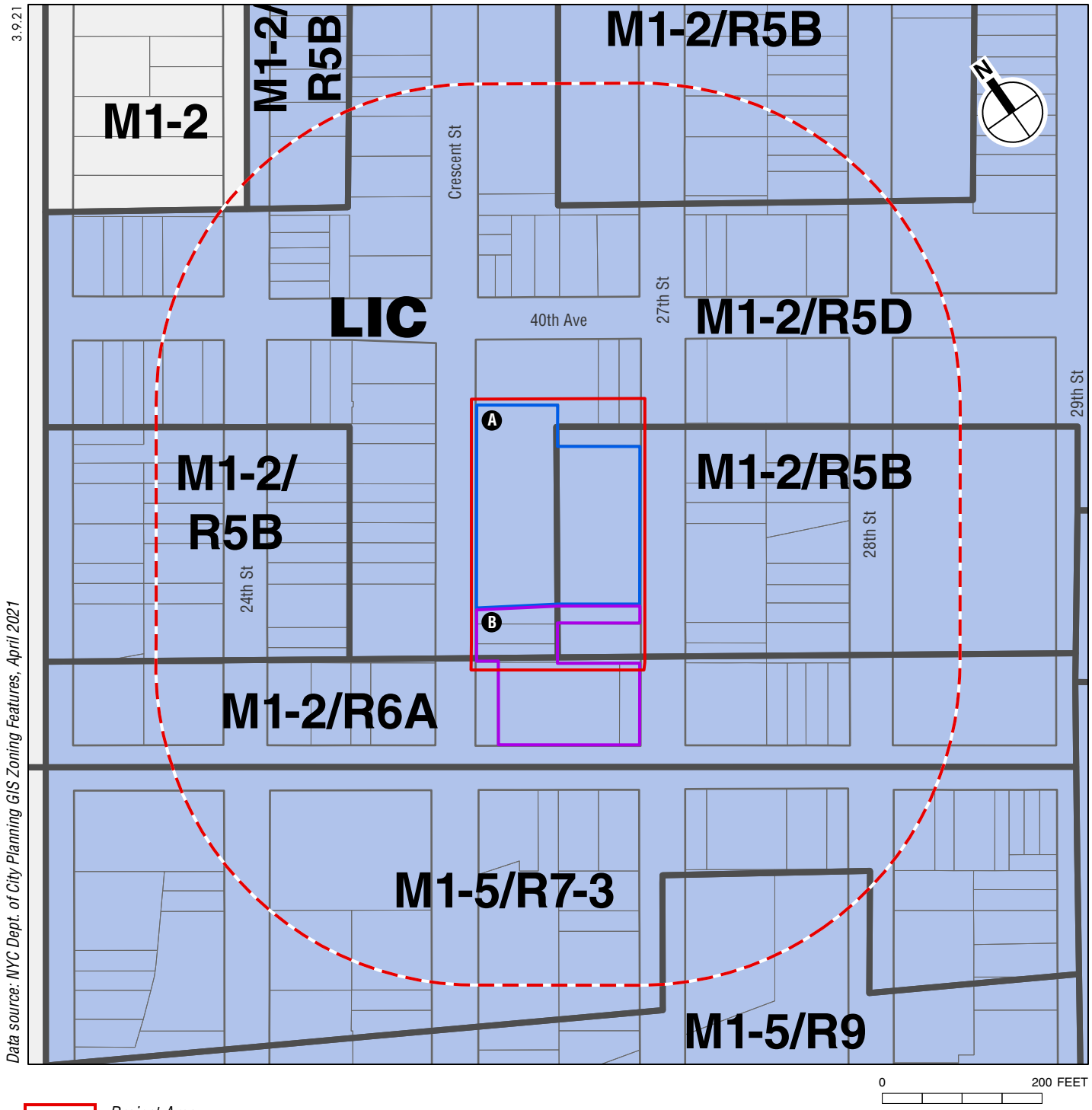
The study area is entirely within the Special LIC District and is primarily mapped within M1-2/R5B and M1-2/R5D zoning districts, as discussed above. An M1-2/R6A district is mapped along the north side of 41st Avenue and an M1-5/R7-3 district is mapped along the south side of 41st Avenue and generally extends south to the midblock. An M1-5/R9 district is mapped south of the M1-5/R7-3, a small portion of which is within the study area on 27th and 28th Streets

R6 districts are medium-density residential districts that permit a wide variety of housing types in Brooklyn, Queens, and the Bronx. Buildings in R6A districts generally have a maximum FAR of 3.0 for residential uses with frontage along wide and narrow streets. R6A districts are contextual districts where the Quality Housing bulk regulations are mandatory. The maximum FAR for community facility uses is also 3.0. Corner lot buildings have a maximum lot coverage of 80 percent with 65 percent maximum lot coverage on interior lots. The base height of a building in an R6A district is 40 to 60 feet tall, with a maximum building height of 70 feet. Off-street parking is generally required for 50 percent of a building's DUs. When paired with an M1-2 district as an MX district in the Dutch Kills Subdistrict, R6A districts allow a base residential FAR of 3.0 and a maximum residential FAR of 3.6 with provision for affordable housing. A maximum 4.0 FAR is permitted provided the additional floor area above 3.6 FAR is comprised of certain commercial and manufacturing uses. Lot coverage requirements do not apply in MX districts. In an M1-2/R6A district in the Dutch Kills Subdistrict, maximum base and building heights are 65 feet and 85 feet (with qualifying ground floor), respectively.

Similar to M1-2 zoning districts, M1-5 zoning districts are manufacturing districts that typically include light industrial uses. M1-5 districts have a maximum FAR of 5.0 for commercial and manufacturing uses, with building heights and setbacks governed by a sky exposure plane. Parking is not required for this zoning district.

R7 districts are medium-density residential districts. R7-3 districts may be mapped within waterfront areas and Special Mixed-Use Districts only, including the Special LIC District. R7-3 districts have a maximum FAR of 5.0 for residential and community facility uses. Off-street parking in R7-3 districts is generally required for 50 percent of a building's DUs, but requirements are lower for income-restricted DUs and are further modified in certain areas. The maximum base height allowed for buildings in an R7-3 district is 65 feet with a setback, reaching a maximum building height of 185 feet. Buildings have a maximum lot coverage of 70 percent.

R9 districts, mapped predominantly along major thoroughfares in Manhattan, are high-density residential districts in which buildings can be developed under height factor regulations or the optional Quality Housing regulations. Designed in part for institutional purposes, such as hospitals, most R9 height factor buildings are developed under the tower rules, which are applicable only in the city's higher-density areas. The maximum FAR for height factor/tower buildings ranges from 0.99 to 7.52 and the open space ratio (OSR) ranges from 1.0 to 9.0. Higher maximum FAR are available for buildings participating in the IHP or that provide certain senior



Project Area

Development Site

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

Zoning District Boundaries

Special Long Island City Mixed Use District (LIC) - Dutch Kills Subdistrict

Existing Zoning

facilities. Under the tower rules, buildings are permitted to penetrate the sky exposure plane. Buildings that front on a wide street must have a contextual base height of 60 to 85 feet with a tower above. The height of the tower is controlled by a minimum lot coverage requirement and a rule that at least 55 percent of the floor area on the zoning lot be located below a height of 150 feet. For buildings along a narrow street, a contextual base is not required and towers are permitted, provided they are set back from the street line at least 15 feet. Off-street parking is generally required for 40 percent of a building's DUs, but requirements are lower for IRHU and are further modified in certain areas, such as within the Manhattan Core or for lots smaller than 15,000 square feet. Off-street parking requirements can be waived if 15 or fewer parking spaces are required or if the zoning lot is 10,000 square feet or less.

PUBLIC POLICY

PROJECT AREA

Several public policies that affect the Project Area also affect the study area. Policies affecting both areas are only discussed once, and include:

Housing New York 2.0

On May 5, 2014, the de Blasio administration released *Housing New York: A Five-Borough, Ten-Year Plan* (Housing New York), a plan intended to build and preserve 200,000 affordable DUs over the coming decade to support New Yorkers with a range of incomes. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites. *Housing New York* calls for community engagement at the early stages of the planning process, so that community input informs land use and zoning changes intended to generate new affordable housing. Housing New York calls for providing high-quality affordable housing to the most vulnerable residents of New York City. Investing in quality affordable housing for the City's special needs, homeless, and senior households, as well as for people with disabilities will reduce the demand for social expenditures in the long term and provide a more cost-efficient strategy for addressing a critical housing need. In October of 2017, the City released an update to the housing plan called *Housing New York 2.0*. With the update to the housing plan, the City announced a new goal of preserving and/or creating 300,000 affordable DUs by 2026.

ONENYC

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

Food Retail Expansion to Support Health (FRESH) Program

The study area is located within the Food Retail Expansion to Support Health (FRESH) zoning incentive area. This special zoning designation provides zoning incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities

throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. Zoning incentives are discretionary and assessed on a per-case basis.

Plan for Long Island City

In 1993, DCP issued its *Plan for Long Island City: A Framework for Development*, which outlined a planning and development policy for the Long Island City neighborhood. The Framework followed the planning efforts enacted for the area in the 1980s, including the Queens West project, and was used as the basis for subsequent policy and zoning actions, including the 2001 rezoning and adoption of the Special LIC District, noted above. In 2008, a 40-block area of Long Island City was rezoned as the Dutch Kills Subdistrict of the Special LIC District. As discussed above. this subdistrict includes the Project Area. The framework included four principal land use goals: (1) development of the Court Square and Queens Plaza areas as high-density mixed-use and office districts; (2) maintaining and supporting industrial activities in the northern portion of the neighborhood and the areas east and south of Sunnyside Yards; (3) development of infill housing in the Hunters Point area; (4) and creation of continuous waterfront public access around Anable Basin and extending north to Queensbridge Park.

STUDY AREA

There are two public policies that are only applicable to the study area and do not affect the Project Area. These public policies include:

Industrial Business Zone

Industrial Business Zones (IBZs) were established to protect existing manufacturing districts and encourage industrial growth citywide. In 2006, the City created 16 IBZs, which provide expanded business services for industrial and manufacturing businesses. The IBZs are supported by tax credits for locating within them, zone-specific planning efforts, and direct business assistance from Industrial Providers of NYC Business Solutions Industrial and Transportation. Because the purpose of IBZs is to foster industrial sector growth by creating real estate certainty, the previous administration stated that it would not support the rezoning of these areas for residential use. The Long Island City IBZ overlaps a small portion of the study area along 24th Street just north of 40th Avenue.

Business Improvement District

The study area overlaps with the Long Island City Business Improvement Districts (BID). The Long Island City BID was established in 2005 and encompasses all properties along Queens Plaza North and Queens Plaza South from 21st Street to Jackson Avenue/Northern Boulevard, Jackson Avenue from Queens Plaza South to Vernon Boulevard, Vernon Boulevard from Jackson Avenue to 44th Drive, and along 44th Drive from Vernon Boulevard to Jackson Avenue. The Long Island City BID advocates for economic development that benefits the areas existing and future industrial, commercial, cultural, and residential sectors. The goal is to attract new businesses to Long Island City, retain those already there, welcome new residents and visitors, and promote a vibrant and authentic mixed-use community. Other goals include improving connection between sub-areas of Long Island City, transportation improvements, incentive programs for businesses, and the expansion of arts and culture into the area's urban fabric and communities.

D. NO ACTION CONDITION

LAND USE

PROJECT AREA

In the future without the proposed actions (the "No Action" condition), the Development Site and remainder of the Project Area are assumed to remain in their existing condition and no new development is expected.

STUDY AREA

There are eight developments within the 400-foot study area that are currently under construction or are expected to be completed by the Proposed Project's 2025 analysis year (see **Table B-1**). Additionally, 47 more developments are expected to be completed within approximately ½-mile of the Project Area (see **Appendix 2**). Overall, the projects expected to be completed by 2025 are residential in nature, with an ongoing trend of redeveloping underutilized sites or renovating existing buildings to improve the housing stock. In particular, this trend is expected to introduce more multifamily residential space to the area.

Table B-1
No Action Condition Projects

Reference Number[1]	Project Name/Address	Development Program
400-foot Study Area		
1	39-35 27th Street	Hotel: 79 rooms, 2 parking spaces
2	40-40 24th Street	Community Facility: 17,212 gsf community facility
3	40-11 28th Street	Community Facility: 250,103 gsf community facility
4	41-14 27th Street	Mixed-Use: 32 DU, 2,392 gsf local retail
5	41-02 Crescent Street	Mixed-Use: 87 DU, 155 hotel rooms, 126 parking spaces
6	27-09 40th Avenue	Mixed-Use: 46 DU, 20,606 gsf manufacturing, 113 parking spaces
7	40-21 27th Street	Mixed-Use: 9 DU, 2,505 gsf retail, 5,610 gsf manufacturing, 6 parking spaces
8	23-17 41st Avenue	Mixed-Use: 39 DU, 11,218 gsf local retail, 34 parking spaces

Notes:
* For the purposes of analysis, all projects currently planned or under construction listed above are assumed to be complete by the Proposed Project's 2025 analysis year.
[1] See **Figure 2-1** in **Appendix 2**.
Sources:
DOB; AKRF field visit, November 2020.

ZONING

No changes to zoning regulations applicable to the Project Area and study area are anticipated by 2025.

PUBLIC POLICY

No other changes affecting public policies applicable to the Project Area and study area are expected by 2025.

E. WITH ACTION CONDITION

LAND USE

PROJECT AREA

Development Site

In the future with the proposed actions (the "With Action" condition), the existing buildings on the Development Site would be demolished and the approximately 248,419-gsf Proposed Project would be constructed in their place. This development would contain approximately 233 DUs, of which up to 70 DUs would be permanently affordable in 201,859 gsf of residential space; 5,800 gsf of local retail uses; 12,960 gsf of light manufacturing space; and 118 accessory parking spaces. The With Action building would have 7 stories and would be up to 85 feet tall.

Remainder of the Project Area

Under the With Action condition, Potential Development Site B is also anticipated to be redeveloped with two new buildings. The building that would be constructed on Lots 1, 2, 9, 10, and 11 would contain up to 137,380 gsf comprised of 104 DUs, of which 12 to 13 would be permanently affordable under MIH, in 89,121 gsf of residential space; 20,931 gsf of light manufacturing uses on the ground floor; and 72 accessory underground parking spaces. The building would be up to 85 feet tall. Lot 38 would be redeveloped as a separate building with 6,006 gsf of light manufacturing space and would be up to 45 feet tall. No changes are anticipated on Lots 8, 24, 27, 28, 29, or 40.

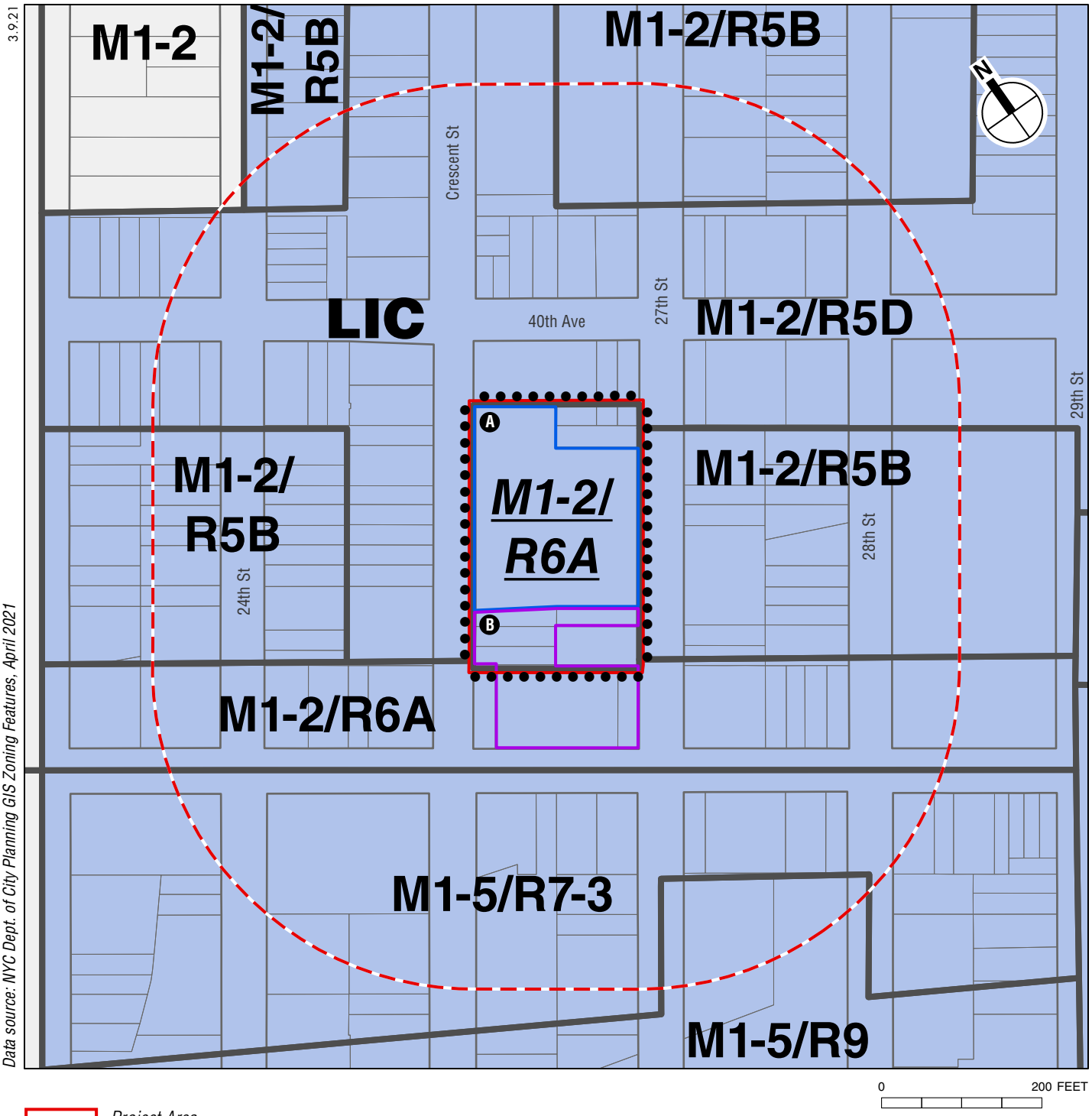
STUDY AREA

The proposed actions would not result in any land use changes within the study area. The study area would continue to have a mix of manufacturing, residential, and mixed residential and commercial uses. The Proposed Project's residential, local retail, and light manufacturing uses and anticipated residential and light manufacturing uses on Site B would be consistent with existing uses in the study area. Additionally, both the proposed and potential buildings would be shorter than other nearby developments such as the under-construction 39-35 27th Street, as well as the proposed developments at 41-14 27th Street and 41-02 Crescent Street. In the applicant's opinion, the Proposed Project would continue the existing study area trends towards increased density and mixed-use development, in particular along 41st Avenue and Crescent Street. Overall, the Proposed Project and other development facilitated by the proposed actions would be compatible with and supportive of land uses in the surrounding area and would not result in significant adverse land use impacts.

ZONING

PROJECT AREA

The proposed actions would change the existing M1-2/R5B and M1-2/R5D districts to a M1-2/R6A district (see **Figure B-3**). The M1-2/R6A zoning would be an extension of the existing M1-2/R6A zoning district that is located adjacent to the southern edge of the Project Area. The existing M1-2 district allows up to 2.0 FAR of manufacturing and commercial developments, while R5B and R5D districts allow up to 1.65 FAR and 2.0 FAR, respectively. The proposed M1-2/R6A



Project Area

Development Site

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

Rezoning Area

Zoning District Boundaries

Special Long Island City Mixed Use District (LIC) - Dutch Kills Subdistrict

Proposed Zoning

40-25 CRESCENT STREET REZONING

Figure B-3

district would allow up to 2.0 FAR of manufacturing or commercial use, a base residential FAR of 3.0 and a maximum residential FAR of 3.6 with provision for affordable housing. The maximum FAR can be increased to 4.0 in M1-2/R6A districts provided that the additional floor area is comprised of certain commercial and manufacturing uses.

The proposed M1-2 district would allow the continuation of the light industrial uses in the Project Area and would not require parking. However, the Applicant is proposing additional parking be provided for the retail and light manufacturing uses on the Development Site, and this assessment analyzes the same for Potential Development Site B. A zoning text amendment would allow for the designation of the Project Area as an MIH Area.

The proposed mix of uses would be compatible with surrounding land uses and would encourage investment in the neighborhood by permitting the expansion of an existing manufacturing use and allowing for additional developments in the Project Area. Additionally, the proposed mix of uses would promote the opportunity for workers to live in the vicinity of their employment and enhance the vitality of the neighborhood.

STUDY AREA

The proposed actions would be consistent with the existing M1-2/R6A zoning district within the study area. The density and bulk allowed under the proposed M1-2/R6A district would create an appropriate transition area between the existing M1-5/R7-3 district to the south and the M1-2/R5D and M1-2/R5B districts to the east, west and north. Future development would be required to comply with the bulk regulations for Quality Housing buildings, producing residential and mixed-use buildings with street walls no closer to the street line than adjacent street walls, but no further than 15 feet, consistent with recent development in the study area.

PUBLIC POLICY

The proposed actions would be compatible and consistent with public policies that currently apply to the Project Area and surrounding study area. In particular, the proposed actions would contribute to the goals of *Housing New York 2.0* and *OneNYC's* Thriving Neighborhoods goal by providing approximately 70 new affordable DUs on the Development Site. The proposed actions would also contribute to *OneNYC*'s goal of equity by facilitating new commercial and light manufacturing space along Crescent and 27th Streets, and 41st Avenue, which would increase pedestrian activity, encouraging a healthier lifestyle. In addition, the proposed actions would contribute to the retention of existing manufacturing jobs on the Development Site and the creation of new jobs associated with the planned retail spaces in the Proposed Project.

The proposed actions would continue to support the *Plan for Long Island City* and *Industrial Business Zone* goals by maintaining light manufacturing uses on the Development Site, by creating new light manufacturing space on Potential Development Site B. Additionally, the proposed actions would contribute to the *Long Island City Business Improvement District* through the creation of new mixed-use developments that would attract new businesses to the area, retain an existing company on the Development Site, and welcome new residents. Therefore, the proposed actions would not result in any significant adverse impacts to public policy.

Overall, the proposed actions would not result in significant adverse impacts to land use, zoning, or public policy. ✷

A. INTRODUCTION

This attachment describes the socioeconomic changes that could result from the Proposed Actions and assesses whether such changes could result in significant adverse environmental impacts. As stated in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic impacts may occur when a project directly or indirectly affects any of these elements.

As detailed in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of a 7-story (up to 85-foot tall), approximately 248,419 gross square foot (gsf), mixed-use building on the Development Site (the "Proposed Project").[1] In accordance with *CEQR Technical Manual* guidelines, this chapter considers whether development resulting from the Proposed Actions could result in significant adverse socioeconomic impacts due to (1) direct displacement of residential population; (2) direct displacement of existing businesses; (3) indirect displacement of residential population; (4) indirect displacement of businesses; and (5) adverse effects on a specific industry.

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

DIRECT RESIDENTIAL DISPLACEMENT

The Development Site does not contain any residential uses. Therefore, the Proposed Project would not directly displace any residents.

DIRECT BUSINESS DISPLACEMENT

The Proposed Project would directly displace office space for an exterminating service, and a parking lot and service area for food trucks and carts. The Applicant's existing facility would be integrated into the Proposed Project, and would not be displaced by the Proposed Project. Based on employment density ratios widely used in CEQR analyses, there are an estimated 42 workers associated with the directly displaced businesses, which is below the 100-employee CEQR threshold warranting assessment. The potentially displaced businesses are not uniquely dependent on their location, do not serve a population uniquely dependent on their location, and are not the subject of other regulations or publicly adopted plans aimed at their preservation. Therefore,

[1] As noted in Attachment A, "Project Description and Screenings," Site B was identified as potential Development Site (less likely to be developed) only and, in accordance with the *CEQR Technical Manual*, it is not assessed for density-based environmental analysis areas including Socioeconomic Conditions.

further analysis is not required, and the Proposed Project would not result in significant socioeconomic changes as a result of direct business displacement.

INDIRECT RESIDENTIAL DISPLACEMENT

The preliminary assessment of indirect residential displacement finds that the Proposed Project would not result in significant adverse impacts due to indirect residential displacement. While Step 1 of the preliminary assessment found that the Proposed Project could result in new populations with higher average incomes than the existing population, Step 2 of the analysis determined that the project's increase in population would not be large enough to substantively affect real estate market conditions in the ½-mile study area. As demonstrated in Step 3, the more immediate area surrounding the Development Site has already experienced a readily observable trend toward increasing housing prices.

INDIRECT BUSINESS DISPLACEMENT

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

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

The Proposed Project would displace two business uses (an extermination service and a food truck and cart storage space), and the Proposed Project does not have the potential to result in significant indirect business displacement. Therefore, the Proposed Project would not result in adverse effects on a specific industry.

B. METHODOLOGY

Under CEQR, socioeconomic changes are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. In some cases, these changes may be substantial but not adverse. In other cases, these changes may be good for some groups but bad for others. The objective of the CEQR analysis is to disclose whether any changes created by the Proposed Project would have a significant impact compared with what would happen in the No Action condition.

An assessment of socioeconomic impacts distinguishes between impacts on the residents and businesses in a study area and separates these impacts into direct and indirect displacement for both of those segments. Direct displacement occurs when residents or businesses are involuntarily displaced from the actual site of a Proposed Project or sites directly affected by it. For example, direct displacement would occur if a currently occupied site were redeveloped for new uses or structures or if a proposed easement or right-of-way encroached on a portion of a parcel and rendered it unfit for its current use. In these cases, the occupants of a particular structure to be displaced can usually be identified, and therefore the disclosure of direct displacement focuses on specific businesses and a known number of residents and workers.

Indirect or secondary displacement occurs when residents, business, or employees are involuntarily displaced due to a change in socioeconomic conditions in the area caused by a Proposed Project. Examples include the displacement of lower-income residents who are forced

to move due to rising rents caused by higher-income housing introduced by a Proposed Project. Examples of indirect business displacement include higher-paying commercial tenants replacing industrial uses and when new uses introduced by a Proposed Project cause commercial rents to increase. Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

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

DETERMINING WHETHER A SOCIOECONOMIC ASSESSMENT IS APPROPRIATE

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

DIRECT RESIDENTIAL DISPLACEMENT

Would the Proposed Project result in the direct displacement of a residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.

The Development Site does not contain any residential uses. Therefore, the Proposed Project would not directly displace any residents, and further assessment of this concern is not warranted.

DIRECT BUSINESS DISPLACEMENT

Would the Proposed Project result in the direct displacement of more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate. Would the Proposed Actions result in the direct displacement of a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation or serve a population uniquely dependent on its services in its present location? If so, an assessment of direct business displacement is warranted.

The Development Site is occupied by four one-story buildings used as an office space for Orkin (an exterminating service), a facility for the Applicant to store and test water storage and cooling tower products, and a parking lot and service area for food trucks and carts.

The Proposed Project would directly displace the office space for Orkin and the parking lot and service area for food trucks and carts; the Applicant would continue its existing light industrial operations which would be integrated into the Proposed Project. Based on employment density ratios widely used in CEQR analyses, there are an estimated 42 workers associated with the directly displaced business uses, which is below the 100-employee CEQR threshold warranting assessment. The potentially displaced businesses are not uniquely dependent on its location, do not serve a population uniquely dependent on its location, and are not the subject of other regulations or publicly adopted plans aimed at their preservation. There are other businesses within the business' trade area that provide similar products and services. Therefore, the Proposed Project

would not result in significant socioeconomic changes as a result of direct business displacement, and no further assessment of this concern is warranted.

INDIRECT RESIDENTIAL DISPLACEMENT

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

The Proposed Project would result in 233 incremental residential DUs, which exceeds the 200-DU development threshold identified by the *CEQR Technical Manual* as warranting assessment for potential impacts. Therefore, a preliminary assessment of potential indirect residential displacement is warranted.

INDIRECT BUSINESS DISPLACEMENT DUE TO INCREASED RENTS

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

The Proposed Project would result in an approximately 200-gsf net reduction in commercial space (a 6,000-gsf reduction in office space, and a 5,800-gsf increase in retail space), and a 5,040-gsf reduction in light manufacturing space. The Proposed Actions' incremental commercial development is negative, and therefore is below the 200,000-square-foot CEQR threshold typically warranting assessment. As such, a preliminary assessment of indirect business displacement is not warranted.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

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

The Proposed Project would not significantly affect business conditions in any industry or any category of business within or outside the study area. As described in the screening assessment above, the Proposed Project does not have the potential to result in significant adverse impacts due to direct or indirect business displacement. Therefore, the Proposed Project would not have an impact on the economic viability in any specific industry or category of business, and a preliminary assessment of this concern is not warranted.

SCREENING ASSESSMENT DETERMINATION

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

ANALYSIS FORMAT

Based on *CEQR Technical Manual* guidelines, the analysis of indirect residential displacement begins with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential effects of the Proposed Project to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. In this case, a preliminary assessment was sufficient to conclude that the Proposed Project would not result in any significant adverse socioeconomic impacts resulting from indirect residential displacement.

STUDY AREA

Socioeconomic study area boundaries depend on a project's size and characteristics. The *CEQR Technical Manual* suggests that a ¼-mile socioeconomic study area is appropriate so long as the project produces a small (below 5 percent) increase to the population within the approximately ¼-mile area. The Proposed Project would increase the ¼-mile area population by more than 5 percent, warranting a larger, approximately ½-mile study area.[2]

Because socioeconomic analysis depends on demographic data, it is appropriate to adjust the study area boundary to conform to the census tract delineation that most closely approximates the desired radius (in this case, a ½-mile radius surrounding the Development Site). The census tracts that constitute the "socioeconomic study area," or "study area," are shown in **Figure C-1** and include Census Tracts: 19.02, 19.03, 25, 31, 33.01, 33.02, 51, and 85.

DATA SOURCES

Information used in the analysis of indirect residential displacement was gathered from the U.S. Census Bureau's 2006–2010 and 2015–2019 American Community Survey (ACS) 5-Year Estimates, the 2010 Decennial Census, and the preliminary 2020 Decennial Census. The New York City Department of City Planning (DCP) NYC Population FactFinder online mapping tool was used to provide comparative census data between geographies and to determine the margin of error (MOE) for single variable ACS estimates presented for the study area.[3] Census data were gathered on population, housing, and income. Data on residential market asking rents within the study area were collected from the real estate listings website StreetEasy.com.

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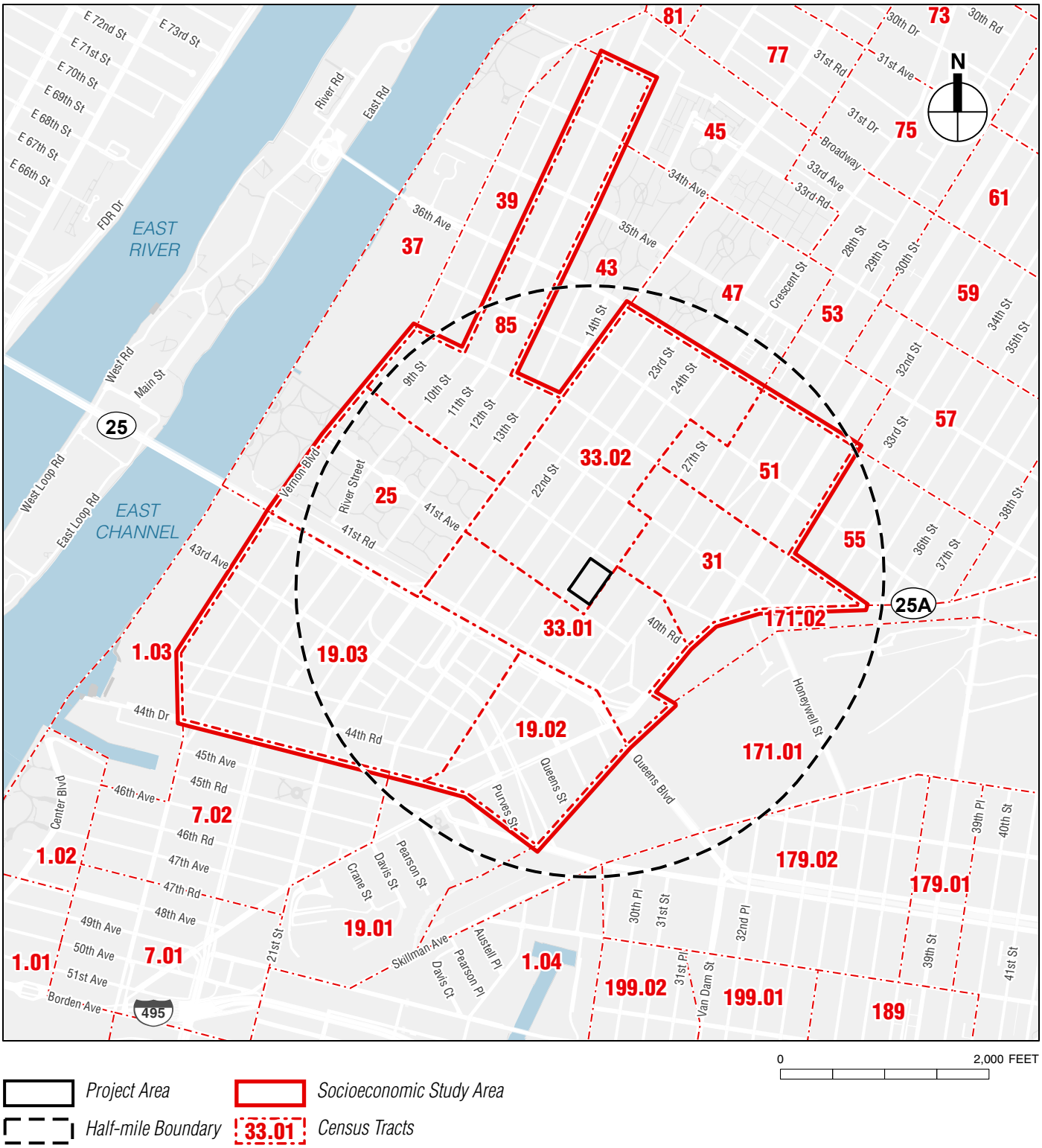
[2] The proposed project would introduce an estimated 520 incremental residents, based on the Queens Community District 1 average household size of 2.23 people per household. This represents approximately 5.96 percent of the existing residential population within Census Tracts 33.01, 33.02, and 31, which collectively approximate a ¼-mile area.

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



Socioeconomic Study Area

40-25 CRESCENT STREET REZONING

Figure C-1

C. PRELIMINARY ASSESSMENT

INDIRECT RESIDENTIAL DISPLACEMENT

As described in the *CEQR Technical Manual*, indirect residential displacement usually occurs when a project results in a substantial new development that is markedly different from existing uses and activities within a neighborhood. This can contribute to increased property values and increased rents, which can make it difficult for some existing residents to remain in their homes.

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

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

EXISTING CONDITIONS

Based on the 2020 Census, in 2020 the study area contained 31,314 residents and 14,686 occupied housing units. As of 2019, nearly three quarters (74.9 percent) of the study area's 9,491 DUs were located within multifamily buildings with 20 or more DUs; 4.0 percent of DUs are within buildings of 10 to 19 units, with the remaining approximately 21.1 percent of DUs in buildings of less than 10 units. An estimated 90.7 percent of occupied units were renter-occupied, which is greater than the proportions for Queens (55.2 percent) and New York City (67.3 percent).

This analysis uses average and median household incomes to describe the household income characteristics of the study area population. As reported in the 2015–2019 ACS and shown in **Table C-1**, in 2019 the average annual household income within the study area was $80,298 (in 2019 dollars) which was lower than the average annual household income of Queens ($89,921) and New York City ($102,946). Since 2010, the study area's average household income has increased by approximately 67.7 percent, which was a greater rate of growth than for Queens (9.0 percent) and New York City (12.5 percent) over the same time period.

Table C-1
Average Annual Household Income (2006–2010, 2015–2019 ACS)

Area	2006–2010 ACS[1]	2015–2019 ACS[1]	Change or Direction of Change
Study Area	$47,873	$80,298	67.7%
Queens	$82,501	$89,921	9.0%
New York City	$91,537	$102,946	12.5%

Notes:
[1] All dollar figures have been adjusted to 2019 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
Sources:
U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

As average income can be heavily influenced by outliers (both high and low) within the data, the median household income is also presented. As shown in **Table C-2**, in 2019 the median annual household income within the socioeconomic study area was $44,188. This was nearly $25,000

less than the median income for Queens ($68,666), and about $20,000 less than the median income for New York City ($63,998). Similar to median incomes for Queens and New York City, the study area median income has increased since 2010.

Table C-2
Median Annual Household Income (2006–2010, 2015–2019 ACS)

Area	2006–2010 ACS[1]	2015–2019 ACS[1]	Change or Direction of Change
Study Area	$29,710	$44,188	Increase
Queens	$64,972	$68,666	5.7%
New York City	$59,090	$63,998	8.3%

Notes:
[1] All dollar figures have been adjusted to 2019 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
[2] The margin of error (MOE) of the difference is greater than one third of the difference, so the percentage change cannot be estimated with confidence and only the direction of the change can be reported (i.e., Increase/Decrease).
Sources:
U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

As shown in **Table C-3**, within the socioeconomic study area, median gross rent in 2019 was approximately $1,202 per month, which was about $300 less than the median for Queens and nearly $250 less than for New York City as a whole ($1,443). Median gross rents have increased in the study area since 2010.[4] Over the same time period median gross rents also increased in Queens (by approximately 6.8 percent) and in New York City (by 14.6 percent).

Table C-3
Median Gross Rent

Area	2006–2010 ACS[1]	2015–2019 ACS[1]	Change or Percent Change
Study Area	$752	$1,202	Increase[2]
Queens	$1,388	$1,483	6.8
New York City	$1,259	$1,443	14.6%

Notes:
[1] All dollar figures have been adjusted to 2019 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
[2] The MOE of the difference between 2006–2010 ACS and 2015–2019 ACS data for the study area is greater than one third of the estimated difference. Therefore, a change cannot be estimated with statistical confidence and only the direction of the change can be reported.
Sources:
U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

U.S. Census data paints a general picture about whether housing costs are changing in a neighborhood, but the data does not provide specific rent information according to regulation status or unit size. Market comparables were therefore used to provide a fuller understanding of where the study area market is today. **Table C-4** summarizes online listings for apartments in the study area from StreetEasy.com. The median monthly asking rents in the study area ranged from

[4] Due to the margin of error of the estimates for the socioeconomic study area, the percent increase in median gross rent from 2006–2010 to 2015–2019 cannot be reported with statistical confidence.

$2,523 for studio units to $6,195 for three-or-more bedroom units. Based on historic asking rent data from StreetEasy.com, median asking rents in Long Island City[5] have increased by approximately 22 percent since 2010.

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

Unit Type	Number of Listings	Median Monthly Asking Rent
Studio	66	$2,523
One Bedroom	125	$3,000
Two Bedroom	82	$3,937
Three+ Bedroom	16	$6,195
Source: StreetEasy.com, accessed January 2021		

NO ACTION CONDITION

Development Site

Absent the Proposed Actions (the "No Action" condition), the Development Site and remainder of the Project Area are assumed to remain in their existing condition and no new development is expected.

Study Area

As detailed in Attachment B, "Land Use, Zoning, and Public Policy," and Appendix B, "No Action Condition Projects," there are 48 known development projects that are expected to be built within the ½-mile study area by 2025. These projects will introduce mostly mixed-use residential and commercial (retail) uses, along with hotels, offices, and community facility uses, increasing the density and mixed-use character of the study area. In total and separate from the Development Site, an estimated 3,742 new residential units are planned to be built in the study area by 2025.

CEQR PRELIMINARY ASSESSMENT CRITERIA

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

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

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

Incomes of Market-Rate Unit Households

As a new housing product, the market-rate DUs would be expected to rent on the higher end of the range of market-rate asking rents in the study area. For purposes of analysis, the upper quartile of listed asking rents were utilized to estimate market-rate renters' incomes, and it was assumed

[5] Median asking rent trends available from StreetEasy.com are for a Long Island City market area, which is roughly bounded by 36th Avenue to the north, Northern Boulevard to the east, Hunters Point to the south, and the East River to the west. The percent increases cited is adjusted for inflation.

that households would pay 30 percent of their income toward rent.[6] The resulting projected household incomes, shown in **Table C-5**, range from nearly $110,000 for households residing in studio units to approximately $265,000 for households in three-plus-bedroom units.

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

Unit Type	Projected Monthly Rent	Projected Annual Household Income
Studio	$2,711	$108,450
One Bedroom	$3,495	$139,800
Two Bedroom	$4,695	$187,800
Three+ Bedroom	$6,637	$265,490
Weighted Average Total[1]	**$4,118**	**$164,725**

Note:
[1] Total average monthly rent is a weighted total based on the proportional unit mix of renter-occupied units in the study area.
Source: AKRF, Inc. based calculations on rental data collected from StreetEasy.com, accessed January 2021.

The overall average income for market-rate households would depend on the unit mixes on the Development Site, which is not currently known. For purposes of analysis a weighted average was calculated based on the proportional unit mix of renter-occupied units in the study area, resulting in an average household income of $164,725 for households in market rate units, which is nearly double the study area's average household income in 2019 ($80,298).

Incomes for Permanently Affordable Unit Households

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

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

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

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

Table C-6
2021 New York City Area Median Income (AMI)

Family Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	80% of AMI	100% of AMI	120% of AMI	130% of AMI	165% of AMI
1	$25,080	$33,440	$41,800	$50,160	$58,520	$66,880	$75,240	$83,600	$91,960
2	$28,650	$38,200	$47,750	$57,300	$66,850	$76,400	$85,950	$95,500	$105,050
3	$32,220	$42,960	$53,700	$64,440	$75,180	$85,920	$96,600	$107,400	$118,140
4	$35,790	$47,720	$59,650	$71,580	$83,510	$95,440	$107,370	$119,300	$131,230
5	$38,670	$51,560	$64,450	$77,340	$90,230	$103,120	$116,010	$128,900	$141,790

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

Table C-7
2021 New York City Affordable Monthly Rents by Area Median Income (AMI)

Unit Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	80% of AMI	100% of AMI	120% of AMI	130% of AMI	165% of AMI
Studio	$419	$598	$777	$956	$1,135	$1,314	$1,547	$1,726	$1,905
1 BR	$532	$756	$980	$1,204	$1,427	$1,651	$1,942	$2,166	$2,390
2 BR	$631	$900	$1,168	$1,437	$1,705	$1,974	$2,323	$2,592	$2,860
3 BR	$722	$1,032	$1,343	$1,653	$1,963	$2,273	$2,677	$2,987	$3,297

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

The applicant is proposing to pursue to MIH Option 1 for the Proposed Project; however, since the exact MIH option will not be confirmed until later in the Uniform Land Use Review Procedure (ULURP) process, For purposes of a conservative analysis, the socioeconomic conditions analysis assumes Option 2, which would introduce an estimated 70 permanently affordable units that would be available to households with incomes averaging 80 percent of AMI.[7] Given that the study area's household size averages 2.23 persons per unit, one could expect the incomes of households in the affordable units to average between $66,850 and $75,180, which is below the study area's average household income in 2019 ($80,298).

Average Household Income for the Proposed Project

Table C-8 shows the projected average household income for the residents introduced as a result of the Proposed Project, when considering both the affordable and market-rate units. To derive this estimate, the average income of market-rate units was multiplied by the total number of incremental market rate units, and the average income of affordable units was multiplied by the total number of affordable units. These two numbers were then added together to determine the aggregate income for all the units, and the result was divided by the total number of units to determine an estimated average income for all units of $136,172.

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

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

	Income	Units	Aggregate Income (Income x Units)
Market rate	$164,725	163	$26,850,221
Affordable[1]	$69,682	70	$4,877,754
Total		**233**	**$31,727,975**
Weighted Average Income of the With Action Population (Aggregate Income ÷ Total Units)			**$136,172**

Note:
[1] Affordable income is based on a weighted average of 80 percent AMI for two- and three-person families, using the community district's average household size of 2.23 persons per unit.

Based on the above-described analysis, the Proposed Project would be expected to introduce permanently affordable units occupied by households who have an average income that is lower than the average for the existing study area population, while the project's market-rate units would introduce residents who have a higher average household income than the existing study area population. In the aggregate, the Proposed Project's expected average household income of $136,172 would exceed the average for the existing study area ($80,298). Based on *CEQR Technical Manual* guidelines, if the expected average incomes of the new population would exceed the average incomes of the study area population, Steps 2 of the preliminary assessment is warranted.

Step 2. Determine if the Proposed Project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area.

According to the Census Bureau data, in 2020 the study area had a population of 31,314, as compared to an estimated 15,401 residents in 2010 (see **Table C-9**). Over the same period, the populations of Queens and New York City both increased by approximately 7.8 and 7.7 percent, respectively.

Table C-9
Study Area Population Estimates and Projections

	2010 Census	2020 Census	Change 2010 to 2020	2025 Population Projections in the Future without the Proposed Project
Study Area	15,401	31,314	Increase[1]	39,659
Queens	2,230,722	2,405,464	7.8%	N/A
New York City	8,175,133	8,804,190	7.7%	N/A

Notes:
[1] The statistical reliability of the data included in this table has been vetted using DCP's NYC Population FactFinder and by following guidance provided by DCP. For the study area, only the directionality of change over time was statistically reliable.
[2] Year 2025 population projection based on no build projects and the average household size for Community District 1 of 2.23 persons per DU.
Sources: U.S. Census Bureau 2010 and 2020, accessed through Social Explorer and DCP's NYC Population FactFinder.

As detailed in the "No Action Condition" section above, an estimated 3,742 residential DUs will be developed within the study area by 2025. Assuming an average household size of 2.23 persons

per DU and 100 percent occupancy rates, these planned development projects would add an estimated 8,345 people to the study area. **Table C-9** presents the total projections in the future without the Proposed Project by adding the population from the No Build projects to the 2020 population estimates.

With the Proposed Project, by 2025 there would be 233 DUs built on the Development Site. With an average household size of 2.23 persons per DU and assuming 100 percent occupancy, the added population would be approximately 520 people. **Table C-10** shows the new population relative to the population in the future without the Proposed Project.

Table C-10
Projected Incremental Population by 2025 under RWCDS

	2025 Population Projections in the Future without the Proposed Project[1]	Number of Incremental DUs	Projected Population Increase from Proposed Project Dwelling Units	Percent Change from 2025 Future without the Proposed Project Condition
Study Area	39,659	233	520	1.3%

Note:
[1] Year 2025 population projection based on no build projects and an average household size of 2.23 persons per DU.
Source: AKRF, Inc.

According to *CEQR Technical Manual* analysis thresholds, if the population increase is greater than 5 percent in a study area or identified subareas, the incremental population may be large enough to affect real estate market conditions, and Step 3 of the preliminary assessment is warranted. By adding a 520-person increment to the study area, the Proposed Project would increase the ½-mile study area population by approximately 1.3 percent, suggesting that the Proposed Project's population increment would not be large enough to substantively affect real estate market conditions in the ½-mile study area. However, within a more immediate ¼-mile area surrounding the Project Area, the Proposed Project would represent a population increment of approximately 6.0 percent, which is greater than 5 percent. Therefore, Step 3 was conducted for an approximately ¼-mile area represented by Census Tracts 31, 33.01, and 33.02 (see **Figure C-1**).

Step 3. Consider whether Census Tracts 31, 33.01, and 33.02 have already experienced a readily observable trend toward increasing rents and the likely effect of the Proposed Project on such trends.

As shown in **Table C-11**, median gross rent in Census Tracts 31, 33.01, and 33.02 have increased since 2010, and is greater than the median for both Queens and New York City. Though market rate rent trend information is not available specific to these census tracts, broader trends identified for the Long Island City market suggest a 22 percent increase in rents since 2010.[8]

[8] Median asking rent trends available from StreetEasy.com are for a Long Island City market area, which is roughly bounded by 36th Avenue to the north, Northern Boulevard to the east, Hunters Point to the south, and the East River to the west. The percent increases cited is adjusted for inflation.

Table C-11
Median Gross Rent, Queens Census Tracts 31, 33.01, and 33.02
(2006–2010, 2015–2019 ACS)

	2006–2010 ACS[2]	2015–2019 ACS	Change[3]
Census Tracts 31, 33.01, and 33.02[1]	$1,518	$2,300	↑ Increased
Queens	$1,388	$1,583	14.1%
New York City	$1,259	$1,443	14.7%

Notes:
[1] Study area Census Tract 33 was split into 33.01 and 33.02 due to population growth identified through the 2020 Census.
[2] All dollar figures have been adjusted to 2019 dollars based on the U.S. Department of Labor Consumer Price Index.
[3] The statistical reliability of the data included in this table has been vetted using DCP's NYC Population FactFinder and by following guidance provided by DCP. For Census Tracts 31, 33.01, and 33.02, only the directionality of change over time was statistically reliable.
Sources: 2006–2010 ACS and 2015–2019 ACS, as reported in DCP's NYC Population FactFinder.

The Proposed Project would introduce market rate DUs housing a population who would have higher average household incomes than the area's existing household incomes (approximately $103,863 in Census Tracts 31, 33.01, and 33.02). However, there is already an existing trend toward higher rents, with rent levels already exceeding amounts that are affordable to the average household. In addition, the Proposed Project would introduce permanently affordable DUs that would make the area more affordable to low- and moderate-income residents, slowing the existing trend of increasing rents and maintaining a more diverse mix of incomes as compared to the future without the Proposed Project.

CONCLUSION

While Step 1 of the preliminary assessment could not rule out the possibility that the Proposed Project could result in new populations with higher average incomes than the existing and future study area population, Step 2 of the analysis determined that the project's increase in population would not be large enough to substantively affect real estate market conditions in the study area. As demonstrated in Step 3, the more immediate area surrounding the Development Site has already experienced a readily observable trend toward increasing housing prices. Therefore, based on *CEQR Technical Manual* guidelines, the Proposed Project would not result in significant adverse impacts due to indirect residential displacement, and no further analysis is warranted. ✶

A. INTRODUCTION

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

The Proposed Actions would facilitate the development of the approximately 248,419-gross square-foot (gsf) Proposed Project on the Development Site (Block 406, Lot 12) at 40-25 Crescent Street in the Dutch Kills neighborhood of Long Island City, Queens. The development would include 201,859 gsf of residential uses (233 dwelling units [DUs]), 5,800 gsf of local retail uses, 12,960 of light manufacturing uses, and 118 accessory parking spaces. As discussed in Attachment A, "Project Description and Supplemental Analyses," under the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Actions would result in a net increase of approximately 233 DUs, 5,800 gsf of local retail uses, and 98 parking spaces, and a net decrease of 6,000 gsf of office uses and 5,040 gsf of light manufacturing uses.

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

B. METHODOLOGY

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

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

DIRECT EFFECTS

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

INDIRECT EFFECTS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if a project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are different for areas of the City that have been identified as either underserved or well-served by open space. The Project Area is located within an area that has been identified as neither underserved nor well-served, and therefore an assessment of indirect is effects is conducted when a project exceeds these thresholds.

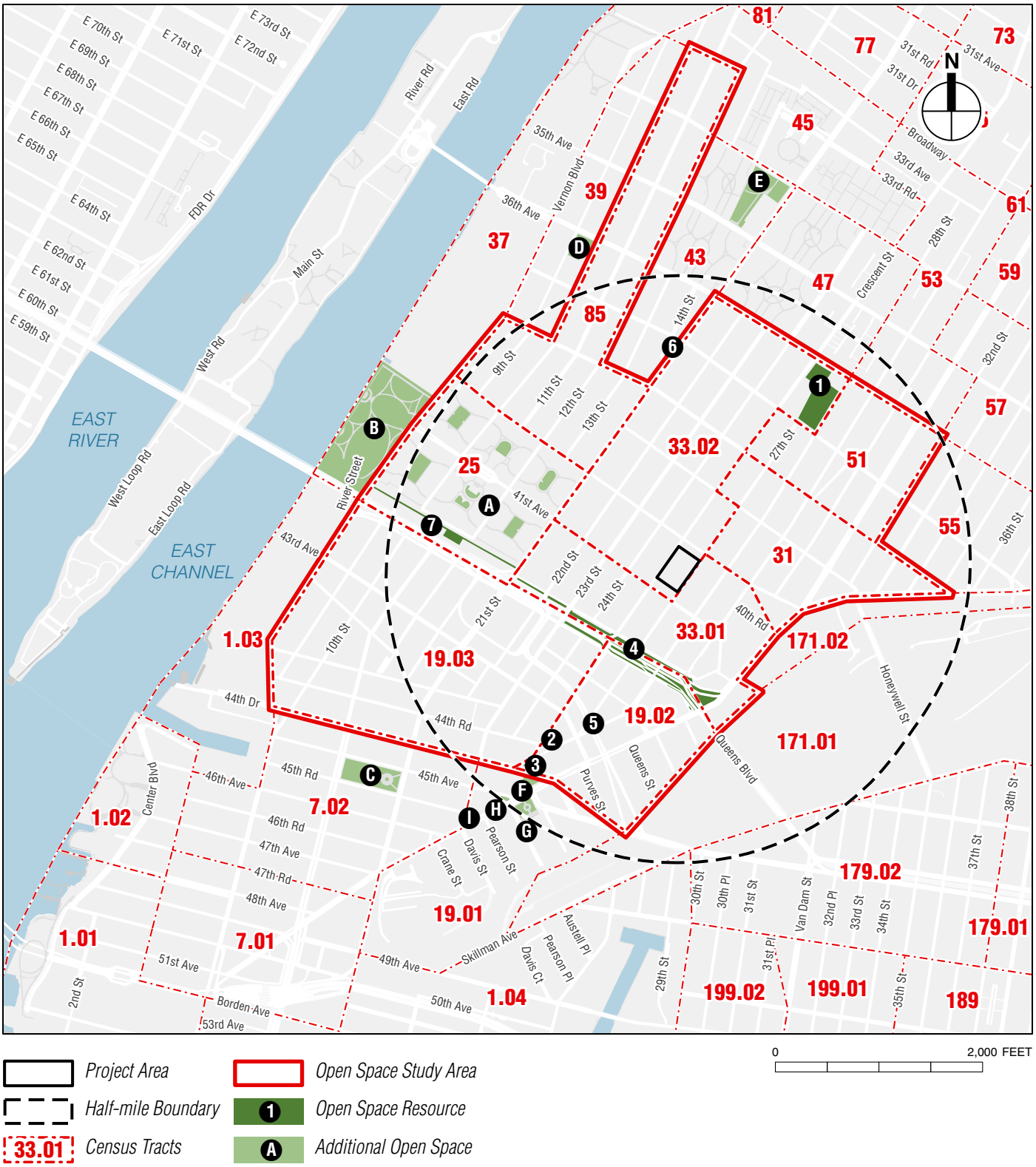
In accordance with *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated development on the Development Site. As discussed in Attachment A, "Project Description and Supplemental Analyses," the Proposed Actions would introduce up to 233 incremental DUs, which would introduce an estimated 520 residents to the Project Area as compared with the future without the Proposed Actions (the "No Action" condition). However, the Proposed Actions would not increase the number of workers in the Project Area as compared to the No Action condition. Therefore, only an open space assessment for the residential population generated by the Proposed Actions is warranted.

As described below, since the preliminary assessment of indirect effects to open space identified a low open space ratio in the study area and a project-generated decrease in the study area open space ratio of more than 1 percent, a detailed assessment of indirect effects on public open space resources was also performed.

STUDY AREA

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

Because the Proposed Actions would only introduce new residential population above the 200-resident population threshold and not a substantial enough population to exceed the 500-worker threshold, the adequacy of open space resources was assessed for the ½-mile (residential) study area only. This study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary. In this way, the study area allows for analysis of both the open spaces in the area as well as population data. As shown on **Figure D-1**, the ½-mile residential study area includes the area within Census Tracts 19.02, 19.03 25, 31, 33.01, 33.02, 51, and 85.



Open Space Study Area and Resources

The residential study area is generally bounded by 33rd Road and 36th Avenue to the north, 32nd Street and the Sunnyside Railyard to the east, 44th Drive to the south, and Vernon Boulevard and 10th Street to the west.

ANALYSIS FRAMEWORK

Publicly accessible open spaces and recreational facilities were inventoried to determine their size, character, utilization, amenities, and condition. Open spaces that are not accessible to the general public or that do not offer usable recreational areas, such as spaces where seating is unavailable, were generally excluded from the survey. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys conducted in July 2021 and secondary sources, such as the New York City Department of Parks and Recreation (NYC Parks) and New York City Department of Informational Technology and Telecommunications (DoITT) Geographic information system (GIS) data, were used to determine the number, size, availability, and condition of publicly accessible open space resources in the residential study area.

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

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

- Open space study area population. The population of the open space study area was compiled from 2020 U.S. Census data. Age distribution data was compiled from the U.S. Census Bureau's 2015–2019 American Community Survey (ACS) data.
- An inventory of all publicly accessible passive and active recreational facilities in the residential open space study area.
- An assessment of the quantitative ratio of open space in the study area is calculated by computing the ratio of open space acreage to the residential population in the study area and comparing this open space ratio with certain guidelines. In New York City, local open space ratios vary widely, and the median ratio at the Citywide Community District level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of both direct and indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces, and is consequently used as an optimal benchmark for residential populations in large-scale proposals. Ideally, this would comprise 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

For large-scale projects (and for planning purposes), the City also seeks to attain its planning goal of a balance of 80 percent active open space and 20 percent passive open space. These goals are often not feasible for many areas of the City and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space.

- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the residential open space study area in existing conditions, the No Action condition, and the With Action condition.
- An assessment of expected changes in future levels of open space supply and demand in the 2025 analysis year, based on other planned development projects within the open space study area. To estimate the population expected in the study area in the No Action condition, an average household size of 2.23 persons is applied to the number of new DUs expected in the study area.[1] Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also accounted for. Open space ratios are calculated for No Action and With Action conditions and compared to determine changes in future levels of adequacy.

DETAILED IMPACT ASSESSMENT

Impacts are based in part on how a project would change the open space ratios in the study area as well as other qualitative considerations. According to the *CEQR Technical Manual*, a decrease in an open space ratio of 5 percent or more compared to the No Action condition is generally considered to be a significant adverse impact. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. As noted above, it is recognized that the open space ratios of the City guidelines are not feasible for many areas of the city, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space. When assessing the effects of a change in the open space ratio, the assessment should consider the balance of passive and active open space resources appropriate to support the affected population and the condition of existing open spaces within the study area. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations, such as the distribution of open space, whether an area is considered "well-served" or "underserved" by open space, the distance to regional parks, the connectivity of open space, and any additional open space provided by the Proposed Project, should be considered in a determination of significance.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

As shown on **Figure D-1** and summarized in **Table D-1**, the study area for the Proposed Actions includes eight census tracts with a total population of 31,314 residents.

[1] 2.23 persons per household represents the average household size of Queens Community District 1.

Table D-1
Study Area Residential Population

Census Tract[1]	Residential Population
19.02	8,645
19.03	2,214
25	7,242
31	2,157
33.01	4,399
33.02	2,166
51	2,512
85	1,979
Total	**31,314**

Note: [1] See **Figure D-1** for a map of census tracks included in the study area.
Sources: U.S. Census Bureau, 2020 Census

AGE DISTRIBUTION

Table D-2 summarizes the age distribution of the residential population in the study area and compares this distribution to the age distributions in Queens and New York City as a whole. As shown in **Table D-2**, the study area age distribution is generally similar to that of Queens and New York City, though the residential population of 20- to 64-year-old residents is slightly greater (67.38 percent). Both Queens and New York City have a slightly larger population of adults 65 years and older compared to the study area. Children under 5 years old make up 4.70 percent of the study area population compared to 6.26 percent and 6.45 percent in Queens and New York City, respectively. Those aged between 5 and 19 years old have a similar distribution across all three geographies. Senior residents in the study area, ages 65 and older, make up 11.67 percent compared to 15.32 percent in Queens and 14.52 percent in New York City.

Table D-2
Population Age Distribution

Age Category	Study Area		Queens		New York City	
	Persons	Percent	Persons	Percent	Persons	Percent
Under 5 Years	759	4.70%	143,079	6.26%	544,971	6.45%
5 to 9 Years	850	5.26%	121.021	5.29%	468,577	5.55%
10 to 14 Years	846	5.24%	125,731	5.50%	469,890	5.56%
15 to 19 Years	929	5.75%	116,565	5.10%	450,091	5.33%
20 to 64 Years	10,886	67.38%	1,430,478	62.54%	5,263,520	62.52%
65 Years and over	1,885	11.67%	350,514	15.32%	1,222,267	14.52%
Total	16,155	100%	2,287,388	100%	8,419,316	100%

Note: Age distribution data from the 2020 Census is not yet available, therefore the latest 2015–2019 ACS 5-Year Estimates data was utilized.
Sources: U.S. Census Bureau, American Community Survey (ACS) 2015–2019 5-Year Estimates

Within a given area, the age distribution of a population has differing effects on communal open spaces. Different age groups tend to use different open space resources based on their needs and interests. Typically, children five years old and younger use traditional playgrounds with play equipment for toddlers and preschool children. Children ages five through nine often use traditional playground equipment, as well as grassy and hard-surfaced open spaces, such as fields for ball playing, running, or skipping rope. Children aged 10 through 14 years old typically use playground equipment, court spaces, and ball fields. Teenagers and young adults, aged 15 to 19,

tend to primarily use court spaces and athletic fields for sports like, basketball or soccer. Adults aged 20 to 64 often use court and ballfield facilities for recreational sports, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths and vehicle-free roadways. Adults also engage in passive activities that require open space resources such as going for strolls, people watching, and picnicking. Older adults aged 65 and older may engage in activities similar to those aged 20 to 64. Active recreation may include court spaces for handball and tennis, or community gardens, as well as water-based activities such as fishing or swimming. Older adults will also engage in passive recreational activities like the aforementioned strolling and people watching.

As shown in **Table D-2**, the study area has a range of age groups indicating a need for active recreation facilities, passive recreation facilities, and flexible open space areas that can be used for both active and passive recreation, like paths or promenades for running, open areas for informal sports, and benches for seating.

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

Within the residential ½-mile study area, there are 7 publicly accessible open space resources, as shown on **Figure D-1** and summarized in **Table D-3**. These resources contain approximately 6.26 acres of open space. Of this total, approximately 3.19 acres (56 percent) are active open space, and 2.51 acres (44 percent) are passive open space. The resources are operated by NYC Parks, and the New York City Department of Transportation (DOT).

Table D-3
Existing Publicly Accessible Open Space Inventory

Map ID[1]	Name	Owner or Agency	Features	Total Acres of Open Space	Acres of Active Open Space	Acres of Passive Open Space	Condition/ Utilization
1	Dutch Kills Playground	NYC Parks	Bathrooms, handball courts, playground, roller hockey, spray showers, blacktop areas, basketball courts, benches, landscaping, water fountain	2.40	2.16	0.24	Adequate/ Medium
2	Sundial Park	DOT	Monument, sundial, landscaped area with seating	0.11	0	0.11	Adequate/ Low
3	Rafferty Triangle	NYC Parks	Benches, tables and chairs, planters, memorial, trees, small plaza, sundial	0.10	0	0.10	Good/ Medium
4	Queens Plaza Public Open Space	DOT	Wetlands, native plantings, artistically designed benches and paving, small stone sculptures, planted areas, small amphitheater, bike & pedestrian paths, planted dividers, bike stand, info kiosk	1.81	0.18	1.63	Good/ Heavy
5	Hunter Street Park	DOT	Benches, plaza, landscaping	0.21	0	0.21	Adequate/ Low
6	Sixteen Oaks Grove	NYC Parks	Benches, plaza, landscaping	0.22	0	0.22	Adequate/ Low
7	Queensbridge Baby Park	NYC Parks	Handball courts, greenway	0.85	0.85	0	Poor/Low
Totals				**5.70**	**3.19**	**2.51**	

Notes:
[1] See **Figure D-1** for location of open spaces resources in the study area.
Sources:
NYC Parks open space data base; AKRF, Inc. field survey, July 2021

In addition to the resources included in the quantitative assessment, and consistent with *CEQR Technical Manual* guidance, there are several open space resources that have not been included.

These resources, discussed further below, are expected to provide additional open space amenities to study area residents.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

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

Quantitative Assessment

The study area has an overall open space ratio of 0.182 acres per 1,000 residents (see **Table D-4**). This is lower than the City's planning guideline of 2.5 acres per 1,000 residents. The study area's active and passive open space ratios are 0.102 and 0.080 acres per 1,000 residents, respectively, which is below the *CEQR Technical Manual* guidelines of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

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

Existing Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
31,314	5.70	3.19	2.51	0.182	0.102	0.080	2.5	2.0	0.5

Qualitative Assessment

In addition to the open spaces resources listed above, the study area contains open space resources that have not been included in the quantitative assessment (see **Figure D-1** and **Table D-5**), including New York City Housing Authority (NYCHA) controlled open space resources at the Queensbridge Houses within the study area.

There are also several additional open space resources immediately outside the study area that would be readily accessible to residents of the study area. These open spaces include Queensbridge Park, Murray Playground, Spirit Playground, and Ravenswood Playground, One Court, Square, Court Square Park, McKenna Triangle, and Albert Short Triangle, as well as other smaller parks. Most of these open spaces are just over a half-mile away, or an approximately 20-minute walk from the Project Area.

Queensbridge Park is a large open space, at 20.34, with extensive active and passive amenities including baseball fields, running and biking pathways, waterfront esplanades, handball courts, public piers, BBQ areas, bathrooms, dog-friendly areas, spray showers, benches, playgrounds, lawn areas, and landscaping. This park in large part provides for the open space needs of the residents in this area of Queens and is within a reasonable range of the Project Area. Queensbridge Park is in good condition and has low usage, respectively. Queensbridge Park is within ½-mile of a large part of the western portion of the study area, helping to serve local open space needs.

Table D-5
Additional Open Space

Map ID[1]	Name	Owner	Features	Total Acreage	Distance from Project Area[5]
A	Queensbridge Houses Recreation Areas	NYCHA	Pathways, benches, playgrounds, basketball courts	1.0[4]	0.38 miles
B[2]	Queensbridge Park	NYC Parks	BBQ areas, bathrooms, playgrounds, baseball fields, running and biking pathways, waterfront esplanade, dog-friendly areas, handball courts, spray showers, landscaping	20.34	0.55 miles
C[2]	John F. Murray Playground	NYC Parks	Benches, dog-friendly area, playgrounds, landscaping, soccer field, handball courts, basketball courts, spray showers	2.52	0.65 miles[6]
D[2]	Spirit Playground	NYC Parks	Bathrooms, handball courts, basketball courts, playgrounds, spray showers, rock scramble, benches	0.79	0.60 miles[6]
E[2]	Ravenswood Playground	NYC Parks	Bathrooms, handball courts, basketball courts, a baseball diamond, playgrounds, spray showers, fitness equipment, benches	2.76	0.71 miles[6]
F[2]	One Court Square	Citigroup	Subway entrance, benches, plaza, antique clock, bike racks, landscaping	0.35	0.43 miles[6]
G[2]	Court Square Park	NYC Parks	Benches, green space, plaza, fountain	0.68	0.47 miles[6]
H[2]	McKenna Triangle	NYC Parks	Benches, flagpole, plaza, planted area	0.10	0.49 miles[6]
I[2]	Albert Short Triangle	NYC Parks	Landscaping, subway entrance, benches	0.06	0.55 miles[6]

Notes:
[1] See **Figure D-1** for location of additional open spaces in and around the study area.
[2] Outside the study area.
[3] The New York State Office of Parks, Recreation, and Historic Preservation.
[4] Acreage was calculated using Google Maps.
[5] Distance was measured using Google Maps.
[6] A large portion of the study area is within a half-mile of the park.
Sources:
NYC Parks open space data base; AKRF, Inc. field survey, July 2021

John F. Murray Playground is a 2.52-acre playground with a variety of active and passive amenities, including playgrounds, dog-friendly areas, a soccer field, handball courts, basketball courts, spray showers, landscaping, and benches. Portions of the park have been renovated between 2010 and 2014. Overall, the park is in excellent condition. Ravenswood Playground is a 2.76-acre playground that contains mostly active amenities, such as handball courts, basketball courts, a baseball diamond, playgrounds, spray showers, and fitness equipment, as well as bathrooms and benches. Spirit Playground is a 0.79-acre playground that also contains mostly active amenities, including playgrounds, handball courts, basketball courts, spray showers, and a rock scramble, as well as bathrooms and benches.

One Court Square is a 0.35-acre plaza with mostly passive amenities such as benches, landscaping, and a plaza area. Court Square Park is a 0.68-acre park that also features mostly passive amenities including benches, green space, a plaza area, and a fountain. McKenna Triangle and Albert Short

Triangle are small triangle parks that are 0.10 acres and 0.06 acres respectively. They feature passive amenities such as benches and planted areas.

Most of the open space resources in the study area are passive open spaces. However, as identified in **Table D-5**, the open spaces situated just outside the study area offer a number of active amenities including playgrounds, court spaces, and ball fields. These facilities serve all age groups identified within the study area's population.

D. FUTURE NO ACTION CONDITON

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

STUDY AREA POPULATION

As detailed in **Appendix 2**, there are 3,742 DUs expected to be constructed by other projects within the study area by 2025. These DUs would introduce a new population of 8,345. This new development would raise the total population of the study area to 39,659 by 2025 absent the Proposed Actions.

STUDY AREA OPEN SPACE RESOURCES

There are two capital projects planned for open space resources in the study area that are likely to be completed by the analysis year. Queensbridge Baby Park, which is one of the many facilities that is located within the bounds of Queensbridge Park, is planned to undergo a partial reconstruction of the existing handball courts beginning in the near future.[2] The rebuilt open space area will include reconstructed handball courts, a basketball court, and landscaping, improving the quality of the open space but not increasing its acreage. NYC Parks is also in the initial planning stages to reconstruct the remainder of Queensbridge Baby Park, which is currently used by NYC Parks for storage. The completion of Queensbridge Baby Park's full reconstruction will increase the amount of open space in the study area but is not included in the quantitative analysis to ensure a conservative assessment of future conditions, as its final design and completion date are unknown.

The reconstruction of Court Square Park just outside the study area is underway and is anticipated to be completed by the analysis year. When complete, Court Square Park will function as a passive open space.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

Quantitative Assessment

As shown in **Table D-6**, in the No Action condition, the total open space ratio is projected to decrease from 0.182 acres per 1,000 residents to 0.144 acres per 1,000 residents. The active open space ratio would fall from 0.102 to 0.080 acres per 1,000 residents, and the passive open space

[2] This partial reconstruction project is currently in the "procurement" stage according to the NYC Parks website, with the stage projected to be completed by April 2022, following which would be the construction stage (typically 12-18 months).

ratio would fall from 0.080 to 0.063 acres per 1,000 residents. Similar to existing conditions, the total, active, and passive open space ratios would be below City guidelines.

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

No Action Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
39,659	5.70	3.19	2.51	0.144	0.080	0.063	2.5	2.0	0.5

E. FUTURE WITH ACTION CONDITION

STUDY AREA POPULATION

The With Action condition would result in an incremental projected development of 233 DUs compared to the No Action condition, which would introduce 520 residents to the study area, bringing the total population to 40,178 in the With Action condition.

STUDY AREA OPEN SPACE RESOURCES

In the With Action condition, study area open space resources are expected to remain the same as in existing conditions and the No Action condition.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

Quantitative Assessment

As shown in **Table D-7**, the total open space ratio is projected to fall from 0.144 acres per 1,000 residents in the No Action condition to 0.142 acres per 1,000 residents in the With Action condition. The active open space ratio would decrease from 0.080 to 0.079 acres per 1,000 residents, and the passive open space ratio would decrease from 0.063 to 0.062 acres per 1,000 residents. As in the No Action condition, all of these open space ratios would be below the City guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents. Compared to the No Action condition, the total, active, and passive open space ratio would all decrease by between 1.25 and 1.59 percent (see **Table D-8**).

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

With Action Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
40,178	5.70	3.19	2.51	0.142	0.079	0.062	2.5	2.0	0.5

Table D-8
Study Area Open Space Ratio Summary

Ratio	City Open Space Guideline	Open Space Ratios Acres per 1,000 Residents		Percent Change (Future No Action to Future With Action)
		No Action	With Action	
Total—Residential	2.5	0.144	0.142	-1.39%
Active—Residential	2.0	0.080	0.079	-1.25%
Passive—Residential	0.5	0.063	0.062	-1.59%

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

Qualitative Assessment

As shown in **Table D-3**, the study area open spaces provide access to a wide variety of active and passive uses appropriate for all age groups, including children, teenagers, adults, and seniors. The study area includes a higher percentage of working-age adults (ages 20 to 64), as compared with Queens and New York City as a whole (see **Table D-2**). As indicated in the *CEQR Technical Manual*, adults tend to utilize active recreational amenities (such as handball and basketball courts) as well as open lawns and other passive recreational amenities. The study area includes a number of passive open space resources as well as active recreational spaces such as basketball and handball courts, roller hockey, and bike and pedestrian paths. Approximately 20.95 percent of the residents in the area are young adults and children (age 19 and below), who often use a variety of active recreational playgrounds with sports facilities, similar to the adult population. As indicated in **Table D-3**, the open spaces within the study area include a mix of these active and passive open space facilities. Additionally, the planned reconstruction of the full Queensbridge Baby Park will increase the amount of public open space in the study area, providing new high-quality space for study area residents.

In general, all open space resources in the study area are in good to adequate condition and primarily experience low to moderate utilization (see **Table D-3**), allowing them to further absorb projected population increases generated in the With Action condition.

As noted above, several additional open space resources including Queensbridge Park; Murray Playground; Spirit Playground; Ravenswood Playground; One Court Square; Court Square Park; McKenna Triangle; and Albert Triangle were not analyzed in the quantitative assessment as they are located near, but not within, the study area boundaries. All of the resources identified are within a half-mile of the study area, with most facilities being within or just over a half-mile from the Project Area, itself. These parks are frequently utilized by the study area's residents and provide extensive active and passive recreational amenities to support the area's needs.

Queensbridge Park is a well-known park that serves as a valuable open space resource for the residents within the study area and the entire borough. It features extensive active and passive

amenities such as baseball fields, running and biking pathways, waterfront esplanades, and landscaping, with its waterfront location offering extensive views of the East River and Midtown Manhattan. John F. Murray Playground is a well-equipped playground in excellent condition featuring both active and passive amenities such as playgrounds, dog-friendly areas, a soccer field, and landscaping. Spirit Playground and Ravenswood Playground are well-equipped playgrounds in adequate condition that feature mainly active amenities such as playgrounds, handball courts, basketball courts, and fitness equipment. One Court Square, Court Square Park, McKenna Triangle, and Albert Short Triangle are all passive resources with feature such as benches, plaza areas, and landscaping that are all in adequate condition. Although Queensbridge Park, John F. Murray Playground, Spirit Playground, Ravenswood Playground, One Court Square, Court Square Park, McKenna Triangle, and Albert Short Triangle are not located within the study area boundaries, they are within a reasonable walking distance of large portions of the Project Area and support the recreational needs of study area residents.

Furthermore, several NYCHA recreation areas are located within the study area, which would provide additional open space to support the needs of some area residents. For instance, the Queensbridge Houses provide several playgrounds and court spaces, as well as benches and landscaped pathways for NYCHA residents.

DETERMINING IMPACT SIGNIFICANCE

DIRECT EFFECTS

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

INDIRECT EFFECTS

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

Though all of the open space ratios in the study area would be below the City's guidelines, the Proposed Actions would reduce the open space ratios by 1.25 percent for active space, 1.59 percent for passive space, and 1.39 percent overall (as shown in **Table D-8**), which is well below the *CEQR Technical Manual* threshold of a five percent reduction in an open space ratio to constitute a significant adverse impact but above a one percent reduction that could be considered significant in certain areas. The open space study area is projected to experience open space ratio target shortfalls in all categories of open space in the No Action condition, but these shortfalls would not be substantially increased by the Proposed Actions.

The small reduction in open space ratio for active open space in the With Action condition caused by the project-generated population increase would be absorbed by the open space resources in the study area which are all in good to adequate condition and experience low to moderate utilization.

Furthermore, the area is considered by the City to be adequately served by open space and residents of the study area and new residents in the Project Area would have access to several additional open space resources such as Queensbridge Park, Murray Playground, Spirit Playground, Ravenswood Playground, One Court Square, Court Square Park, McKenna Triangle, and Albert Short Triangle. Additionally, there are NYCHA recreational areas near and within the study area that have not been included in the quantitative assessment but would be available for use by its residents. Thus, the projected reduction of open space ratios by more than one percent in this study area would not be considered a significant adverse impact. Therefore, the Proposed Actions would not result in significant adverse impacts on open space resources. ✷

Attachment E: Shadows

A. INTRODUCTION

As described in Attachment A, "Project Description and Screening Analysis," the proposed actions would facilitate the construction of a seven-story mixed-use building on the development site (Site A) (Block 406, Lot 12) that would rise to a maximum height of approximately 100 feet, including rooftop mechanical bulkheads.[1] Additionally, the proposed actions could also result in the potential development of two other buildings at an adjacent site (Site B) which is not controlled by the applicant. The potential development on Site B is assumed to be a 100-foot tall (to the top of the bulkhead) building encompassing Lots 1, 2, 9, 10, and 11, and a 60-foot-tall building (to the top of the bulkhead), on Lot 38.

This attachment assesses the potential for the proposed and potential development sites to cast new shadows on sunlight-sensitive resources. Following the guidelines of the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, sunlight-sensitive resources include publicly accessible parks and open space, sunlight-dependent features of historic resources, and natural resources that depend on sunlight.

B. DEFINITIONS AND METHODOLOGY

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

DEFINITIONS

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

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

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), greenways, and landscaped medians with seating. Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features need be considered, as opposed to the entire resource. Such sunlight-sensitive features might include the following: design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic

[1] Assumes up to 15 feet for mechanical bulkhead.

landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.

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

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

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

A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

METHODOLOGY

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

If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by project shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

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

C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)[2] showing the location of the proposed project and the surrounding street layout (see **Figure E-1**). In coordination with the open space, historic and cultural resources, and natural resources assessments presented in other chapters of this environmental assessment, potential sunlight-sensitive resources were identified and shown on the map.

TIER 1 SCREENING ASSESSMENT

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

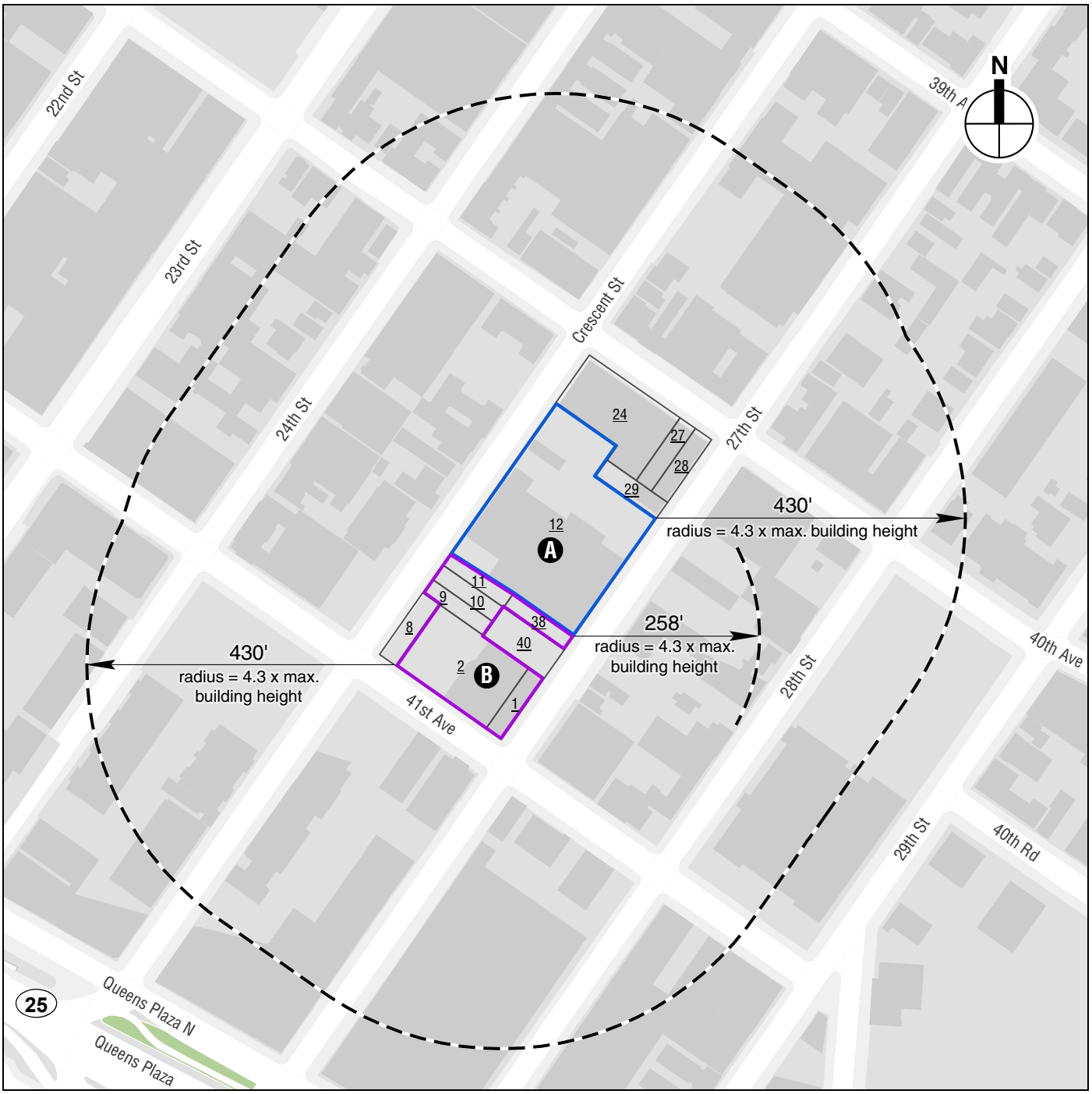
According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

Therefore, at a maximum height of 100 feet above curb level, including rooftop mechanical structures, the proposed building at the development site (Site A) could cast a shadow up to 430 feet in length (100 x 4.3). The potential development site (Site B) would include a building on Lots 1, 2, 9, 10, and 11, with a maximum height of 100 feet above curb level, including mechanical structures, which could cast a shadow up to 430 feet in length (100 x 4.3). Additionally, Site B would have a building on Lot 38 with a maximum height of 60 feet above curb level, including rooftop mechanical structures, which could cast a shadow up to 258 feet in length (60 x 4.3). Using these lengths as the radius, a perimeter was drawn around the project site (see **Figure E-1**).[3]

The Tier 1 assessment showed that no publicly accessible open spaces or historic resources with sunlight-sensitive features are located in the longest shadow study area. Therefore, no further analysis was required, and no significant adverse shadow impacts would result from the proposed actions. ✷

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

[3] The longest shadow of Lot 38 would be encompassed by the longest shadow from the other proposed and potential buildings and therefore is not shown on **Figure E-1**.



Tier 1 Assessments

40-25 Crescent Street Rezoning **Figure E-1**

A. INTRODUCTION

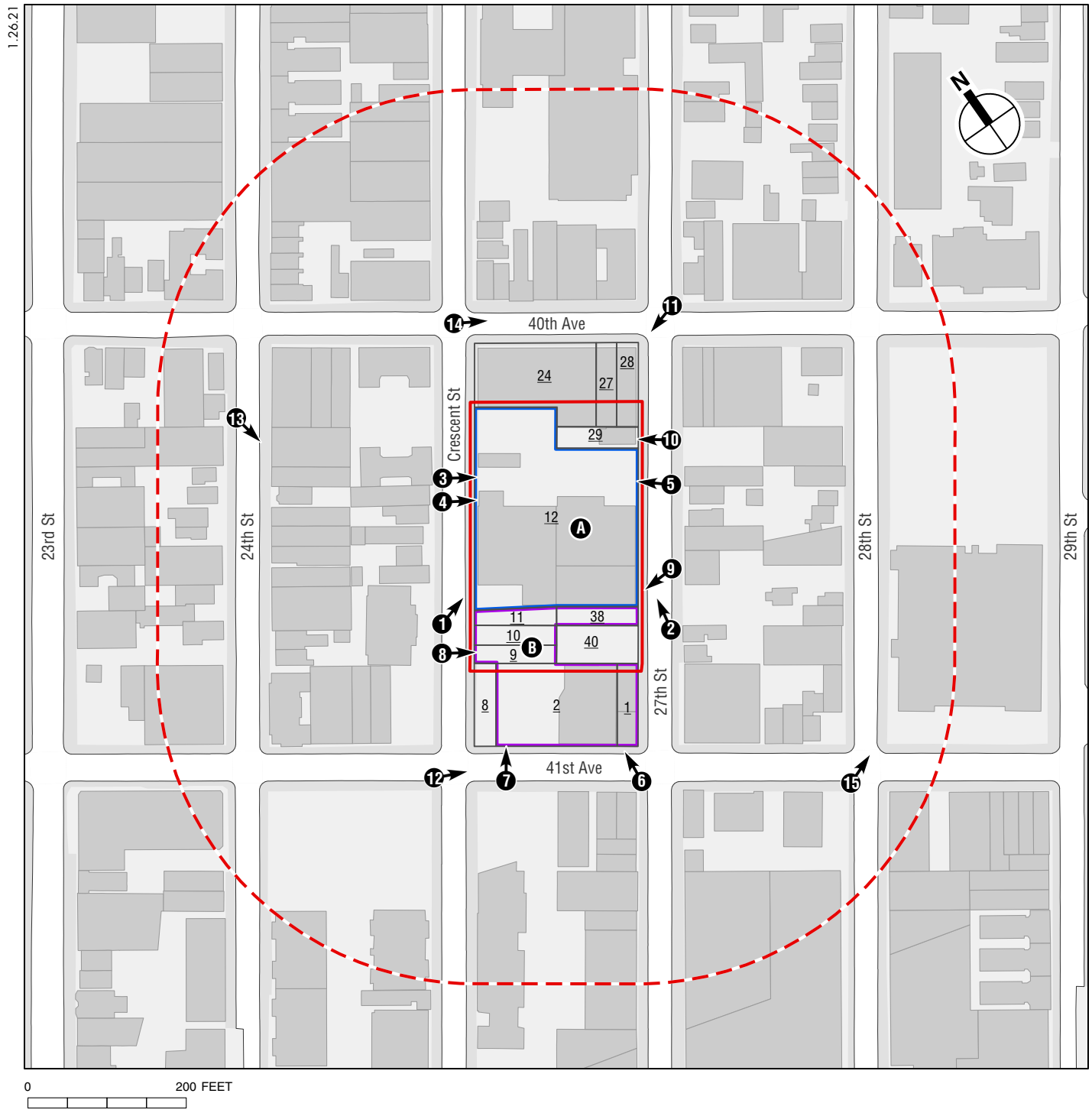
This attachment considers the potential for the Proposed Actions to result in significant adverse impacts to urban design and visual resources. As described in Attachment A, "Project Description and Supplemental Screenings," the Proposed Actions include zoning changes to facilitate the development of a mixed-use residential, commercial, and light manufacturing building at 40-25 Crescent Street (Block 406, Lot 12; the "Development Site"; or "Site A"). In addition to the Applicant's proposal, the Reasonable Worst Case Development Scenario (RWCDS) assumes the zoning changes could result in development on Site B (the "Potential Development Site"). The Project Area comprises the Development Site (Site A), portion of a Potential Development Site (Site B), and several lots within the rezoning area that are not expected to be redeveloped as a result of the Proposed Actions (see **Figure F-1**). As described below, the Proposed Actions would facilitate the development of a seven-story (approximately 75-foot-tall), approximately 248,419-gross-square-foot (gsf), mixed-use building on Site A. While the maximum height of the proposed development would be approximately 75 feet, the environmental analysis conservatively assumes a height of 85 feet, which is the maximum permitted under the proposed M1-2/R6A zoning. Site B would be potentially redeveloped with two buildings—a seven-story (up to approximately 85-foot-tall), approximately 137,380-gsf, mixed-use building and a three-story (approximately 45-foot-tall), approximately 6,006-gsf light manufacturing building in the Dutch Kills neighborhood of Queens.

As defined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. A visual resource can include views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings, and natural resources.

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

B. METHODOLOGY

In accordance with the *CEQR Technical Manual*, this analysis considers the effects of the Proposed Actions on the experience of a pedestrian. The assessment focuses on those elements that have the potential to alter the built environment, or urban design conditions, which is collectively formed by the following components:



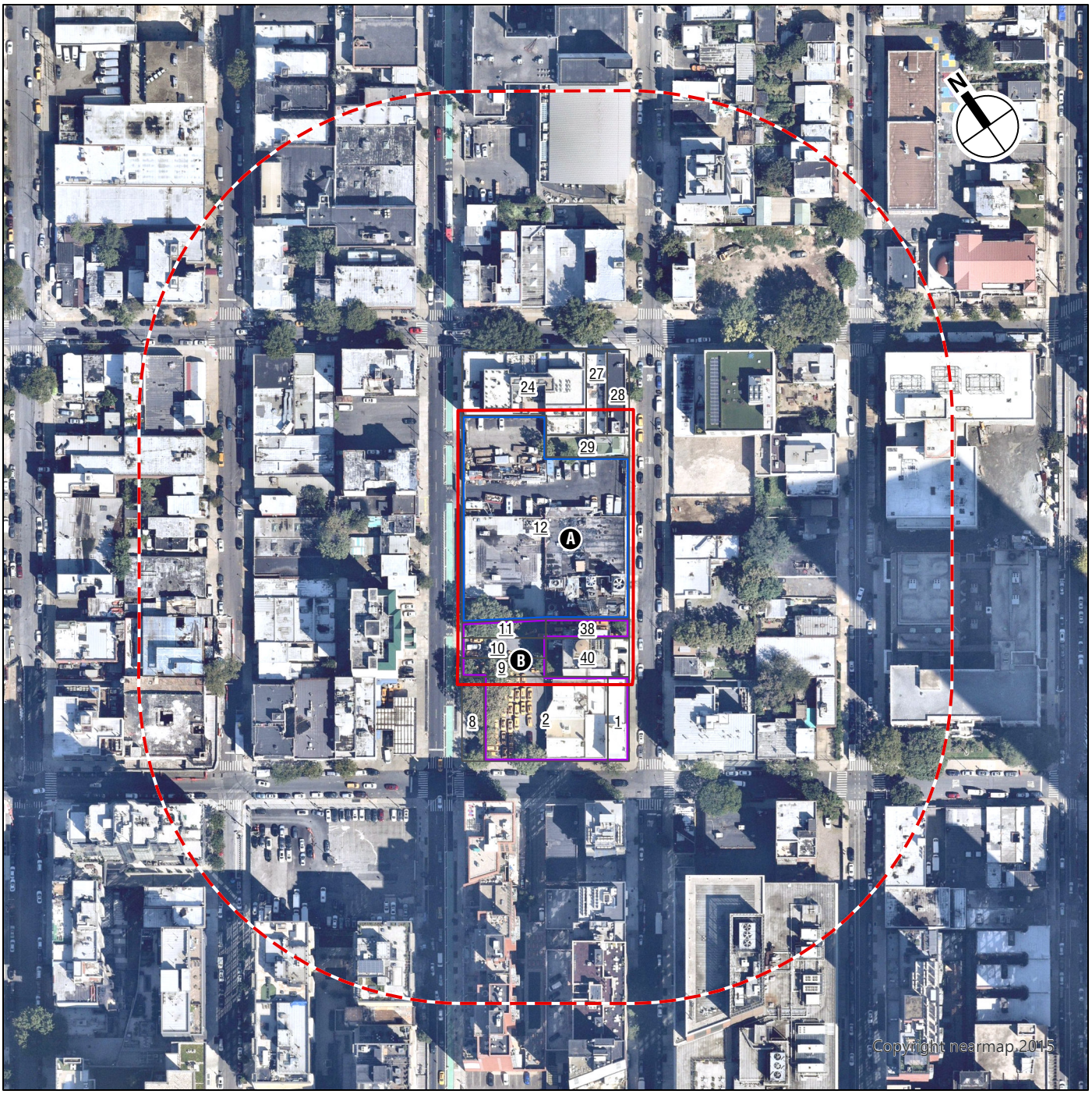
Urban Design and Visual Resources
Project Location

- *Streets*. For many neighborhoods, streets are the primary component of public space. The arrangement and orientation of streets define the location and flow of activity in an area, set street views, and create the blocks on which buildings and open spaces are organized. The apportionment of street space between cars, bicycles, transit, and sidewalks and the careful design of street furniture, grade, materials used, and permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands are critical to making a successful streetscape.
- *Buildings*. Buildings support streets. A building's street walls form the most common backdrop in the City for public space. A building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block; the orientation of active uses; and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape. The public realm also extends to building façades and rooftops, offering more opportunity to enrich the visual character of an area.
- *Open Space*. Open space includes public and private areas such as parks, yards, cemeteries, parking lots, and privately owned public spaces.
- *Natural Features*. Natural features include vegetation and geologic, topographic, and aquatic features. Rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands may help define the overall visual character of an area.
- *View Corridors and Visual Resources*. A visual resource is the connection from the public realm to significant natural or built features, including important view corridors, views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.
- *Wind*. Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety.

The following analysis addresses each of these characteristics for existing conditions and the future without and with the Proposed Actions for the 2025 analysis year. Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include projects that permit the modification of yard, height, and setback requirements, and projects that result in an increase in built floor area beyond what would be allowed "as-of-right" or in the No Action condition. The Proposed Actions would result in physical alterations, which are not allowed by existing zoning, to the Development Site, Potential Development Site, and Project Area, and which would be observable by pedestrians. Therefore, development facilitated by the Proposed Actions meets the threshold for a preliminary assessment of potential impacts to urban design and visual resources.

According to the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment, and is generally consistent with the study area used for the land use, zoning, and public policy analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. Consistent with CEQR methodology, the study area for the urban design and visual resources analysis has been defined as the area within an approximately 400-foot radius of the Project Area, which is also consistent with the study area for land use, zoning, and public policy (see **Figures F-1 and F-2**). The study area is roughly bounded by 40th Avenue to the north, 28th Street to the east, 41st Avenue to the south, and 24th Street to the west. The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that result in the construction of large buildings at locations that experience high wind conditions (such as along the waterfront, or other locations where winds from the waterfront are not attenuated by buildings

3.9.21



Project Area

Development Site

Non-Applicant Owned Potential Development Site

Study Area (400-foot perimeter)

Urban Design and Visual Resources
Aerial

40-25 CRESCENT STREET REZONING

Figure F-2

or natural features), which may result in an exacerbation of wind conditions due to "channelization" or "downwash" effects that may affect pedestrian safety. The Proposed Project would not result in the construction of a large building at a location that experiences high wind conditions, and thus a pedestrian wind analysis is not warranted.

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

As described in detail in Attachment A, "Project Description and Supplemental Analyses," the Proposed Actions include a zoning map amendment to change existing M1-2/R5B and M1-2/R5D zoning districts to solely an M1-2/R6A district in the Project Area. As stated above, the Project Area encompasses the Development Site ("Site A") [Block 406, Lot 12], the Potential Development Site ("Site B") [Block 406, part of (p/o) Lots 1 and 2, and Lots 9, 10, 11, and 38]; Lot 29; Lot 40 and p/o Lots 8, 24, 27 and 28. The Proposed Actions would also establish the Project Area as a Mandatory Inclusionary Housing (MIH) Area and would allow for greater density in the Project Area. The Proposed Project would redevelop the Development Site (Site A) with a seven-story mixed-use building with a maximum floor area of approximately 248,419 gsf and would potentially replace the existing buildings on Site B with a mixed-use building with a maximum floor area of approximately 137,380 gsf, and a light manufacturing building with a maximum floor area of approximately 6,006 gsf.

C. EXISTING CONDITIONS

URBAN DESIGN

DEVELOPMENT SITE

The Development Site, also known as Site A, occupies 40-25 Crescent Street (Block 406, Lot 12). The Development Site is a through-block site located midblock between 40th and 41st Avenues, with an approximately 250-foot-wide street frontage along Crescent Street to the west and an approximately 200-foot-wide street frontage along 27th Street to the east (see **Figures F-1 and F-2**). Site A is occupied by four, one-story (approximately 17- to 20-foot-tall) older industrial buildings (comprising a total footprint of approximately 23,840 square feet [sf]), a surface parking lot, and a storage area for food trucks and carts on the northern portion of the lot. The buildings are generally located within the southern portion of the site (see **Figure F-3**). The buildings cover approximately half of the lot area of the Development Site. The surface parking lot has a pair of chain link gates at the sidewalk line along Crescent Street, while the service area has two horizontal sliding chain link gates at the sidewalk lines along Crescent and 27th Streets (see **Figure F-4** and Photo 5 of **Figure F-5**). Three temporary storage containers are located mid-block between the parking lot and service area. There are three curb cuts along Crescent Street and two along 27th Street for the auto-related uses on the Development Site.

PROJECT AREA

The Project Area, which includes all of Site A, occupies the midblock area bounded by 27th and Crescent Streets, and 40th and 41st Avenues (Block 406, Lots 9, 10, 11, 29, 38, 40, most of Lot 12, and parts of Lots 1, 2, 8, 24, 27, and 28). Site B (Lots 1, 2, 9, 10, 11, and 38) is occupied by three buildings. Lot 1 (25-17 41st Avenue) contains a three-story (approximately 35-foot-tall) residential building with ground floor commercial space located on the northwest corner of 27th Street and 41st Avenue and, immediately to the north, a one-story (approximately 15-foot-tall)

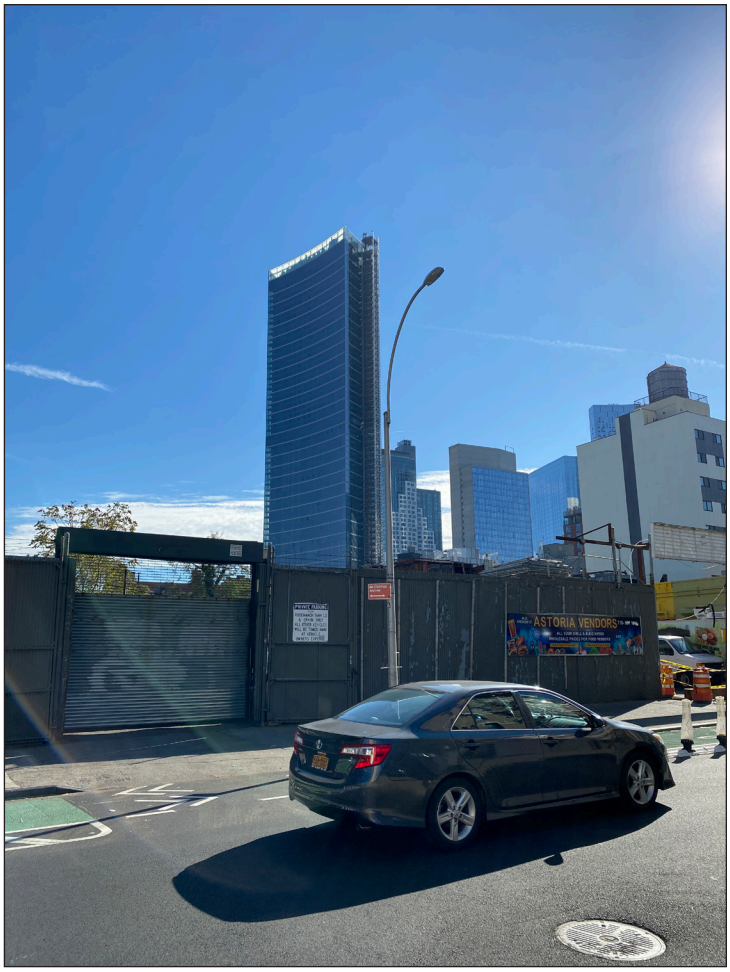


View from Crescent Street north of 41st Avenue facing northeast of an existing building on Site A **1**



View from 27th Street north of 41st Avenue facing northwest of and existing building on Site A **2**

Existing Conditions—Development Site



View from Crescent Street facing southeast of the surface parking lot on Site A **3**



View from Crescent Street facing east of the surface parking lot on Site A **4**



View from 27th Street facing west of the service area on Site A **5**

Existing Conditions—Development Site

auto repair shop with a curb cut along 27th Street (see Photo 6 of **Figure F-6**). These two buildings are built to the lot lines along 41st Avenue and 27th Street, occupying the entire lot. Combined, these two buildings comprise a total of approximately 4,550 sf. Lot 2 (25-11 41st Avenue) comprises an approximately 9,750-sf one-story (approximately 17-foot-tall) auto shop (see Photo 6 of **Figure F-6**). The building fronts on 41st Avenue in the southeast portion of the lot. The remainder of the lot is occupied by vehicle storage that is enclosed by chain link fencing topped with barbed wire with two access points via a sliding chain link gate and paired chain link gates (see Photo 7 of **Figure F-6**). There are two curb cuts on 41st Avenue for access to the auto shop and the surface parking lot. The four remaining lots (Lots 9, 10, 11 and 38) are used for vehicle storage, which occupy approximately 12,310 sf (see Photo 8 of **Figure F-7**). The lots are not enclosed except for Lots 9 and 10, which have chain link fencing topped with barbed wire. The parking lot is accessed by a curb cut along Crescent Street and a sliding chain link gate that also provides access to Lot 11. Lot 1 is accessed via a curb cut along 27th Street.

In addition to Sites A and B, the Project Area includes the approximately 31,383-sf nine-story (approximately 90-foot-tall) LIC Plaza Hotel on Lot 40 (40-36/40 27th Street) along 27th Street (see Photo 9 of **Figure F-7**). The building is setback from the sidewalk by two parking spaces and enclosed mechanical equipment, which are accessed by a curb cut. The hotel occupies the majority of the lot. North of the Development Site on Lot 29 (40-14 27th Street) is a two-and-a-half-story (approximately 26-foot-tall) house (see Photo 10 of **Figure F-8**). Setback from the sidewalk line by a low chain link fence and paved yard, the building sits slightly below grade facing 27th Street. The building occupies half of the lot.

The Project Area also includes small portions of Lots 8, 24, 27 and 28. Lot 8 is an approximately 2,500-sf vacant lot at the northeast corner of Crescent Street and 41st Avenue that has one curb cut for vehicular access (see Photo 7 of **Figure F-6**). With frontage along 40th Avenue and Crescent Street, a small portion of Lot 24 (40-05 Crescent Street) is within the Project Area. Lot 24 overall is occupied by an approximately 70,275-sf five-story (approximately 50-foot-tall) apartment building with ground floor commercial space (see Photo 11 of **Figure F-8**). To the east, a small portion of Lot 27 (25-18 40th Avenue) is within the Project Area. Lot 27 includes a one-story (approximately 15-foot-tall) older industrial building that encompasses approximately 2,500 sf (see Photo 11 of **Figure F-8**). A small portion of Lot 28 (25-20 40th Avenue) is within the Project Area. Lot 28 is located at the southwest corner of 40th Avenue and 27th Street. Lot 28 includes a two-story (approximately 25-foot-tall), approximately 5,000-sf industrial building. These three buildings are all set back from the sidewalk line and occupy the majority of their lots.

STUDY AREA

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

Streets

The study area follows a typical urban grid pattern, with blocks generally oriented north–south (see **Figure F-2**). There are no New York City Transit (NYCT) bus routes or subway stops in the study area. The closest subway station is the Queensboro Plaza station, which is located south of the study area at Queens Plaza North and Crescent Street. There are two Citi Bike stations: one on the northwest corner of Crescent Street and 40th Avenue, and the other on the northeast corner of 24th Street and 41st Avenue. Street furniture in the study area includes parking signage, fire alarm boxes, bike racks, LinkNYC stands, mailboxes, and fire hydrants.



View from 41st Avenue at 27th Street facing northwest of the buildings on Lots 1 and 2 of Site B **6**



View from 41st Avenue at Crescent Street facing north of the surface parking lot on Lots 2 and 8 of Site B **7**



View from Crescent Street facing east of surface parking lot on Lots 9, 10, 11, and 38 of Site B **8**



View from 27th Street facing southwest of the nine-story LIC Plaza Hotel **9**

Existing Conditions—Project Area

Figure F-7

7.7.21



View from 27th Street facing west of the building on Lot 29 **10**



View from 40th Avenue at 27th Street facing southwest of the buildings on Lots 28, 27, and 24 **11**

Existing Conditions—Project Area

The primary east–west thoroughfares in the study area are the 60-foot-wide 40th and 41st Avenues, which have curbside parking and one-way traffic; 41st Avenue carries eastbound traffic, while 40th Avenue carries westbound traffic (see Photo 12 of **Figure F-9**). North-south streets are 24th, Crescent, 27th, and 28th Streets. These streets are 60 feet wide, with one-way traffic and curbside parking. Crescent Street has a dedicated bicycle lane. Sidewalk widths vary throughout the study area, but are wide along most of the study area streets.

Residential buildings with ground-floor retail are generally located along 40th and 41st Avenues. Streets generally have very few street trees; however, 40th Avenue has small groupings of mature trees lining the sidewalks.

Buildings

The study area is characterized by a mix of industrial and manufacturing buildings, and residential buildings, some of which have ground floor retail oriented along 40th and 41st Avenues, as described above (see Photo 12 of **Figure F-9**). Industrial and manufacturing buildings are largely located along the north-south streets (24th, Crescent, 27th, and 28th Streets), and along the east-west streets (40th and 41st Avenues) within the study area. These buildings are generally older one- to two-story buildings with smaller footprints that cover their entire lot area. Residential buildings include a mix of older and newer buildings. Most older residential buildings are smaller with low lot coverage while newer residential buildings are generally larger and taller, occupying all or most of their lots (see Photo 13 of **Figure F-9**). Institutional buildings in the study area typically have larger footprints and are located on larger lots. These buildings are located throughout the study area.

The built environment within the study area is varied with a mix of older, smaller buildings, including one-story industrial buildings, two- to three-story attached row houses and two-story detached houses, churches and schools, and newer, substantially taller apartment buildings, many with ground floor retail, as well as hotels (see **Figure F-9**). Many of the smaller and lower-scale buildings are located along the north-south streets in the study area, as well as on 40th Avenue. Some lower-scale buildings are located on 41st Avenue. Older buildings in the study area are predominantly brick- and vinyl-faced buildings north of 41st Avenue; however, there are also newer glass- and masonry-clad modern buildings generally located along 40th and 41st Avenues. The row houses in the study area are typically set back from the street, with high stoops and small front yard areas, which are paved and fence-enclosed (see Photo 14 of **Figure F-10**). The detached houses are also setback form the sidewalk line by fence-enclosed, paved front yard areas. Many of the larger apartment buildings are built to the sidewalk line. In the study area, there is one hotel at 40-34 Crescent Street and another hotel that is close to completion at 39-35 27th Street. The hotel at 40-34 Crescent Street is nine stories, directly west of the Project Area (see Photo 9 of **Figure F-7**). Setback form the street, the building rises approximately 111 feet and occupies part of the lot with a generally rectangular footprint. The new hotel at 39-35 27th Street is anticipated to be nine stories (approximately 98-foot-tall) and is set back from the sidewalk line.

There are several institutional buildings in the study area, including the Evangel Christian School and the Newcomers High School. The Evangel Christian School and Church, located midblock on Crescent Street and 27th Street between 39th and 40th Avenues, comprises two buildings that are approximately 64 feet and 73 feet tall, respectively. The early-20th century school building has a roughly ‘I’ shaped footprint, while the newer building has a large, generally rectangular footprint. The Newcomers High School occupies a portion of the block bounded by 40th Avenue, 29th Street, 41st Avenue, and 28th Street. The four-story, roughly rectangular building is approximately



View from 41st Avenue at Crescent Street facing east. 41st Avenue has curbside parking and large buildings along the south side of the street. Views are long and include the recently constructed buildings along the Long Island City waterfront **12**



View from 24th Street south of 40th Avenue facing southeast including smaller, older buildings in the foreground and taller, recently constructed buildings in the background **13**



View from 40th Avenue at 24th Street facing northeast **14**



View from 41st Avenue at 28th Street facing northeast. Newcomers High School is a four-story brick building located in the foreground with a new building under construction in the background **15**

Existing Conditions—Study Area

83 feet tall (see Photo 15 of **Figure F-10**). On the northern half of the block, a new four-story (approximately 68-foot-tall) building is under construction for the Academy of American Studies.

The tallest buildings in the study area are located south of 41st Avenue. These buildings are the 13-story office building at 41-21 27th Street southeast of the Project Area; the 10-story mixed-use tower at 41-26 27th Street south of the Project Area; and the two 17-story mixed-use buildings at 23-10 41st Avenue and 41-23 Crescent Street, south and southwest of the Project Area (see Photo 12 of **Figure F-9**). These taller recently developed buildings are typical of the changing urban design character of the study area.

In addition to the built environment, the study area also includes surface parking lots and vacant lots, which are primarily located along Crescent Street, 41st Avenue, and 27th Street.

Natural Features and Open Space

The topography of the study area is flat. There are no natural features or open spaces located within the study area. As mentioned previously, there are few street trees. Small collections of mature trees line the sidewalks of 40th Avenue has.

VISUAL RESOURCES AND VIEW CORRIDORS

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

PROJECT AREA

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

Views to the Development Site and Project Area are available from vantage points on Crescent and 27th Streets and from the intersections of 40th and 41st Avenue with 27th and Crescent Streets. Views to the Development Site and Project Area from the east and west are generally obstructed by intervening buildings, such as along 40th and 41st Avenues east and west of 27th and Crescent Streets.

Views from the Crescent Street and 27th Street sidewalks adjacent to the Development Site and Project Area include long uninterrupted north-south views on Crescent and 27th Streets which are view corridors. Views on Crescent and 27th Streets include many tall buildings in the distance located outside the study area to the south in Long Island City—the large, tall Tower 28 building at 42-12 28th Street, the building at One Court Square, and the buildings at 42-20 24th Street and 43-25 Hunter Street. Although these buildings are located outside the study area, they are visually prominent in views south along these view corridors. Other views from Crescent and 27th Streets include the Queensboro Plaza Station, an elevated subway station that is a visual resource outside the study area to the south. The elevated station and rail line span above Queens Boulevard. Northward views from the Crescent and 27th Street sidewalks adjacent to the Development Site and Project Area include low scale buildings built along these two streets. There are no visual resources in northward views on the Crescent Street and 27th Street view corridors.

STUDY AREA

The Crescent Street and 27th Street view corridors extend to the study area. Other study area view corridors include 24th and 28th Streets and 41st Avenue. Views are most expansive along Crescent, 24th, 27th, and 28th Streets due to the limited number of street trees. The large, tall Long Island City buildings discussed above are visually prominent from these view corridors. Views south along these view corridors also include the Queensboro Plaza Station, and the visual resources described above. As discussed above, views east include low scale residential and industrial buildings along these streets. Views east on 41st Avenue include the Sven tower at 29-37 41st Avenue, as well as a mix of low scale older and newer buildings (see Photo 12 of **Figure F-9**). The Long Island City towers and Sven tower are visually prominent from vantage points within the study area and serve as focal points to the south and southeast due to their visibility, scale, and massing. Views along 40th Avenue in the study area generally extend for long distances partially obscured by mature street trees, but without any notable focus or visual resources within the view.

D. NO ACTION CONDITION

This section considers urban design and visual resources in the future without the Proposed Actions (the "No Action condition") in 2025 for the Development Site, Project Area, and study area.

DEVELOPMENT SITE AND PROJECT AREA

In the No Action condition, the existing buildings on the Development Site and in the Project Area are assumed to remain in their current conditions (see **Figure F-2 and Figures F-3 through F-8**). The existing M1-2/R5B and M1-2/R5D zoning districts would remain in place and would likely preclude viable new development consistent with the prevailing trend toward mixed-uses in the surrounding area.

STUDY AREA

URBAN DESIGN

As discussed in Attachment B, "Land Use, Zoning, and Public Policy," there are seven development projects located within the study area that are anticipated to be completed by the Proposed Project's 2025 analysis year. The buildings to be developed range in height from four to 23 stories. The largest and closest of these developments is at 41-02 Crescent Street. It is expected to be constructed diagonally southwest of the Project Area replacing a surface parking lot and occupying the entire street frontage on 41st Avenue between 24th and Crescent Streets. The 23-story mixed-use building is anticipated to include approximately 87 DUs and approximately 155 hotel rooms. In general, the No Build developments are predominantly mixed-use buildings, consistent with an ongoing trend in the study area of redeveloping underutilized sites with new, low- and mid-rise multi-family residential buildings, some of which include ground floor retail space, or ground floor manufacturing. These buildings include curb cuts for access to underground parking. The largest of these projects is located at 41-02 Crescent Street and is a 17-story (approximately 189-foot-tall) building containing residential and hotel use. At 41-14 27th Street, a new building will combine 30 residential units over approximately 2,392 gsf of ground-floor retail. The No Build projects will add new, modern buildings to the study area that will enhance the pedestrian experience of the study area closest to the Development Site and the Project Area

by adding active ground-floor uses and improving the streetscape by replacing underutilized sites with these new developments.

VISUAL RESOURCES AND VIEW CORRIDORS

In the No Action condition, views in the study area will remain similar to existing conditions along most streets, as the Development Site and the Project Area are not expected to be redeveloped. Views on the Crescent, 24th, 27th, and 28th Streets, and 41st Avenue view corridors will remain available, though the new development at 41-02 Crescent Street will add a new large and tall building to views on the adjacent streets. Views will continue to be most expansive along Crescent, 24th, 27th, and 28th Streets, given the lack of street trees. The tall Long Island City buildings to the south and east that are discussed above will remain visually prominent in views south, with views of the visual resource, Queensboro Plaza station, remaining available as in existing conditions. Views east will continue to include low scale residential and industrial buildings along the streets. Views east on 41st Avenue will continue to include the new Sven tower, as well as a mix of low scale older and newer buildings. East-west views along 40th Avenue will continue to extend for long distances and will continue to be partially obscured by mature street trees, but without any notable focus or visual resources within these views.

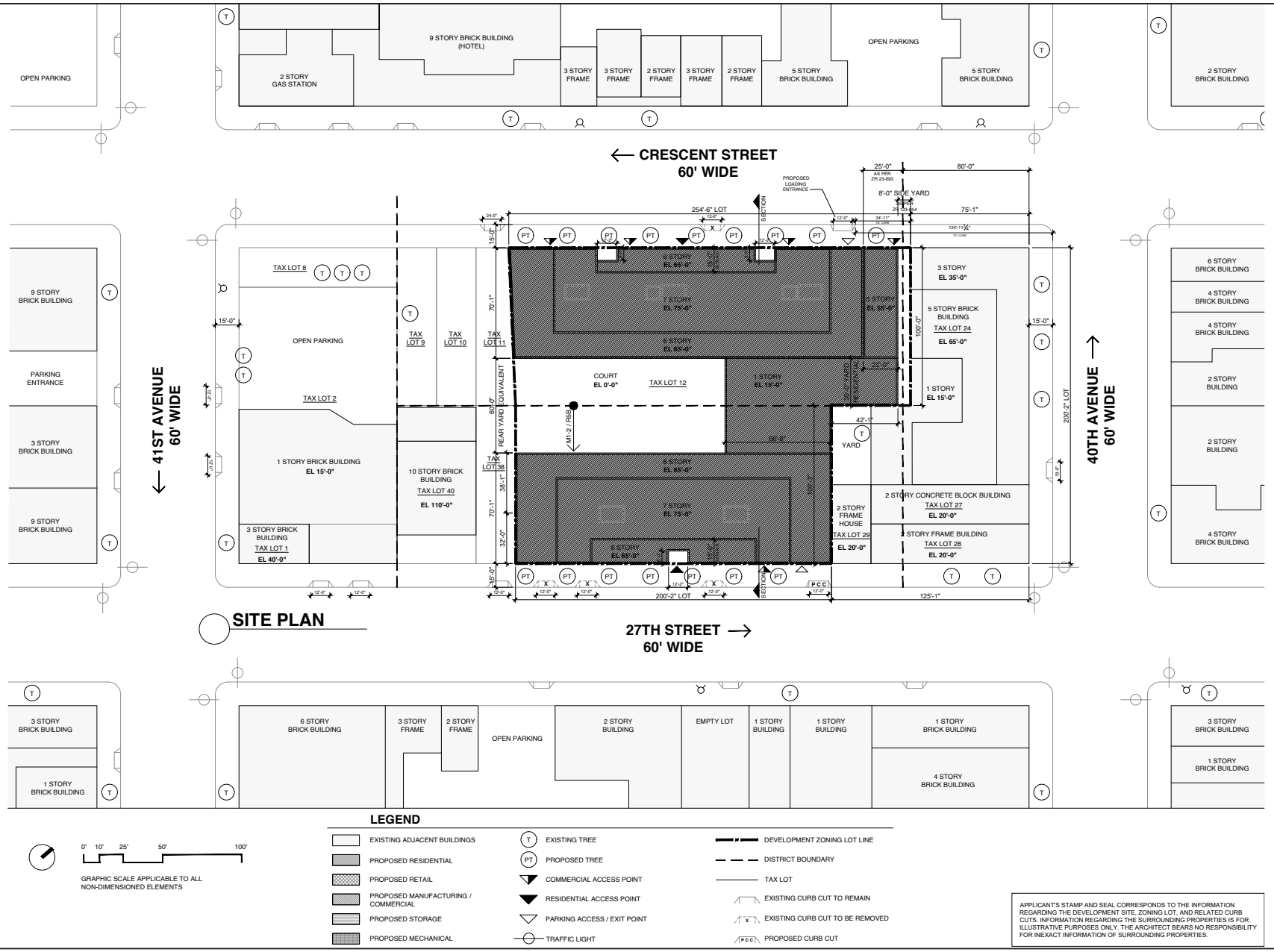
E. WITH ACTION CONDITION

URBAN DESIGN

DEVELOPMENT SITE AND PROJECT AREA

In the future with the Proposed Actions (the "With Action condition") a new mixed-use building would be constructed on the Development Site (Site A) (see **Figures F-11 and F-12** for proposed site plans and massings and **Figures F-13 through F-16** for illustrative massing diagrams). Along Crescent and 27th Streets, the building would rise seven stories (approximately 75 feet but assumed to have a RWCDS building height up to 85 feet tall), with a setback after the sixth floor (approximately 65 feet). The building would contain up to 233 DUs, including up to 70 affordable DUs, with commercial and manufacturing space occupying the ground floor. The retail and manufacturing spaces would be located along Crescent Street. The manufacturing space would occupy the northern portion of the Development Site's ground floor level with entrances on both Crescent and 27th Streets. Underground parking would be located below the building and would be accessible via a ramp located along 27th Street at the northeast corner of the Development Site. In total, the Development Site would have two curb cuts (as compared to six under the existing and No Action conditions): one for the loading dock on Crescent Street and one for the attended parking spaces on 27th Street.

In the With Action condition, Site B would be potentially redeveloped with two buildings (see **Figures F-12 through F-16** for illustrative massing diagrams). Lots 1, 2, 9, 10, and 11 would be developed with a primarily residential building fronting on 27th and Crescent Streets and 41st Avenue that would be up to 85 feet tall and would include affordable DUs and ground-floor light manufacturing uses (see **Figures F-13 and F-15**). The building would also contain underground parking. The light manufacturing building on Lot 38 would face 27th Street and would achieve approximately 45 feet in height.

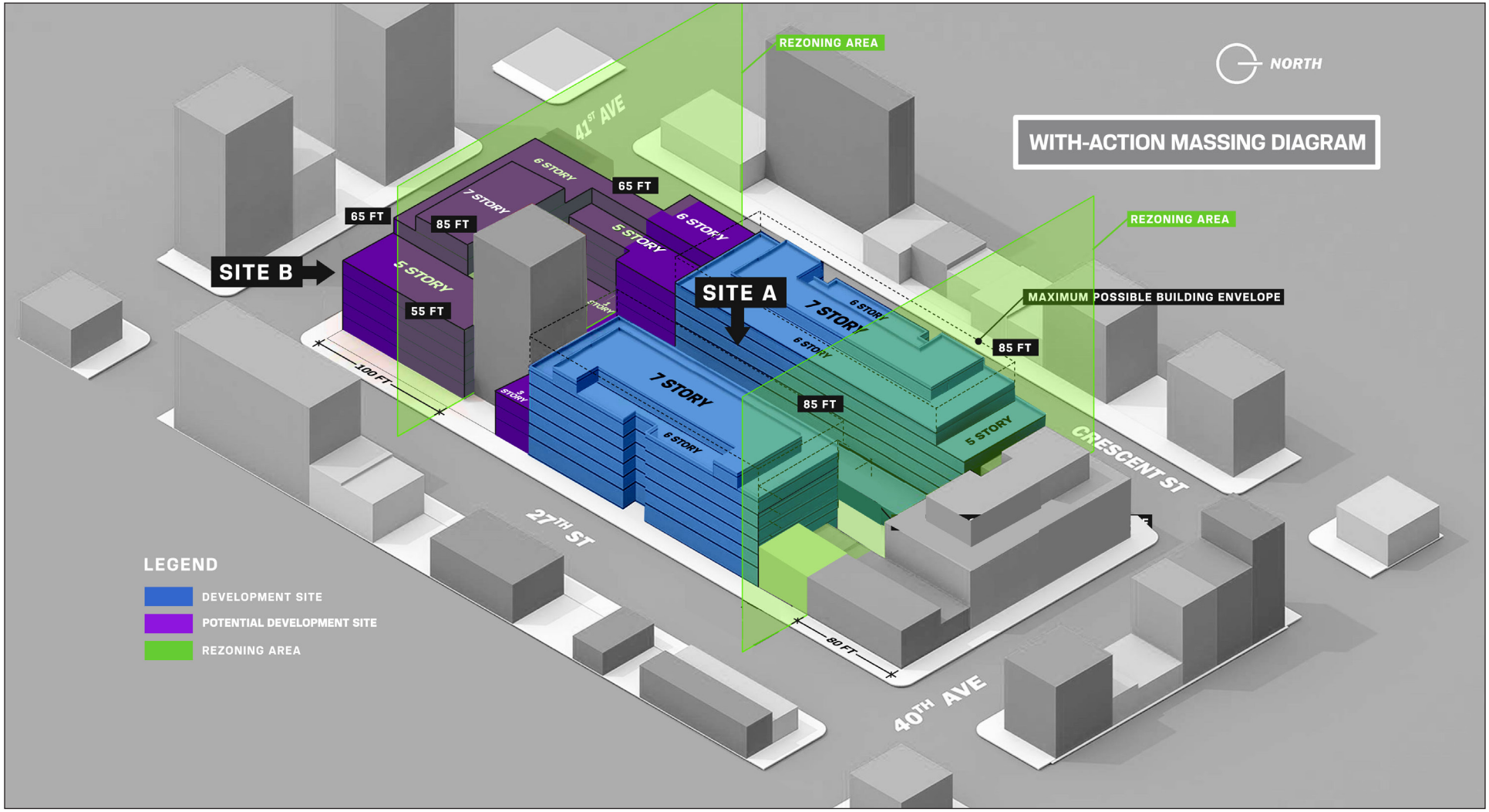


With Action Site Plan

40-25 CRESCENT STREET REZONING

Figure F-11

7.7.21



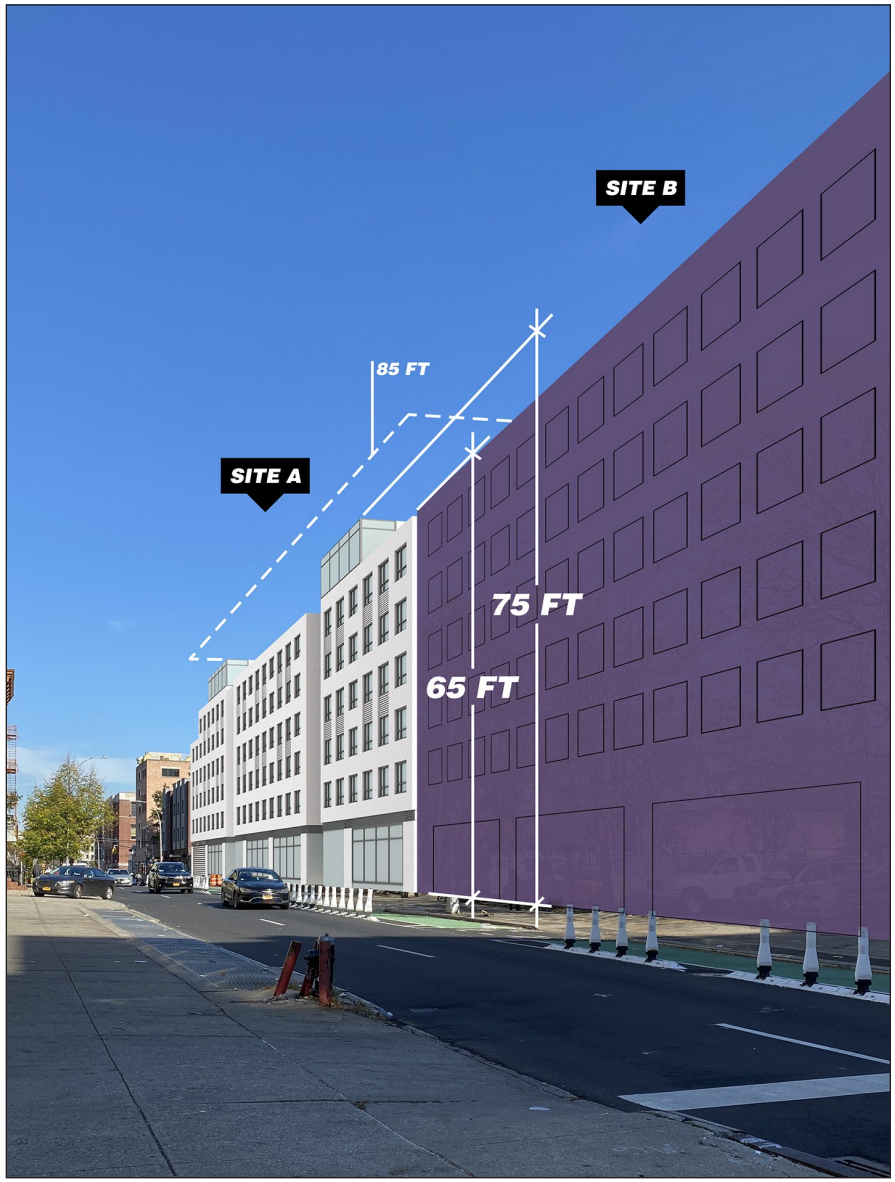
With Action Massing

Figure F-12

7.7.21



No Action (Existing)



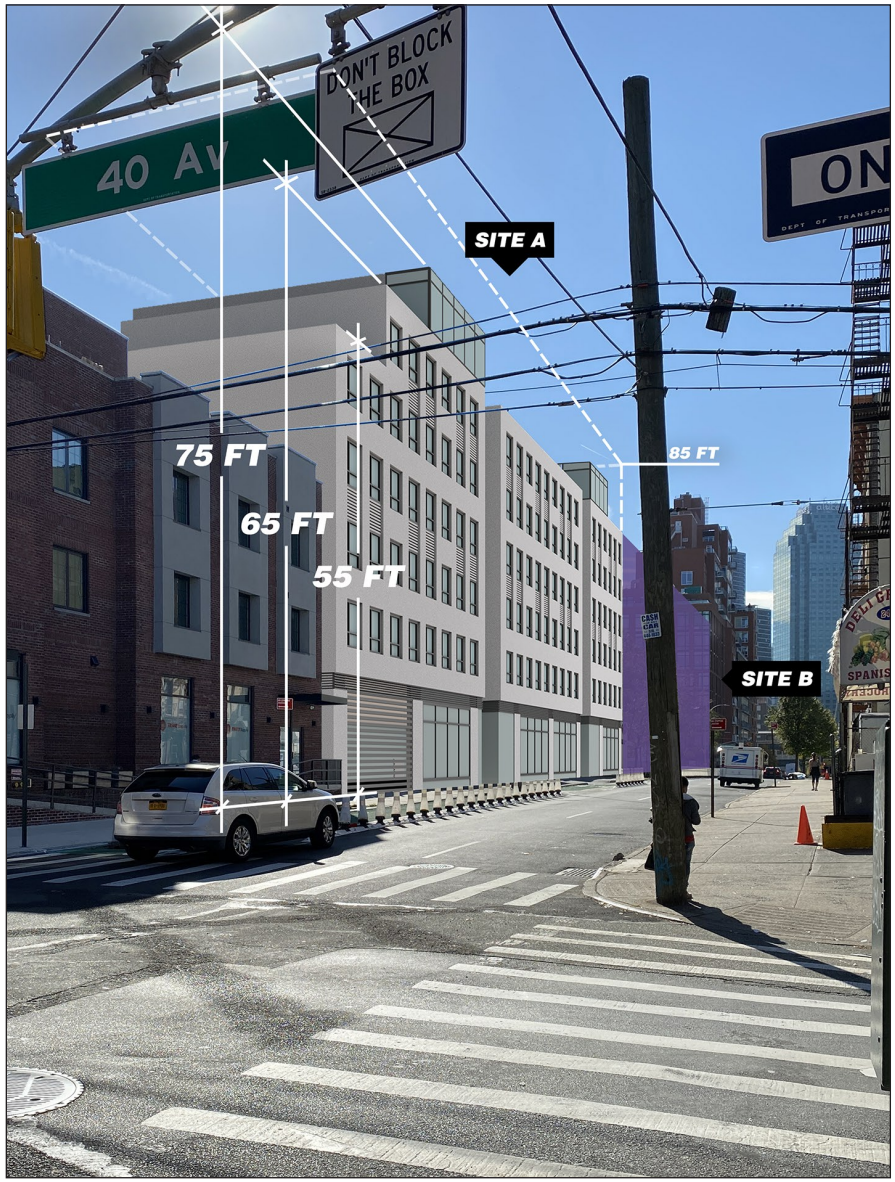
With Action

Illustrative Renderings of No Action and With Action Condition

Figure F-13



No Action (Existing)



With Action

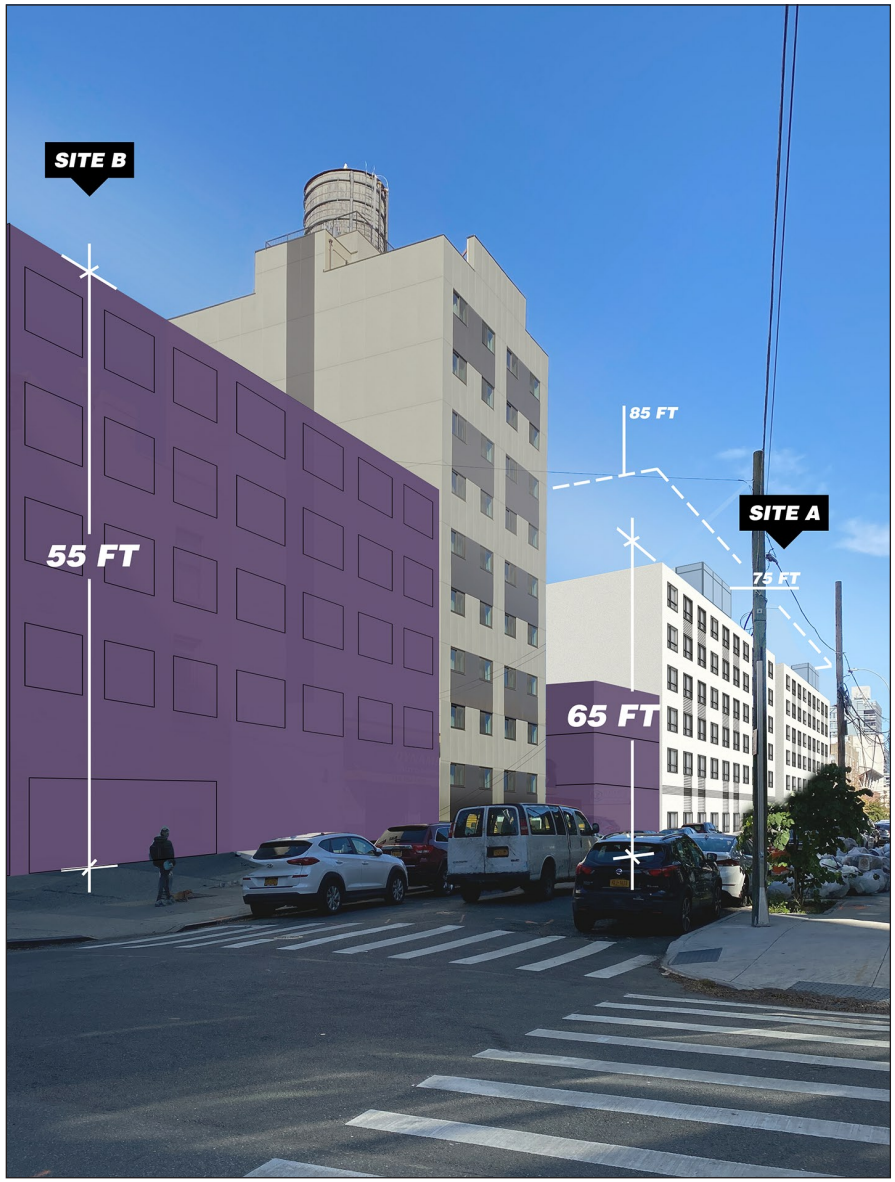
Illustrative Renderings of No Action and With Action Condition

Figure F-14

7.7.21



No Action (Existing)



With Action

Illustrative Renderings of No Action and With Action Condition

Figure F-15



No Action (Existing)



With Action

Illustrative Renderings of No Action and With Action Condition

Figure F-16

The other remaining properties in the Project Area—Block 406, Lots 29 and 40 and p/o Lots 8, 24, 27, and 28—are not expected to be developed as a result of the Proposed Actions and would remain as in existing conditions.

STUDY AREA

In the With Action condition, the seven-story (up to 85-foot-tall) mixed-use building that would be developed on the Development Site would be similar in height and massing to other existing buildings within the study area. The building would be similar in height to the nine-story (approximately 111-foot-tall) hotel at 40-34 Crescent Street across Crescent Street west of the Project Area and the nine-story (approximately 98-foot-tall) hotel at 39-35 27th Street northeast of the Project Area. The Proposed Project would also be in keeping with development trends along 41st Avenue to the south that includes mixed-use and commercial buildings that range from 10 to 17 stories. The active ground floor uses on the project site would enhance the pedestrian experience of urban design in the surrounding area by activating the streetscape. Along Crescent Street and 27th Street, the Proposed Project would enliven the streetscape by replacing surface parking lots with active new uses associated with the residential and light manufacturing on the project site. The Proposed Project would also reduce the overall number of curb cuts, and thus the number of potential pedestrian-vehicle conflict points, compared to the No Action condition.

VISUAL RESOURCES AND VIEW CORRIDORS

In the With Action condition, views of the Proposed Project would be available from many vantage points along both Crescent and 27th Streets in the study area and the building would have frontages on both streets. Views of the new project site buildings from 40th and 41st Avenues would be limited to the areas near the intersections with 27th and Crescent Streets due to intervening buildings (see **Figures F-13 through F-16** for illustrative massing diagrams).

In the With Action condition, views in the study area would remain similar to existing conditions along most streets but would include the proposed building which would be visible from certain nearby vantage points. The Proposed Project would be taller than many of the older buildings along the north-south cross streets, but would be in keeping with the larger buildings currently located to the south along 41st Avenue. Views along Crescent and 27th Streets would remain as view corridors in the study area, with long views north and south. These views would include the new development on the project site. Views along 24th and 28th Streets and 41st Avenue would also remain but would include views of the Proposed Project which would be taller than the lower-scale buildings in the area. Additionally, No Build projects in the study area—including the 17-story building on Crescent Street and buildings under construction along 41st and 40th Avenues—would be visible on the 40th and 41st Avenue view corridors. The tall Long Island City buildings discussed above would remain visually prominent in views south from several vantage points in the study area, with views of the visual resource, Queensboro Plaza station, remaining available. Views east on 41st Avenue would continue to include the new Sven tower in the distance, within the context of the mix of low-scale older and newer buildings. Views along 40th Avenue in the study area would continue to extend for long distances and would be partially obscured by mature street trees.

F. CONCLUSION

Overall, although the Proposed Actions would result in physical alterations beyond those allowed by existing zoning, the Proposed Actions would not adversely affect urban design features in the

study area so that the context of a natural or significant built resource is adversely altered. The Proposed Actions would enhance the surrounding area by activating the streetscape with new buildings and uses on Crescent and 27th Streets and reducing the overall number of curb cuts on the Development Site, and would not adversely impact the vitality, the walkability, or visual character of the area. Therefore, no further analysis of urban design and visual resources is warranted. ✷

A. INTRODUCTION

This attachment addresses the potential for the presence of hazardous materials resulting from previous and existing uses both at the project site and in the surrounding area, and identifies the potential risks related to the proposed development with respect to any such hazardous materials. The Proposed Actions would result in the demolition of the existing building at the Development Site ("Site A," consisting of Tax Block 406, Lot 12), followed by the construction of a new mixed-use (residential, commercial, and light industrial) seven-story building with one cellar level, which would require soil disturbance and excavation. In addition, the Proposed Actions would likely result in redevelopment of the adjacent Potential Development Site ("Site B," consisting of Tax Block 406, Lots 1, 2, 9, 10, 11, and 38), which is anticipated to entail demolition of commercial and residential building on Lots 1 and 2, followed by the construction of two mixed-use (residential, commercial, and/or light industrial) multi-story buildings. Site A, Site B, and additional lots to be rezoned (which are not expected to be redeveloped) are collectively referred to as the "Project Area."

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

B. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

The Project Area is approximately 35 to 40 feet above mean sea level, with regional topography sloping slightly down toward the southwest. Based on USGS mapping, bedrock is expected to be encountered at approximately 35 to 40 feet below grade. Regulatory listings for a parcel north-adjacent to Site A noted that groundwater was first encountered approximately 34 to 38 feet below grade, and was delineated as flowing in a westerly or southwesterly direction toward the East River, approximately 3,300 feet away. However, actual groundwater depth and flow direction beneath the Project Area may be affected by subsurface openings or obstructions (such as basements), and other factors. Groundwater in Queens is not used as a source of potable water.

THE DEVELOPMENT SITE (SITE A) – PHASE I ESA

Site A is located in a mixed-use area. At the time of AKRF's reconnaissance, Site A was occupied by four one-story industrial/commercial buildings with a partial basement, and outdoor parking and storage areas. The ESA identified the following, including evidence of Recognized Environmental Conditions (RECs) (the first four bullets). Per the ASTM Standard, RECs indicate *"the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property."*

- Historical uses of Site A included manufacturing (including production of uniforms, wooden water towers, and cooling towers), a car radio shop, maintenance and mechanical shops, a laboratory, and food cart repair. The water tower manufacturing facility historically included a carpentry shop, a steel shop, and a paint spray booth. At the time of the ESA reconnaissance, limited water tower and cooling tower manufacturing operations remained on-site, but did not entail use of large quantities of chemicals, and the on-site food cart facility (Astoria Vendors) did not include repair activities. Nonetheless, past on-site activities may have affected subsurface conditions.
- An exterminator (Orkin) occupied part of an on-site building since prior to 2005. At the time of the reconnaissance, this facility stored packaged pesticides in a storage room on the southern side of Site A and used a driveway in the southwestern corner of Site A to prepare pesticide solutions as needed. The observed chemicals were neatly stored and labeled, with no evidence of a release. Excess chemical solutions were reportedly not discharged to the drain in the driveway, but rather collected for off-site disposal. However, it is possible that accidental discharges to the drain may have occurred in the past.
- The regulatory database identified Site A as a generator of hazardous waste, including ignitable and corrosive waste, lead waste, spent non-halogenated solvents, and Warfarin (a rodent control chemical). However, inconsistencies in the listing (generator name and address) indicated that some waste reported as generated on-site may in fact have been included in the listing in error. Potential unreported releases of any chemicals used on-site may have affected the subsurface.
- Past and/or present off-site uses with some potential to have affected Site A included manufacturing, dry cleaning and dyeing, photo processing, chemical laboratories and factories, sign shops, appliance repair, metal works, fuel oil businesses, waterproofing, exterminators, paint shops, and auto-related uses (repair, sales, and filling stations). A typewriter repair shop was historically located north-adjacent to the Site A. This site was identified in the regulatory database as a Petroleum Bulk Storage (PBS) facility, hazardous waste generator, and New York City Voluntary Cleanup Program (NYC VCP) site, with subsurface contamination with chlorinated solvents. In addition, the regulatory database identified an Air Discharge Facility, spill listings, PBS listings, hazardous waste generators, State Inactive Hazardous Waste Disposal Sites, E-designated sites, and NYC VCP sites in close proximity to Site A. Several NYC VCP listings in the vicinity of Site A indicated subsurface contamination with low to moderate levels of chlorinated solvents; similar contamination may have migrated beneath Site A.
- As part of the Dutch Kills Rezoning in 2008, Site A was assigned (E) Designation E-218 for air quality and hazardous materials. The (E) Designation requires mitigation of potential air quality and hazardous materials impacts on future construction to the satisfaction of the Mayor's Office of Environmental Remediation (OER).

- Based on the on-site building's age (built in phases between 1957 and 1960), the ESA noted that there was a potential for asbestos-containing materials (ACM), lead-based paint, and/or polychlorinated biphenyl (PCB)-containing equipment and lighting fixtures. It was also noted that fluorescent light bulbs may contain mercury. Observed interior building materials were reported to be in good condition, with the exception of water-damaged suspended ceiling tiles in various building areas, and damaged thermal pipe insulation in the basement.
- A storm drain in the driveway in the southwestern portion of Site A appeared to be blocked by leaves. At the time of the reconnaissance, the drain was covered with a large puddle of stormwater, which was noted to be brownish (possibly due to rusty roof drain piping).
- Numerous trash bags were stored on the pavement in the Astoria Vendors outdoor area in the northern portion of Site A. Apparent grease staining was noted in the trash storage area.

SITE B – HAZARDOUS MATERIALS SCREENING

Site B is located immediately south of Site A in a mixed-use area. At the time of the reconnaissance, this site was occupied by: one- to three-story commercial and residential structures, including auto leasing, on Lot 1; a one-story auto leasing building, a one-story vacant building (historically an auto repair shop), and vehicle storage on Lot 2; and vehicle storage on Lots 9, 10, 11, and 38. The hazardous materials screening identified the following conditions, including evidence of RECs (the first three bullets):

- Historical uses of Site B included auto repair and metal spinning, and historical land use maps showed a gasoline UST in the former auto repair shop on Lot 2. Past on-site activities may have affected subsurface conditions.
- Two spills were reported to NYSDEC for on-site Lot 1, including minor closed-status Spill No. 9510520, and active-status Spill No. 9803835, which was associated with the removal of gasoline USTs and contaminated soil from this portion of Site B. On-site Lots 1 and 2 were listed as generators of hazardous waste (ignitable waste). Lot 2 was also identified as a PBS facility with two active 275-gallon aboveground storage tanks (ASTs) containing waste oil and No. 2 fuel oil, and seven closed-and-removed USTs (275 to 1,000 gallons in size) containing waste oil, No. 2 fuel oil, and gasoline).
- Past and/or present off-site uses with some potential to have affected Site B included manufacturing, dry cleaning and dyeing, photo processing, chemical laboratories and factories, sign shops, appliance repair, metal works, fuel oil businesses, waterproofing, exterminators, paint shops, and auto-related uses (repair, sales, and filling stations). The regulatory database identified an Air Discharge Facility, spill listings, PBS listings, hazardous waste generators, State Inactive Hazardous Waste Disposal Sites, E-designated sites, and NYC VCP sites in close proximity to Site B. Several NYC VCP listings in the vicinity of Site B indicated subsurface contamination with low to moderate levels of chlorinated solvents; similar contamination may have migrated beneath Site B.
- As part of the Dutch Kills Rezoning in 2008, on-site Lots 1, 2, 9, 10, 11, and 38 were assigned (E) Designations E-218 for hazardous materials. The (E) Designation requires mitigation of potential hazardous materials impacts on future construction to the satisfaction of the OER.
- Based on the on-site buildings' age (constructed between 1915 and 1970), the ESA noted that there was a potential for ACM, lead-based paint, and/or PCB-containing equipment and lighting fixtures. It was also noted that fluorescent light bulbs may contain mercury.

C. NO ACTION CONDITION

In the future without the Proposed Actions (the "No Action" condition), it is assumed that Site A and Site B would both remain in their current state. Legal requirements, such as those relating to petroleum storage tank maintenance and handling and disposal of surplus chemicals, ACM, LBP, and PCBs, would continue to be applicable.

D. WITH ACTION CONDITON

In the future with the Proposed Actions (the "With Action" condition), the existing building on Site A would be demolished and replaced with a new mixed-use building with one cellar level, which would require excavation. It is anticipated that the existing structures on Site B could potentially also be demolished and replaced with new mixed-use structures, requiring excavation. Although these activities could temporarily increase pathways for human exposure to any contaminated materials present in the existing structures or the subsurface, impacts would be avoided by incorporating the following into the proposed redevelopments:

- Demolition would be conducted in compliance with applicable regulatory requirements for disposal of waste, surplus chemical products, ACM, lead-based paint, etc.
- To reduce the potential for adverse impacts associated with the subsurface disturbance resulting from the Proposed Actions, further environmental investigations will be required at Site A and Site B. The hazardous materials (E) Designation (E-677) assigned to each of these sites would ensure that these investigations are undertaken. This (E) Designation will require the owners of the properties to undertake the following, prior to obtaining New York City Buildings Department (DOB) permits for new development entailing soil disturbance:
  - Task 1-Sampling Protocol

    The applicant would submit to OER, for review and approval, a Phase I ESA 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 would 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 would be provided by OER upon request.
  - Task 2-Remediation Determination and Protocol

    A written report with findings and a summary of the data would be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination would be 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 remedial action plan (RAP) would 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 (CHASP) would 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.

- It is anticipated that new buildings to be constructed on Site A and Site B would include a combination of residential, commercial, and light industrial uses. It is anticipated that the proposed light manufacturing uses would entail, at most, limited use of chemicals, and that the OER-approved RAP would include measures to prevent adverse impacts to on-site residential and commercial tenants from the light industrial uses (such as workspace ventilation requirements). The storage and use of any hazardous materials for production would be conducted in accordance with all applicable regulations, including those for regulatory reporting.
- The measures detailed above may be conducted during or after the completion of City Environmental Quality Review (CEQR). If conducted after the completion of CEQR, these measures will nevertheless be required by the (E) Designations assigned to Site A and Site B, which prevent the New York City Buildings Department (DOB) from issuing approvals for new development without OER approval.

- The fuel oil and waste oil ASTs registered as present on Site B, and any additional tanks encountered during redevelopment at Site A or Site B, would be closed and removed, along with any contaminated soil, in accordance with the applicable regulations, including NYSDEC registration and (if applicable) spill reporting requirements.
- Applicable regulatory requirements would be followed during implementation of the Proposed Actions, e.g., for properly disposing of any trash, excess chemicals, and soil, and for following NYCDEP sewer discharge requirements if dewatering is required.

With these measures included as part of the Proposed Actions, no significant adverse impacts related to hazardous materials would occur either during or following construction at Site A and Site B. ✷

A. INTRODUCTION

This attachment examines the potential effects of the Proposed Actions on transportation systems. As detailed in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of a 7-story (75-foot-tall), approximately 248,419 gross-square-foot (gsf) mixed-use building on the Development Site (the "Proposed Project"). The Project Area includes the Development Site (Block 406, Lot 12), which is owned by the Applicant, as well adjacent properties to the north and south (Block 406, Lots 9, 10, 11, 29, 38, 40, and p/o Lots 1, 2, 8, 24, 27, and 28) that would also be rezoned under the Proposed Actions, and is generally bounded by 40th Avenue, 27th Street, 41st Avenue, and Crescent Street.

The existing uses on the Development Site include an office space for Orkin exterminating service; a food cart cleaning, maintenance and storage facility for Astoria Food Cart Vendors, a parking, storage and maintenance facility for food truck operations; and a facility for the Applicant to store and test water storage and cooling tower products. In the future without the Proposed Actions (the "No Action" condition), the existing land uses on the Development Site would remain. In the future with the Proposed Actions (the "With Action" condition), an approximately 248,419 gross square feet (gsf) mixed-use building would be constructed with up to 233 dwelling units, 12,960 gsf of light industrial space, 5,800 gsf of local retail, and 118 accessory parking spaces.

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

Table H-1
Comparison of No Action and With Action Development Programs

Components	Existing/No Action	With Action	Increment
Residential (dwelling units)	0	233	233
Local Retail (gsf)	0	5,800	5,800
Office (gsf)	6,000	0	- 6,000
Light Industrial (gsf)	18,000 (excluding parking lot/unenclosed area)	12,960	-5,040
Accessory Parking (spaces)	20	118	98

B. TRANSPORTATION ANALYSIS SCREENING

The *CEQR Technical Manual* identifies procedures for evaluating a Proposed Project's potential impacts on traffic, transit, pedestrian, and parking conditions. This methodology begins with the preparation of a trip generation analysis to determine the volume of person and vehicle trips associated with the Proposed Project. The results are then compared with the *CEQR Technical Manual*-specified thresholds (Level 1 screening analysis) to determine whether a Level 2 screening analysis is warranted. If the Proposed Project would result in 50 or more peak hour vehicle trips, 200 or more peak hour transit trips (200 or more peak hour transit riders at any given subway station or 50 or more peak hour bus trips on a particular route in one direction), and/or 200 or more peak hour pedestrian trips, a Level 2 screening analysis is undertaken.

For the Level 2 screening analysis, project generated trips would be assigned to specific intersections, transit routes, and pedestrian elements. If the results of this analysis show that a Proposed Project would generate 50 or more peak hour vehicle trips through an intersection, 50 or more peak hour bus riders on a bus route in a single direction, 200 or more peak hour subway passengers at any given station, or 200 or more peak hour pedestrian trips per pedestrian element, further quantified analyses may be warranted to evaluate the potential for significant adverse traffic, transit, pedestrian, and parking impacts.

LEVEL 1 SCREENING ASSESSMENT

Trip generation factors for the existing uses and those associated with the Proposed Actions are based on information from the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, the 2008 *Dutch Kills Rezoning and Related Actions FEIS*, the *ITE Trip Generation Manual*, U.S. Census Data, and the New York City Department of Transportation (DOT)'s surveys—as summarized in **Table H-2**.

Table H-2
Travel Demand Assumptions

Use	Office				Residential				Local Retail				Light Industrial			
Total Daily Person Trip	(1) Weekday 18.00 Trips / KSF			Saturday 3.90	(2) Weekday 8.180 Trips / DU			Saturday 9.080	(7) Weekday 329.00 Trips / KSF			Saturday 358.00	(6) Weekday 10.44 Trips / KSF			Saturday 4.19
Trip Linkage	0%			0%	0%			0%	25%			25%	0%			0%
Net Daily Person trip	Weekday 18.00 Trips / KSF			Saturday 3.90	Weekday 8.180 Trips / DU			Saturday 9.080	Weekday 246.75 Trips / KSF			Saturday 268.50	Weekday 10.44 Trips / KSF			Saturday 4.19
	AM	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
Temporal	(2)				(2)				(7)				(3)(6)			
	12.0%	11.0%	11.0%	13.0%	9.0%	6.0%	8.0%	8.0%	5.0%	8.0%	11.0%	12.0%	18.5%	11.0%	16.7%	10.7%
Direction	(3)				(3)				(3)				(3)(6)			
In	96%	39%	5%	60%	20%	51%	65%	50%	50%	50%	50%	50%	87%	50%	18%	47%
Out	4%	61%	95%	40%	80%	49%	35%	50%	50%	50%	50%	50%	13%	50%	82%	53%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(3)(4)				(5)				(2)				(3)(4)			
	AM	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
Auto	37.0%	2.0%	37.0%	37.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	8.0%	37.0%	2.0%	37.0%	37.0%
Taxi	2.0%	1.0%	2.0%	2.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.0%	2.0%	2.0%
Subway	39.0%	7.0%	39.0%	39.0%	73.0%	73.0%	73.0%	73.0%	4.0%	4.0%	4.0%	7.0%	39.0%	7.0%	39.0%	39.0%
Railroad	7.0%	0.0%	7.0%	7.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	7.0%	0.0%	7.0%	7.0%
Bus	10.0%	7.0%	10.0%	10.0%	4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%	4.0%	10.0%	7.0%	10.0%	10.0%
Walk	5.0%	83.0%	5.0%	5.0%	9.0%	9.0%	9.0%	9.0%	82.0%	82.0%	82.0%	81.0%	5.0%	83.0%	5.0%	5.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(3)(4) Weekday			Saturday	(3)(5) Weekday			Saturday	(8) Weekday			Saturday	(3)(4) Weekday			Saturday
Auto	1.11			1.11	1.07			1.07	1.40			1.40	1.11			1.11
Taxi	1.42			1.42	1.50			1.50	1.40			1.40	1.30			1.30
Daily Delivery Trip Generation Rate	(1) Weekday 0.32 Delivery Trips / KSF			Saturday 0.01	(1) Weekday 0.06 Delivery Trips / DU			Saturday 0.02	(1) Weekday 0.35 Delivery Trips / KSF			Saturday 0.04	(3) Weekday 0.52 Delivery Trips / KSF			Saturday 0.52
Delivery Temporal	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
	(1)				(1)				(1)				(3)			
	10.0%	11.0%	2.0%	11.0%	12.0%	9.0%	2.0%	9.0%	8.0%	11.0%	2.0%	11.0%	14.0%	8.6%	1.0%	0.0%
Delivery Direction	(1)				(1)				(1)				(3)			
In	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sources:
(1) 2020 *CEQR Technical Manual*
(2) Based on DOT mode choice surveys
(3) *Dutch Kills Rezoning and Related Actions FEIS* (2008)
(4) U.S. Census American Community Survey (ACS) 2012–2016 Reverse Journey-to-Work Data for Queens County Census tracts 19, 25, 31, 33, 43, 47, 51, 53, 85, and 171
(5) U.S. Census American Community Survey (ACS) 2015–2019 Journey-to-Work Data for Queens County Census tracts 19, 25, 31, 33, 43, 47, 51, 53, 85, and 171
(6) *ITE Trip Generation Manual, 10th Edition:* General Light Industrial (110) land use
(7) Local Retail Weekday and Saturday Daily Person Trip Rate and Temporal Distribution based on DOT surveys
(8) Local Retail Auto and Taxi Occupancies based on DOT surveys

OFFICE

The daily person trip rate is from the *CEQR Technical Manual,* and the temporal distributions are from DOT's office trip generation survey. The mode splits and vehicle occupancy are based on Reverse Journey-to-Work (RJTW) data from the 2012–2016 U.S. Census Bureau ACS for Queens County Census Tracts 19, 25, 31, 33, 43, 47, 51, 53, 85, and 171, and 2008 *Dutch Kills Rezoning and Related Actions FEIS*. The directional distributions are from the 2008 *Dutch Kills Rezoning and Related Actions FEIS*. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

RESIDENTIAL

The daily person trip rate and temporal distribution are from DOT's residential trip generation survey. Modal splits and the auto vehicle occupancy are based on the Journey-to-Work (JTW) data from the 2015–2019 U.S. Census Bureau American Community Survey (ACS). The directional distributions and taxi vehicle occupancy are from the 2008 *Dutch Kills Rezoning and Related Actions FEIS*. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

LOCAL RETAIL

The daily person trip rate and temporal distribution for the local neighborhood retail component are based on DOT surveys. Consistent with assumptions typically accepted by City agencies for the purposes of environmental review, a 25-percent linked trip credit has been applied to the local retail trip generation estimates. The directional distributions are based on 2008 *Dutch Kills Rezoning and Related Actions FEIS*. The modal splits are from the DOT's trip generation survey for local retail in Queens (within transit zone). The vehicle occupancies are also based on DOT surveys. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual.*

LIGHT INDUSTRIAL

The daily person trip rate is from the *ITE Trip Generation Manual*. The temporal and directional distributions are from the *ITE Trip Generation Manual* and the 2008 *Dutch Kills Rezoning and Related Actions FEIS*. The modal splits and vehicle occupancies are from 2008 *Dutch Kills Rezoning and Related Actions FEIS* and the 2012–2016 U.S. Census ACS RJTW estimates. The daily delivery trip rate and temporal and directional distributions are from the 2008 *Dutch Kills Rezoning and Related Actions FEIS*.

TRIP GENERATION SUMMARY

As summarized in **Table H-3**, under the No Action condition, the Proposed Project would generate 48, 34, 43 and 8 person trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Approximately 21, 0, 17, and 4 vehicle trips would be generated during the same respective peak hours.

As summarized in **Table H-4**, under the With Action condition, the Proposed Project would generate 263, 244, 333 and 362 person trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Approximately 36, 26, 40, and 32 vehicle trips would be generated during the same respective time periods.

Table H-3
Trip Generation Summary: No Action Condition

Peak Hour	In/Out	Person Trip							Vehicle Trip			
		Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	16	1	17	3	4	3	44	15	1	1	17
	Out	2	0	2	0	0	0	4	2	1	1	4
	Total	18	1	19	3	4	3	48	17	2	2	21
Midday	In	0	0	1	0	1	13	15	0	0	0	0
	Out	0	0	2	0	2	15	19	0	0	0	0
	Total	0	0	3	0	3	28	34	0	0	0	0
PM	In	2	0	2	0	1	0	5	2	1	0	3
	Out	14	1	14	3	4	2	38	13	1	0	14
	Total	16	1	16	3	5	2	43	15	2	0	17
Saturday	In	2	0	2	0	0	0	4	2	0	0	2
	Out	2	0	2	0	0	0	4	2	0	0	2
	Total	4	0	4	0	0	0	8	4	0	0	4

Table H-4
Trip Generation Summary: With Action Condition

Peak Hour	In/Out	Person Trip							Vehicle Trip			
		Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	16	0	34	3	4	33	90	14	1	1	16
	Out	20	1	102	3	6	41	173	18	1	1	20
	Total	36	1	136	6	10	74	263	32	2	2	36
Midday	In	12	1	46	1	5	58	123	10	2	1	13
	Out	12	1	44	1	5	58	121	10	2	1	13
	Total	24	2	90	2	10	116	244	20	4	2	26
PM	In	22	1	77	2	6	74	182	18	2	0	20
	Out	22	1	49	2	6	71	151	18	2	0	20
	Total	44	2	126	4	12	145	333	36	4	0	40
Saturday	In	17	1	70	2	7	84	181	14	2	0	16
	Out	17	1	70	2	7	84	181	14	2	0	16
	Total	34	2	140	4	14	168	362	28	4	0	32

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

Table H-5
Trip Generation Summary: Net Incremental Trips

Peak Hour	In/Out	Person Trip							Vehicle Trip			
		Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	0	-1	17	0	0	30	46	-1	0	0	-1
	Out	18	1	100	3	6	41	169	16	0	0	16
	Total	18	0	117	3	6	71	215	15	0	0	15
Midday	In	12	1	45	1	4	45	108	10	2	1	13
	Out	12	1	42	1	3	43	102	10	2	1	13
	Total	24	2	87	2	7	88	210	20	4	2	26
PM	In	20	1	75	2	5	74	177	16	1	0	17
	Out	8	0	35	-1	2	69	113	5	1	0	6
	Total	28	1	110	1	7	143	290	21	2	0	23
Saturday	In	15	1	68	2	7	84	177	12	2	0	14
	Out	15	1	68	2	7	84	177	12	2	0	14
	Total	30	2	136	4	14	168	354	24	4	0	28

TRAFFIC

As shown in **Table H-5**, the incremental trips generated by the Proposed Actions would be 15, 26, 23, and 28 vehicle trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Since these incremental traffic trips do not exceed the *CEQR Technical Manual*

analysis threshold of 50 peak hour vehicle trips, a detailed traffic analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse traffic impacts.

TRANSIT

As detailed in **Table H-5**, the incremental subway trips generated by the Proposed Actions would be 117, 87, 110, and 136 during the weekday AM, midday, PM, and Saturday peak hours, respectively, and the incremental rail trips would be 3, 2, 1, and 4 during the same respective time periods. The incremental subway and rail trips would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour trips. Therefore, a detailed analysis of subway or rail facilities is not warranted, and the Proposed Actions are not expected to result in any significant adverse subway or rail impacts.

The bus trips generated by the Proposed Actions would be 6, 7, 7, and 14 during the weekday AM, midday, PM, and Saturday peak hours, respectively. The incremental bus trips would not exceed the *CEQR Technical Manual* analysis threshold of 50 or more peak hour bus riders. Therefore, a detailed bus line-haul analysis is also not warranted, and the Proposed Project is not expected to result in any significant adverse bus line-haul impacts.

PEDESTRIANS

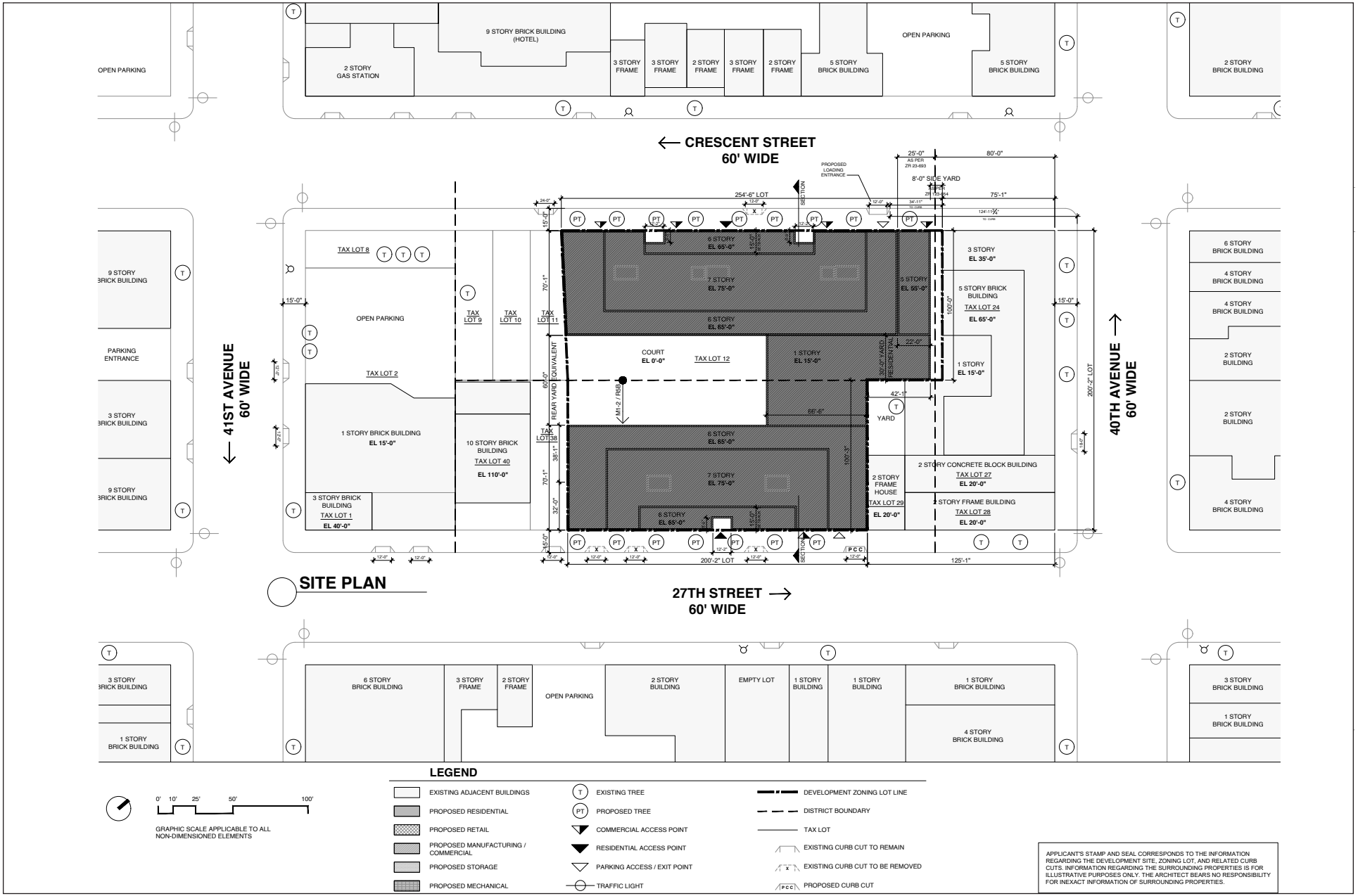
All incremental person trips generated by the Proposed Actions would traverse the pedestrian elements (i.e., sidewalks, corners, and crosswalks) surrounding the Development Site, except for the auto trips that would connect directly from the on-site parking garage to the mixed-use building. As shown in **Table H-5**, the net incremental pedestrian trips would be greater than 200 during the weekday AM, midday, PM, and Saturday peak hours. A Level 2 screening assessment (presented in the section below) has been conducted to determine if there is a need for additional quantified pedestrian analyses.

LEVEL 2 SCREENING ASSESSMENT – PEDESTRIANS

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

SITE ACCESS AND EGRESS

Under existing conditions and in the No Action condition, there is an entrance to the Orkin exterminating service along the east side of Crescent Street between 40th Avenue and 41st Avenue, an entrance to the storage and maintenance area along the west side of 27th Street between 40th Avenue and 41st Avenue, and entrances for the parking area fronting both Crescent Street and 27th Street. In the With Action condition, entrances for the retail and manufacturing uses would be provided along Crescent Street, and entrances for the residential use would be provided along both Crescent Street and 27th Street (see **Figure H-1**).



Source: Gene Kaufman Architect PC

Proposed Development Site Plan

Figure H-1

PEDESTRIANS

Level 2 pedestrian trip assignments have been individually developed for the No Action, With Action, and With Action incremental pedestrian trips for the weekday midday and Saturday peak hours. These trip assignments are shown in **Figures H-2 through H-13** and discussed below.

- Auto Trips: Motorists to all components of the No Action and With Action development were assigned to the on-site parking facilities.
- Taxi Trips: Taxi patrons would be dropped off and picked up along frontages adjacent to each entrance.
- City Bus Trips: City bus riders would use buses stopping on Queens Plaza North, Queens Plaza South and 21st Street, and walk between the nearest bus stops and the Development Site.
- Subway Trips: Subway riders were assigned to the 21 Street-Queensbridge (F) Station, Queensboro Plaza (7, N and W) Station and Queens Plaza (E, M and R) Station, and would walk between those subway stations and the Development site.
- Walk-Only Trips: Pedestrian walk-only trips were developed by distributing project generated person trips to surrounding pedestrian facilities (i.e., sidewalks, corner reservoirs, and crosswalks) based on population density data, U.S. Census JTW O-D data, U.S. Census RJTW O-D data, as well as the land use characteristics of the surrounding neighborhood.

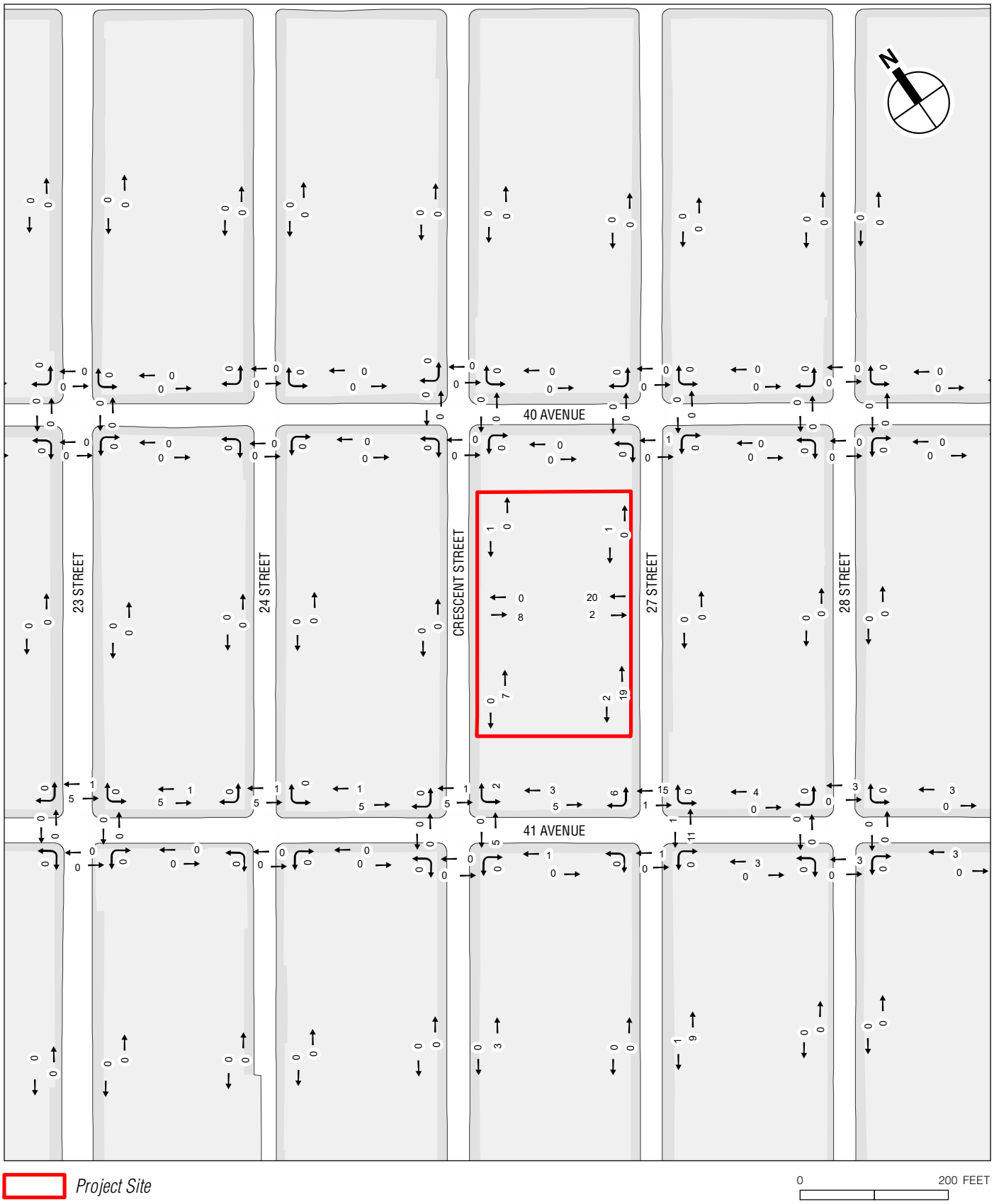
As summarized in **Table H-6**, the pedestrian elements do not exceed the 200 incremental pedestrian trips threshold during either peak hour. Therefore, further pedestrian analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse traffic impacts.

Table H-6
Pedestrian Level 2 Screening Analysis Results

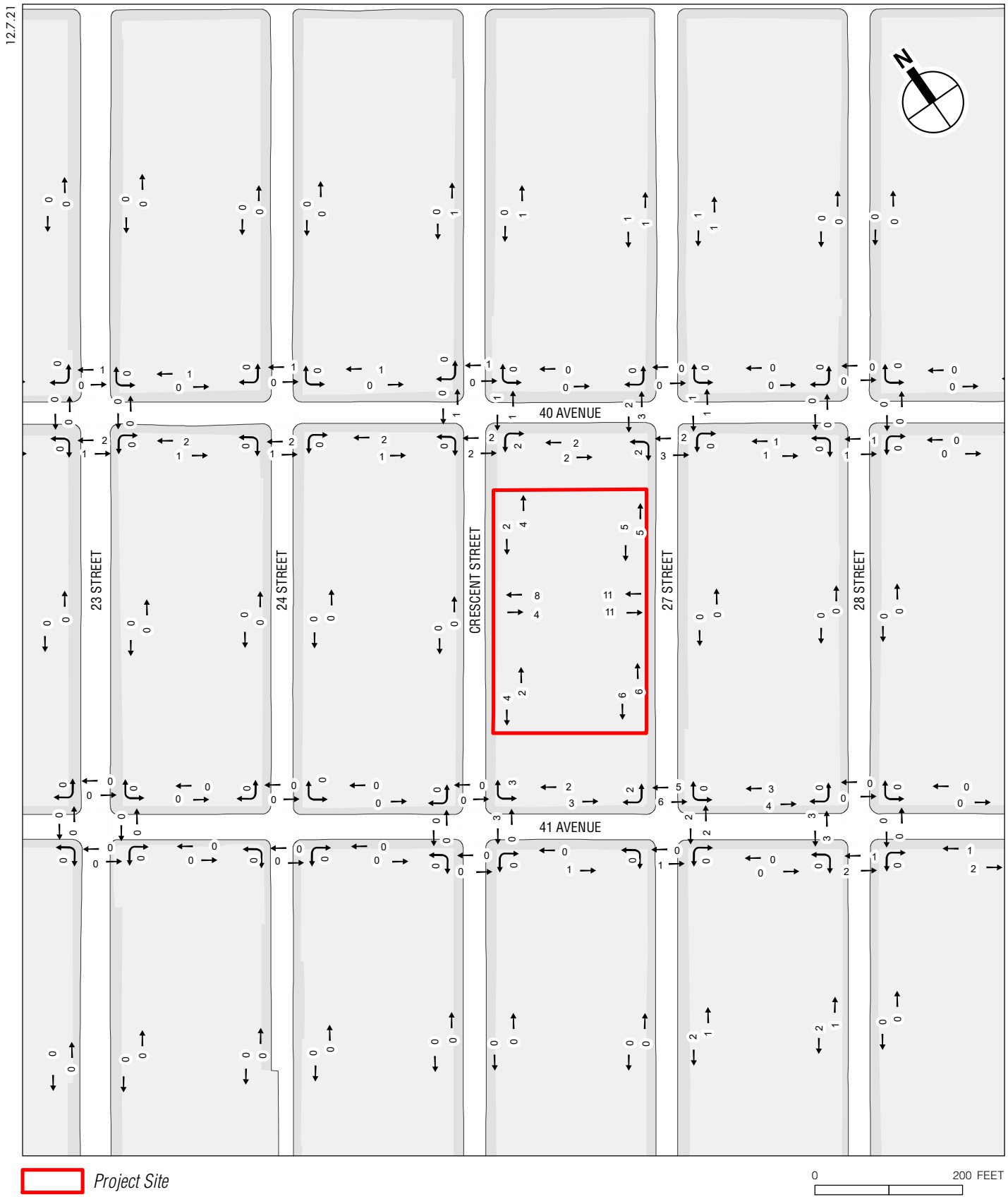
Pedestrian Elements	Incremental Pedestrian Trips			
	Weekday			Saturday
	AM	Midday	PM	
Crescent Street and 40th Avenue				
Southeast Corner	54	76	110	130
East Sidewalk along Crescent Street between 40th Avenue and Site Entrance	52	82	110	128
Crescent Street and 41st Avenue				
Northeast Corner	82	75	93	119
East Sidewalk along Crescent Street between 41st Avenue and Site Entrance	94	77	106	125
27th Street and 41st Avenue				
Northeast Corner	101	79	98	129

C. CONCLUSION

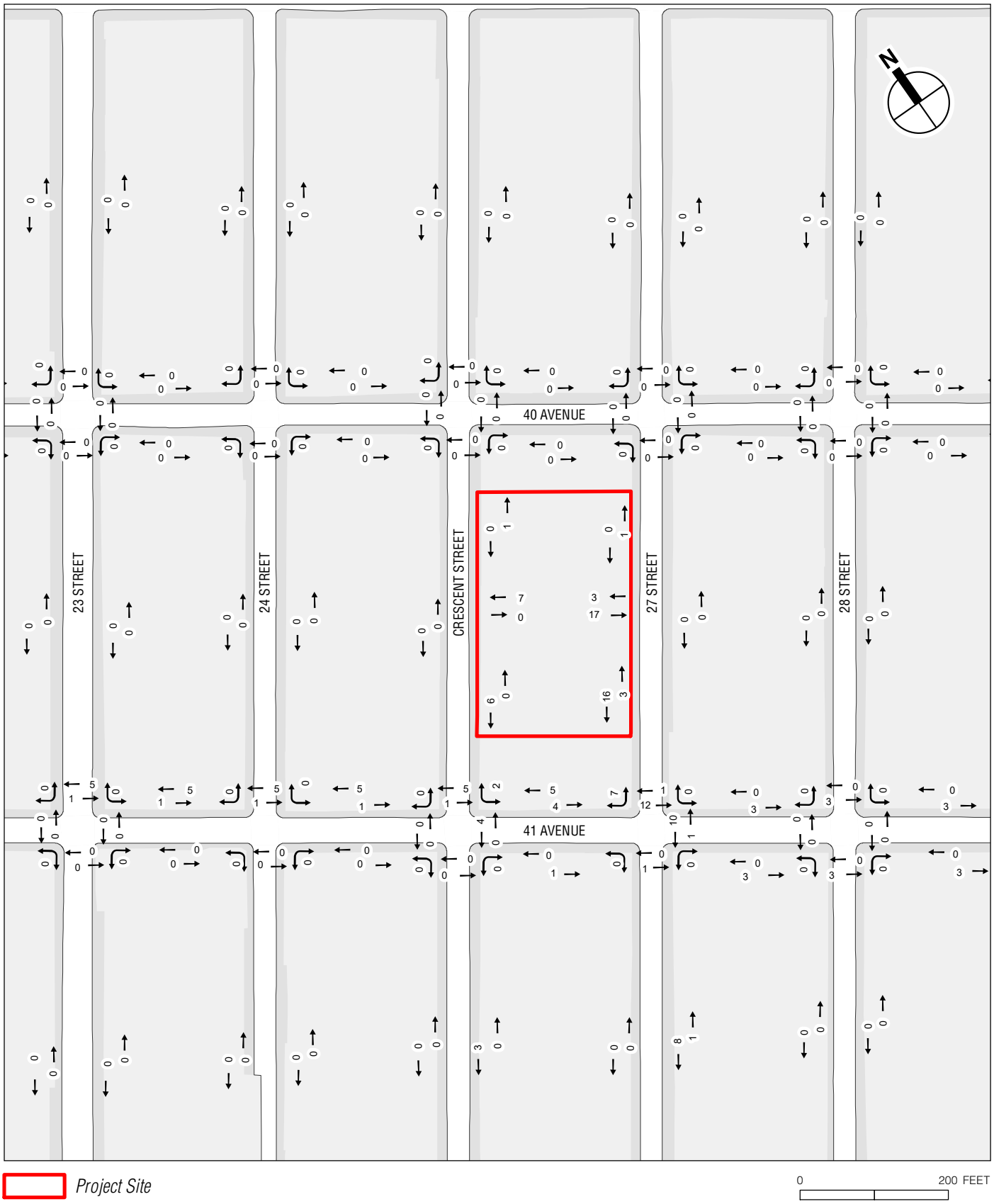
There would be no potential for traffic, parking, transit or pedestrian impacts as a result of the Proposed Actions. Therefore, the Proposed Actions would not have any significant adverse impacts on transportation. ✷



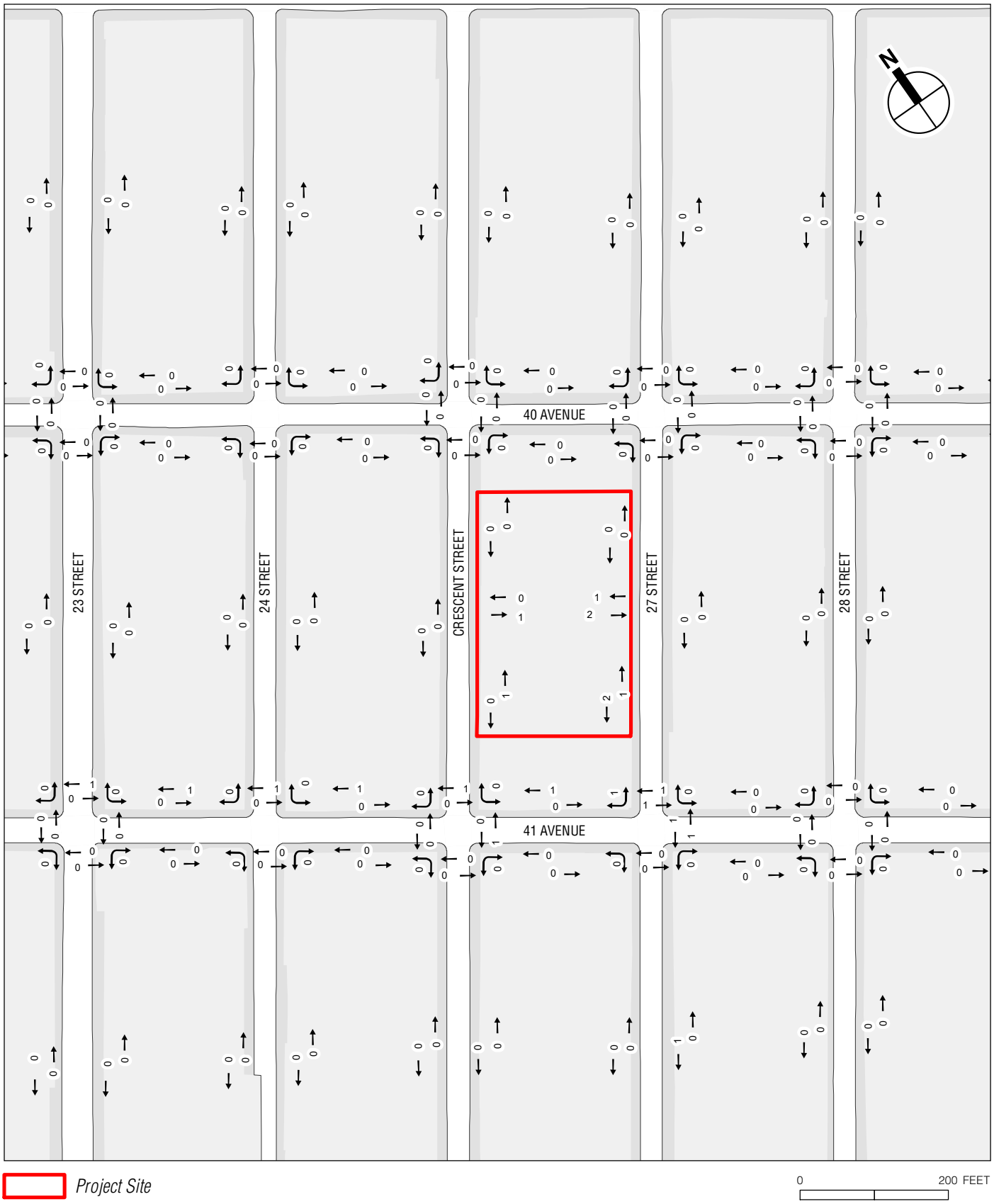
No Action Project Generated Pedestrian Trips
Weekday AM Peak Hour



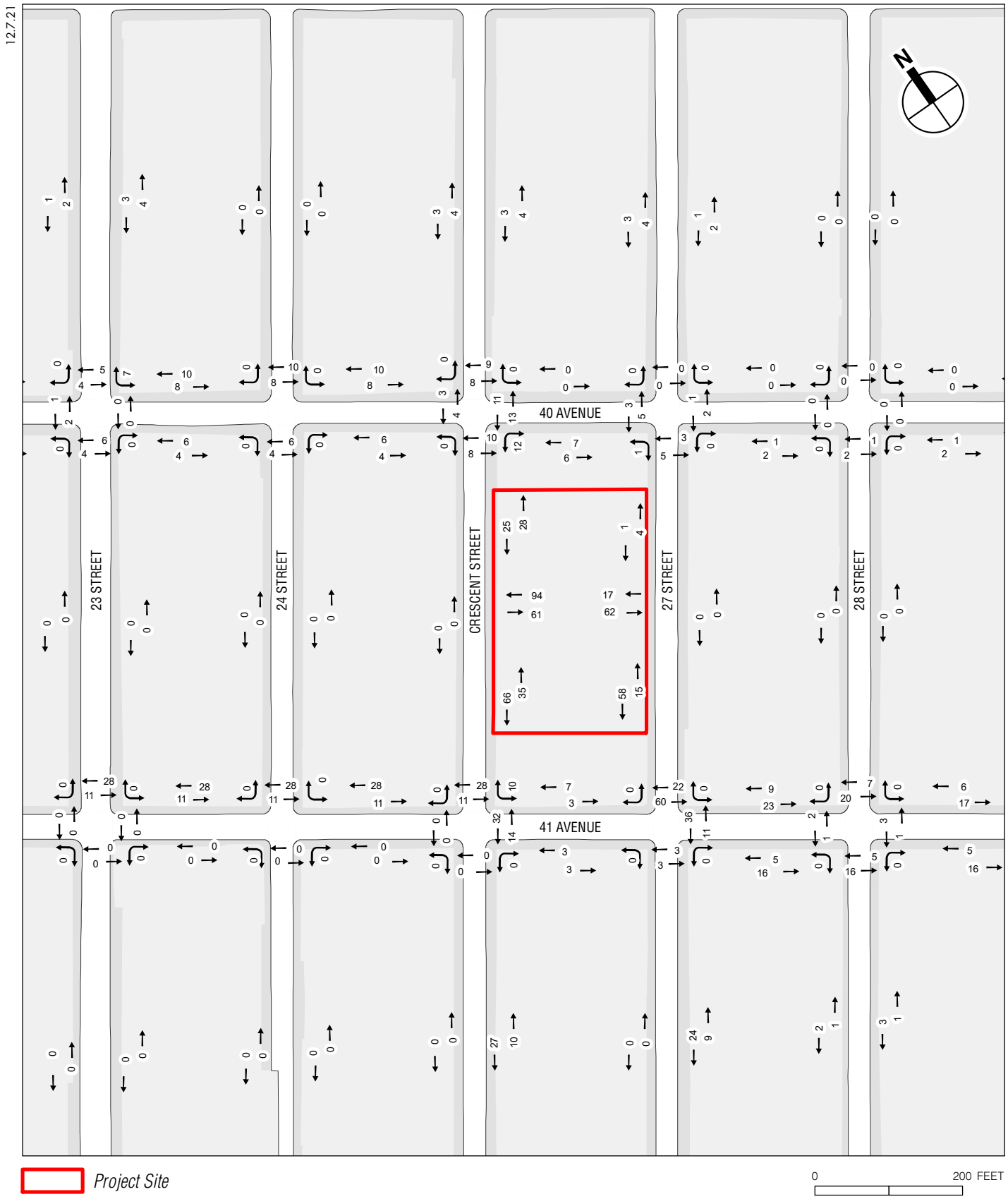
No Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour



No Action Project Generated Pedestrian Trips
Weekday PM Peak Hour



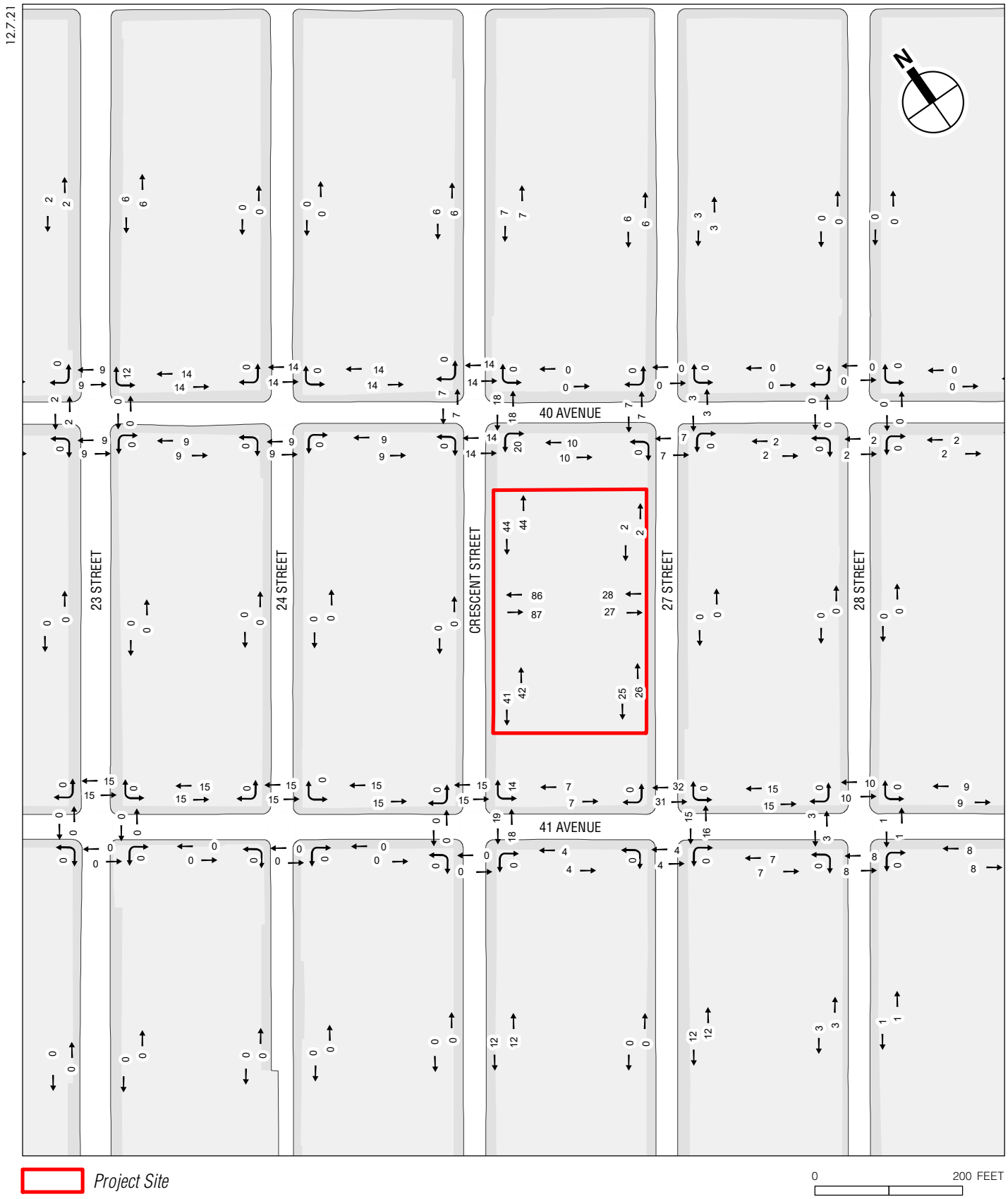
No Action Project Generated Pedestrian Trips
Saturday Peak Hour



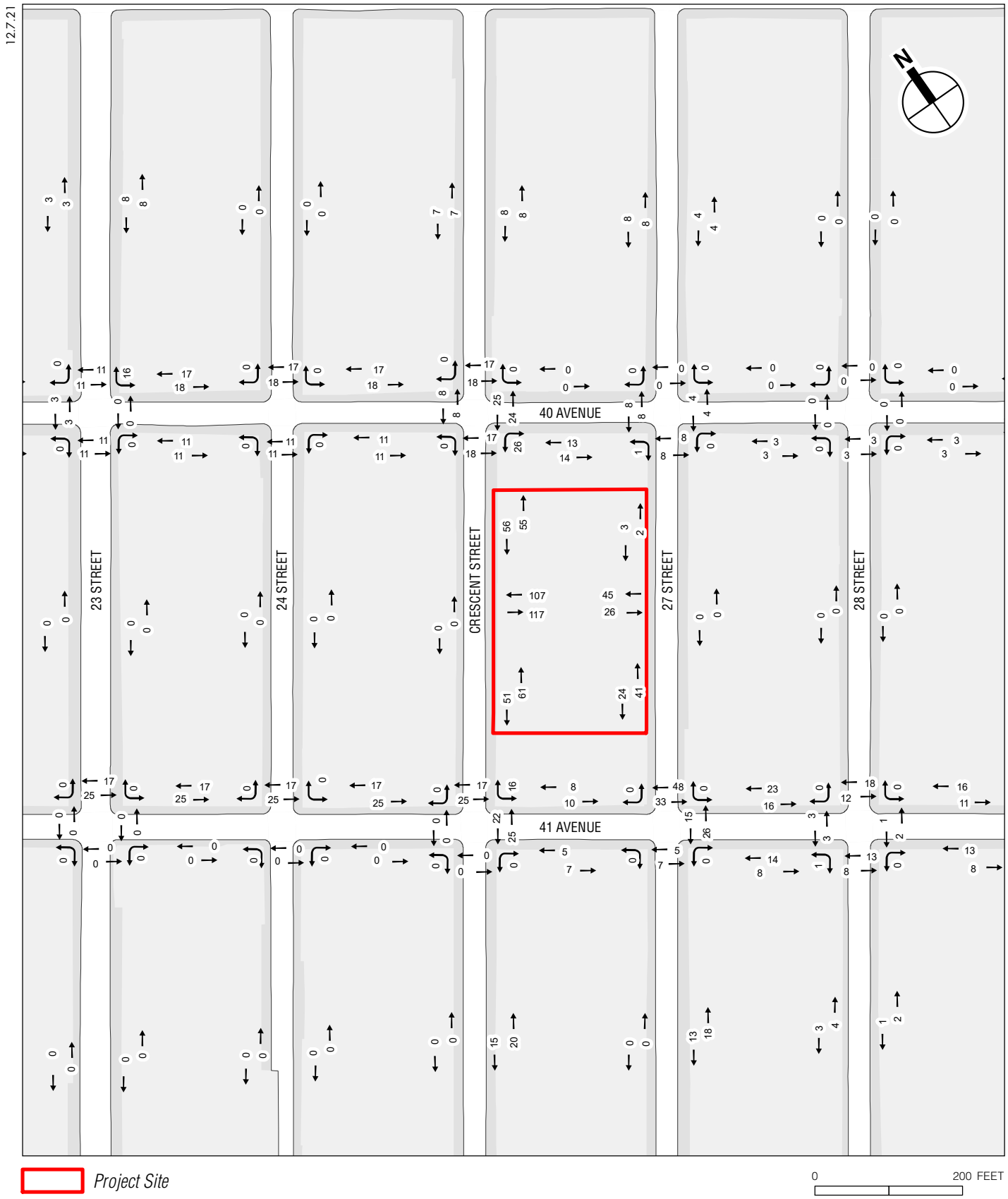
With Action Project Generated Pedestrian Trips
Weekday AM Peak Hour

40-25 CRESCENT STREET REZONING

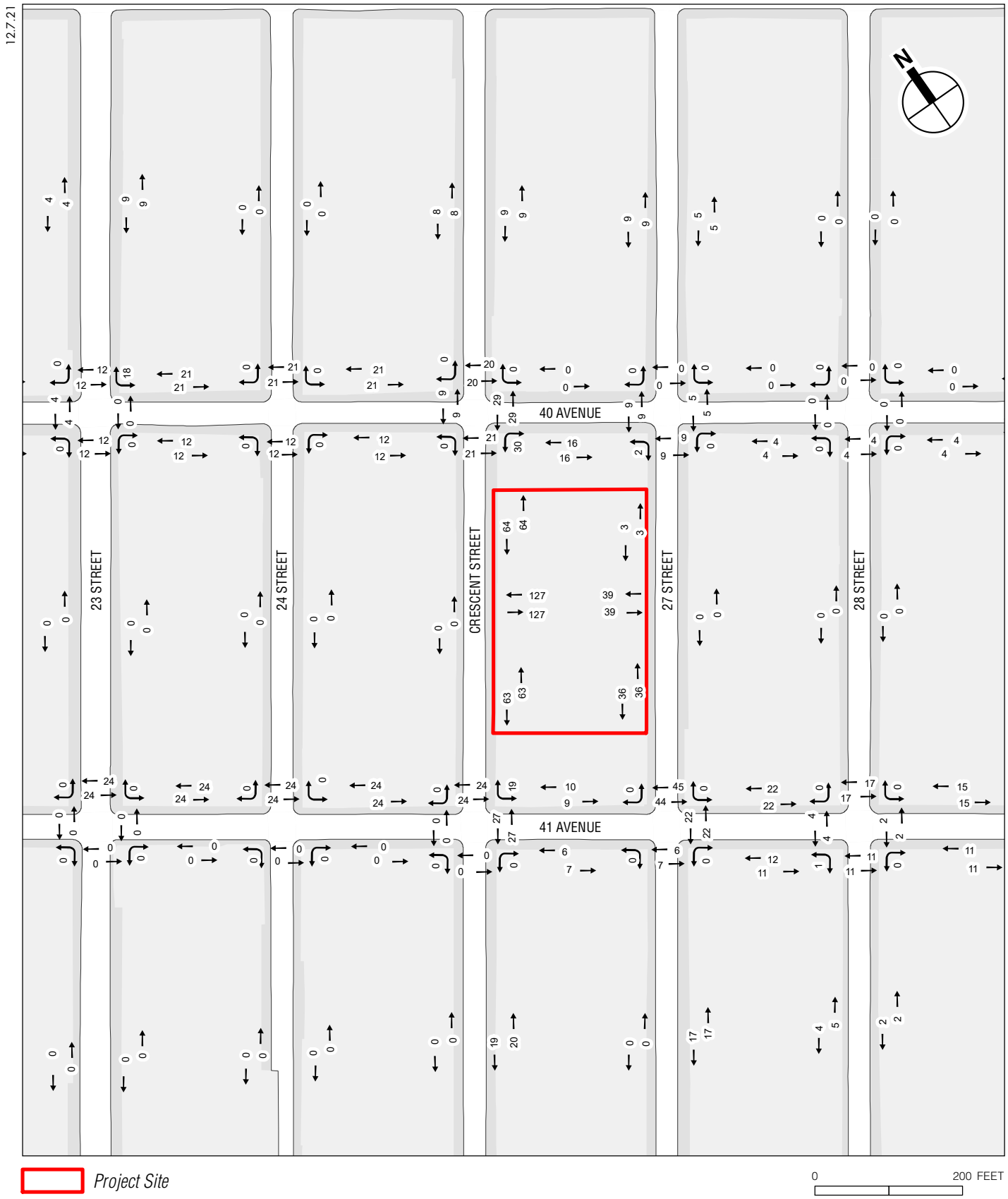
Figure H-6



With Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour



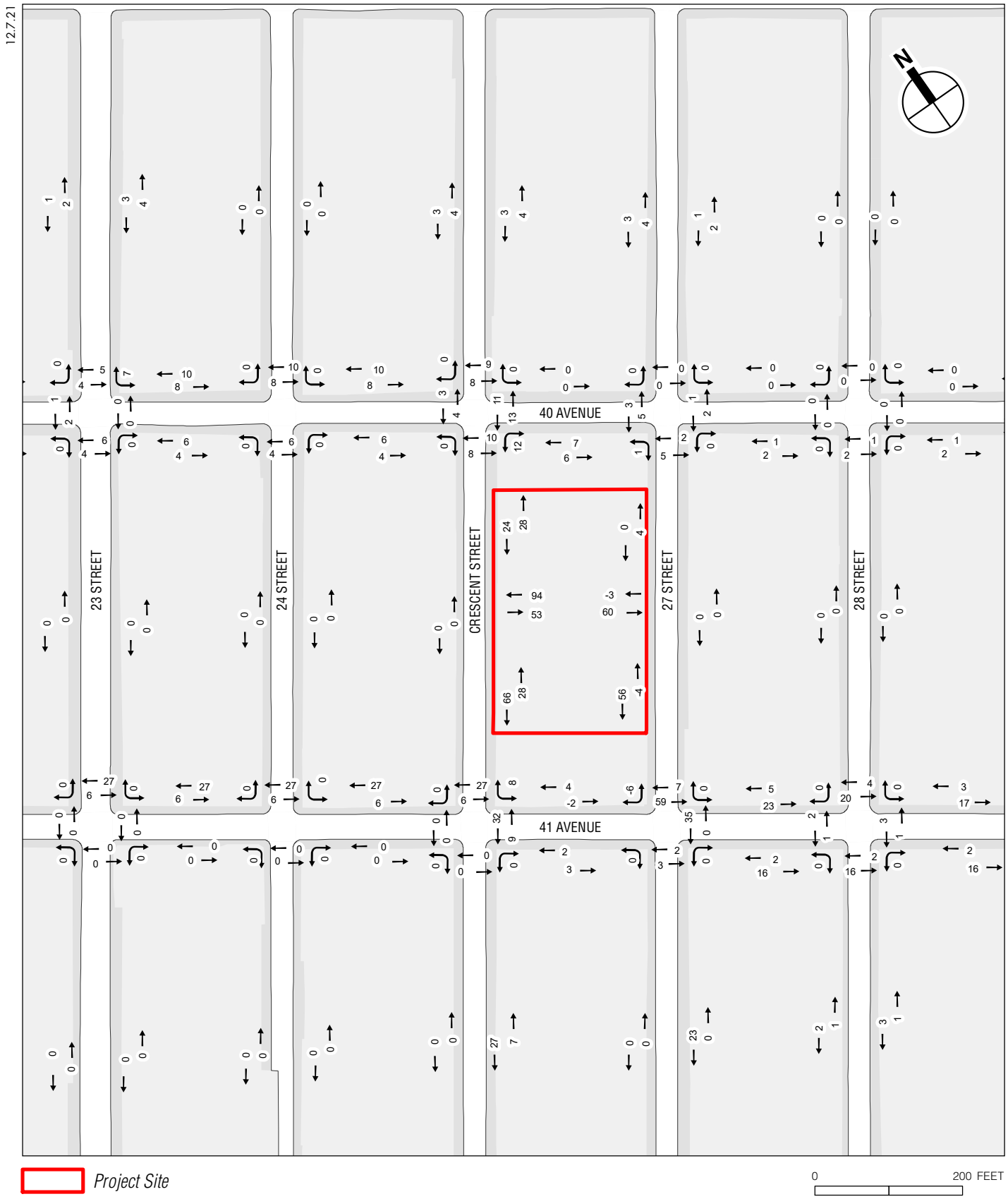
With Action Project Generated Pedestrian Trips
Weekday PM Peak Hour



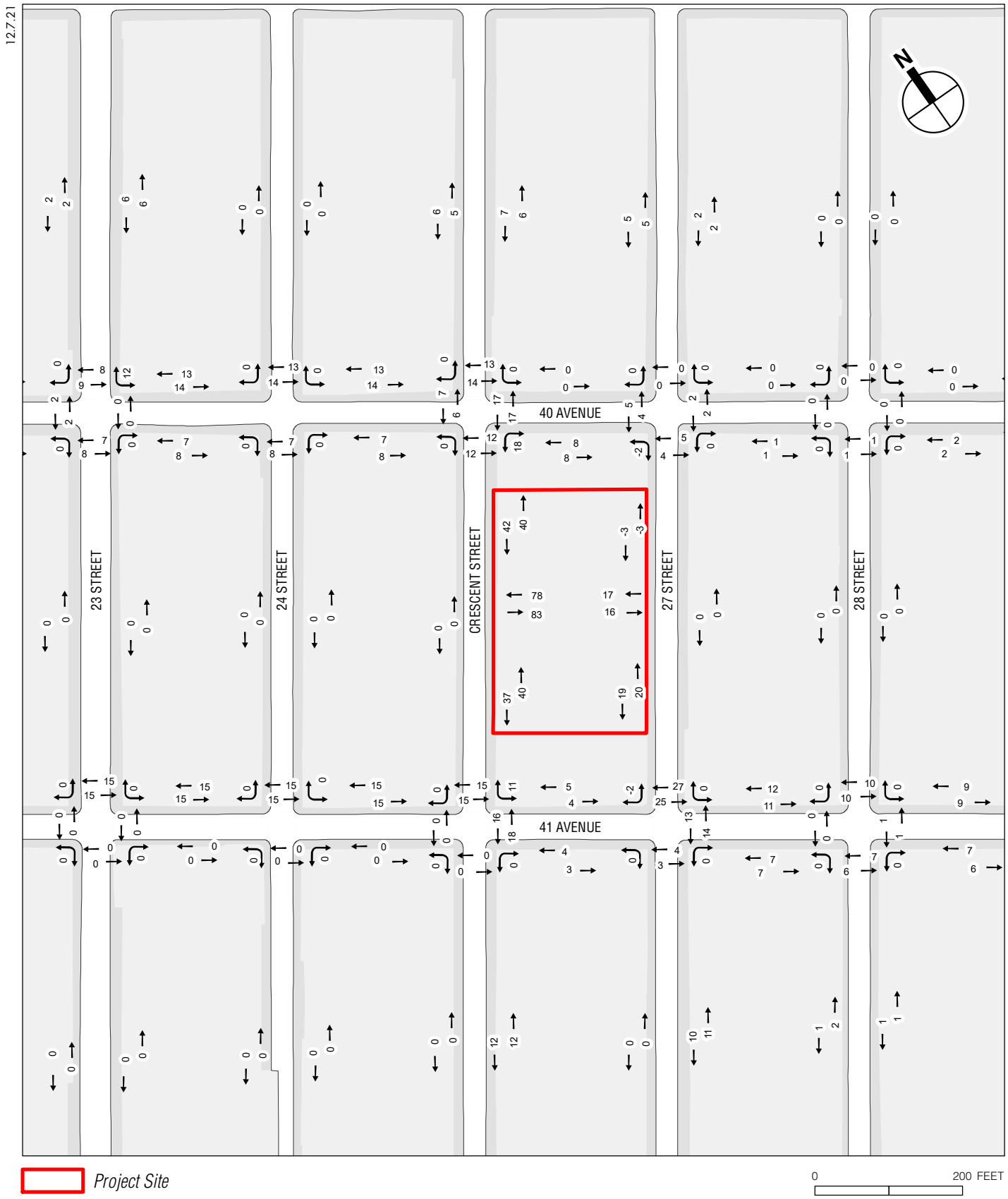
With Action Project Generated Pedestrian Trips
Saturday Peak Hour

40-25 CRESCENT STREET REZONING

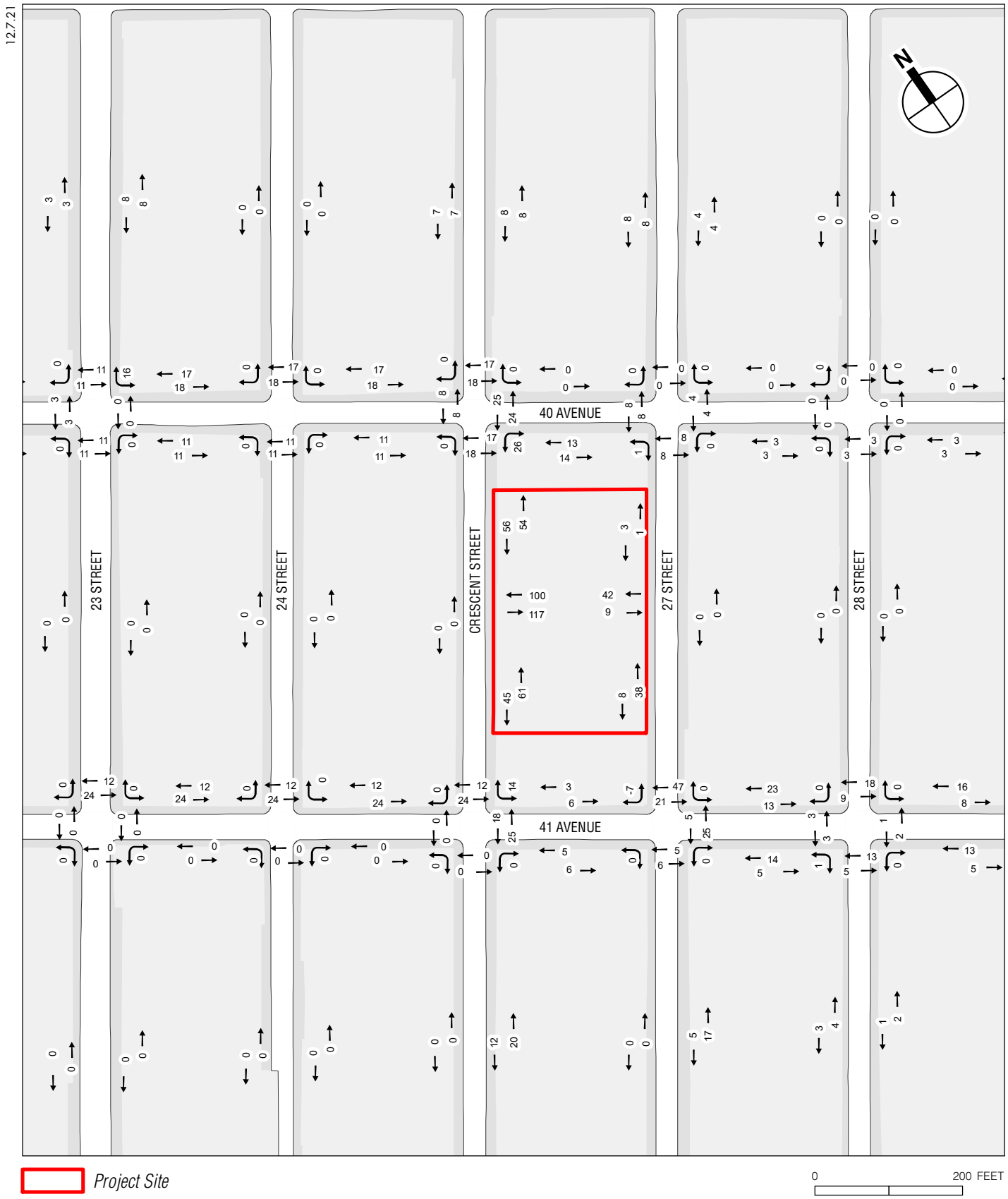
Figure H-9



With Action Incremental Pedestrian Trips
Weekday AM Peak Hour



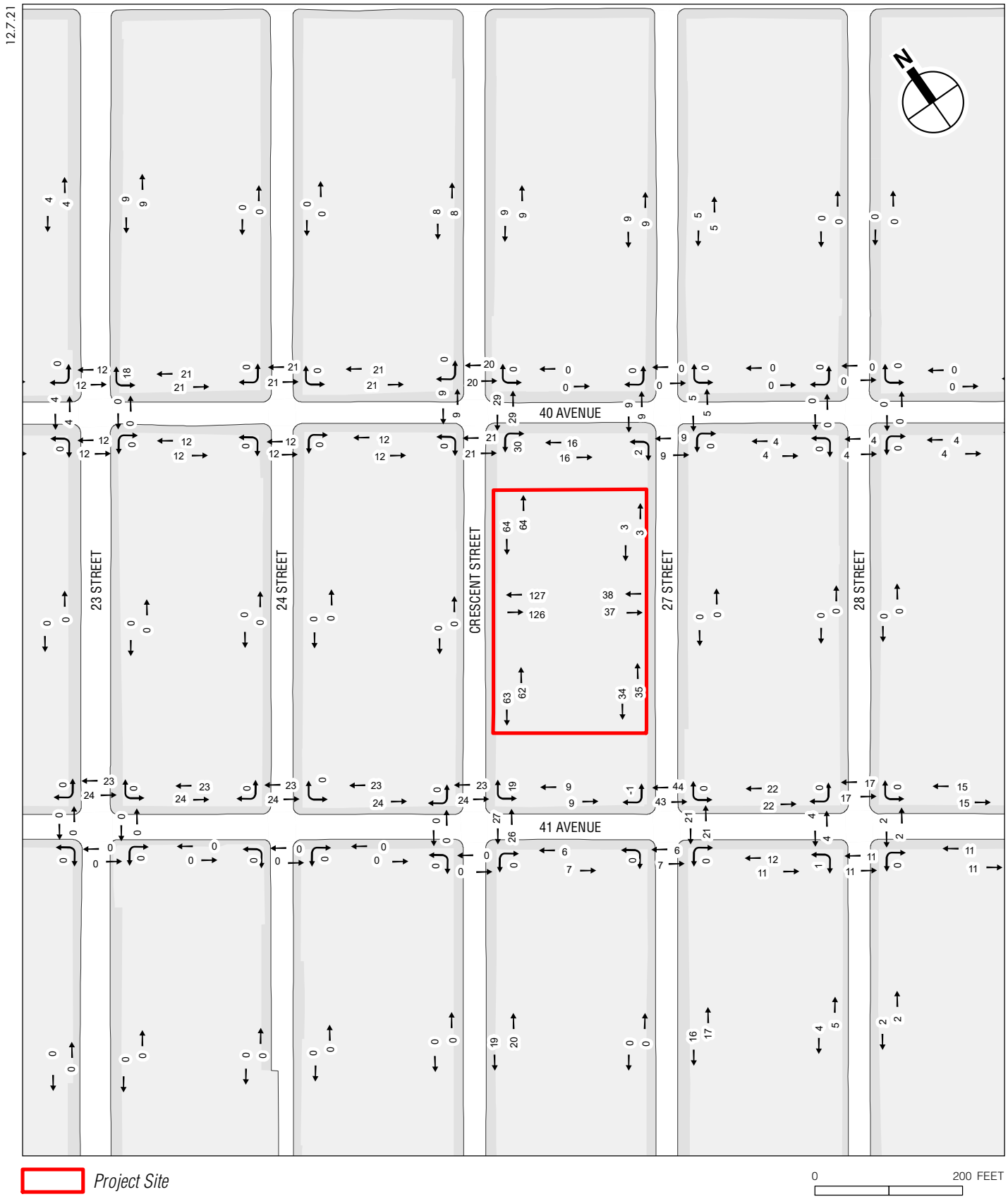
With Action Incremental Pedestrian Trips
Weekday Midday Peak Hour



With Action Incremental Pedestrian Trips
Weekday PM Peak Hour

40-25 CRESCENT STREET REZONING

Figure H-12



With Action Incremental Pedestrian Trips
Saturday Peak Hour

40-25 CRESCENT STREET REZONING

Figure H-13

A. INTRODUCTION

This attachment assesses the potential for air quality impacts associated with the Proposed Actions. As described in Attachment A, "Project Description," the Proposed Actions would facilitate the construction of a seven-story mixed-use building containing market rate and affordable housing, light manufacturing space, and retail space on the Development Site (also known as "Site A"). The Proposed Actions could also result in a potential development on an adjacent site (at Site B) comprised of a mixed-use building on Lots 1, 2, 9, 10, and 11 and a light manufacturing building on Lot 38.

As discussed in Attachment H, "Transportation," the Proposed Actions would not exceed any thresholds defined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual* for detailed traffic analysis. Therefore, the maximum projected hourly incremental traffic volumes generated by the Proposed Project would not exceed the carbon monoxide (CO) screening threshold defined in the *CEQR Technical Manual* (160 peak hour vehicle trips at an intersection in the study area). The incremental traffic volumes would also not exceed the particulate matter (PM emission screening threshold discussed in Chapter 17, Sections 210 and 311, of the *CEQR Technical Manual*. Therefore, a mobile source intersection analysis was not required. However, the Proposed Project would include a 118-space accessory parking garage; therefore, an analysis was conducted to evaluate potential future pollutant concentrations from the proposed parking garage.

The Proposed Actions would include fossil fuel-fired heat and hot water systems. Therefore, a stationary source analysis was conducted to evaluate the potential impact from these sources on air quality. The Reasonable Worst Case Development Scenario (RWCDS) for the Proposed Actions includes up to 26,937 gross square feet (gsf) of light manufacturing space on the ground floor at the Potential Development Site.

The Project Area is located in a special mixed use residential and manufacturing zoned district; therefore, potential effects of stationary source emissions from existing nearby industrial facilities on the Proposed Project were assessed. In addition, the potential for emissions from large or major sources to impact air quality within the Project Area was assessed.

B. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS

MOBILE SOURCES—PARKING ANALYSIS

Site A would include up to 118 accessory parking spaces on the cellar level. Emissions from vehicles using the proposed parking could potentially affect ambient levels of CO and PM at adjacent receptors. An analysis of the emissions from potential outlet vents and their dispersion in the environment was performed, calculating pollutant levels in the surrounding area, using the

methodology set forth in the *CEQR Technical Manual*. Emissions from vehicles entering, parking, and exiting the garage, were estimated using the United States Environmental Protection Agency (EPA) MOVES mobile source emission model, as referenced in the *CEQR Technical Manual*. For all arriving and departing vehicles to the parking and loading areas, an average speed of five miles per hour was conservatively assumed for travel within the garage (10 miles per hour on ramp travel). In addition, all departing vehicles were assumed to idle for 1 minute before proceeding to the exit. The concentrations of CO and PM within the garage were calculated assuming a minimum ventilation rate, based on New York City Building Code requirements, of one cubic foot per minute of fresh air per gross square foot of garage area. To determine compliance with the National Ambient Air Quality Standards (NAAQS), CO concentrations were determined for the maximum 8-hour average period. (No exceedances of the one-hour standard would occur, and the eight-hour values are the most critical for impact assessment.)

To determine pollutant concentrations, the outlet vents were analyzed as a "virtual point source" using the methodology in the EPA *Workbook of Atmospheric Dispersion Estimates, AP-26*. This methodology estimates CO and PM concentrations at various distances from an outlet vent by assuming that the concentration in the garage is equal to the concentration leaving the vent and determining the appropriate initial horizontal and vertical dispersion coefficients at the vent faces.

The CO concentrations were determined for the time periods when overall garage usage would be the greatest, considering the hours when the greatest number of vehicles would exit the facility (PM concentrations were determined on a 24-hour and annual average basis). Traffic data for the parking garage analysis was derived from the trip generation analysis described in the Attachment H, "Transportation." PM concentrations were determined on a 24-hour and annual average basis, based on the total number of vehicles expected to be generated by the Proposed Project over a day, derived from the trip generation analysis. Background concentrations were added to the modeling results to obtain the total ambient levels for CO. The 24-hour average background concentrations of particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$) was used to determine the *de minimis* criteria threshold.

STATIONARY SOURCES

A stationary source analysis was conducted to evaluate potential impacts from the Proposed Project's heat and hot water systems and from proposed light industrial uses associated with the Potential Development Site. In addition, an assessment was conducted to determine the potential for impacts due to industrial activities within the affected area and from any nearby large or major emission sources.

HEATING AND HOT WATER SYSTEMS

Stationary source analyses were conducted using the methodology described in the *CEQR Technical Manual* to assess air quality impacts associated with emissions from the Proposed Actions' heat and hot water systems.

Dispersion Modeling

Due to the proximity of the Proposed Development Sites, refined dispersion modeling was undertaken. The potential for impacts was evaluated using the EPA/AMS AERMOD dispersion model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources and source types. AERMOD is a steady-state plume model that incorporates current concepts about flow and

dispersion in complex terrain, including updated treatment of the boundary layer theory and understanding of turbulence and dispersion, and includes handling of the plume interaction with terrain. AERMOD is EPA's preferred regulatory stationary source model.

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

AERMOD incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict concentrations in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERMOD also uses the Building Profile Input Program for PRIME (BPIPPRM) to provide a detailed analysis of downwash influences on a direction-specific basis. BPIPPRM determines the projected building dimensions for modeling with the building downwash algorithm enabled. The modeling of plume downwash accounts for all obstructions within a radius equal to five obstruction heights of the stack.

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

Potential 1-hour average NO_2 concentrations, added to representative background concentrations in the area, were compared with the NAAQS. Potential 24-hour and annual average incremental concentrations of $PM_{2.5}$ were compared with the $PM_{2.5}$ *de minimis* criteria defined in the *CEQR Technical Manual*. For the analysis of the 1-hour average NO_2 concentration from the building's heating and hot water systems, AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was used to analyze chemical transformation within the model. PVMRM incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. The model applied ozone concentrations measured in 2016–2020 at the nearest available New York State Department of Environmental Conservation (DEC) ozone monitoring station—IS 52 monitoring station in the Bronx. An initial NO_2 to NO_x ratio of 10 percent at the source exhaust stack was assumed for boilers, which is considered representative.

Five years of surface meteorological data collected at LaGuardia Airport (2016–2020) and concurrent upper air data collected at Brookhaven, New York were used in the analysis.

Emission Rates and Stack Parameters

Since building specific design information was not available, it was assumed that conventional equipment would be used to provide building heat and hot water. It was assumed that the heating and hot water equipment for the Proposed Project would be natural gas-fired. The analysis assumed that the Site A would be served by a single heat and hot water system. Since Site B would have two potential developments, the analysis assumed separate heat and hot water systems for the mixed-use building ("Potential Development Site B1") and the building on Lot 38 (Potential Development Site B2").

Annual emission rates for heating and hot water systems were calculated based on fuel consumption estimates, using energy intensity estimates based on type of development and size

of the building as recommended in the *CEQR Technical Manual* and applying emission factors for natural gas-fired boilers.[1] $PM_{2.5}$ emissions include both the filterable and condensable components. NO_x emissions were calculated assuming the use of low NO_x burners (30 ppm). The short-term emission rates (24-hour and shorter) were calculated by scaling the annual emissions to account for a 100-day heating season.

The exhaust from the heating and hot water system for Site A was assumed to be vented through a single stack which could be located on either the Crescent Street segment or on the 27th Street segment. The exhaust from the heating and hot water systems for developments on Site B were assumed to be vented through a single stack located above the roof of each building.

To calculate exhaust velocity, the fuel consumption of the analyzed heating and hot water systems was multiplied by EPA's fuel factor for natural gas,[2] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature, and exhaust velocity was calculated based on the stack diameter. Assumptions for stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data provided by New York City Department of Environmental Protection (DEP).[3]

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

Table I-1
Exhaust Stack Parameters and Emission Rates

Stack Parameter	Development Site A	Potential Development Site B1	Potential Development Site B2
Stack Height (feet)	78	100	48
Stack Diameter (feet)(1)	2.0	2.0	1.0
Exhaust Velocity (feet/second)(1)	8.8	4.8	0.6
Exhaust Temperature (degrees Fahrenheit)(1)	307.8	307.8	307.8
Emission Rate (grams/second)			
NO_2 (1-hour average)	0.0286	0.0158	0.00053
NO_2 (Annual average)	0.0078	0.0043	0.00014
$PM_{2.5}$ (24-hour average)	0.0059	0.0032	0.00011
$PM_{2.5}$ (Annual average)	0.0016	0.00089	0.00003

Note:
(1) Estimated from a survey of boiler exhaust data provided by DEP.

Background Concentrations

For the AERMOD analysis, total 1-hour NO_2 concentrations were refined following a more detailed approach (EPA "Tier 3"). The methodology used to determine the total 1-hour NO_2 concentrations from the facility was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from the boilers were first added to the seasonal hourly background monitored concentrations provided by DEC; then the highest combined daily 1-hour NO_2 concentration was determined at each location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD

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

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

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

model; finally the 98th percentile concentrations were averaged over the latest five years. The seasonal hourly background data was provided by the DEC.

The latest version of AERMOD (Version 21112) has been identified as producing an error when using Tier 3 PVMRM module for NO_x to NO_2 conversion. The seasonal hourly background concentrations of NO_2 are added twice to the modeled concentrations, resulting in excessively high modeled concentrations. EPA recommended to input background concentrations of NO_2 that are one-half of the actual background concentrations. This approach was also confirmed in a communication with DEC.[4] Therefore, per EPA and DEC recommendations, the seasonal hourly background concentrations provided by DEC were divided by a factor of 2 for the AERMOD model input.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration based on the 98th percentile concentration, averaged over the years 2018–2020 was used to establish the *de minimis* value of 8.2 ug/m^3. $PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared to the $PM_{2.5}$ *de minimis* criteria, without considering the annual background.

Table I-2
Maximum Background Pollutant Concentrations

Pollutant	Average Period	Location	Concentration (µg/m^3)	NAAQS (µg/m^3)
NO_2	1-hour	IS 52, Bronx	106.4	188
	Annual	IS 52, Bronx	32.8	100
$PM_{2.5}$	24-hour	JHS 126, Brooklyn	18.7	35
	Annual	JHS 126, Brooklyn	7.6	12

Source: New York State Air Quality Report Ambient Air Monitoring System, DEC, 2018–2020.

Receptor Placement

Receptors (locations at which concentrations are projected) generally include operable windows in residential or other buildings, air intakes, and publicly accessible open space locations, as applicable. Discrete receptors were modeled on existing and proposed buildings to represent potentially sensitive locations such as operable windows, balconies, and intake vents. Rows of receptors at spaced intervals on the modeled buildings were analyzed at multiple elevations. A ground-level grid of receptors, centered on the point of maximum ground-level concentration was used to obtain the neighborhood-scale maximum annual concentration for $PM_{2.5}$.

INDUSTRIAL SOURCES

Analysis of Potential Impacts from Existing Uses

Nearby industrial facilities were examined to identify any potential for adverse impacts from air toxics on future residents of the Proposed Project. All industrial and manufacturing uses within 400 feet of the Project Area ("industrial source study area") were considered for inclusion in the air quality impact analysis, as recommended in the *CEQR Technical Manual*.

Land use maps and aerial photographs were reviewed to identify potential sources of emissions from manufacturing/industrial operations. A field survey was conducted on November 5, 2020 to

[4] Per email conversation with John Kent, Division of Air Resources, DEC Albany dated June 16, 2021.

identify buildings within 400 feet of the Project Area that have the potential for emitting air pollutants. A search of federal, state, and city compliance and permit data within the study area was conducted using DEP's Clean Air Tracking System (CATS) database[5] and EPA's Envirofacts database.[6] A request was made to DEP's Bureau of Environmental Compliance (BEC) to obtain the certificates of operation for the identified industrial sources in order to determine whether manufacturing or industrial emissions occur.

Three sources were found to be within 400 feet of the Proposed Project and in operation. Miguel Saco Restoration, a furniture restoration operation located at 39-50 Crescent Street, has permits for a spray booth and for the exhaust of wood fines (particulate matter) from various woodworking equipment. Two auto body shops that operate spray booths were also identified. Dynamic Repairs (permitted as Ronart Leasing Corp.) located at 25-11B 41st Avenue is on potential Site B. For the purposes of this analysis, it was assumed that should Site B not be developed, Dynamic Repairs would stay in operation and could therefore potentially impact Site A. JP Quality, located at 24-10 40th Avenue, is an auto body shop that is not currently permitted. However, a phone call to the facility on January 26, 2021 confirmed that they do perform spray painting. Since emission data was not available for this facility, the pollutants and emission rates were assumed to be the same as Dynamic Repairs. This is a conservative approach because JP Quality is a smaller operation than Dynamic Repairs and would likely not service as many automobiles. The pollutants and emission rates for the permitted sources are presented in **Table I-3.**

Table I-3
Modeled Emission Rates of Existing Industrial Sources

Facility	Description of Process	DEP Permit ID	CAS No.: Pollutant Name	Hourly Emissions[(1)] (lb/hr)	Annual Emissions (lb/yr)
Miguel Saco Restoration	Woodworking	PW000618	NY075-00-0: Pigment	1.67E-03[(2)]	8
			00108-88-3: Toluene	1.05	840
			00100-41-4: Ethylbenzene	0.12	96
			01330-20-7: Xylene	0.70	560
			00141-78-6: Ethyl Acetate	0.27	216
			00123-86-4: N-Butyl Acetate	0.27	216
			00110-19-0: Isobutyl Acetate	0.20	160
			00112-07-2: 2-Butoxyethly Acetate	0.20	160
		PW003218	NY075-00-016: Wood Fines	4.17E-05[(2)]	0.0120
Dynamic Repairs	Automotive Spray Booth	PB043101	NY075-00-0: Particulate	2.50E-04[(2)]	2.5
			01330-20-7: Xylene	0.108	237
			00108-88-3: Toluene	0.131	286
			00067-56-1: Methanol	0.033	71.4
			00078-93-3: Methyl Ethyl Ketone	0.022	47.7
			00108-10-1: Methyl Isobutyl Ketone	0.011	23.9
			00108-65-6: Propylene Glycol Methyl Ether Acetate	0.011	23.9
			00067-64-1: Acetone	0.044	95.3
			NY930-00-0: Total VOC	0.354	774

Notes:
(1) Emissions for particulate matter were modeled over a 24-hour averaging period.
(2) Particulate matter emissions were conservatively assumed to be all $PM_{2.5}$.

[5] DEP. *Clean Air Tracking System database*. https://a826-web01.nyc.gov/DEP.BoilerInformationExt. Accessed May 28, 2020.

[6] EPA. *Envirofacts Data Warehouse*. https://www3.epa.gov/enviro/. Accessed May 28, 2020.

Maximum potential pollutant concentrations from the identified sources were modeled at various distances using the reference values found in Table 17-3 of the *CEQR Technical Manual*. The database provides screening factors for estimating maximum concentrations based on emissions levels at the source derived from generic AERMOD dispersion modeling for the New York City area. The source-receptor distance selected for each source was based on the minimum distance between the property boundary of the Development Sites and the source site. Projected worst-case concentrations at the proposed buildings and nearby existing buildings were compared with the short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) recommended in DEC's DAR-1 AGC/SGC tables.[7] These guidelines represent the airborne concentrations which are applied as a screening threshold to determine if the future residents of the Proposed Project could be significantly impacted by nearby sources of air pollution.

Potential Impacts from Future Uses

The Proposed Actions would result in the development of light industrial uses. Under the RWCDS, Site A would include up to 12,960 gsf of light manufacturing space for pipe manufacturing, fitting and storage as part of the Applicant's operations. Based on information provided by the Applicant, the pipe manufacturing and fitting operations at Site A would involve mechanical cutting of the pipes with knives; however, there would be no fumes or emissions, and no DEP permits would be needed. Furthermore, as described below, light industrial operations at Site A would be governed by the underlying environmental rating restrictions applicable to sites in the Dutch Kills Subdistrict. Therefore, no analysis of Site A's light manufacturing uses is required

Regarding the potential development at Site B, the building that would be constructed on Lots 1, 2, 9, 10, and 11 (Site B1) would include up to 20,931 gsf of light industrial manufacturing and Lot 38 (Site B2) would be redeveloped as a separate building with approximately 6,006 gsf of light industrial manufacturing space.

Site A and Site B are located within the Dutch Kills Subdistrict, and the regulations in New York City Zoning Resolution (ZR) Sections 117-60 through 117-64 apply to the Dutch Kills Subdistrict. According to Section 117-61, "the special provisions of Article XII, Chapter 3 [ZR Section 123], of the Special Mixed Used District shall apply to the designated districts within the Dutch Kills Subdistrict except where modified by the provisions of the Subdistrict, and shall supplement or supersede the provisions of the underlying designated Residence or M1 District, as applicable." As specified under ZR Section 123-20, a manufacturing use that locates in the same building or shares a common wall with a building containing residential use, shall not have a New York City or New York State environmental rating of "A," "B," or "C" under Section 24-153 of the New York City Administrative Code for any process equipment requiring a DEP operating certificate or DEC state facility permit, and shall not be required, under the City Right-to-Know Law, to file a Risk Management Plan for Extremely Hazardous Substances. As such, the future non-residential uses in Sites A and B are not expected to have environmental rating of "A," "B," or "C" following zoning regulations.

Because light manufacturing uses that require DEP permits all have environmental ratings of "A," "B," or "C," and uses in the projected and potential development sites are restricted from having environmental ratings "A," "B," or "C," it is reasonable to assume that the allowed future on-site non-residential uses would not require DEP permits. Therefore, a quantitative light industrial

[7] DEC. *Policy DAR-1: Guidelines for the Evaluation and Control of Ambient Air Contaminants under Part 212*. February 12, 2021.

source air quality analysis is not required. However, to prevent any potential significant adverse air quality impact, minimum stack heights for venting any exhaust air from light industrial uses are included in the (E) Designations described below.

ADDITIONAL SOURCES

The *CEQR Technical Manual* requires an analysis of projects that may result in a significant adverse impact due to certain types of new uses located near a "large" or "major" emissions source. Major sources are defined as those located at facilities that have a Title V or Prevention of Significant Deterioration air permit, while large sources are defined as those located at facilities that require a State Facility Permit. To assess the potential effects of these existing sources on the projected and potential development sites, a review of existing permitted facilities was conducted. Sources of information reviewed included the DEC Title V and State Facility Permit websites. The review of major- and large-sources permits[8] found no such facilities within 1,000 feet of the project site. Therefore, no analysis is required, and no significant adverse impacts would occur on the project site from major or large stationary sources of emissions.

C. PROBABLE IMPACTS OF THE PROPOSED PROJECT

MOBILE SOURCES—PARKING ANALYSIS

Based on the methodology previously described, the maximum predicted CO and $PM_{2.5}$ concentrations from the parking garage for Site A were determined. Pollutant concentrations were modeled assuming a near-side sidewalk receptor on the same side of the street (7 feet from Site A), a far-side sidewalk receptor across Crescent Street (52.5 feet from the Site A), and a building receptor on the façade of the proposed building above the parking garage.

The maximum predicted 8-hour average CO concentration modeled is 1.45 ppm at a receptor on the building façade. This value includes a predicted concentration of 0.05 ppm from emissions within the parking facility, and a background level of 1.4 ppm. The maximum predicted concentration is substantially below the applicable standard of 9 ppm and *de minimis* of 3.8 $\mu g/m^3$.

The maximum predicted 24-hour and annual average $PM_{2.5}$ increments from the vehicles using the garage are 0.1 $\mu g/m^3$ and 0.01 $\mu g/m^3$, respectively, at a receptor on the building façade. These values are below the respective $PM_{2.5}$ *de minimis* criteria of 8.2 $\mu g/m^3$ for the 24-hour average concentration and 0.3 $\mu g/m^3$ for the annual average concentration. Therefore, the proposed parking garage would not result in any significant adverse air quality impacts.

STATIONARY SOURCES

HEATING AND HOT WATER SYSTEMS

The results of the AERMOD analysis for NO_2 and $PM_{2.5}$ are presented in **Table I-4 and I-5**. As shown, there are no exceedances of the NO_2 NAAQS. In addition, the maximum predicted incremental concentrations of $PM_{2.5}$ are not predicted to exceed the CEQR *de minimis* criteria. Therefore, the Proposed Project's heating and hot water system would not result in any significant adverse air quality impacts.

[8] DEC. *Access to DEC Air Permits*. http://www.dec.ny.gov/chemical/32249.html. Accessed May 28, 2020.

Table I-4
Maximum Modeled Pollutant Concentrations – Project-On Project (µg/m³)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	133.1[(1)]	N/A	133.1	188[(2)]
	Annual	1.3	32.8	34.1	100[(2)]
$PM_{2.5}$	24-hour	6.56	N/A	6.56	8.2[(3)]
	Annual	0.27	N/A	0.27	0.3[(4)]

Notes:
N/A – Not Applicable
(1) The 1-hour NO_2 concentration presented represents the maximum of the total 98th percentile 1-hour NO_2 concentration predicted at any receptor using seasonal-hourly background concentrations.
(2) NAAQS.
(3) $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m³.
(4) $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor).

Table I-5
Maximum Modeled Pollutant Concentrations – Project-On Off-Site Receptors (µg/m3)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	172[(1)]	N/A	172	188[(2)]
	Annual	1.3	32.8	34.1	100[(2)]
$PM_{2.5}$	24-hour	7.30	N/A	7.30	8.2[(3)]
	Annual	0.26	N/A	0.26	0.3[(4)]
	Annual – Neighborhood	0.004	N/A	0.004	0.1[(5)]

Notes:
N/A – Not Applicable
(1) The 1-hour NO_2 concentration presented represents the maximum of the total 98th percentile 1-hour NO_2 concentration predicted at any receptor using seasonal-hourly background concentrations.
(2) NAAQS.
(3) $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m³.
(4) $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor).
(5) $PM_{2.5}$ *de minimis* criteria-neighborhood scale.

To ensure that there is no potential for significant adverse impacts of $PM_{2.5}$ or NO_2 from the Proposed Project's heating and hot water system emissions, certain restrictions would be required that would be placed on the Development Site (Site A) (Block 406, Lot 12), and the two buildings on the Potential Development Site (Site B) (Block 406, Lots 1, 2, 9, 10, and 11 and Block 406, Lot 38) through an Air Quality (E) Designation (E-677) that would be placed on the proposed Development Site and the Potential Development Site. These restrictions were determined based on the analysis results presented in **Tables I-5 and I-6**, and would avoid the potential for significant air quality impacts from stationary sources based on the conservative assumptions used in the analysis. Site A already has an Air Quality (E) Designation (E-218) on its site for HVAC

stack restrictions from the 2008 *Dutch Kills Rezoning FEIS* (CEQR No. 08DCP021Q).[9] The new (E) Designation (E-677) would supersede the existing one.

The new restrictions are as follows:

Development Site (Site A)

Any new residential, commercial and/or light industrial development on Site A (Block 406, Lot 12) must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NO_x burners (30 ppm), and heating and hot water exhaust stack(s) located at least 78 feet above grade. In addition, if located on the tower segment along 27th Street, the heating and hot water systems stack(s) must be at least 60 feet from the lot line facing 40th Avenue and at least 123 feet from the lot line facing 41st Avenue; **OR** if located on the tower along Crescent Street, the heating and hot water systems stack(s) must be at least 76 feet from the lot line facing 41st Avenue, to avoid potential significant adverse air quality impacts.

Potential Development Site (Site B)

Site B1 (Block 406, Lots 1, 2, 9, 10, and 11)

Any new residential and/or light industrial development on Potential Development Site B1 – Block 406, Lots 1, 2, 9, 10, and 11, must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NO_x burners (30 ppm) and ensure that fossil fuel-fired heating and hot water exhaust stacks are located at least 100 feet above grade, and be located at least 66 feet from the lot line facing 40th Avenue, to avoid potential significant adverse air quality impacts.

Site B2 (Block 406, Lot 38)

Any new light industrial development on the Potential Development Site B2 – Block 406, Lot 38, must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, be fitted with low NO_x burners (30 ppm) and ensure that fossil fuel-fired heating and hot water exhaust stacks are located at least 48 feet above grade, to avoid potential significant adverse air quality impacts.

With these restrictions in place, there would be no potential for adverse stationary source air quality impacts as a result of the Proposed Actions.

INDUSTRIAL SOURCES

Analysis of Potential Impacts from Existing Uses

Table I-6 presents the maximum potential estimated short-term and long-term concentrations of air toxic compounds from the analyzed, permitted, and unpermitted industrial sources on the Proposed Project. For each modeled compound, the table lists the SGC and AGC. As presented in the table, maximum concentrations for each air toxic compound were predicted to be below the

[9] *E-218 – Air Quality (Block 406, Sites 12 and 29*): Any new residential and/or commercial development must use No. 2 oil or natural gas as the type of fuel for HVAC systems, and ensure that the boiler stack(s) is located at least 60 feet from the lot line facing 40th Ave when firing No. 2 oil, and at least 30 feet from the lot line facing 40th Ave when firing natural gas, to avoid any potential significant air quality impacts (City Planning Commission Resolution C 080429 ZMQ).

thresholds. The industrial source analysis did not predict any potential significant adverse air quality impacts on the Proposed Project from existing industries in the area.

Table I-6
Maximum Predicted Pollutant Concentration Increments (µg/m³)

Pollutant	CAS No.	Short-term Average (µg/m³)	SGC (µg/m³)(1)	Annual Average (µg/m³)	AGC (µg/m³)(1)
Acetone	00067-64-1	189.6	180,000	2.32	30,000
Ethylbenzene	00100-41-4	86.9	--	0.40	1,000
Toluene	00108-88-3	1324.5	37,000	10.42	5,000
Xylene	01330-20-7	972.1	22,000	8.07	100
Ethyl Acetate	00141-78-6	195.4	--	0.89	3,400
N-Butyl Acetate	00123-86-4	195.4	71,300	0.89	565
Isobutyl Acetate	00110-19-0	144.8	71,300	0.66	565
2-Butoxyethyl Acetate	00112-07-2	144.8	--	0.66	310
Methanol	00067-56-1	142.2	33,000	1.73	4,000
Methyl Ethyl Ketone	00078-93-3	94.8	13,000	1.16	5,000
Methyl Isobutyl Ketone	00108-10-1	47.4	31,000	0.58	3,000
Propylene Glycol Methyl Ether Acetate	00108-65-6	47.4	36,850	0.58	2,000
Total VOC	NY930-00-0	1525.6	98,000	18.81	7,000
$PM_{2.5}$(2)	NY075-02-5	19.47(3)	35(5)	7.69	12(5)

Notes:
(1) DEC Division of Air Resources, Bureau of Stationary Sources. *DAR-1 AGS/SGC Tables.* February 2021.
(2) $PM_{2.5}$ fraction of solids was conservatively assumed to be 100 percent.
(3) 24-hour average concentration added to a background concentration of 18.7 µg/m³.
(4) Annual average concentration added to a background concentration of 7.6.
(5) NAAQS threshold for 24-hour and annual averaging period.

Potential Impacts from Future Uses

To prevent any potential significant adverse air quality impact from light industrial uses, certain restrictions would be required that would be placed on the Development Site (Site A) (Block 406, Lot 12), and the two buildings on the Potential Development Site (Site B) (Block 406, Lots 1, 2, 9, 10, and 11 and Block 406, Lot 38) through an (E) Designation (E-677).

The restrictions are as follows:

Projected Development Site A (Block 406, Lot 12)

Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 78 feet above grade to avoid any potential significant adverse air quality impact.

Odor/vapor barrier and prevention: a mechanical ventilation system separate from the residential and/or commercial building will provide fresh air to and exhaust from the ground-floor, with vents running above the roof line of the residential and/or commercial towers. An odor/vapor barrier would also be applied to the structural slab separating the light industrial and residential and/or commercial spaces.

Potential Development Site B

Site B1 (Block 406, Lots 1, 2, 9, 10, and 11)

Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 100 feet above grade to avoid any potential significant adverse air quality impact.

Site B2 (Block 406, Lot 38)

Any new industrial development in the above-referenced property must ensure the exhaust stack(s) be located on the tallest portion of the roof and at least 48 feet above grade to avoid any potential significant adverse air quality impact.

Odor/vapor barrier and prevention: a mechanical ventilation system separate from the residential and/or commercial building will provide fresh air to and exhaust from the ground-floor, with vents running above the roof line of the residential and/or commercial towers. An odor/vapor barrier would also be applied to the structural slab separating the light industrial and residential and/or commercial spaces.

With these restrictions in place, there would be no potential for adverse industrial source air quality impacts as a result of the Proposed Actions. ✷

A. INTRODUCTION

This attachment considers the potential for the Proposed Actions and associated development at 40-25 Crescent Street (Block 406, Lot 12) in the Dutch Kills neighborhood of Long Island City, Queens to result in significant adverse noise impacts. As discussed in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the construction of a 7-story mixed-use building containing market-rate and affordable housing, commercial and light manufacturing uses, and parking (the Proposed Project) at 40-25 Crescent Street (the Development Site, also known as Site A). The Proposed Actions may also result in the development of two buildings on a Potential Development Site (also known as Site B) (Block 406, Lots 1, 2, 9, 10, 11, and 38) that would include residential and light manufacturing uses.

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

In terms of mobile sources, with the relatively moderate to high numbers of existing vehicles in the immediate area, the future With Action traffic condition would not likely result in a doubling of passenger car equivalents [Noise PCEs] from the existing traffic condition to cause a 3 dBA increase in existing noise levels and cause significant adverse impact to existing receptors. Also, as future With Action noise levels is expected to be similar to existing noise levels, existing noise levels would be sufficient to determine attenuation requirement for the project buildings.

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

B. ACOUSTICS FUNDAMENTALS

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

"A"-WEIGHTED SOUND LEVEL (DBA)

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

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

Table J-1
Noise Levels of Common Sources

Sound Source	SPL (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
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Source: 2020 *CEQR Technical Manual*	

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

SOUND LEVEL DESCRIPTORS

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

The relationship between L_{eq} and levels of exceedance is worth noting. Because L_{eq} is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If

the noise fluctuates little, L_{eq} will approximate L_{50} or the median level. If the noise fluctuates broadly, the L_{eq} will be approximately equal to the L_{10} value. If extreme fluctuations are present, the L_{eq} will exceed L_{90} or the background level by 10 or more decibels. Thus, the relationship between L_{eq} and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the L_{eq} is generally between L_{10} and L_{50}.

For purposes of the RWCDS, the L_{eq} descriptor has been selected as the noise descriptor to be used in this noise impact evaluation. The 1-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines to determine the required attenuation values to achieve acceptable interior noise levels.

C. NOISE STANDARDS AND CRITERIA

NEW YORK CEQR NOISE CRITERIA

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

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

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

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

The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise level (see **Table J-3**). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for commercial office uses and are determined based on exterior $L_{10(1)}$ noise levels.

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

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

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

ENVIRONMENTAL CONDITIONS FOR BUILDINGS IN MX DISTRICTS

The Proposed Actions would change the zoning on Sites A and B to a M1-2/R6A mixed-use zoning district that, similar to the existing zoning (M1-2/R5B and M1-2/R5D), allows manufacturing and residential uses. Zoning Resolution (ZR) Section 123-32−Environmental Conditions requires that all new dwelling units (DUs) in Special Mixed Use Districts be provided with a minimum of 35 dBA window-wall attenuation to maintain an interior noise level of 45 dBA or less. The 35 dBA window-wall attenuation is for a closed-window condition; consequently, a means of alternate ventilation that does not degrade the acoustical performance of the building façade is required. However, it is possible to review and alter the minimum attenuation requirements via a process overseen by the New York City Mayor's Office of Environmental Remediation (OER), which could be undertaken at a later time.

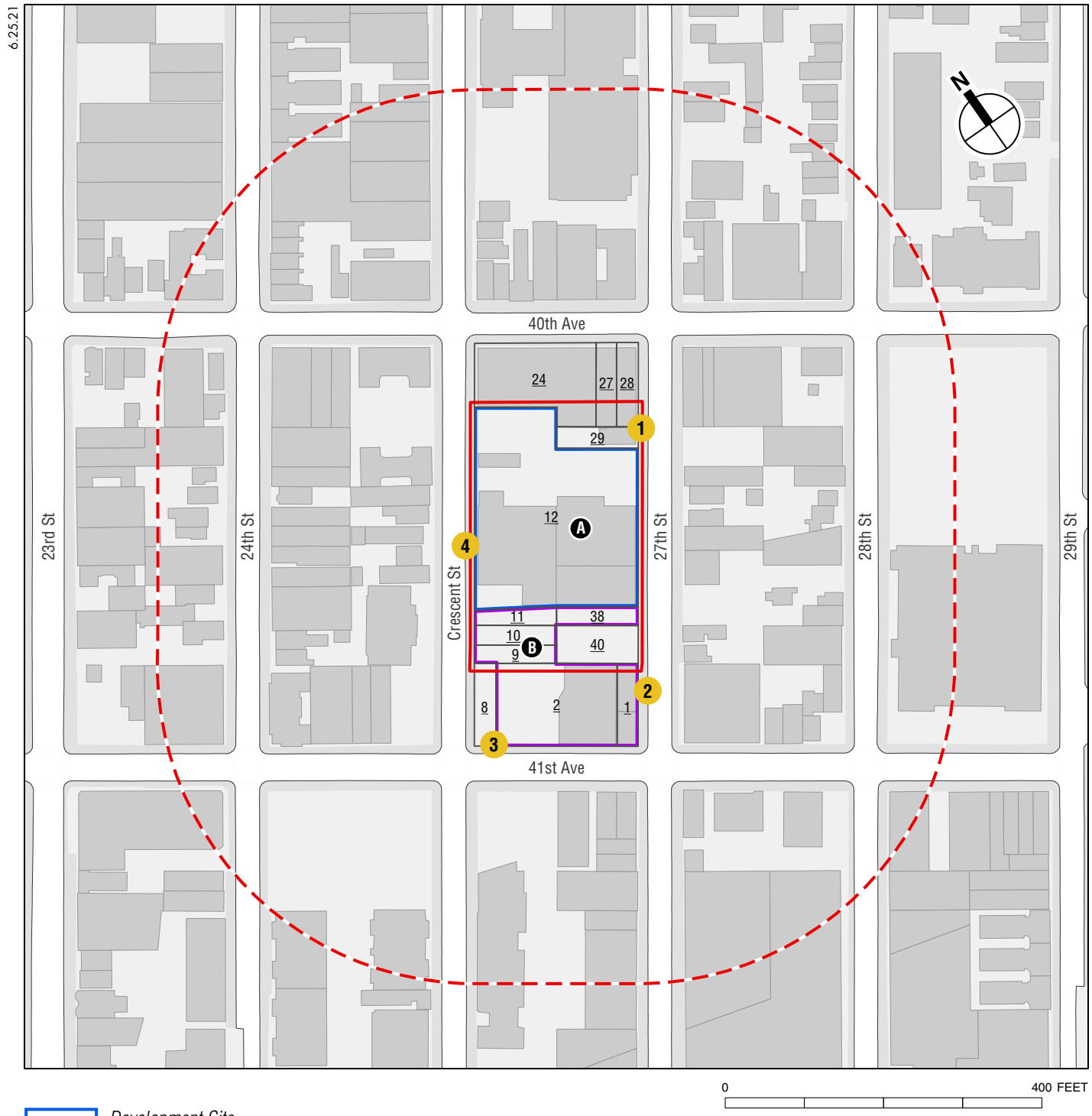
D. EXISTING NOISE LEVELS

Existing noise levels at the Development Site were measured at four locations. The noise receptor sites are shown in **Figure J-1** and described below in **Table J-4.**

Table J-4
Noise Measurement Locations

Site	Location
1	27th Street near northeastern edge of the Development Site
2	27th Street near intersection with 41st Avenue
3	41st Avenue near intersection with Crescent Street
4	Crescent Street midway between 40th Avenue and 41st Avenue

At the receptor sites, the existing noise levels were measured for 20-minute periods during the three weekday peak periods: AM (7:15 AM–9:15 AM), midday (12:00 PM–2:00 PM), and PM (4:00 PM–6:00 PM). Measurements were conducted on June 17, 2021.



Noise Receptor Locations

40-25 CRESCENT STREET REZONING

Figure J-1

EQUIPMENT USED DURING NOISE MONITORING

Measurements were performed using a Brüel & Kjær Sound Level Meter (SLM) Type 2270, a Brüel & Kjær 1/2-inch microphone Type 4189, and a Brüel & Kjær Sound Level Calibrator Type 4231. The SLM has a valid laboratory calibration within 1 year, as is standard practice. The Brüel & Kjær SLM is a Class 1 instrument according to ANSI Standard S1.4-1983 (R2006). The microphone was mounted on a tripod at a height of approximately 5 feet above the ground and was mounted at least approximately 5 feet away from any large reflecting surfaces. The SLM was calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements 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}, L_{90}, and 1/3 octave band levels. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

NOISE MEASUREMENT RESULTS

The results of the existing noise level measurements are summarized in **Table J-5**.

Table J-5
Existing Noise Levels (in dBA)

Receptor Site	Measurement Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}
1	27th Street near northeastern edge of the Development Site	AM	58.0	67.8	61.3	54.2	52.3
		MD	61.0	69.4	60.8	55.2	53.0
		PM	58.8	67.6	60.0	56.9	55.5
2	27th Street near intersection with 41st Avenue	AM	60.5	71.8	61.7	56.2	54.2
		MD	57.5	67.2	59.9	54.6	52.5
		PM	60.9	69.9	60.3	55.8	53.9
3	41st Avenue near intersection with Crescent Street	AM	63.0	73.3	65.3	60.0	57.9
		MD	63.7	74.1	65.1	58.5	56.0
		PM	62.4	71.0	66.0	59.3	57.5
4	Crescent Street midway between 40th Avenue and 41st Avenue	AM	63.0	73.0	65.5	59.2	56.2
		MD	66.6	81.3	65.6	59.7	55.4
		PM	64.4	73.1	69.3	61.0	58.2

Note: Measurements were conducted on June 17, 2021.

At all the receptor sites, vehicular traffic on the adjacent roadways was the dominant noise source. Noise from a nearby auto repair shop contributed to noise levels measured at receptor 2. In terms of the CEQR criteria, the existing noise levels at receptors 1 and 2 are categorized as "acceptable," and noise levels measured at receptors 3 and 4 are categorized as "marginally acceptable."

E. NOISE ATTENUATION MEASURES

As shown in **Table J-3**, the *CEQR Technical Manual* has set noise attenuation values for buildings based on exterior $L_{10(1)}$ noise levels in order to maintain interior noise levels of 45 dBA or lower for residential uses. As discussed above, ZR Section 123-32 requires a minimum window-wall attenuation level of 35 dBA to maintain interior noise levels of 45 dBA or less at all DUs. The buildings on the Development Sites would be built using standard construction methods. The building façade would be expected to provide composite window/wall attenuation such that interior noise levels would be 45 dBA or lower for residential uses. Furthermore, because the exterior $L_{10(1h)}$ noise levels at the Development Site would be less than 70 dBA, the *CEQR Technical Manual* does not provide a specific requirement for the level of window/wall

attenuation. However, the minimum 35 dBA of façade attenuation and the requirement for an alternate means of ventilation included in ZR Section 123-32, as enforced by the New York City Department of Buildings (DOB), still apply. Further study under the purview of OER would be required to alter the attenuation requirements. Regardless of the final attenuation requirement, requirements of ZR Section 123-32 would be sufficient to ensure acceptable interior noise levels at all DUs. In accordance with MX zoning requirements, the Proposed Project (at Site A) and any potential development at Site B would meet these façade attenuation requirements as well as the requirements for an alternate means of ventilation for the DUs. Therefore, no significant adverse impacts would occur.

F. MECHANICAL SYSTEM

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

Appendix 1
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-Q
Project: CRESCENT_ST_REZONING
Date Received: 12/11/2020

Properties with no Architectural or Archaeological significance:

1) 25-17 41 AVENUE, BBL: 4004060001
2) 25-11 41 AVENUE, BBL: 4004060002
3) 40-39 CRESCENT STREET, BBL: 4004060009
4) 25 STREET, BBL: 4004060010
5) CRESCENT STREET, BBL: 4004060011
6) 40-25 CRESCENT STREET, BBL: 4004060012
7) 27 STREET, BBL: 4004060038

Gina Santucci 12/17/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35335_FSO_DNP_12172020.docx

Appendix 2
No Action Condition Development Projects

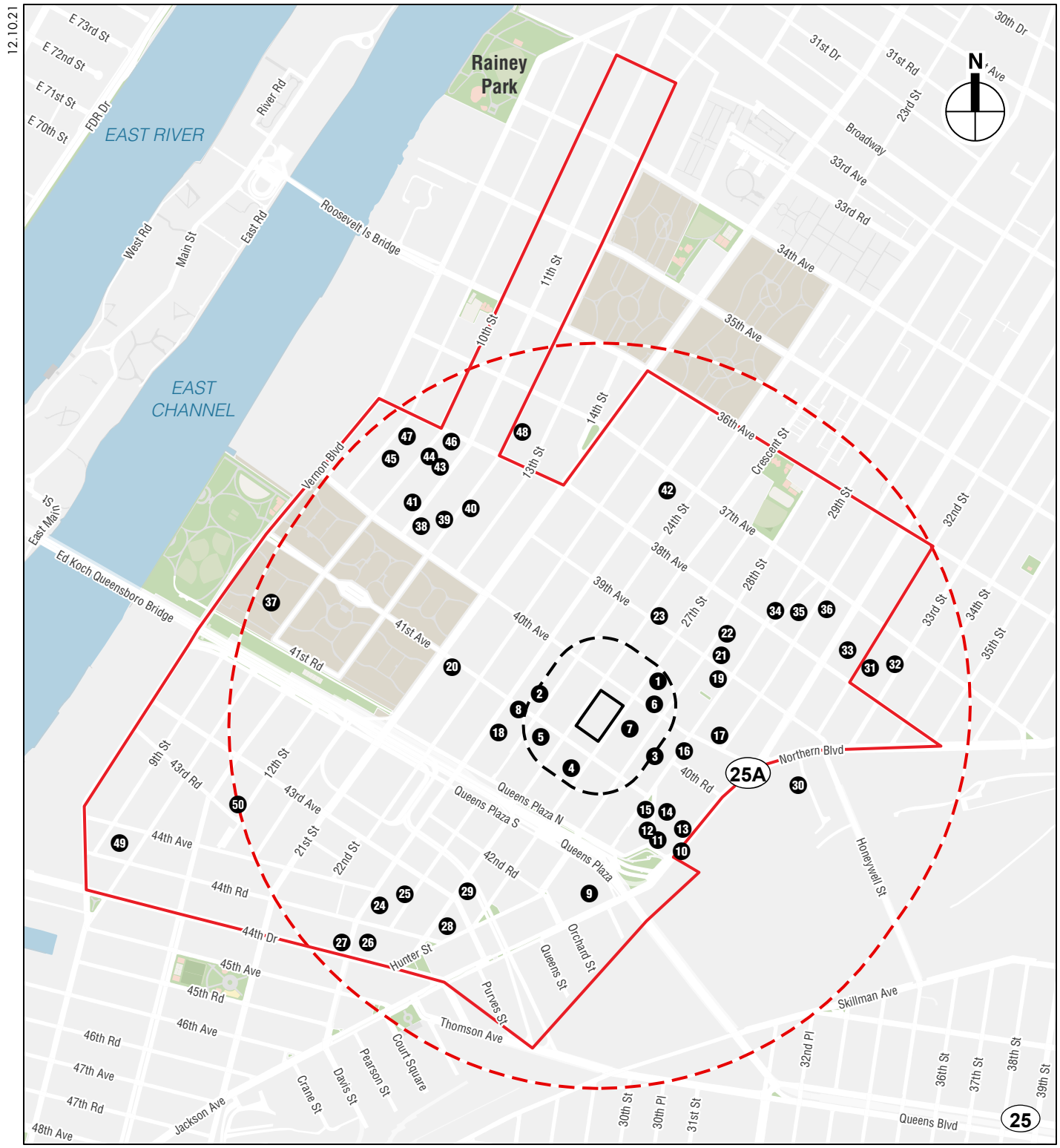
Table 2-1
No Action Condition Development Projects

Map No.[1]	Project Name/Address	Program	Status/Build Year
400-ft Study Area			
1	39-35 27th Street	79 hotel rooms; 2 parking spaces	2021
2	The Queens Buddhist Center (40-40 24th Street)	17,212 GSF of community facility uses	2025*
3	The Academy of American Studies (40-11 28th Street)	250,103 GSF of community facility uses	2021
4	41-14th 27th Street	32 DU; 2,392 GSF of retail uses	2025*
5	41-02 Crescent Street	87 DU; 155 hotel rooms; 126 parking spaces	2025*
6	27-09 40th Avenue	46 DU; 20,606 GSF of manufacturing uses; 113 parking spaces	2025*
7	40-21 27th Street	9 DU; 2,505 GSF of retail uses; 5,610 GSF of manufacturing uses; 6 parking spaces	2025*
8	23-17 41st Avenue	39 DU, 11,218 GSF of local retail uses, 34 parking spaces	2025*
400-ft Study Area Totals		*213 DU; 16,115 GSF of retail uses; 267,315 GSF of community facility uses; 26,215 GSF of manufacturing uses; 234 hotel rooms; 281 parking spaces*	
½-Mile Boundary			
9	28-07 Jackson Avenue	1,617,066 GSF of office uses; 550 parking spaces	2021
10	29-47 Northern Boulevard	3,072 GSF of retail uses	2021
11	29-23 Queens Plaza North	9,494 GSF of retail uses	2021
12	29-19 41st Avenue	958 DU; 4,162 GSF of retail uses	2021
13	29-63 Northern Boulevard	1 DU; 1,095 GSF of manufacturing uses	2021
14	29-17 41st Avenue	1 DU; 1,040 GSF of retail uses	2021
15	41-05 29th Street	86 DU; 6,575 GSF of retail uses	2021
16	40-11 29th Street	6,751 GSF of office uses	2025*
17	29-17 40th Avenue	103 DU; 575 GSF of retail uses; 42 parking spaces	2025*
18	41-21 23rd Street	29 DU; 1,717 GSF of retail uses	2021
19	39-04 29th Street	20 DU; 8,264 GSF of retail uses; 13 parking spaces	2025*
20	41-03 21st Street	114 hotel rooms	2025*
21	28-09 39th Avenue	13 DU; 5,154 GSF of retail uses; 9 parking spaces	2021
22	38-23 28th Street	40 hotel rooms	2025*
23	38-35 Crescent Street	17 DU; 7,475 GSF of retail uses; 15 parking spaces	2025*
24	23-15 44th Road	923 DU; 20,071 GSF of retail uses; 211 parking spaces	2021
25	43-16 24th Street	1 DU; 3,556 GSF of retail uses	2025*
26	23-15 44th Drive	801 DU; 16,990 GSF of retail uses; 206 parking spaces	2021
27	21-59 44th Drive	20 DU; 3,073 GSF of retail uses; 415 GSF of community facility uses	2021
28	43-12 Hunter Street	123 DU (37 affordable DU); 4,644 GSF of retail uses	2021
29	42-59 Crescent Street	65 hotel rooms	2021
30	31-08 Northern Boulevard	285,983 GSF of retail uses	2025*
31	37-29 32nd Street	10 DU; 476 GSF of retail uses	2021

Table 2-1 (cont'd)
No Action Condition Development Projects

Map No.[1]	Project Name/Address	Program	Status/Build Year
32	37-19 32nd Street	86 DU; 17,320 GSF of retail uses; 43 parking spaces	2021
33	37-29 31st Street	74 DU; 18,104 GSF of retail uses; 55 parking spaces	2025*
34	37-28 30th Street	33 DU; 8 parking spaces	2025*
35	37-24 30th Street	32 DU; 7 parking spaces	2025*
36	37-05 30th Street	198 DU; 12,728 GSF of retail uses; 37,196 GSF of manufacturing uses; 136 parking spaces	2025*
37	40-50 Vernon Boulevard	1,737 GSF of community facility uses	2025*
38	38-65 11th Street	178 hotel rooms; 22 parking spaces	2025*
39	38-59 11th Street	27,271 GSF of community facility uses; 240 hotel rooms; 31 parking spaces	2025*
40	38-43 12th Street	78 hotel rooms; 5 parking spaces	2025*
41	38-60 11th Street	31 hotel rooms	2025*
42	37-11 23rd Street	93 hotel rooms	2025*
43	38-26 11th Street	87 hotel rooms	2025*
44	38-22 11th Street	54 hotel rooms	2025*
45	38-39 9th Street	405 hotel rooms	2025*
46	38-04 11th Street	179 hotel rooms; 19 parking spaces	2025*
47	38-15 9th Street	248 hotel rooms; 32 parking spaces	2025*
48	37-27 12th Street	68 parking spaces	2025*
½-Mile Boundary Totals (includes 400-ft Study Area projects)		*3=3,742 DU (37 affordable DU), 446,588 GSF of retail uses; 1,677,817 GSF of office uses; 296,738 GSF of community facility uses; 64,506 GSF of manufacturing uses; 2,114 hotel rooms; 1,685 parking spaces*	
Beyond ½-Mile Boundary within Socioeconomics/Land Use Study Areas			
49	9-03 44th Road	97,289 GSF of office uses	2025*
50	43-16 12th Street	12,650 GSF of manufacturing uses (expansion)	2025*
Socioeconomic/Land Use Study Area Totals (includes 400-ft Study Area and ½-Mile Boundary projects)		*3,742 DU (37 affordable DU); 446,588 GSF of retail uses; 1,775,106 GSF of office uses; 296,738 GSF of community facility uses; 77,156 GSF of manufacturing uses; 2,114 hotel rooms; 1,685 parking spaces*	

Notes:
[1] See **Appendix Figure 2-1** for a map of No Action condition development projects.
[2] Projects for which the completion date is unknown are assumed to be completed by the 2025 analysis year and are denoted with an asterisk.
Sources: DOB; AKRF field visit, November 2020.



No Action Condition Development Projects

40-25 CRESCENT STREET REZONING

Figure 2-1