73-99 Empire Boulevard
Environmental Assessment Statement

CEQR No. 24DCP101K

April 2023

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* 73-99 Empire Boulevard Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
24DCP101K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
230309ZMK 230310ZRK	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Planning Commission			NAME OF APPLICANT Empire Blvd Holdings, LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, Director Environmental Assessment and Review Division New York City Department of City Planning			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Michael Berfield		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 813 Avenue J		
CITY New York City	STATE NY	ZIP 10271	CITY Brooklyn	STATE NY	ZIP 11230
TELEPHONE 212.730.3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-750-1918	EMAIL mberfield@bridgesdev.com	

5. *Project Description*

Empire Blvd Holdings, LLC (the "Applicant") is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") subject to City Planning Commission (CPC) approval to facilitate the development of a mixed-use building at 73-99 Empire Boulevard (Block 1306, Lot 28) in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9. The Applicant controls the approximately 38,118-square-foot (sf) lot (the "Project Site"). The Proposed Actions include a zoning map amendment that would rezone the Project Site from the existing mix of C8-2 and R6/C1-3 zoning on the site to C4-4D. The Proposed Actions 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 an 13-story (145-foot tall), approximately 384,429 gross-square-foot (gsf) mixed-use building to be built on the Project Site (the "Proposed Project"). The Proposed Project would include approximately 285 dwelling units (approximately 86 of which would be permanently affordable, MIH option to be determined), approximately 99,221 gsf of commercial uses, split between approximately 24,168 gsf of supermarket use and approximately 75,053 gsf of retail uses, and approximately 191 accessory parking spaces in an underground garage. The Proposed Actions are subject to approval by the CPC pursuant to the Uniform Land Use Review Procedure (ULURP). Refer to Attachment A, "Project Description and Screening Analyses," for additional information.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 9	STREET ADDRESS 73-99 Empire Boulevard Rezoning
TAX BLOCK(S) AND LOT(S) Block 1306, Lot 28		ZIP CODE 11225
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Bounded by Sullivan Place to the north, Empire Boulevard to the south, and McKeever Place to the west.		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C8-2, R6/C1-3		ZONING SECTIONAL MAP NUMBER 16d

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

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

☐ CITY MAP AMENDMENT ☐ ZONING CERTIFICATION ☐ CONCESSION

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

***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 ☐ Cogeneration Facility ☐ Title V Permit

Other City Approvals Subject to CEQR (check all that apply)
☐ LEGISLATION ☐ FUNDING OF CONSTRUCTION, specify:
☐ RULEMAKING ☐ POLICY OR PLAN, specify:
☐ CONSTRUCTION OF PUBLIC FACILITIES ☐ FUNDING OF PROGRAMS, specify:
☐ 384(b)(4) APPROVAL ☐ PERMITS, specify:
☐ OTHER, explain:

Other City Approvals Not Subject to CEQR (check all that apply)
☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☐ OTHER, explain:

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

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

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

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

Physical Setting (both developed and undeveloped areas)
Total directly affected area (sq. ft.): 38,118 Waterbody area (sq. ft) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 38,118 Other, describe (sq. ft.): 0

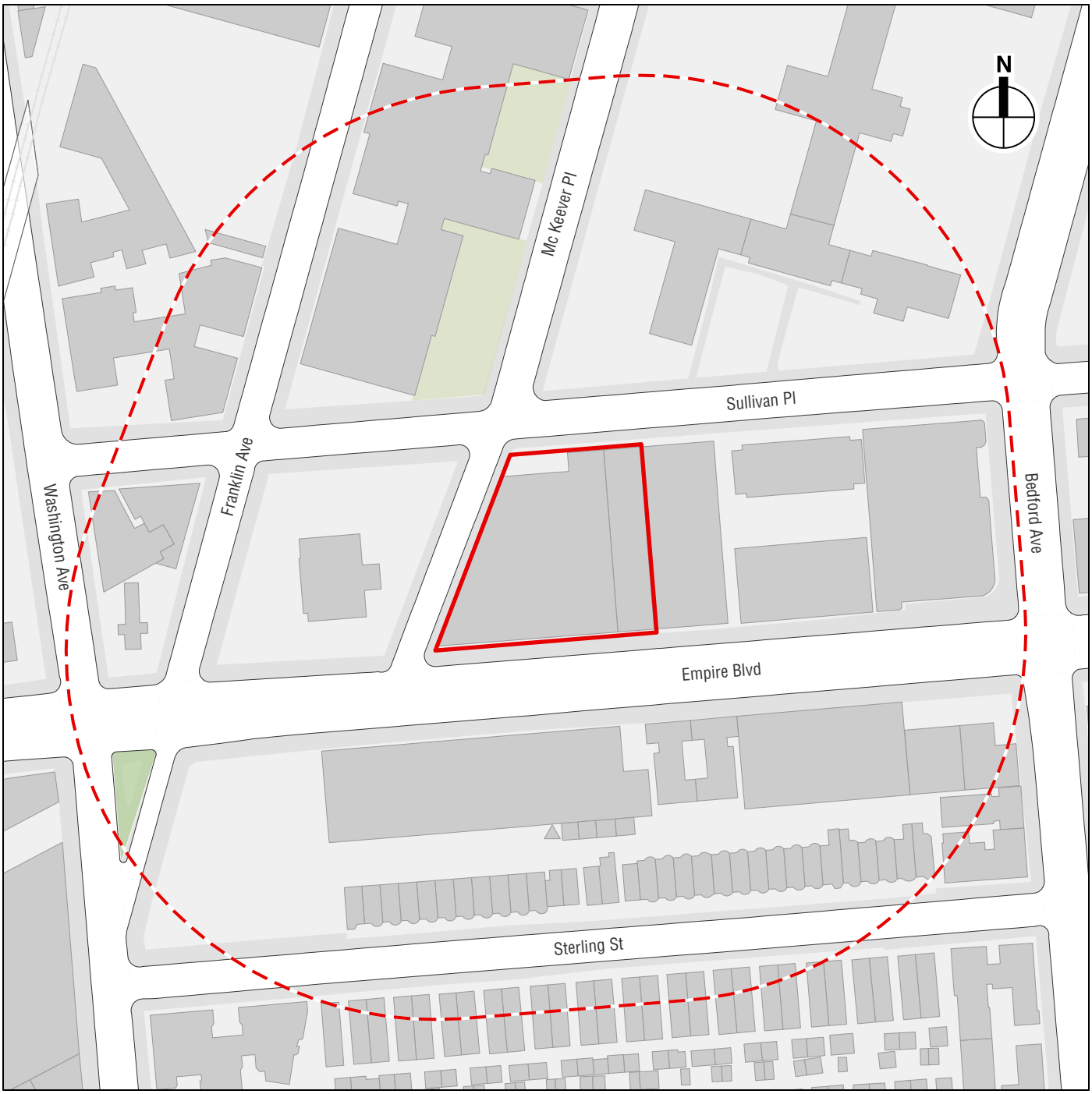
8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 384,429
NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 384,429
HEIGHT OF EACH BUILDING (ft.): 145 NUMBER OF STORIES OF EACH BUILDING: 13

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: 38,118
The total square feet not owned or controlled by the applicant: 0

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 38,118 sq. ft. (width x length) VOLUME OF DISTURBANCE: ~1,219,776 (cellar depth of 32 feet) cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 38,118 sq. ft. (width x length)

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

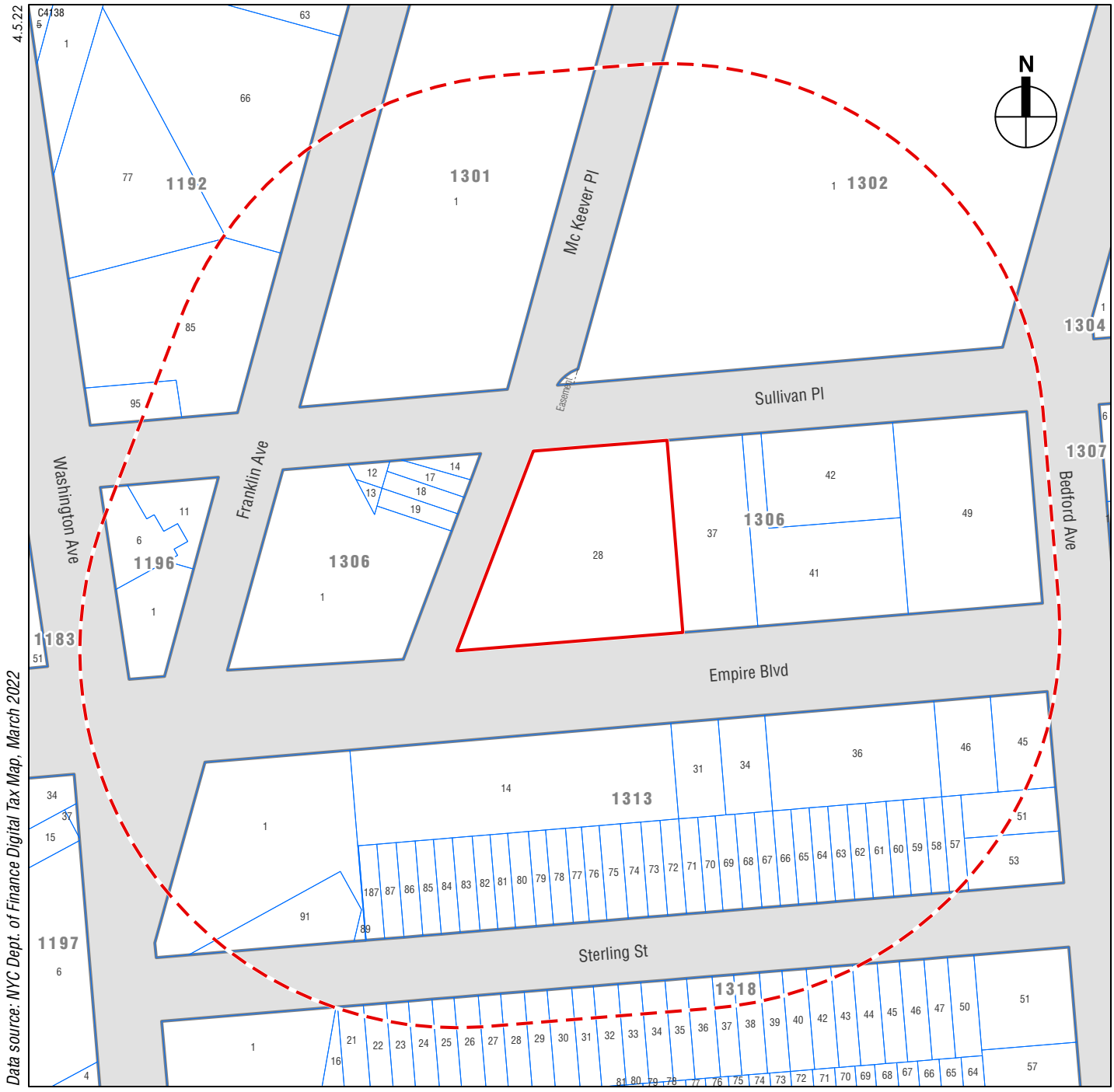
	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	242,106*	99,221*		
Type (*e.g.,* retail, office, school)	285 units	Retail and supermarket		



Project Location

73-99 EMPIRE BOULEVARD

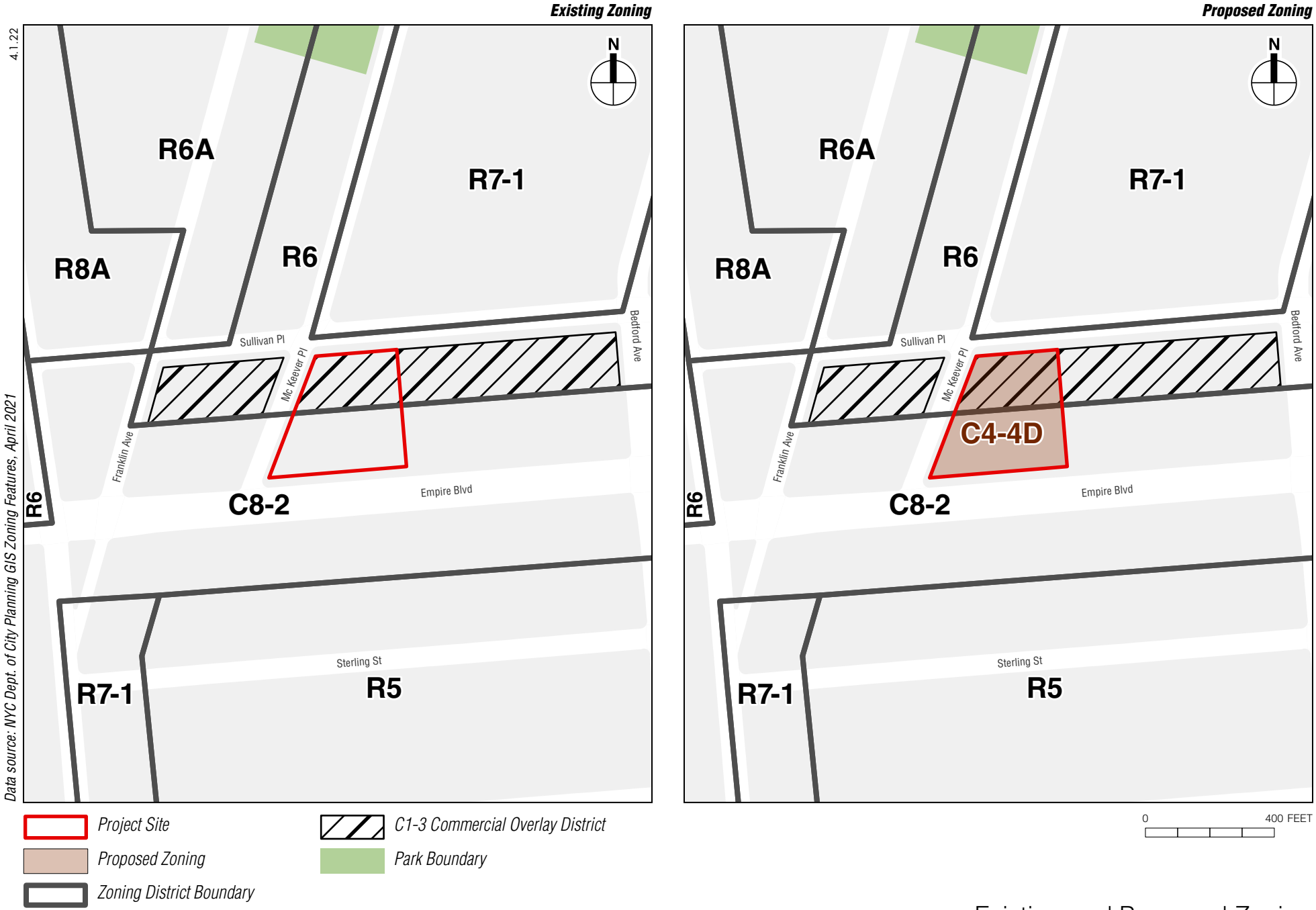
Figure 1



Tax Map

73-99 EMPIRE BOULEVARD

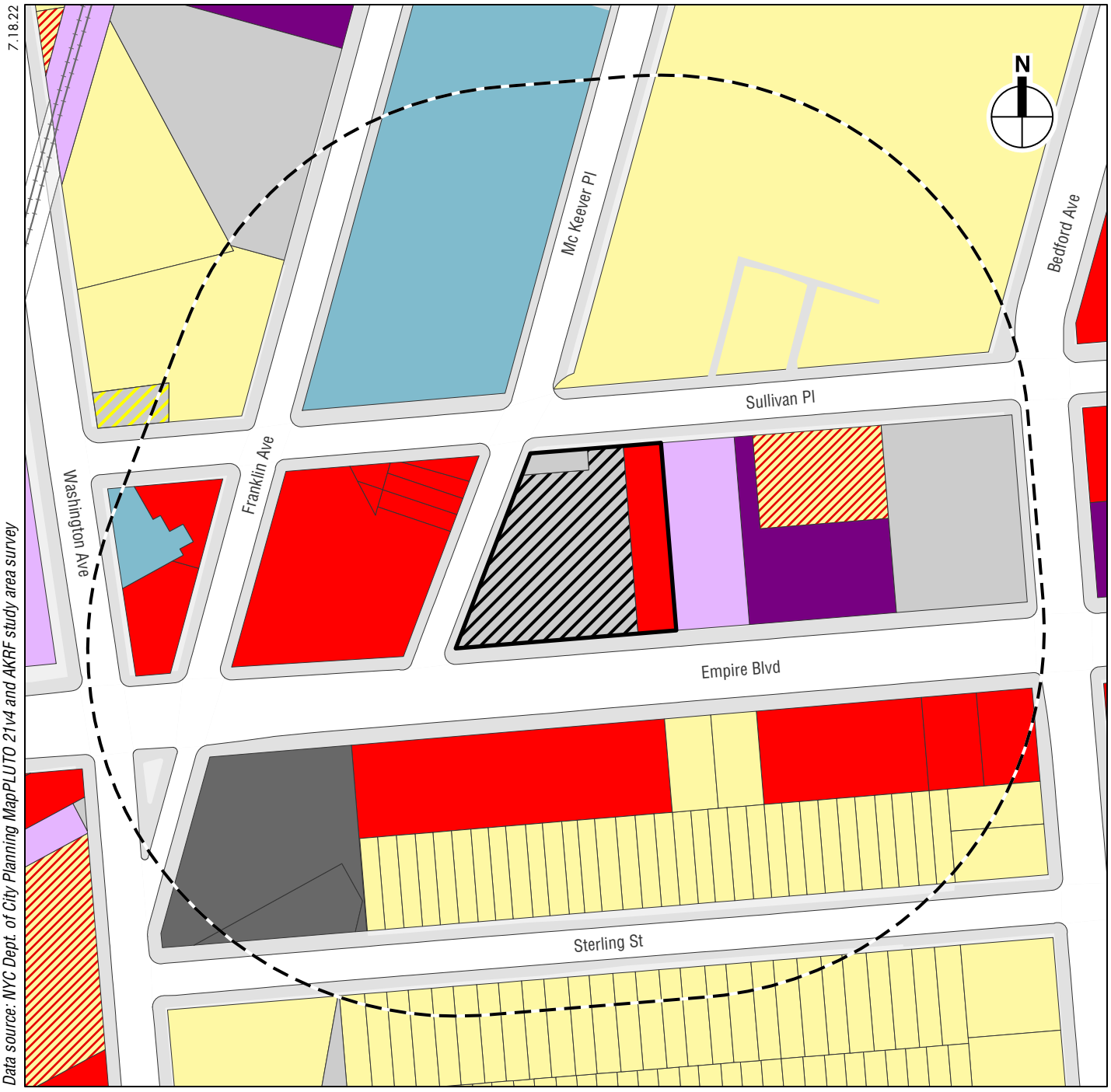
Figure 2



Existing and Proposed Zoning

73-99 EMPIRE BOULEVARD

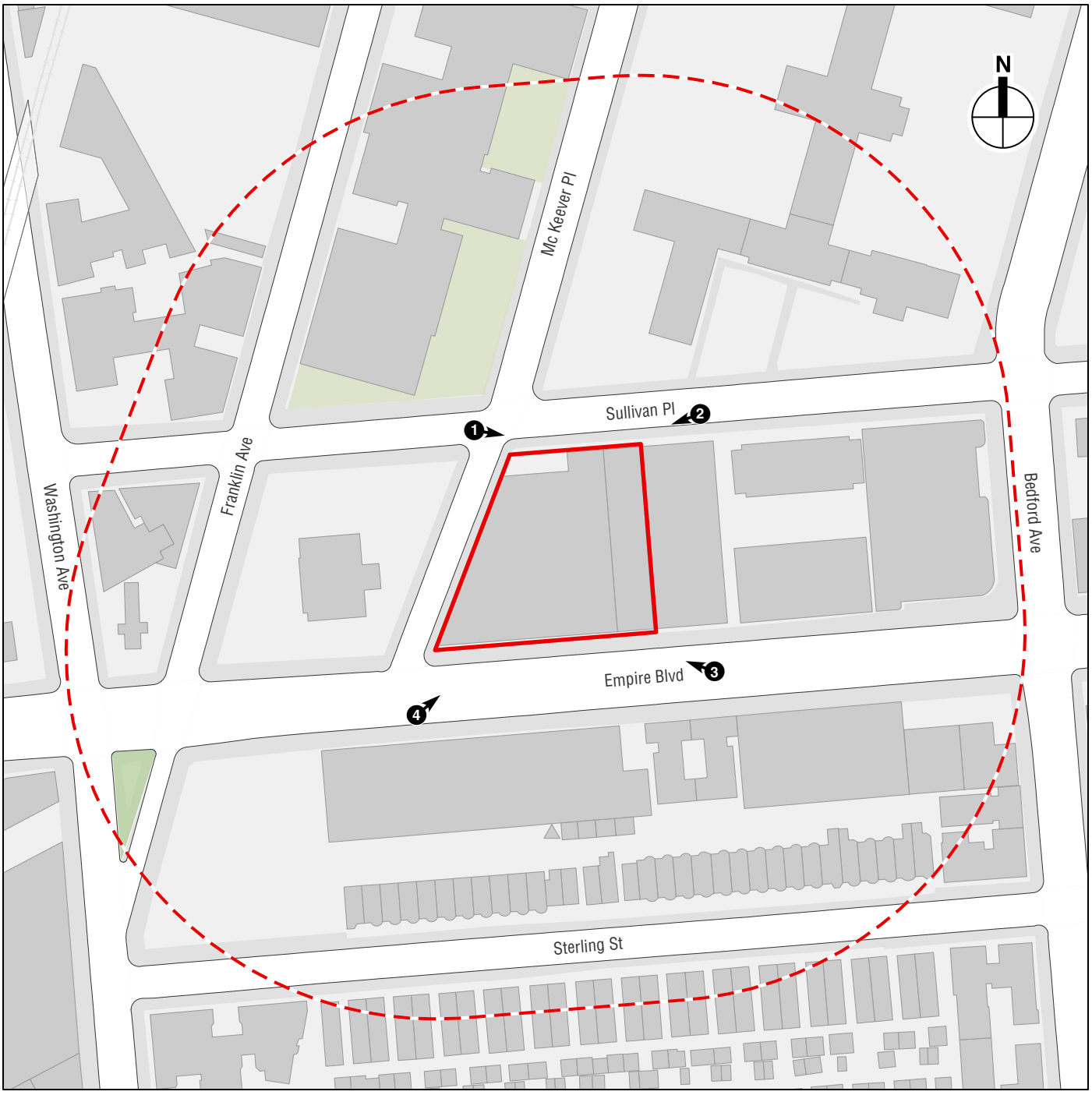
Figure 3



Existing Land Use

73-99 EMPIRE BOULEVARD

Figure 4



Key to Photographs

73-99 EMPIRE BOULEVARD

Figure 5



Project site, view east on Sullivan Place from McKeever Place **1**



Project site, view west on Sullivan Place **2**

Project Site Photographs

Figure 6a



Project site, view west on Empire Boulevard **3**



Project site, view northeast on Empire Boulevard at McKeever Place **4**

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 718

NUMBER OF ADDITIONAL WORKERS:
Retail = 225
Supermarket = 97
Residential = 11
Total = 333

Provide a brief explanation of how these numbers were determined: *Building also includes approximately 39,596 gsf of parking (191 spaces) and 3,506 gsf mechanical space.

The number of additional residents was calculated by multipliying the number of units (285) times the average household size for Community District 9 (2.52 persons per household) as determined by the 2020 United States Census. Worker numbers were calculated using the following generic employment generation factors: Supermarket: 250 sf/employee; Retail: 333 sf/employee; Residential: 1/25 units.

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

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

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly: Absent the Proposed Actions the Applicant would develop the Project Site with a new 2-story, approximately 114,354 gsf commercial building. The No Action development would contain approximately 72,878 gsf of retail use above grade, and approximately 182 accessory parking spaces in a below-grade facility. The ground floor would contain local neighborhood retail and supermarket uses, while the second floor would contain destination retail use. See Attachment A, "Project Description and Screening Analyses" for more information.

9. *Analysis Year* CEQR Technical Manual Chapter 2

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

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Less than 24 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

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

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

Part II: TECHNICAL ANALYSIS

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

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☒	☐
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. 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 200 or more residential units?	☒	☐
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Early Childhood Programs:** 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)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
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?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment F		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☒	☐
○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking Form, and submit according to its instructions. See Appendix B		
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) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) 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?	☐	☒
(d) 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 the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) 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?	☒	☐
(f) 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)?	☒	☐
(g) 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?	☐	☒
(h) 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?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: Automotive-related - gasoline UST and repair. Hydraulic lifts. Equipment manufacturing	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? See Attachment H for summary of Phase II investigation	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 66,487		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 52,136,333		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry 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), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ 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, or Citywide Ferry Service landing?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Attachment J	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		

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

SIGNATURE

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

A. INTRODUCTION

Empire Boulevard Holdings LLC (the "Applicant") is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") subject to City Planning Commission (CPC) approval to facilitate the development of a mixed-use building with affordable housing (the "Proposed Project") at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9.

The Proposed Actions include a zoning map amendment that would rezone the Project Site from the existing mix of C8-2 and R6/C1-3 zoning on the site to C4-4D. The Proposed Actions 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 the Proposed Project, a 13-story (145-foot tall), approximately 384,429 gross-square-foot (gsf) mixed-use building containing affordable housing to be built on the Project Site. The Proposed Project would include approximately 285 dwelling units (approximately 86 of which would be permanently affordable), approximately 99,221 gsf of commercial uses split between approximately 24,160 gsf of supermarket use and 75,061 gsf of destination retail use, and approximately 191 accessory parking spaces in an underground garage.

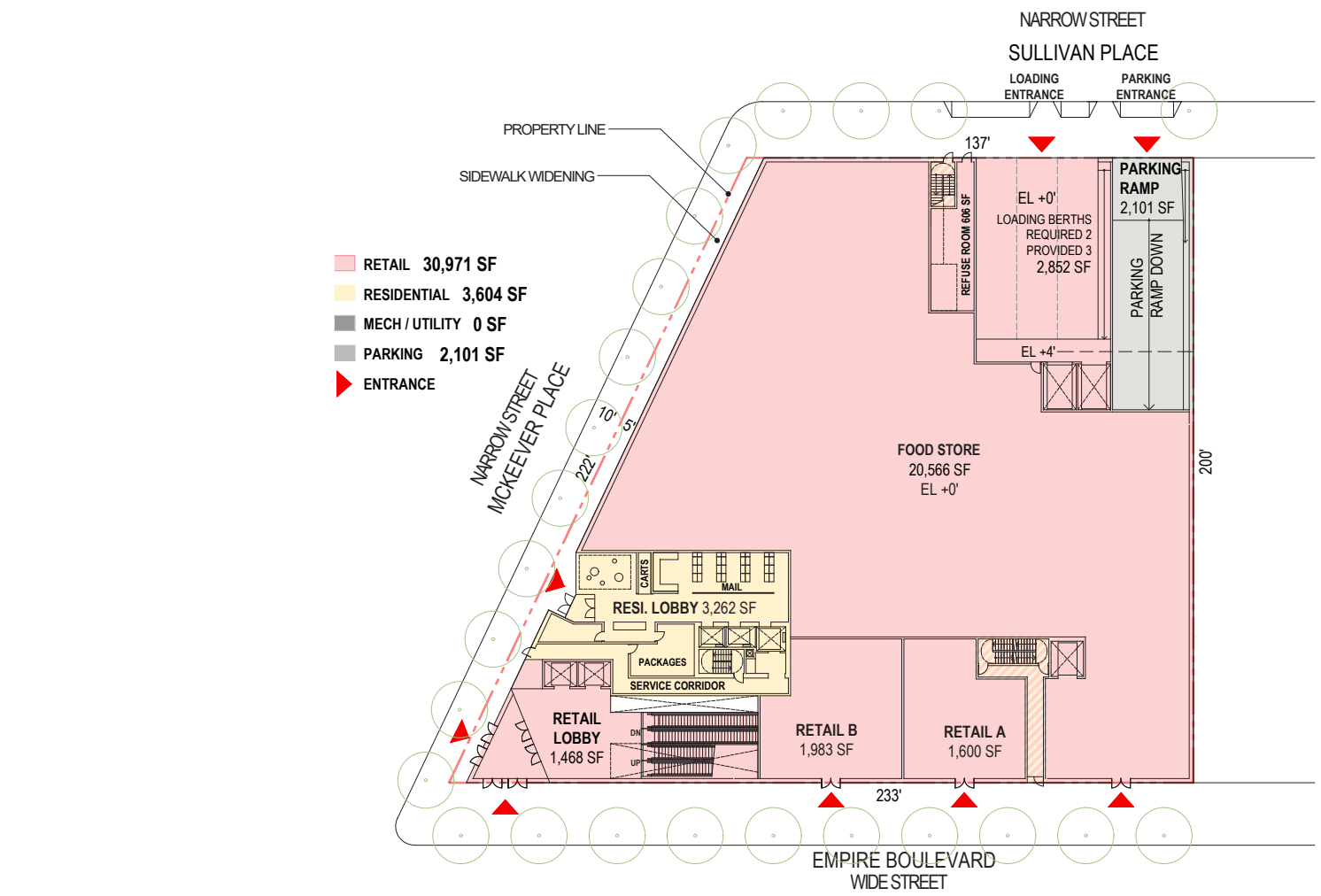
B. PROJECT DESCRIPTION

DESCRIPTION OF THE PROJECT SITE

The approximately 38,118-square-foot (sf) Project Site consists of Block 1306, Lot 28, and is controlled by the Applicant. The Project Site is bordered by Sullivan Place to the north, Empire Boulevard to the south, and McKeever Place to the west; commercial and residential structures are located to the east. Lot 28 contains two buildings, a 1-story, approximately 30,679-sf vacant commercial building, built in 1952 and a 1-story, approximately 8,000-sf commercial building currently occupied by a laundromat that was built in 1925. Lot 28 also contains 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place.

DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Actions would facilitate the development of the Proposed Project, a new 13-story mixed-use building with residential (including affordable housing), retail, and office uses as well as accessory parking (see **Figures A-1 and A-2**). The Proposed Project would include approximately 384,429 gross square feet (gsf) of floor area (approximately 274,166 zoning square feet, a floor to area ratio [FAR] of 7.2). It would contain approximately 285 dwelling units (DUs), approximately 86 of which would be permanently affordable, and approximately 99,221 gsf of commercial uses in the cellar and on the first and second floors consisting of approximately 24,168 gsf of supermarket use and approximately 75,053 gsf of destination retail use. Additionally, approximately 191 accessory parking spaces would be located in an underground garage. DUs



GROUND FLOOR LEVEL

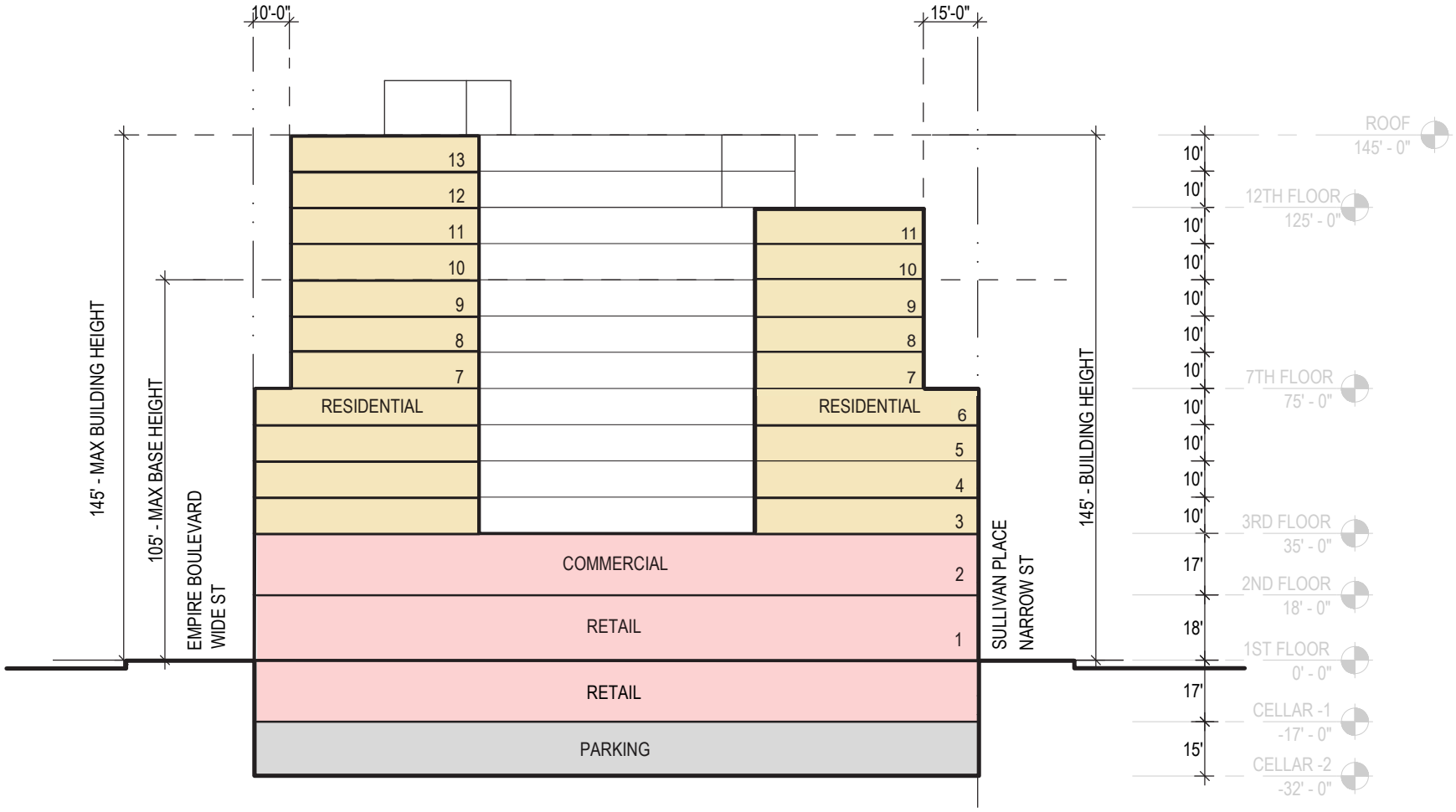
Source: S9 Architecture

Proposed Project Ground Floor Plan

73-99 EMPIRE BOULEVARD

Figure A-1

4.1.23



Source: S9 Architecture

Proposed Project Section

73-99 EMPIRE BOULEVARD

Figure A-2

would consist of a mix of studio, 1-, 2-, and 3-bedroom units. Three loading berths would be provided along Sullivan Place, and cars would be able to access the underground garage via a 24-foot-wide curb cut along Sullivan Place.

The Proposed Project would reach a total height of 145 feet, rising 75 feet before setting back 10 feet along Empire Boulevard. The northern portion of the building with street frontage on Sullivan Place would rise to 75 feet before setting back 15 feet in deference to the lower-density residential context on Sullivan Place.

C. PROPOSED ACTIONS

The following actions are necessary to facilitate the Proposed Project:

1. An amendment to Zoning Map 16d to rezone the Project Area from the existing mix of C8-2 and R6/C1-3 zoning to a C4-4D zoning district (see EAS Figure 3).
2. A Zoning Text Amendment to ZR Appendix F to designate the Project Area as a Mandatory Inclusionary Housing Area (MIHA). Within this MIHA, all new developments, enlargements, and conversions that provide residential floor area will have to comply with the MIH program requirements of either Option 1 or 2.

The above-referenced actions are subject to approval by CPC pursuant to the Uniform Land Use Review Procedure (ULURP).

D. PURPOSE AND NEED

The Proposed Actions are being proposed to facilitate the development of the Proposed Project described above, the goal of which is to provide housing, including affordable housing, as well as retail and office uses that existing zoning permits. The change in permitted uses and increase in bulk and density would achieve these goals. The change in zoning is required as the existing C8-2 zoning district along Empire Boulevard does not permit any residential uses as-of-right, and the existing R6/C1-3 zoning district along Sullivan Place does not permit the desired commercial uses with the desired FAR. A uniform zoning district across the entire zoning lot would facilitate a more efficient and workable commercial and residential program that would not be disrupted by different zoning districts with differing regulations cutting through the middle of the zoning lot.

The Proposed Development would include approximately 86 affordable DUs. The inclusion of affordable housing is in keeping with the Housing New York 2.0 initiative introduced by the de Blasio Administration to build or preserve 300,000 affordable residential units by 2026. In sum, the Applicant believes that the Proposed Actions would benefit the neighborhood greatly and achieve important public policy objectives.

E. FRAMEWORK FOR ANALYSIS

This document has been prepared in accordance with the guidelines presented in the *2021 CEQR Technical Manual*. For each technical area, the analysis includes a description of existing conditions and an assessment of conditions in the future with and without the Proposed Actions (the "With Action" and "No Action" conditions, respectively).

REASONABLE WORST CASE DEVELOPMENT SCENARIO (RWCDS)

To assess the possible effects of the Proposed Actions, a Reasonable Worst-Case Development Scenario (RWCDS) was developed to account for existing conditions, the Future without the Proposed Actions (No Action condition) and the Future with the Proposed Actions (With Action condition). The incremental difference between the future No Action condition and future With Action condition serves as the basis for identifying potential environmental impacts, as described below. The Proposed Actions would affect only the Project Site.

ANALYSIS YEAR

The assumed analysis year or "build year" for the Proposed Actions (i.e., when the Proposed Project is expected to be constructed and occupied) is 2026. This assumes ULURP approvals in 2023 followed by the start of construction on the Proposed Project, beginning in 2023 and ending in 2025, with full occupancy and lease-up by 2026.

EXISTING CONDITION

The analysis framework begins with an assessment of the existing conditions on the Project Site and within the surrounding area (typically the area within 400 feet of the Project Site). The assessment of existing conditions does not represent the condition against which the Proposed Project is measured, but generally serves as a starting point for the projection of future conditions with or without the Proposed Project and the analysis of project impacts.

The approximately 38,118-sf Project Site is currently occupied by a 1-story, approximately 30,679-sf vacant commercial building, a 1-story, approximately 8,000-sf commercial building currently occupied by a laundromat, and 1,355 sf of vacant land at the corner of McKeever Place and Sullivan Place.

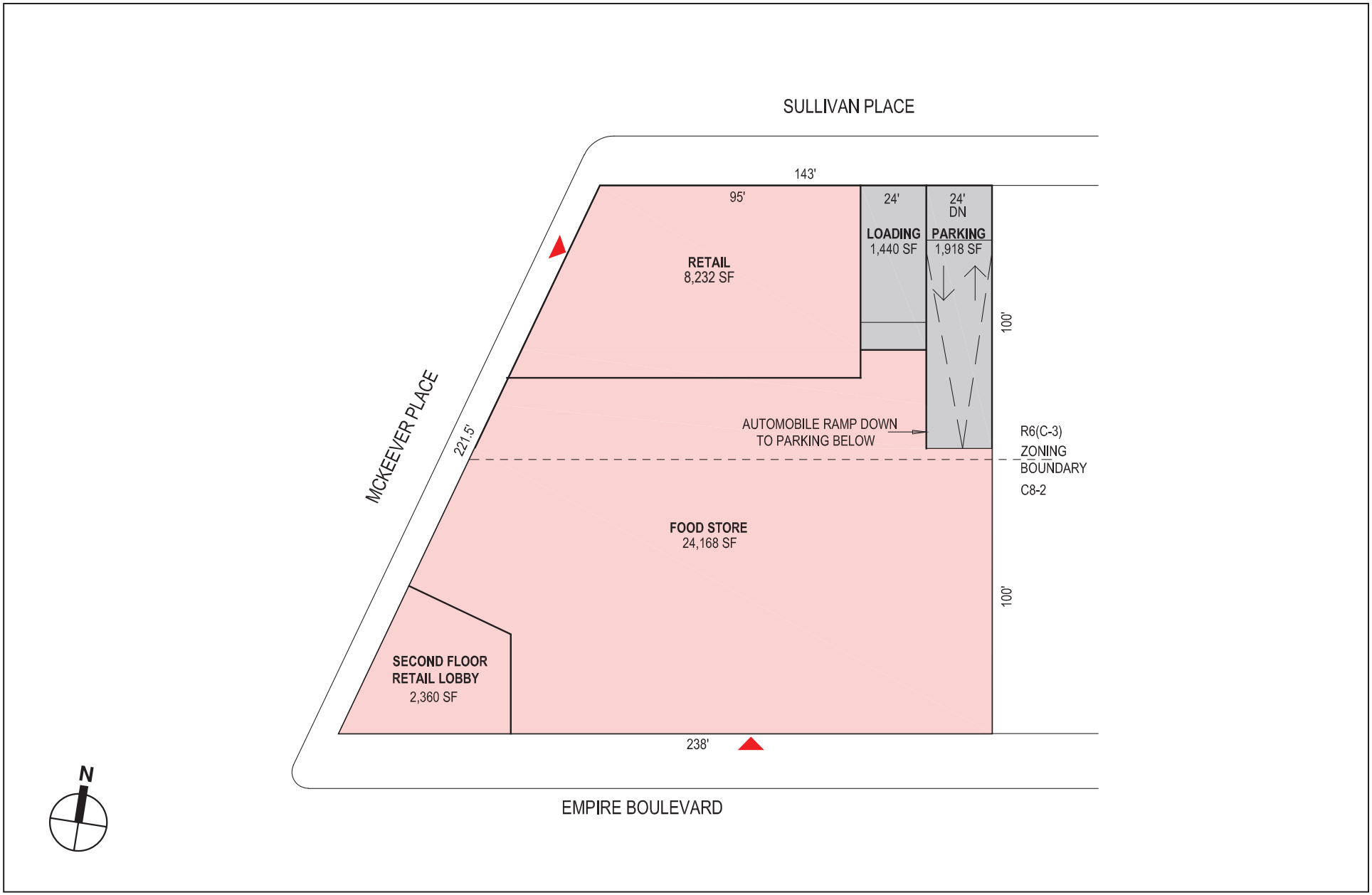
FUTURE WITHOUT THE PROPOSED ACTIONS

The future condition without the Proposed Actions (the "No Action" condition) describes a future baseline condition to which changes that are expected to result from the Proposed Actions are compared. Absent the Proposed Actions, the Applicant would redevelop the Project Site as-of-right with a new two-story (40-foot-tall), approximately 114,534-gsf (1.9 FAR) commercial building. The No Action development would contain approximately 72,878 gsf of retail use above grade, and approximately 182 accessory parking spaces in a below-grade facility (see **Figure A-3**). The ground floor would contain local neighborhood retail and supermarket uses, while the second floor would contain destination retail use. Specifically, there would be approximately 8,232 gsf of local retail use, 24,168 gsf of supermarket use, and 40,478 gsf of destination retail use (including the approximately 2,360 gsf second floor retail lobby space).

FUTURE WITH THE PROPOSED ACTIONS

The future with the Proposed Actions (the "With Action" condition) describes the future condition in which the Proposed Actions are approved and implemented, and the Proposed Project is completed and operational. In the With Action condition, the Proposed Project would be developed on the Project Site as described above. The Proposed Project would include a mixed-use residential building with approximately 285 DUs (including approximately 86 affordable DUs), approximately 99,221 gsf of commercial uses (approximately 24,168 gsf of supermarket

10.4.22

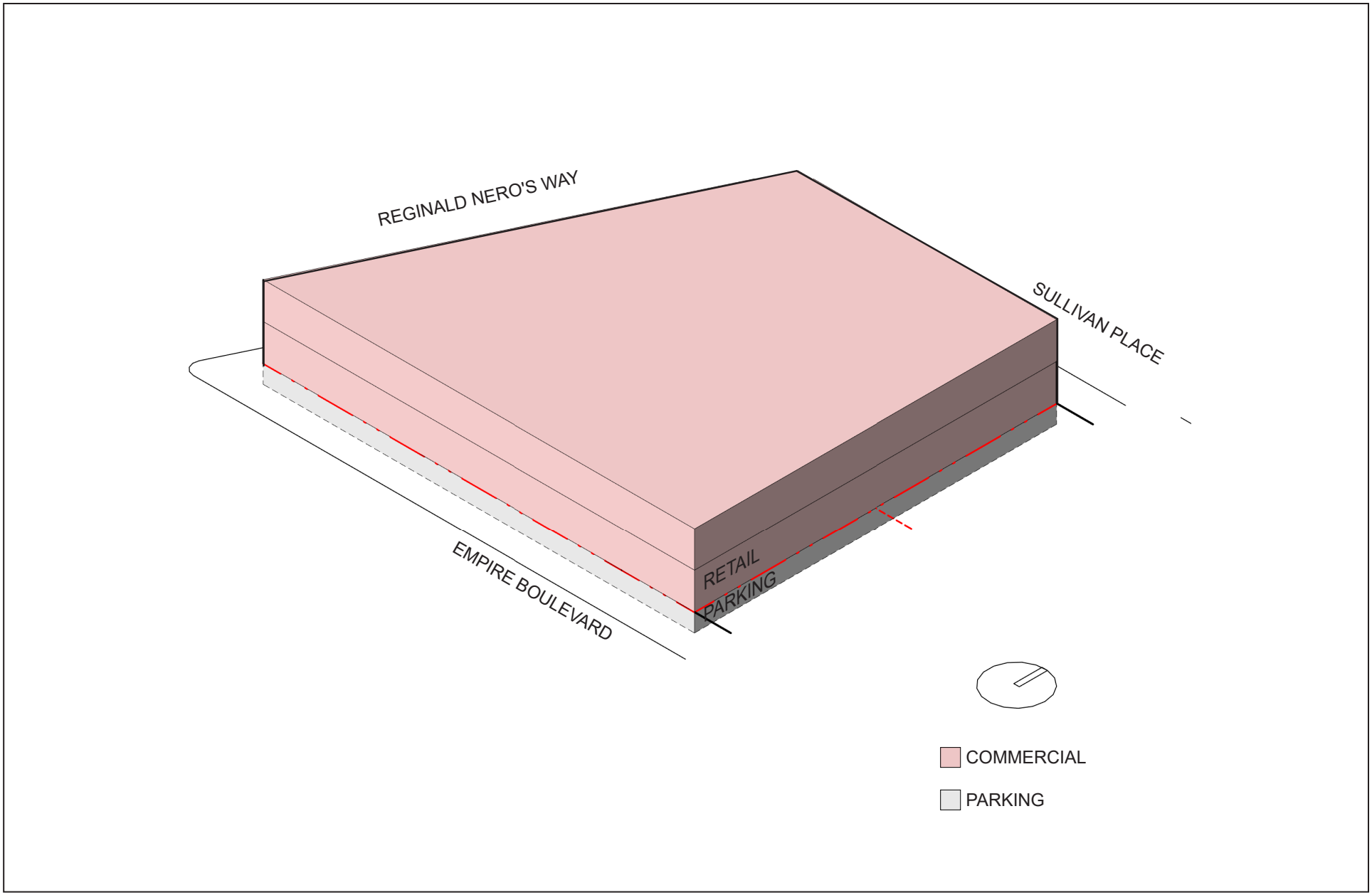


Source: S9 Architecture

No Action Development Ground Floor Plan

73-99 EMPIRE BOULEVARD

Figure A-3



Source: S9 Architecture

No Action Development Massing

use and approximately 75,061 gsf of destination retail use), and approximately 191 accessory parking spaces. The building would reach a total height of 145 feet, with a base height of 75 feet.

INCREMENT FOR ANALYSIS

The increment of analysis is the difference between the With Action and No Action conditions the Project Site. In total. the Proposed Actions would result in an incremental increase of approximately 285 DUs (including approximately 86 affordable DUs), approximately 26,343 gsf of retail space, and approximately nine accessory parking spaces (see **Table A-1**).

Table A-1
Increments for Analysis

Use	No Action Condition	With Action Condition	Increment
Dwelling Units	0	285[1]	+285
Affordable Dwelling Units	0	86	+86
Retail GSF	48,710	75,061	+26,343
Supermarket GSF	24,168	24,168	+0
Accessory Parking Spaces	182	191	+9

Source: Empire Boulevard Holdings, LLC
Note: [1] The number of proposed DUs is based on DCP's standard metric of 850 gsf per DU.

F. SCREENING ANALYSES

All analyses were performed in accordance with the guidance contained in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*. For the environmental categories under which the Proposed Actions 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; socioeconomics, open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; transportation; air quality; and noise are provided as supplemental attachments to the 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.

COMMUNITY FACILITIES

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*:

- Schools/Child Care Facilities: The Proposed Actions would introduce up to 31 new elementary/middle school students and up to 14 new high school students. This is less than the *CEQR Technical Manual* thresholds for analysis of schools (50 elementary/middle school students and 150 high school students). Similarly, the number of proposed affordable DUs (86) is less than the *CEQR Technical Manual* threshold of 110 affordable DUs in Brooklyn

that would require an analysis. Therefore, the Proposed Actions would not result in significant adverse impacts to schools or childcare facilities in the area and no further analyses are warranted.

- Libraries: Analysis is required when a project would add 734 or more residential units in Brooklyn. The Proposed Actions would introduce up to approximately 285 units, less than the *CEQR Technical Manual* threshold for analysis, and therefore, no further analysis is 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 necessary.

NATURAL RESOURCES

A natural resources assessment is conducted when a natural resource is present on or near the project site and when an action involves the disturbance of that resource. The *CEQR Technical Manual* defines natural resources as water resources, including surface water bodies and groundwater; wetland resources, including freshwater and tidal wetlands; upland resources, including beaches, dunes, and bluffs, thickets, grasslands, meadows and old fields, woodlands and forests, and gardens and other ornamental landscaping; and built resources, including piers and other waterfront structures. The Project Area is occupied by existing buildings and a small vacant area and is located in a fully developed area in Brooklyn. There are no significant natural resources on the site, and the Proposed Actions would not result in any significant adverse impacts on natural resources. The Project Site is located within the Jamaica Bay Watershed; see **Appendix B** for the Jamaica Bay Watershed Protection Plan Project Tracking Form.

WATER AND SEWER INFRASTRUCTURE

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

SOLID WASTE

The *CEQR Technical Manual* specifies that few projects generate substantial amounts of solid waste (50 tons a week or more) that would result in a significant adverse impact. *CEQR Technical Manual* Table 14-1 "Solid Waste Generation Rates" provides solid waste generation rates for various uses. Based on the rates presented in Table 14-1, it is estimated that the Proposed Actions would result in the generation of approximately 33 additional tons of solid waste per week. Therefore, the Proposed Actions are not expected to result in the production of more than 50 tons of additional solid waste requiring further analysis, and the Proposed Actions would not result in any significant adverse impacts to solid waste and sanitation services.

ENERGY

According to the *CEQR Technical Manual*, a detailed assessment of energy impacts would be limited to actions that could significantly affect the transmission or generation of energy or that generate substantial consumption of energy. The *CEQR Technical Manual* Table 15-1 provides guidance on calculating projected energy needs for various building types by square foot. Based on this guidance, the Proposed Actions are expected to result in the demand for 52,136,333 British Thermal Units (BTUs) per year. The Project Area would be served by available energy suppliers, and the Proposed Actions are not expected to generate a significant demand for energy as defined under CEQR. Therefore, no further analysis is required, and the Proposed Actions would not result in significant adverse impacts to the consumption or supply of energy.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

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

PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. As discussed throughout this EAS, the Proposed Actions would not result in any significant adverse impacts in these areas (see also Attachment H, "Hazardous Materials," Attachment J, "Air Quality", and Attachment K, "Noise"). Therefore, the Proposed Actions would not result in any significant adverse impacts to public health, and further assessment is not warranted.

NEIGHBORHOOD CHARACTER

According to the *CEQR Technical Manual*, an analysis of neighborhood character is warranted when a proposed project has the potential to alter certain elements contributing to the affected area's neighborhood character. The elements that define neighborhood character are described in other technical analysis areas—land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. Following *CEQR Technical Manual* guidance, a preliminary assessment of neighborhood character may be appropriate if the analysis finds that the project would have the potential to result in any significant adverse impacts in these technical areas.

As discussed throughout this EAS, the Proposed Actions would result in limited changes to the Project Area that would have the potential to adversely affect neighborhood character, and would not result in any significant adverse impacts in the areas that contribute to neighborhood character. Therefore, the Proposed Actions would not have the potential to result in a significant adverse impact to neighborhood character, and further assessment is not warranted.

CONSTRUCTION

As with all construction projects, construction activities associated with the Proposed Project would result in temporary disruptions to the surrounding area, including occasional noise and dust. However, such effects would be temporary and would be limited to the construction period. The Proposed Project would result in the construction of a new mixed-use development with frontage on Sullivan Place, Empire Boulevard, and McKeever Place. The construction components and logistics for the Proposed Project would not be substantially different than other construction done within the area. The Proposed Project would be constructed in a single phase with an anticipated construction period of approximately 24 months (see **Appendix C**) and would be considered short-term (i.e., less than 2 years) in accordance with the *CEQR Technical Manual*.

Construction resulting from the Proposed Actions 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 construction hours, necessary approvals would be obtained from the appropriate agencies (i.e., the New York City Department of Buildings). During construction of the Proposed Project, all necessary measures would be implemented to ensure adherence to the New York City Department of Environmental Protection (DEP)'s *Construction Dust Rules* to minimize construction-related dust emissions. In addition, the construction of the Proposed Project would comply with applicable control measures for construction noise. Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency (EPA) noise emission standards for construction equipment. These federal and local requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards. Furthermore, during construction of the Proposed Project, Maintenance and Protection of Traffic (MPT) plans would be developed for any curb-lane and/or sidewalk closures that may be required. Approval of these plans and implementation of all temporary closures during construction would be coordinated with the New York City Department of Transportation's (DOT) Office of Construction Mitigation and Coordination (OCMC).

As detailed in Attachment F, "Historic and Cultural Resources," there are no known architectural resources within 90 feet of the Project Site. Therefore, no architectural resources in the study area are anticipated to be directly affected by the construction of the Proposed Project.

As discussed in more detail in Attachment H, "Hazardous Materials," given the age of the existing buildings, the two remaining buildings may include asbestos-containing materials ACM), lead-based paint (LBP) and other hazardous materials. The structures. would be surveyed for ACM by a NYC-certified asbestos investigator and any asbestos-containing materials would be removed and disposed of prior to building demolition in accordance with local, state, and federal requirements. Demolition would be performed in accordance with applicable LBP requirements (including federal OSHA regulation 29 CFR 1926.62–Lead Exposure in Construction). Also, unless there is labeling or test data indicating that any suspect polychlorinated biphenyl (PCB)-containing electrical equipment and fluorescent lighting fixtures do not contain PCBs, and that any fluorescent lighting bulbs do not contain mercury, disposal of these items would be conducted in accordance with applicable federal, state, and local requirements. Following demolition, a Construction Health and Safety Plan (CHASP) would be prepared for implementation during construction of the Proposed Project. The CHASP would include measures to protect workers and the public from exposure to contamination during construction activity. The CHASP would be submitted to DEP for review and approval prior to the commencement of construction at the Project Site.

Overall, the duration and severity of potential construction effects would be short-term and adverse effects associated with the proposed construction activities would be minimized through implementation of the measures described above. Accordingly, the Proposed Actions would not result in significant adverse impacts during construction, 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 and Screening Analyses," the Proposed Actions would facilitate the construction of a 13-story mixed-use building containing residential, retail, and supermarket uses (the "Proposed Project") on the Project Site at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhoods of Brooklyn, Community District 9 (Block 1306, Lot 28). The Proposed Actions include a zoning map amendment and zoning text amendment. The assessment concludes that the Proposed Actions would be compatible with existing uses in the surrounding area and would not result in any significant adverse impacts to land use, zoning, or public policy.

B. METHODOLOGY

The Project Site is located on the border of the Crown Heights/Prospect Lefferts Gardens neighborhoods of Brooklyn. Consistent with the guidance of the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, this analysis assesses the area within 400 feet of the Project Site, the area within which the Proposed Actions could reasonably be expected to cause potential effects to land use, zoning, and public policy. The land use study area is generally bound by the midblock portion between Sullivan Place and Montgomery Street to the north, Bedford Avenue to the east, Sterling Street to the south, and Washington Avenue to the west (see **Figure B-1**).

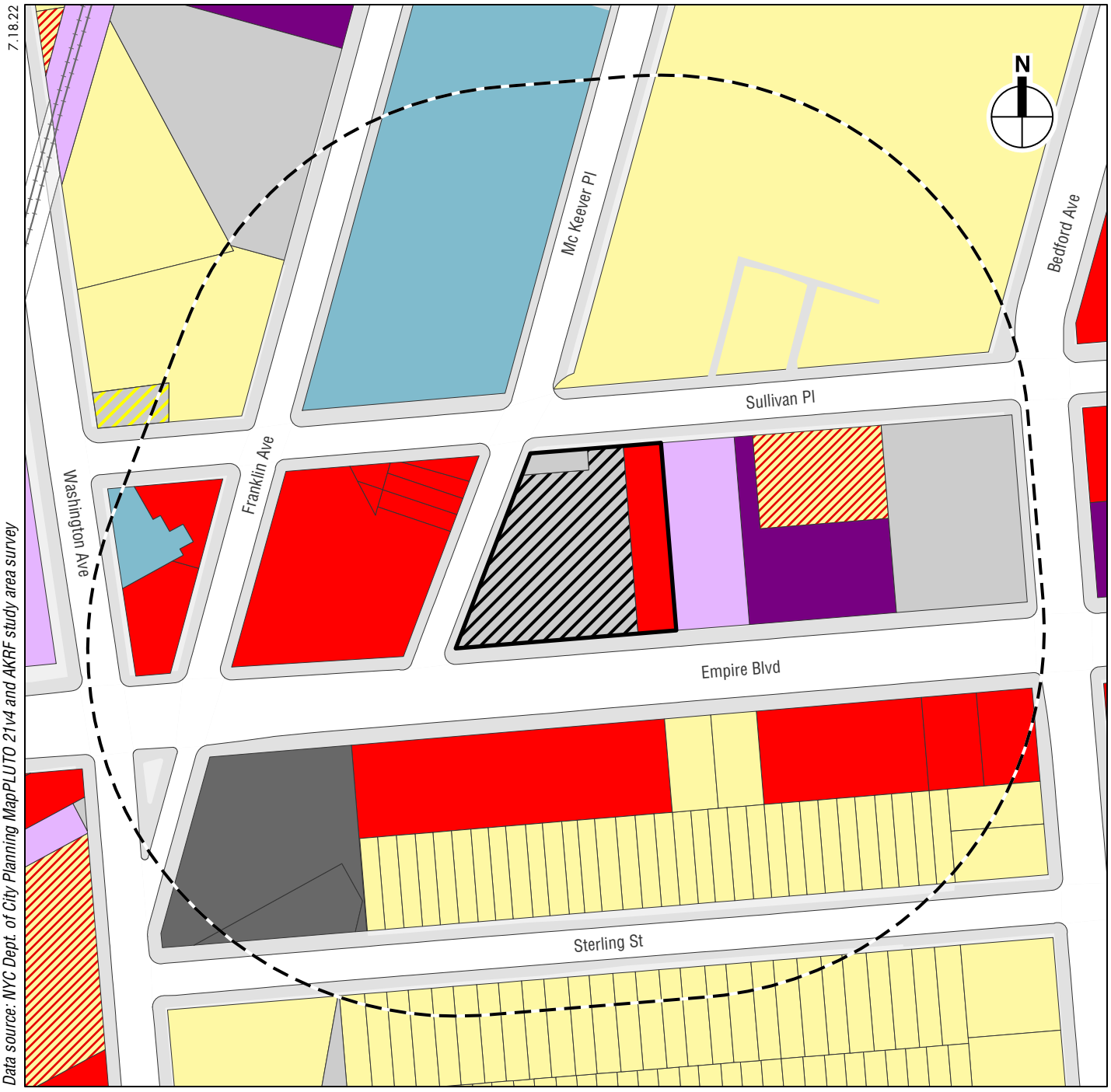
The analysis begins by considering existing conditions in the study area in terms of land use, zoning, and public policy. The analysis then considers land use, zoning, and public policy in the No Action condition in the 2026 analysis year by identifying developments and potential policy changes expected 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 SITE

The Project Site is a 38,118-square foot (sf) site consisting of Block 1306, Lot 28, bordered by Empire Boulevard to the south, McKeever Place to the west, Sullivan Place to the north, and commercial and residential structures to the east. The site is currently owned by the Applicant and contains two buildings, a 1-story, approximately 30,679-sf commercial building that is currently vacant and a 1-story, approximately 8,000-sf commercial building built in 1925, currently



Existing Land Use

73-99 EMPIRE BOULEVARD

Figure B-1

occupied by a laundromat. The Project Site also includes 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place.

STUDY AREA

The 400-foot study area is mainly composed of a mix of residential, commercial, and community facility uses, with building types ranging from single-story commercial buildings to 25-story residential towers. The study area also contains transportation and utility, industrial and manufacturing, parking, and vacant land uses. Empire Boulevard, a major throughfare in the area, bifurcates the study area.

The remainder of the Project Site block extends eastward to Bedford Avenue and contains a single-story automotive garage, a three-story self-storage building on Empire Boulevard, a six-story apartment building with ground floor retail uses on Sullivan Place, and a vacant site on Bedford Avenue where a single-story former automotive garage was located until being demolished recently. The block to the northeast of the Project Site contains the Ebbets Field Apartments, a 25-story apartment building containing approximately 1,300 housing units. The block to the northwest of the Project Site contains the four-story P.S. 375 Jackie Robinson School, as well as the Jackie Robinson Playground to the north of the school (outside the study area). West of the school across Franklin Avenue is a six-story apartment building, a large, fenced vacant lot, and an under-construction residential building at the corner of Sullivan Place and Washington Avenue.

The block to the west of the Project Site is occupied by a single-story McDonalds drive-thru restaurant with on-site parking, and the block further to the west is occupied by a single-story commercial building on its northern portion, a single-story building in use by the Gospel Truth Church of God on its western portion, and a single-story Checkers drive-thru restaurant on its southern portion. The block to the south of the Project Site extending between Washington Avenue and Bedford Avenue contains a parking lot on its westernmost portion and single-story commercial buildings on its Empire Boulevard frontage. Two six-story apartment buildings are also located on the block's Empire Boulevard frontage and two four-story apartment buildings are located at the block's southeast corner. The southern portion of the block, fronting on Sterling Street, contains two-story row houses. Two-story semi-detached houses are located on the south side of Sterling Street, in the southernmost portion of the study area.

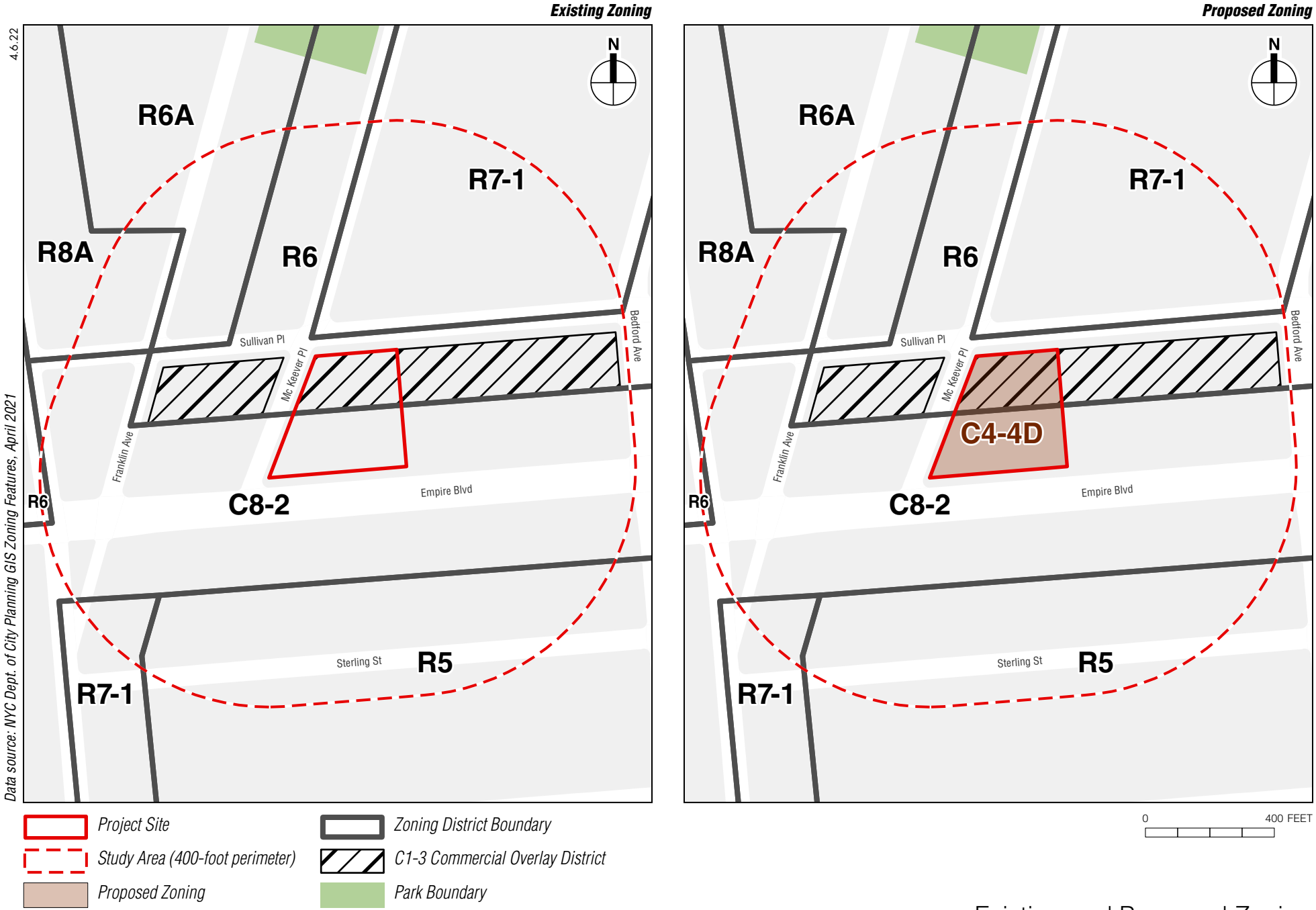
ZONING

PROJECT SITE

The Project Site is split between a C8-2 commercial district on its southern portion and an R6 residential district with a C1-3 commercial overlay on its northern portion (see **Figure B-2**).

C8-2 districts are medium-density commercial zoning districts that allow for buildings to be developed up to a floor to area ratio (FAR) of 2.0 for commercial uses or 4.8 for community facility uses. C8 districts are intended to allow for automotive and other heavy commercial services that require large amounts of land such as automotive repair facilities. Heights are controlled by a sky exposure plane, which slopes inwards over the lot and cannot be penetrated. Residential uses are not permitted in C8-2 districts.

R6 districts are medium-density residential zoning districts. A wide variety of residential buildings can be developed in R6 districts under either Height Factor or Quality Housing bulk regulations. Height Factor regulations permit buildings to be developed up to an FAR of 0.78-2.43, depending



73-99 EMPIRE BOULEVARD

Existing and Proposed Zoning

Figure B-2

on the amount of open space provided. Heights are controlled by the sky exposure plane. Quality Housing regulations allow buildings to be developed to a residential FAR of up to 2.2 on a narrow street or 3.0 on a wide street, with height limits of 55 feet on a narrow street or 70 feet on a wide street. Buildings are permitted to rise 40-60 feet before setting back on a wide street or 30-45 feet on a narrow street. Up to 4.8 FAR of community facility uses is permitted within R6 districts under either set of bulk regulations.

C1-3 overlays are commercial overlays mapped within residential districts to allow development that serves local retail needs. Within an R6 residential district, up to 2.0 FAR of commercial development is permitted. Any commercial uses must be located below residential uses.

The Project Site and study area are located within Brooklyn Community District 9, the entirety of which is within the Transit Zone. The Transit Zone consists of areas of the City that are well-served by public transportation with low car ownership rates. Within the Transit Zone, lower accessory parking requirements apply for affordable housing.

STUDY AREA

In addition to the R6 residential district, C8-2 commercial district, and C1-3 commercial overlay described above, the study area also contains R5, R6A, R7-1, and R8A residential zoning districts.

The R5 residential district is located in the southern portion of the study area. R5 districts are low- to medium-density residential districts that provide for smaller attached houses and apartment buildings. These districts permit a maximum residential FAR of 1.25 and a maximum community facility FAR of 2.0. Buildings within R5 districts can be up to 40 feet tall.

R6A districts are similar to the R6 districts described above, but the application of Quality Housing bulk regulations is mandatory to facilitate buildings set at or near the street line. These districts are often found in medium-density areas of the City with older buildings. R6A districts permit a residential and community facility FAR of up to 3.0, a maximum building height of 70 feet, and a base height before setback of 40-60 feet. The R6A district within the study area is mapped to the northwest of the Project Site.

R7-1 districts are medium-density residential districts that facilitate the development of apartment buildings. Like the R6 district described above, buildings may be developed under either Height Factor or Quality Housing bulk regulations. Under Height Factor regulations, residential uses may be developed to a maximum FAR of 0.87-3.44, depending on the amount of open space provided, with heights governed by the sky exposure plane. Under Quality Housing regulations, residential uses may be developed to a maximum FAR of 4.0 on a wide street or 3.44 on a narrow street. The maximum height permitted is 80 feet on a wide street or 75 feet on a narrow street, with a required setback between 40-65 feet on a wide street or 40-60 feet on a narrow street. Community facility uses may be developed up to an FAR of 4.8 under either set of bulk regulations. The R7-1 district within the study area is mapped to the northeast of the Project Site, covering the site of the Ebbets Field Apartments, and to the southwest along Washington Avenue.

R8A districts are high-density contextual residential zoning districts intended to produce apartment buildings set at or near the street line. Residential uses within R8A districts may be developed up to a maximum FAR of 6.02 and community facility uses may be developed up to a maximum FAR of 6.5. The maximum height permitted is 120 feet, with a setback required between 60-85 feet. The R8A district within the study area is located to the northwest of the Project Site.

Table B-1
Zoning Districts in the Land Use Study Area

Zoning District	Maximum FAR[1]	Uses/Zone Type
Residential Districts		
R5	1.25 residential; 2.0 community facility	Low- to medium-density residential district that facilitates attached houses and smaller apartment buildings.
R6	0.78-3.0 residential; 4.8 community facility	Medium-density residential district that facilitates a wide variety of residential buildings.
R6A	3.0 residential; 3.0 community facility	Medium-density contextual residential district that facilitates residential buildings set at or near the street line.
R7-1	0.87-4.0 residential; 4.8 community facility	Medium-density residential district that facilitates apartment buildings.
R8A	6.02 residential; 6.5 community facility	High-density contextual residential district that facilitates residential buildings set at or near the street line.
Commercial Districts / Overlays		
C8-2	2.0 commercial; 4.8 community facility	Medium-density commercial district that facilitates heavy commercial uses requiring large areas.
C1-3	2.0 commercial	Commercial overlay mapped in residential districts.

Note:
[1] Floor area ratio (FAR) is a measure of density establishing the amount of development allowed in proportion to the lot area. For example, a lot of 10,000 square feet with a FAR of 1 has an allowable building area of 10,000 square feet. The same lot with an FAR of 10 has an allowable building area of 100,000 square feet.
Source: *New York City Zoning Resolution.*

PUBLIC POLICY

HOUSING NEW YORK/YOUR HOME NYC

On May 5, 2014, the de Blasio administration released Housing New York, a plan intended to build and preserve 200,000 affordable homes over the coming decade to support New Yorkers with a range of incomes. In 2017, the de Blasio administration released Housing New York 2.0, an updated and expanded plan that increased the City's goal to 300,000 affordable homes by 2026 and introduced new initiatives to achieve this goal. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites, facilitating homeownership, preventing displacement, creating more homes for seniors, protecting Mitchell-Lama moderate- and middle-income buildings, and utilizing innovative design techniques, such as modular building and micro-units.

In January 2020, Your Home NYC was launched—the next phase of Housing New York. The goals of Your Home NYC are to build and preserve affordable housing, create neighborhood wealth, and protect renters. Your Home NYC prioritizes building homes for the lowest income households, with a commitment that half of all City-financed projects with housing would be reserved for households making under $50,000. Other strategies include supporting community land trusts and legalizing basement and accessory apartments.

The current mayor, Eric Adams, is also anticipated to release his own housing plan in the near future.

ONENYC

In April 2007, the Mayor's Office of Long Term Planning and Sustainability released *PlaNYC: A Greener, Greater New York* (PlaNYC). Since that time, updates to PlaNYC have been issued that build upon the goals set forth in 2007 and provide new objectives and strategies. In 2015, *One New York: The Plan for a Strong and Just City* (OneNYC) was released by the Mayor's Office of Sustainability and the Mayor's Office of Recovery and Resiliency. OneNYC builds upon the sustainability goals established by PlaNYC and focuses on growth, equity, sustainability, and resiliency. In 2019, *OneNYC 2050: Building a Strong and Fair City* was released, which outlined the City's progress since 2015 on goals related to fairness, implementing progressive policies, providing global leadership, and securing a sustainable future. OneNYC 2050 has eight goals and 30 initiatives that broadly address committing to carbon neutrality by 2050, leading by example on climate change, and creating public spaces, health care, and policies that support low-income and working New Yorkers. The OneNYC 2050 plan also outlines a strategy for New York City's Green New Deal, which recognizes the connection between environmental and economic justice and focuses on creating good paying jobs, ensuring equitable access to nature, guaranteeing the right to quality healthcare and education, and promoting justice through the recognition and repair of damage caused by historic oppression of communities of color and other marginalized communities.

FRESH PROGRAM

The Project Site and surrounding study area are located within the Food Retail Expansion to Support Health (FRESH) zoning and tax incentive area. This special zoning designation provides zoning and financial 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 and tax incentives are discretionary and assessed on a per-case basis.

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

PROJECT SITE

In the No Action condition, in 2026, it is expected that the Applicant would redevelop the Project Site as-of-right with a new two-story (40-foot-tall), approximately 114,534-gsf (1.9 FAR) commercial building. The No Action development would contain approximately 72,878 gsf of retail use above grade, and approximately 182 accessory parking spaces in a below-grade facility. The ground floor would contain local neighborhood retail and supermarket uses, while the second floor would contain destination retail use. Specifically, there would be approximately 8,232 gsf of local retail use, 24,168 gsf of supermarket use, and 40,478 gsf of destination retail use (including the approximately 2,360 gsf second floor retail lobby space).

STUDY AREA

No changes to zoning or public policy are anticipated within the study area. There are two developments within the study area anticipated to be completed by the 2026 analysis year: 1

Sullivan Place and 1730 Bedford Avenue. The 1 Sullivan Place development is located to the northwest of the Project Site, at the northeast corner of Washington Avenue and Sullivan Place, will be 119 feet tall and include 52 DUs in a 119-foot-tall building. The development at 1730 Bedford Avenue is located on the Project Site block, to the east of the Project Site on Bedford Avenue. It is anticipated to be 94 feet tall and include 57 DUs, 39,596 sf for community facility uses, 55,997 sf for commercial uses, and 209 parking spaces (see **Appendix A**).

E. THE FUTURE WITH THE PROPOSED ACTIONS

LAND USE

PROJECT SITE

Approval of the Proposed Actions would facilitate the development of the Proposed Project, a new 13-story mixed-use building with residential (including affordable housing), retail, and office uses as well as accessory parking (see **Figures A-1 and A-2**). The Proposed Project would include approximately 384,429 gross square feet (gsf) of floor area (approximately 274,166 zoning square feet) and would have an FAR of 7.2. It would contain approximately 285 dwelling units (DUs), approximately 86 of which would be permanently affordable, and approximately 99,221 gsf of commercial uses. The ground floor would contain approximately 24,168 gsf of supermarket use, and the remaining ground floor, cellar, and second floor commercial space would be destination retail uses totaling approximately 75,053 gsf. Approximately 191 accessory parking spaces would be located in a below-grade facility. The Proposed Project would reach a total height of 145 feet, rising 75 feet before setting back 10 feet along Empire Boulevard. The northern portion of the building with street frontage on Sullivan Place would rise to 75 feet before setting back 15 feet in deference to the lower-density residential context on Sullivan Place.

STUDY AREA

The Proposed Actions would affect only the Project Site, and the land use changes generated by the Proposed Actions would be consistent with and supportive of the residential uses in the surrounding study area and the active commercial uses along the Empire Boulevard corridor. The new residential, retail, and supermarket uses that would be developed on the Project Site would make more efficient use of the site. The proposed retail and supermarket uses would serve local retail needs as well as provide for job opportunities close to the surrounding residential areas of Brooklyn.

ZONING

PROJECT SITE

The Proposed Actions would modify zoning on the Project Site from a combination of C8-2 and R6/C1-3 districts to a C4-4D district. C4-4D districts are contextual commercial zoning districts that permit a mix of commercial uses that typically generate more traffic than local retail. Up to 3.4 FAR of commercial uses are permitted in C4-4D districts, as well as up to 6.5 FAR of community facility uses and up to 6.02 FAR of residential uses. The residential equivalent of a C4-4D district is an R8A contextual residential district, and height and setbacks in a C4-4D district are governed by the same regulations. Buildings may rise up to 120 feet, with a setback required between 60-85 feet.

The proposed rezoning to a C4-4D district would be appropriate for the Project Site and the surrounding area. The Project Site is close to mass transit as well as the 526-acre Prospect Park; these factors support an increase in bulk and density. The Project Site is also located on Empire Boulevard, a wide street and local thoroughfare capable of supporting more density.

STUDY AREA

The Proposed Project would not affect zoning outside of the Project Site, and zoning in the study area would remain unchanged. The Proposed Project would be consistent with the densities and bulk allowed in the study area, and the proposed C4-4D zoning's residential equivalent is R8A, which is present in the study area. Specifically, the increase in bulk permitted by a C4-4D district would be similar to the R8A district located to the northwest of the Project Site and would be consistent with the mix of residential and commercial districts and uses in the surrounding area. There are several schools and local retail uses (grocery stores, hair salons, etc.) within the study area that can support the additional density the Proposed Project would bring.

PUBLIC POLICY

HOUSING NEW YORK/YOUR HOME NYC

The Proposed Actions would support Housing New York: 2.0 by facilitating the development of approximately 86 permanently affordable DUs. These affordable units would not be constructed on the Project Site absent the Proposed Actions. Therefore, the Proposed Actions would be consistent with the goals of this policy, and the proposed affordable housing would address an urgent need to house low-income families.

ONENYC

The Proposed Actions are consistent with the goals of OneNYC as they would help create and preserve sustainable affordable housing and support the development of a vibrant neighborhood. The Proposed Actions would support OneNYC's land use goals of creating substantial new housing opportunities at a range of incomes and fostering walkable corridors. The Proposed Actions would facilitate new residential development, including affordable housing, in an area proximate to transit. Therefore, the Proposed Actions would be consistent with OneNYC's goals for growth, equity, healthy lives, and sustainability.

FRESH PROGRAM

The Proposed Actions would not displace any existing grocery stores, and in both the No Action and With Action scenarios, a new grocery store use is anticipated to be developed on the Project Site. Therefore, the Proposed Project would be consistent with the goals of the FRESH program. As noted above, the FRESH Program zoning and tax incentives are discretionary; therefore, if the Applicant wanted to utilize such incentives for the Proposed Project, additional action(s) by CPC or the New York City Industrial Development Agency (IDA) would be required.

In conclusion, the Proposed Actions would not result in significant adverse impacts to land use, zoning, or public policy. ✷

A. INTRODUCTION

This attachment considers the potential for the Proposed Actions to result in significant adverse impacts to socioeconomic conditions. As stated in the 2021 *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 described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the construction of a 13-story mixed-use building containing residential, supermarket, and retail uses (the "Proposed Project") at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhoods of Brooklyn, Community District 9 (Block 1306, Lot 28). The Proposed Actions include a zoning map amendment and zoning text amendment. As detailed below, the Proposed Actions would not result in significant adverse socioeconomic impacts.

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 Actions would have a significant impact compared with what would happen in the future without the Proposed Actions (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 a known number of residents and/or specific businesses and workers.

Indirect or secondary displacement occurs when residents, businesses, or employees are involuntarily displaced due to a change in socioeconomic conditions in the area caused by a 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 project. Examples of indirect business displacement include higher-paying commercial tenants replacing industrial uses and when new uses introduced by a 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 in bold below) that can lead to socioeconomic changes warranting further assessment.

DIRECT DISPLACEMENT

Direct Residential Displacement

Would the Proposed Actions directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.

The Proposed Actions would not result in the direct displacement of any existing dwelling units (DUs); as such, a preliminary assessment of direct residential displacement is not warranted.

Direct Business Displacement

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

The Proposed Actions would not displace more than 100 employees. The Project Site includes an approximately 30,679-sf vacant commercial building and an approximately 8,000-sf commercial building operating as a laundromat. The existing laundromat currently employs an estimated 8 workers, which is well below the 100-employee threshold warranting assessment.[1] In addition, there are several other operating laundromats located within the half-mile study area, including 24 Hours Laundry at 989 Nostrand Avenue, Two Pioneer Laundromat at 1123 Mary Pinkett Avenue, Laundromat 37 Lincoln Road, and Roger's Laundromat at 292 Rogers Avenue. Furthermore, the No Action condition would result in an as-of-right development consisting of commercial uses, and as such the existing laundromat would be replaced in either the No Action and With Action conditions. The displaced business is not uniquely dependent on its location and the study area

[1] Assuming an employment ratio of one worker per 1,000 gsf of space, the existing laundromat is estimated to employ 8 workers.

population maintains access to a number of businesses offering the same services. As such, the Proposed Actions would not result in significant adverse impacts due to direct business displacement, and a preliminary assessment of direct business displacement is not warranted.

INDIRECT DISPLACEMENT

Would the Proposed Actions result in a substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.

Indirect Residential Displacement

The Proposed Actions would result in the construction of up to 285 incremental DUs compared to the No Action condition, which is over the 200-unit development threshold identified by the *CEQR Technical Manual.* Therefore, a preliminary assessment of potential indirect residential displacement is warranted.

Indirect Business Displacement Due to Increased Rents

The Proposed Project would not exceed the 200,000-square-foot commercial development threshold warranting assessment of indirect business displacement. The Proposed Project would result in a total of 99,221 gsf of commercial use, including 75,053 gsf of destination retail and 24,168 gsf of supermarket space. Neither commercial use introduced by the Proposed Project would represent a substantial new use that is markedly different from existing uses in the area. The Proposed Project would add a total of approximately 718 new residents, which is a 1.9 percent increase above the existing population within an approximately half-mile distance of the Project Site.[2] Because Crown Heights South/Prospect Lefferts Gardens-Wingate is already an established residential neighborhood, and the proposed DUs includes designated affordable housing, the residential development that would occur as a result of the Proposed Actions would not have the potential to result in demographic changes in the local market that could lead to indirect business displacement due to increased rents, and an analysis is not warranted.

Indirect Business Displacement Due to Market Saturation

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

The Proposed Project would include approximately 99,221 gsf of commercial retail space on the Project Site, including 75,053 gsf for destination retail and 24,168 gsf for supermarket use. In keeping with the characteristics of the neighborhood, the Proposed Project would provide retail uses

[2] The With Action residential population is estimated by applying the 2020 Census Brooklyn Community District 9 average household size (2.52 persons per household) to the 285 dwelling units assumed for the Proposed Project. The Proposed Project would add approximately 718 new residents to the area, increasing the quarter-mile study area by 5.9 percent. Therefore, the study area was expanded to a half-mile radius for the Proposed Project.

in line with the needs of the community and surrounding uses. Such potential retail uses would not total 200,000 gsf and, as such, the Proposed Actions do not have the potential to result in significant adverse impacts due to retail market saturation, and an assessment of indirect business displacement due to market saturation is not warranted.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

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

The Proposed Actions would not significantly affect business conditions in any industry or any category of business. As detailed above, the Proposed Project would directly displace the laundromat located on the Project Site. However, the area is served by several other laundromat facilities that one can reasonably assume would support the needs of local residents. In addition, as detailed above, the Proposed Project does not have the potential to result in significant adverse impacts due to indirect business displacement. Therefore, the Proposed Actions do not have the potential to result in significant adverse effects on specific industries, and a preliminary assessment of this concern is not warranted.

DETERMINATION

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

ANALYSIS FORMAT

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

STUDY AREA

According to the *CEQR Technical Manual*, socioeconomic study area boundaries depend on project size and characteristics. The *CEQR Technical Manual* states that a quarter-mile study area is appropriate for a project which produces a small (below 5 percent) increase to the quarter-mile area population. The Proposed Actions would introduce an estimated 718 residents, which is an approximately 5.9 percent increase to the quarter-mile area population. Therefore, a half-mile study area is appropriate for this analysis.

Because the 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 half-mile radius surrounding the Project Site). The census tracts that constitute the "socioeconomic study area," or "study area," are shown in **Figure C-1** and include Census Tracts 177, 213, 321, 323, 325, 327, 796.01, 798.01, 798.02, and 800. The socioeconomic

7.12.22



Project Site

Study Area (Half-mile perimeter)

Socioeconomic Study Area

327 *Census Tracts*

Socioeconomic Study Area

73-99 EMPIRE BOULEVARD

Figure C-1

study area is located within Brooklyn Community District (CD) 9 and generally extends to Eastern Parkway South Mall to the north; Clarkson Avenue to the south; Washington Avenue and Prospect Park to the west; and Ralph, East New York, and Utica Avenues to the east.

DATA SOURCES

Information used in the analysis of indirect residential displacement was gathered from the U.S. Census Bureau's 2020 Decennial Census, U.S. Census 2006–2010, and 2015–2019 American Community Survey (ACS) 5-Year Estimates, and the New York City Department of City Planning (DCP) Housing Database. The 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. All dollar values for census data were converted to 2021 dollars using the United States Department of Labor Bureau of Labor Statistics Consumer Price Index to allow for comparison between years. Data on market rents within the study area were collected on the real estate listings website StreetEasy.com.

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. This analysis follows the step-by-step assessment guidelines of the *CEQR Technical Manual*.

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

EXISTING CONDITIONS

Based on the 2020 Decennial Census and the DCP Housing Database 2020 Q4 dataset, the study area has an estimated population of 38,606. The study area is located within Brooklyn CD 9, which

[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.

has an average household size of 2.52.[4] This analysis uses average and median household incomes to describe the household income characteristics of the study area population. As shown in **Table C-1**, in 2019, the average annual household income within the study area is approximately $90,330 which is lower than that of Brooklyn ($96,266) and New York City ($108,179). Overall, the average household income has increased across all three geographic regions since 2010, most notably in the study area, where it increased by approximately 38 percent.

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

Area	2006–2010 ACS	2015–2019 ACS	Change or Direction of Change
Socioeconomic Study Area	$65,530	$90,330	37.8%
Brooklyn	$77,369	$96,266	24.4%
New York City	$96,190	$108,179	12.5%

Note: All dollar figures have been adjusted to 2021 dollars based on the U.S. Department of Labor Consumer Price Index.
Sources: U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates via DCP's NYC Population Factfinder.

Given that average income can be heavily influenced by outliers (both high and low) within the data, the median household income is also presented to supplement the analysis (see **Table C-2**). In 2019, the median annual household income within the study area was approximately $66,675, which was above the median household income for Brooklyn ($63,292) and similar to that of New York City as a whole ($67,251). Since 2010, the median annual household income has increased in the study area and grew as much as 17.7 percent in Brooklyn.

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
Socioeconomic Study Area	$50,403	$66,675	Increase[2]
Brooklyn	$53,798	$63,292	17.7%
New York City	$62,093	$67,251	8.3%

Notes:
[1] All dollar figures have been adjusted to 2021 dollars based on the U.S. Department of Labor Consumer Price Index
[2] The MOE of the difference between the 2006–2010 ACS and 2015–2019 ACS data for the study area is greater than 30 percent of the estimated difference. Therefore, a percent change cannot be estimated with confidence.
Sources: U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates via DCP's NYC Population Factfinder.

As shown in **Table C-3**, in 2019, the socioeconomic study area had a slightly higher average and median gross rent per month as compared with Brooklyn and New York City. The median gross rent was estimated at $1,558 per month, compared to $1,498 in Brooklyn and $1,516 in New York City overall. Similarly, the average gross rent within the study area ($1,610) was greater than

[4] According to the DCP Housing Database 2020 Q4 dataset, there has been an increase of approximately 55 units within the study area since April 2020. Applying the Brooklyn CD9 average household size of 2.52 and vacancy rate of 5.7 percent, the new units are estimated to add approximately 131 new residents to the existing 2020 Decennial Census population total of 38,475, for an existing residential study area population of 38,606.

Brooklyn ($1,551) and New York City ($1,597). All three geographies saw an increase in average and median gross rent between 2010 and 2019, with the study area seeing increases as high as 33.9 percent for average rent and 29.7 percent for median gross rent.

Table C-3
Average and Median Gross Rent (2006–2010, 2015–2019 ACS)

Area	2006–2010 ACS		2015–2019 ACS		Percent Change	
	Average	Median	Average	Median	Average	Median
Socioeconomic Study Area	$1,203	$1,201	$1,610	$1,558	33.9%	29.7%
Brooklyn	$1,252	$1,261	$1,551	$1,498	23.8%	18.8%
New York City	$1,390	$1,323	$1,597	$1,516	15.0%	14.6%

Note: All dollar figures have been adjusted to 2021 dollars based on the U.S. Department of Labor Consumer Price Index.
Sources: U.S. Census Bureau, 2006–2010 and 2015–2019 ACS 5-Year Estimates via DCP's NYC Population Factfinder and Social Explorer.

The U.S. Census ACS data does not provide specific rent information according to regulation status or unit size, but instead can paint a general picture about the rate at which housing costs are changing in a neighborhood. Recent and active rental listings were therefore used to provide a fuller understanding of where the market is today. **Table C-4** presents a summary of the existing market rents within the study area.

Table C-4
Socioeconomic Study Area Market Rents

Unit Type	Average	Median	Upper Quartile
Studio	$1,824	$1,684	$2,000
One Bedroom	$2,298	$2,300	$2,600
Two Bedroom	$3,052	$2,993	$3,421
Three Bedroom	$4,067	$3,875	$4,875
All Unit Types	$2,820	$2,600	$3,400

Source: StreetEasy (http://streeteasy.com) accessed in July 2022 based on sampling of 251 active and recent listings from the last 120 days within the study area.

THE FUTURE WITHOUT THE PROPOSED ACTIONS

Project Site

The future condition without the Proposed Actions (the No Action condition) describes a future baseline condition to which changes that are expected to result from the Proposed Actions are compared. Absent the Proposed Actions, the Applicant would redevelop the Project Site as-of-right with a new two-story (40-foot-tall), approximately 114,354-gsf (1.9 FAR) commercial building. The No Action development would contain approximately 72,878 gsf of retail use above grade, including 40,478 gsf of destination retail, 8,232 gsf of local retail, and 24,168 gsf of supermarket space, as well as approximately 182 accessory parking spaces in a below-grade facility.

Study Area

There are six planned developments within a half-mile radius of the Project Site that are anticipated to be completed by the build year of 2026. In total, the No Action condition will see the development of 134 new DUs in the socioeconomic study area. The new DUs would introduce

an estimated 338 new residents, resulting in a total study area population of 38,944, a 0.9 percent increase compared with existing conditions. Two notable planned projects in the study area are 1 Sullivan Place, a 52-unit apartment building, and 1730 Bedford Avenue, a 57-unit mixed use building. One Sullivan Place will include a mix of senior, affordable, and market rate units ranging from one- to three-bedrooms. The remaining 15 units that will be built in the study area are in various smaller buildings and are not reserved for low-income households. Based on existing rent and income trends, it is anticipated that the study area would continue to show a trend of rising rents and incomes in the future without the Proposed Actions.

THE FUTURE WITH THE PROPOSED ACTIONS

The future with the Proposed Actions (the "With Action" condition) describes the future condition in which the Proposed Actions are approved and implemented, and the Proposed Project is completed and operational. In the With Action condition, the Proposed Project would be developed on the Project Site as described above. The Proposed Project would include a mixed-use residential building with approximately 285 DUs (including approximately 86 affordable DUs), approximately 99,221 gsf of commercial uses (approximately 75,053 gsf of destination retail uses and approximately 24,168 gsf of supermarket use), and approximately 191 accessory parking spaces.

The Proposed Project would be subject to MIH, which sets forth two primary options that are characterized by different affordability levels, each promoting a range of affordable development. This socioeconomic analysis conservatively assumes Option 2, which as described above would result in approximately 86 affordable units.[5]

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

New York City AMIs are shown in **Table C-5**. AMIs are calculated yearly by the U.S Department of Housing and Urban Development (HUD).

The estimated average household size for the Proposed Project's DUs is assumed to be 2.52, which is the average household size of Brooklyn CD 9 as of the 2020 U.S. Decennial Census. Because the household size estimates for the proposed units fall between two whole numbers, as recommended in the *CEQR Technical Manual*, this analysis splits the difference between the AMI for 2- and 3-person households for the MIH units. For the MIH units, the average household income would be $90,973, using $85,440 as the lower bound and $96,080 as the upper bound.

[5] For the purposes of the socioeconomic analyses, Option 2—which results in a higher average household income—was conservatively assumed for the With Action condition.

Table C-5
2022 New York City Area Median Income (AMI)

Family Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	70% of AMI	80% of AMI	100% of AMI	120% of AMI	130% of AMI
1	$28,020	$37,360	$46,700	$56,040	$65,380	$74,720	$93,400	$112,080	$121,420
2	$32,040	$42,720	$53,400	$64,080	$74,760	$85,440	$106,800	$128,160	$138,840
3	$36,030	$48,040	$60,050	$72,060	$84,070	$96,080	$120,100	$144,120	$156,130
4	$40,020	$53,360	$66,700	$80,040	$93,380	$106,720	$133,400	$160,080	$173,420
5	$43,230	$57,640	$72,050	$86,460	$100,870	$115,280	$144,100	$172,920	$187,330

Source: U.S. Department of Housing and Urban Development (HUD)
https://www1.nyc.gov/site/hpd/services-and-information/area-median-income.page.

Average Household Income of the With Action Population on the Project Site

Table C-6 shows the estimated distribution of new market rate units in the With Action condition by number of bedrooms. There would be a total of approximately 199 market rate units on the Project Site in the With Action condition. Approximately 16 percent would be studios, 51 percent would be one-bedroom units, 28 percent would be two-bedroom units, and 5 percent would be three-bedroom units.

Table C-6
Upper Quartile Market Rate Monthly Rents: Socioeconomic Study Area

Unit Type	Count	Percent	Upper Quartile Monthly Rent
Studio	32	16%	$2,000
One Bedroom	101	51%	$2,600
Two Bedroom	56	28%	$3,421
Three Bedroom	10	5%	$4,875
Total[1]	199	100%	$3,400

Note: [1] Total average monthly rent is a weighted total based on the proportional unit mix found within the socioeconomic study area.
Source: StreetEasy.com accessed July 2022.

Table C-7 shows the calculations used to estimate the average household income of the market rate units. Using the upper quartile of monthly rent by bedrooms, the estimated household income for each type of unit was estimated, assuming households spend 30 percent of their gross monthly income on rent. Then, the estimated annual incomes were multiplied by the number of units to determine the aggregate income for the units by unit type. Finally, the aggregate for all unit types was divided by the total number of market rate units to determine the average household income of the market rate units of approximately $113,758.

In the With Action condition, of the total 285 DUs, 86 units would be reserved for households at incomes of up to 80 percent AMI based on MIH Option 2. **Table C-8** shows the average household income of both the affordable and market rate DUs in the With Action condition. The average income of market rate DUs was multiplied by the total number of market rate DUs. The average income of affordable DUs at 80 percent AMI for an average household size of 2.52 was multiplied by the total number of affordable DUs on the Project Site. These two numbers were added together to determine the aggregate income for all the units. This aggregate income was divided by the total number of units to determine the average income for all units of $106,833.

Table C-7
Weighted Average Income of With Action Market Rate Renters

Number of Bedrooms	Monthly Rent	Estimated Gross Monthly Income[1]	Estimated Gross Yearly income	Units	Aggregate Income by Number of Bedrooms (Yearly Income x Units)
Studio	$2,000	$6,667	$80,000	32	$2,560,000
One Bedroom	$2,600	$8,667	$104,000	101	$10,504,000
Two Bedroom	$3,421	$11,404	$137,000	56	$7,672,000
Three bedrooms or larger	$4,875	$16,250	$195,000	10	$1,950,000
Total				199	$22,686,000
Weighted Average Income of Market Rate Units (Aggregate Income ÷ Total Units)					**$114,000**

Notes: [1] Monthly income was estimated using the assumption that renters spend 30 percent of their gross monthly income on rent.
Numbers may not sum to totals due to rounding.
Source: Monthly rent from Street Easy Listings, July 2022.

Table C-8
Weighted Average Income of Total With Action Population on Projected Development Sites

Income		Units	Aggregate Income (Income x Units)
Market rate[1]	$113,758	186	$22,637,842
MIH Affordable[2]	$90,973	79	$7,823,678
Total		265	$30,461,520
Weighted Average Income of the With Action Population (Aggregate Income ÷ Total Units)			**$106,833**

Notes:
[1] See **Table C-7**.
[2] Household income for MIH DUs is based on 80 percent AMI for a family of 2.52 (see **Table B-6**).
Sources: StreetEasy.com; HUD.

The expected average income of the new population of $106,833 is anticipated to be higher than the average household income of the existing socioeconomic study area population ($90,330).

Step 2: Determine if the 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.

As shown in **Table C-9**, the study area is home to an estimated 38,606 residents. In the No Action condition, planned developments would grow the study area population by an estimated 338 residents. The overall study area population would increase by 0.9 percent as a result of known residential projects developed by 2026.

In the With Action condition, the study area would experience growth compared to the No Action condition (see **Table C-10**). The 285 incremental DUs would house an estimated 718 new residents. This would represent an approximately 1.9 percent increase in the overall study area population between the With Action and No Action condition.

Table C-9
Population Estimates and Projections
Existing Conditions and Future Without the Proposed Actions

	2010	2020	DCP Housing Database Projection[1]	2021 Study Area Projection	2026 Population Projection in No Action Condition[2]	Percent Change 2021 to 2026 No Action Condition
Study Area	38,477	38,475	131	38,606	38,944	0.9%

Notes:
[1] DCP's Housing Database shows a net increase of 55 housing units in the study area since the Census data collection in April 2020, accordingly to DCP Housing Database 2020 Q4 (the latest available data). Assuming a rental vacancy rate of 5.7 percent and an average household size of 2.52 within Brooklyn CD 9, an additional 131 people are estimated to have joined the 38,475 residents identified in the 2020 Census for an existing population estimate of 38,606 residents.
[2] There are an estimated 6 new developments anticipated for completion by the build year of 2026, estimated to introduce approximately 338 new residents into the study area. The new development would raise the total population of the study area to 38,944 by 2026, absent the Proposed Actions.
Source: 2010 and 2020 Decennial Census; DCP Housing Database

Table C-10
With Action Condition Population

	2025 Population Projections No Action Condition	Number of Incremental DUs	With Action Incremental Population	Percent Change from 2026 With Action Condition
Study Area	38,944	285	718	1.9%

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 718-person increment to the study area, the Proposed Actions would increase the population by approximately 1.9 percent, suggesting that the Proposed Project's population increment would not be large enough to substantively affect real estate market conditions in the study area. Within a more immediate quarter-mile area surrounding the Project Site, the Proposed Actions would introduce a population increment greater than 5 percent. Therefore, Step 3 was conducted for the quarter-mile area surrounding the Project Site, which is represented by Census Tracts 325, 327, and 798.01 (see **Figure C-1**).

Step 3. Consider whether Census Tracts 325, 327, and 798.01 have already experienced a readily observable trend toward increasing rents and the likely effect of the Proposed Action on such trends.

As shown in **Table C-11**, median gross rent in the quarter-mile study area has increased since 2010 and is on par with Brooklyn and New York City median rents. In addition to rent increases within the quarter-mile study area, the average and median income have both increased since 2010 (see **Table C-12**).

Table C-11
Median Gross Rent, Quarter-mile Study Area (2006–2010, 2015–2019 ACS)[1]

	2006–2010 ACS	2015–2019 ACS	Percent Change
Quarter-mile Study Area	$1,160	$1,480	Increase[2]
Brooklyn	$1,261	$1,498	18.8%
New York City	$1,323	$1,516	14.6%

Notes:
[1] All dollar figures have been adjusted to 2021 dollars based on the U.S. Department of Labor Consumer Price Index.
[2] 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 325, 327, and 798.01, only the directionality of change over time was statistically reliable. For Brooklyn and New York City, the rate of change and the directionality of change were statistically reliable and therefore reported.
Sources: 2006–2010 ACS and 2015–2019 ACS, as reported in DCP's NYC Population FactFinder.

Table C-12
Average and Median Income (2006–2010, 2015–2019 ACS)[1]

	2006–2010 ACS		2015–2019 ACS		Percent Change	
	Average	Median	Average	Median	Average	Median
Quarter-mile Study Area	$65,097	$47,812	$80,817	$60,879	Increased[2]	Increased[2]
Brooklyn	$77,369	$53,798	$96,266	$63,292	24.4%	17.6%
New York City	$96,190	$62,093	$108,179	$67,251	12.5%	8.3%

Notes:
[1] All dollar figures have been adjusted to 2021 dollars based on the U.S. Department of Labor Consumer Price Index.
[2] 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 325, 327, and 798.01, only the directionality of change over time was statistically reliable. For Brooklyn and New York City, the rate of change and the directionality of change were statistically reliable and therefore reported.
Sources: 2006–2010 ACS and 2015–2019 ACS, as reported in DCP's NYC Population FactFinder.

The Proposed Action would introduce DUs housing a population who would have higher average household incomes than the quarter-mile study area's existing household incomes ($80,817); however, there is already an existing trend in the study area toward higher rents, with rent levels already exceeding amounts that are affordable to the average household. In addition, the Proposed Actions would introduce approximately 86 affordable DUs—more affordable DUs than are planned in the future without the Proposed Actions. In this respect, the Proposed Actions would slow the existing trend of increasing rents and maintain a more diverse mix of incomes as compared to the future without the Proposed Actions.

D. CONCLUSION

Step 2 of the preliminary assessment determined that the Proposed Actions would not introduce a population large enough to affect the real estate market conditions of the broader half-mile study area. While the Proposed Actions would result in a greater increase in population of a more immediate area surrounding the Project Site, the quarter-mile study area surrounding the Project Site has already experienced a readily observable trend toward increasing housing prices and rising incomes. Therefore, based on *CEQR Technical Manual* guidelines, the Proposed Actions would not result in significant adverse impacts to socioeconomic conditions 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 2021 *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 and enhance the natural environment. An open space assessment may be necessary if a project would have a direct effect, such as eliminating or altering a publicly accessible open space, or an indirect effect, such as when an increase in population could overtax the capacity of an area's open spaces. Direct effects could also include a proposed action's effects on open spaces due to increased noise, air pollutant emissions, odor, or shadows.

As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of a 13-story mixed-use building with affordable housing and commercial uses (the "Proposed Project") on the Project Site at 73-99 Empire Boulevard (Brooklyn Block 1306, Lot 28) in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9. As discussed in more detail below, the Proposed Actions would result in the introduction of housing that would increase the residential population that utilizes open spaces within the study 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 concludes 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, and 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. As discussed elsewhere in this EAS, the Proposed Actions would not displace any open space, cause a change in open space use, or result in substantial new shadows or increased noise or air emissions on an open space. As a result, a direct effects analysis is not warranted.

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. The preliminary screening threshold to determine if an assessment of indirect effects is warranted is if a project would introduce more than 200 residents or 500 nonresidents (or workers). The Proposed Actions would not introduce more than 500 workers but would introduce more than 200 residents. Therefore, a preliminary assessment of indirect effects is warranted.

NYC PARKS WALK TO A PARK INITIATIVE

New York City, as part of *OneNYC 2050—Building a Strong and Fair City*, has put forth a goal that calls for 85 percent of New York City residents to live within a walking distance of a park by 2030. To help the City reach this goal, the New York City Department of Parks and Recreation (NYC Parks) created the Walk to a Park initiative that focuses on increasing access to parks and open space in areas of the City where residents live further than a walk to a park.

According to the *CEQR Technical Manual*, as part of the preliminary assessment of open space, a project should be reviewed to determine if it is located within a Walk to a Park Service Area. Project sites that are located outside of a Walk to a Park Service Area (i.e., located in known walk gap areas) suggest the need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the city with inadequate park access, potentially leading to a significant impact. The Project Site is located within a Walk to a Park Service Area (see **Figure D-1**). Therefore, a detailed analysis of indirect effects is not required.

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—in this case residents—are likely to walk to an open space. According to the *CEQR Technical Manual*, residents are assumed to walk approximately 20 minutes, or ½-mile, to an open space.

Because the Proposed Actions would introduce a new residential population above the 200-resident population threshold, the adequacy of open space resources was assessed for the ½-mile (residential) study area. This study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary. In this way, the study area allows for analysis of both the open spaces in the area as well as population data. The population of the open space study area was compiled from the 2020 U.S. Census Bureau Decennial Census.

4.6.22



Walk to a Park Service Area

73-99 EMPIRE BOULEVARD

Figure D-1

As shown on **Figure D-2**, the ½-mile residential study area includes the area within Census Tracts 177, 213, 321, 323, 325, 327, 796.01, 798.01, 798.02, and 800. The residential study area is generally bounded by Eastern Parkway to the north, Nostrand Avenue and Bedford Avenue to the east, Parkside Avenue, Rutland Avenue, and Caton Avenue to the south, and Prospect Park West to the west.

ANALYSIS FRAMEWORK

Publicly accessible open spaces and recreational facilities within the study area 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 June 2022 and secondary sources, such as 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 study area.

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

- Open space study area population and characteristics of the residents likely to utilize study area open spaces. The population of the open space study area was compiled from 2020 U.S. Census data supplemented by data from the New York City Department of City Planning's (DCP) Housing Database.
- An inventory of all publicly accessible recreational facilities in the 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, city-wide guidelines 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. This goal is often not feasible for many areas of the City and does not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by open space.
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the study area in existing conditions, the No Action condition, and the With Action condition.



Open Space Study Area and Resources

73-99 EMPIRE BOULEVARD

Figure D-2

- An assessment of expected changes in future levels of open space supply and demand in the 2026 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 2.52 persons is applied to the number of new dwelling units (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.

PRELIMINARY ASSESSMENT

A preliminary assessment considers the total population relative to the total acreage of available open space in a given study area to determine an open space ratio for the existing, No Action, and With Action conditions. Impact determinations 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 Table 7-1 of the *CEQR Technical Manual*, a decrease in the open space ratio of five percent or more compared to the No Action condition is generally considered to have the potential for a significant adverse impact for projects in study areas where the open space ratio is 2.01 acres per 1,000 residents or greater and may warrant further analysis. 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.

Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative factors—such as the distribution and connectivity of existing open spaces, the condition of open spaces, and the proximity of regional parks to a project site, including whether an area is considered within a Walk to a Park Service Area—should be taken into consideration to determine if action would result in a significant adverse open space impact.

C. PRELIMINARY ASSESSMENT

A preliminary assessment of indirect impacts on open space consists of calculating the total population of the study area, tallying the open space acreage within the area, and comparing the open space ratios for the No Action and With Action conditions.

EXISTING CONDITIONS

STUDY AREA POPULATION

As shown on **Figure D-2** and summarized in **Table D-1**, the study area for the Proposed Actions includes 10 census tracts with a total population of 38,606 residents.

[1] This is the average household size in Brooklyn Community District 9, as determined by the 2020 U.S. Census.

Table D-1
Study Area Population

Census Tract	Population
177	15
213	3,880
321	5,488
323	3,509
325	6,218
327	3,074
796.01	4,125
798.01	2,957
798.02	5,647
800	3,562
Census Tracts Total Population	**38,475**
DCP Housing Database Additional Residents[1]	**131**
Residential Study Area Total Population	**38,606**

Note:
[1] DCP's Housing Database shows a net increase of 55 housing units in the study area since the Census data collection in April 2020, accordingly to DCP Housing Database 2020 Q4 (the latest available data). Assuming a rental vacancy rate of 5.7 percent and an average household size of 2.52 within Brooklyn CD 9, an additional 131 people are estimated to have joined the 38,475 residents identified in the 2020 Census for an existing population estimate of 38,606 residents.
Source: 2020 U.S. Census Bureau Decennial Census; DCP Housing Database

STUDY AREA OPEN SPACE RESOURCES

Within the ½-mile study area, there are 10 publicly accessible open spaces resources, as shown on **Figure D-2** and summarized in **Table D-2**. These resources contain approximately 597.09 acres of open space. Most resources are operated by NYC Parks, with one resource jointly operated by NYC Parks and the Department of Education (DOE) through the Schoolyards to Playgrounds program, one operated by the New York City Department of Transportation (DOT), and another operated by the New York City Department of Cultural Affairs (DCA). The largest resource in the study area is Prospect Park, a 526-acre regional park with extensive amenities.

In addition to the resources included in the quantitative assessment, and consistent with *CEQR Technical Manual* guidance, there are several open space resources in the study area that are considered in the qualitative assessment. These resources, discussed further below, are expected to provide additional open space amenities to study area residents.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

The study area has an open space ratio of 15.466 acres per 1,000 residents (see **Table D-3**). This is higher than the City's planning guideline of 2.5 acres per 1,000 residents.

Table D-2
Existing Publicly Accessible Open Space Resource Inventory

Map ID	Name/Location	Owner or Agency	Features	Total Acres of Open Space	Condition/ Utilization
1	Prospect Park	NYC Parks	Grassy fields, baseball fields, benches, bathrooms, lakes, BBQ areas, walking pathways, bicycling and greenways, dog-friendly areas, eateries, fishing, fitness equipment, great trees, hiking trails, historic houses, horseback riding trails, ice skating rinks, nature centers, playgrounds, spray showers, tennis courts, zoos and aquariums	526.25	Good/High
2	Brooklyn Museum	DCA	Plaza area, seating, grassy area	12.66	Good/High
3	Eastern Parkway	DOT	Walking pathways, bicycling and greenways, benches	5.48	Good/High
4	Grand Army Plaza	NYC Parks	Plaza areas, seating, landscaping, benches, fountain, monuments	1.05	Good/Moderate
5	Bartel-Pritchard Square	NYC Parks	Plaza area, benches, landscaping	1.71	Adequate/Moderate
6	Mount Prospect Park	NYC Parks	Grassy areas, benches, bathrooms, dog-friendly areas, playgrounds, spray showers	7.79	Adequate/Moderate
7	Parade Ground	NYC Parks	Benches, baseball fields, basketball courts, bathrooms, dog-friendly areas, playgrounds, soccer fields, spray showers, tennis courts, eateries, fitness equipment	39.50	Good/High
8	Dodger Playground	NYC Parks	Playgrounds, spray showers, benches	0.29	Adequate/High
9	Dr. Ronald McNair Park	NYC Parks	Plaza, benches, landscaping, monument	1.36	Adequate/Moderate
10	Jackie Robinson Playground	NYC Parks/ DOE	Basketball courts, bathrooms, benches, fitness equipment, handball courts, playgrounds, spray showers	1.00	Adequate/High
			Total Acreage	**597.09**	

Note: [1] See **Figure D-2** for location of open spaces in study area.
Machate Circle, a DOT-managed green space located in the center of a traffic circle at intersection of Prospect Park Southwest, Parkside Avenue, Coney Island Avenue, and Ocean Parkway, is not included in this inventory or the quantitative analysis as it has no seating or other amenities.
Sources: NYC Parks open space database; AKRF, Inc. field surveys, June 2022

Table D-3
Adequacy of Study Area Open Space Resources: Existing Conditions

Existing Residential Population	Open Space Acreage Total	Open Space Ratio Acres per 1,000 Persons Total
38,606	597.09	15.466

Qualitative Considerations

As shown in **Table D-2**, the study area open spaces include a wide variety of actively programmed spaces appropriate for all age groups, including children, teenagers, adults, and seniors. As indicated in the *CEQR Technical Manual*, children tend to utilize active recreational amenities such as playgrounds and grassy or hard-surfaced open spaces suitable for ballplaying and other activities. Teenagers and young adults tend to utilize active recreational amenities such as court facilities and sports fields. Adults also utilize court facilities and sports fields, but also utilize areas for more individualized activities such as jogging on pathways. Seniors tend to use passive amenities, but also utilize active facilities such as handball or tennis courts. The open spaces within the study area include such facilities for all ages. Of the ten open space resources in the study area, five are in adequate condition and five are in good condition. Four resources were noted as experiencing moderate utilization and six were noted as experiencing high utilization.

In addition to the open space resources listed above, the study area contains open space resources that have not been included in the quantitative assessment. These resources total 52.63 acres and comprise three community gardens as well as the Brooklyn Botanic Garden (see **Table D-4**). While these resources serve some of the residents within the study area, they are not included in the quantitative assessment because they are available only to limited users and/or are not available to the public on a regular or constant basis.

Table D-4
Community and Botanic Gardens in the Study Area

Map ID	Name	Acres
A	Brooklyn Botanic Garden	52.00
B	Maple Street Community Garden	0.14
C	Eern Parkway Coalition	0.43
D	Lincoln Road Block Association Garden	0.06
	Total	**52.63**

Note: [1] See **Figure D-2** for location of open spaces in study area.
Sources: NYC Parks open space database; AKRF, Inc. field surveys, June 2022

THE FUTURE WITHOUT THE PROPOSED ACTIONS

In the No Action condition, the Project Site is expected to be redeveloped with a retail building under existing zoning totaling 72,878 gsf with 182 parking spaces. There would be no residential development on the Project Site in the No Action condition.

STUDY AREA POPULATION

In the No Action condition, the study area will continue to experience residential development. As described in Attachment B, "Land Use, Zoning and Public Policy," there are 134 DUs anticipated to be constructed within the open space study area by 2026. These DUs are estimated to introduce a new population of 338 to the study area. This new development would raise the total population of the study area to 38,944 by 2026 absent the Proposed Actions.

STUDY AREA OPEN SPACE RESOURCES

In the No Action condition, it is expected that there would be no change to the study area's existing open space resources.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

As shown in **Table D-5**, in the No Action condition the total open space ratio is projected to decrease from 15.466 acres per 1,000 residents to 15.332 acres per 1,000 residents. Similar to existing conditions, the ratio would be above City guidelines.

Table D-5
Adequacy of Study Area Open Space Resources: No Action Condition

No Action Residential Population	Open Space Acreage	Open Space Ratio Acres per 1,000 Persons	City Open Space Guidelines
	Total	Total	Total
39,944	597.09	15.332	2.5

Qualitative Considerations

In the No Action condition, the open space ratio would continue to be above the guideline goal of 2.5 total acres per 1,000 residents. Similar to the existing condition, study area open spaces in the No Action condition would continue to include a wide variety of actively and passively programmed spaces appropriate for all age groups, including children, teenagers, adults, and seniors.

THE FUTURE WITH THE PROPOSED ACTIONS

STUDY AREA POPULATION

In the future with the Proposed Actions, the Proposed Project would result in an incremental increase of 285 DUs compared to the No Action condition. These units are anticipated to introduce approximately 718 new residents to the Project Site, bringing the total study area population to 39,662.

STUDY AREA OPEN SPACE RESOURCES

In the future with the Proposed Actions, the study area's open space resources are expected to remain the same as in existing conditions and the No Action condition.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

As shown in **Table D-6**, the total open space ratio is projected to decrease from 15.332 acres per 1,000 residents in the No Action condition to 15.054 acres per 1,000 residents in the With Action condition. As in the No Action condition, the open space ratio would be above the City guidelines of 2.5 acres of total open space per 1,000 residents. Compared to the No Action condition, the open space ratio would decrease by 1.81 percent (see **Table D-7**).

Table D-6
Adequacy of Study Area Open Space Resources: With Action Condition

With Action Residential Population	Open Space Acreage	Open Space Ratio Acres per 1,000 Persons	City Open Space Guidelines
	Total	Total	Total
39,662	597.09	15.054	2.5

Table D-7
Study Area Open Space Ratio Summary

Ratio	City Open Space Guideline	Open Space Ratios Acres per 1,000 Residents			Percent Change (No Action to With Action)
		Existing	No Action	With Action	
Total—Residential	2.5	15.466	15.332	15.054	-1.81%

According to the *CEQR Technical Manual*, a decrease in the open space ratio of five percent or more compared to the No Action condition is generally considered to have the potential for a significant adverse impact for projects in study areas where the open space ratio is 2.5 acres per 1,000 residents or more and may warrant further analysis, as these reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. The open space ratio in the study area is greater than 2.50 acres per 1,000, at 15.054 acres per 1,000 residents, and the decrease in the open space ratio is less than five percent. Therefore, detailed analysis is not warranted, and the Proposed Actions would not result in a significant adverse impact. Further qualitative considerations are discussed below.

Qualitative Considerations

The profile of the population under the Proposed Actions is not expected to have any special or unique characteristics that would place added demands on open spaces that cater to a specific user group. Similar to the existing and No Action conditions, under the With Action condition study area open spaces would include a variety of open space amenities appropriate for all ages. All of the open space resources in the study area are in adequate to good condition and four out of ten experience moderate utilization, allowing them to further absorb projected population increases. Furthermore, there are additional open space resources within the study area that were not analyzed in the quantitative assessment including the Brooklyn Botanic Garden and three community gardens. These resources would provide area residents with alternative open space options for passive recreation.

In summary, the study area is not projected to experience a shortfall in the open space ratio in the No Action condition, and this would not change in the With Action condition. Therefore, there would be no significant adverse impact to open space as a result of the Proposed Actions. ✷

Attachment E: Shadows

A. INTRODUCTION

As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of a 13-story, 145-foot tall (160-foot tall to top of rooftop mechanical structures) mixed-use building (the Proposed Project) at 73-99 Empire Boulevard (the Project Site). Following the guidelines of the 2021 *New York City Environmental Quality Review (CEQR) Technical Manual*, this chapter considers the potential for the Proposed Project to cast new shadows on publicly accessible sunlight-sensitive resources, which include parks, plazas, and other open spaces accessible to the public; historic resources with sunlight-sensitive features, such as stained glass windows or skylights; and natural resources that depend on sunlight.

The shadow study concluded that the Proposed Project would cast new shadows on portions of three nearby open spaces in certain seasons, but as described in detail below, these incremental shadows would not cause significant adverse impacts to the use of these spaces, or to the health of their vegetation.

B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with New York City CEQR procedures and follows the guidelines of the 2021 *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 of concern 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 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 community gardens, surface water bodies, wetlands, and designated resources such as coastal fish and wildlife habitats.

Resources not subject to shadows analyses include the following, for the purposes of CEQR:

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

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

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. Incremental shadows are determined by establishing a baseline condition in the future *without* the Proposed Project (the No Action condition) and comparing it to the future condition *with* the Proposed Project (the With Action condition), thus illustrating the baseline shadows cast by existing (or future No Action) buildings and distinguishing the additional (incremental) shadows cast by a proposed project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)[1] showing the location of the Project Site and the surrounding street layout and topography (see **Figure E-1**). Mapped databases of parks and other public open spaces, City, state, and national historic resources, and natural resources were added to the map.[2] In coordination with the open space, historic and cultural resources, and natural resources assessments presented in other sections of this EAS, potential sunlight-sensitive resources were identified.

TIER 1 SCREENING ASSESSMENT

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

According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day (90 minutes after sunrise[3]) and is equal to 4.3 times the height of the structure.

Therefore, at a maximum height of 160 feet above curb level, including rooftop mechanical structures, the proposed building could cast a shadow up to 688 feet in length (160×4.3). Using this length as the radius, a perimeter was drawn around the Project Site (see **Figure E-1**).

The Tier 1 assessment showed that 6 publicly accessible open spaces were located in the longest shadow study area, including: 3 distinct recreational spaces associated with P.S. 375K, the public school northwest of the Project Site across the Sullivan Place and McKeever Place intersection; Jackie Robinson Playground, located farther north, on the north side of the school; Russell D. Ramsey Memorial Triangle, a Greenstreets planted traffic median west of the Project Site that currently appears to be under reconstruction; and a portion of Brooklyn Botanic Garden, farther west of the Project Site. Therefore, the next tier of assessment was required. No historic resources with sunlight-sensitive features or sunlight-dependent natural resources (other than vegetation in the open spaces identified above) are located in the Tier 1 study area.

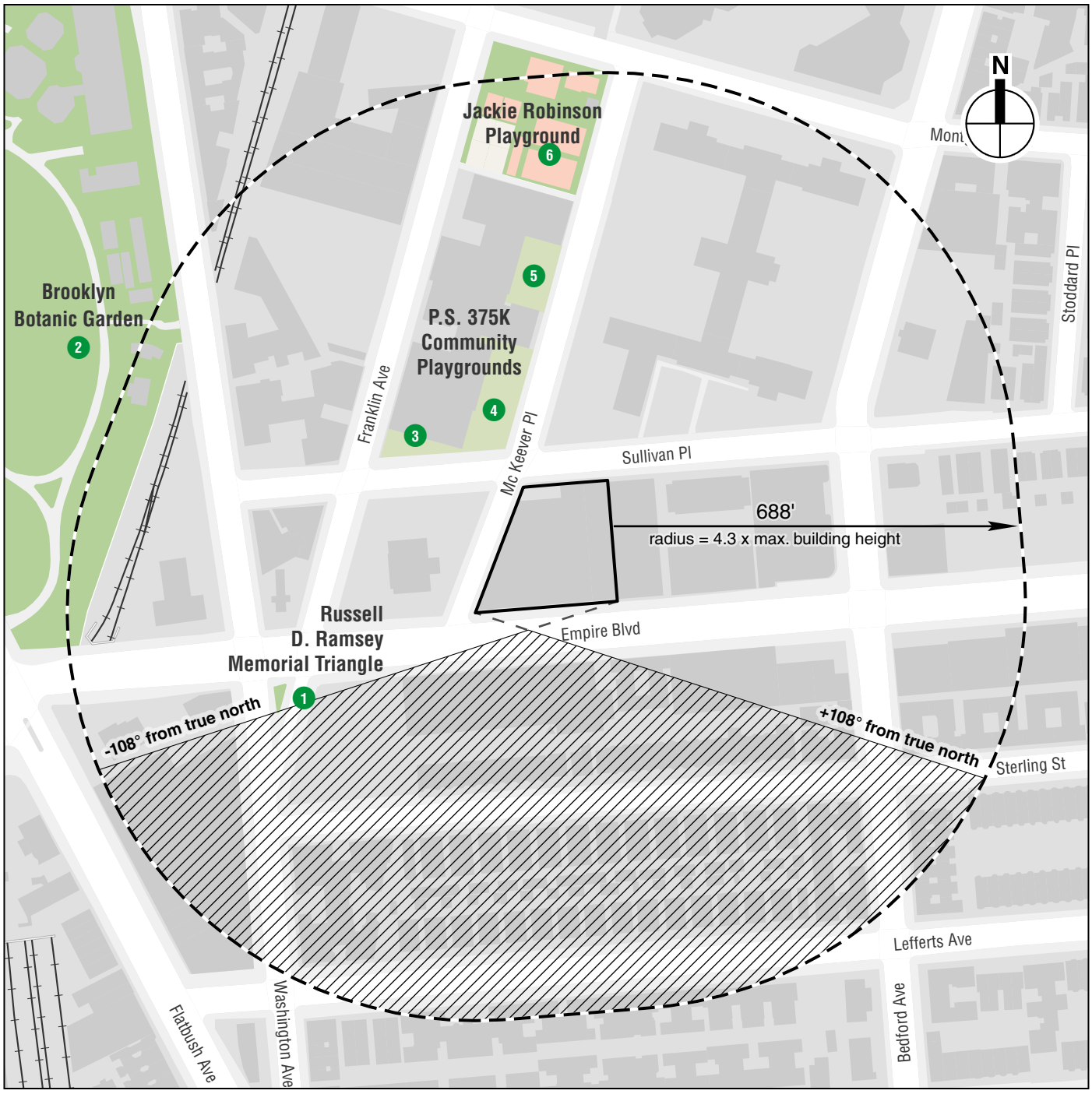
TIER 2 SCREENING ASSESSMENT

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City this area lies between -108 and +108 degrees from true north. **Figure E-1** illustrates this triangular area south of the

[1] Software: Esri ArcGIS Pro 2.8

[2] Data: City, State, and Federal agencies including New York City Parks Department; New York City Department of Information Technology and Telecommunications (DoITT), New York City Department of City Planning, New York City Landmarks Preservation Commission, New York City Department of Transportation, New York State Office of Parks, Recreation, and Historic Preservation, New York State Dept. of Environmental Conservation (NYSDEC), U.S. Fish and Wildlife Service, and others; supplemented by Nearmap hi-resolution imagery, and AKRF site visits.

[3] As explained in more detail below in the "Tier 3 Screening Assessment" section, shadows occurring within 90 minutes of sunrise or sunset are not considered significant under CEQR.



Tier 1 and Tier 2 Assessments

73-99 Empire Boulevard

Figure E-1

project site. The complementary area to the north within the longest shadow study area represents the remaining area that could potentially experience new project-generated shadow.

All 6 sunlight-sensitive resources identified in the Tier 1 assessment are located in the remaining Tier 2 study area and require further assessment.

TIER 3 SCREENING ASSESSMENT

The direction and length of shadows vary throughout the course of the day and also differ depending on the season. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional computer modeling software[4] is used in the Tier 3 assessment to calculate and display the proposed project's shadows on individual representative days of the year. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information of the study area, and a reasonable worst-case three-dimensional representation of the Proposed Project.

REPRESENTATIVE DAYS FOR ANALYSIS

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

TIMEFRAME WINDOW OF ANALYSIS

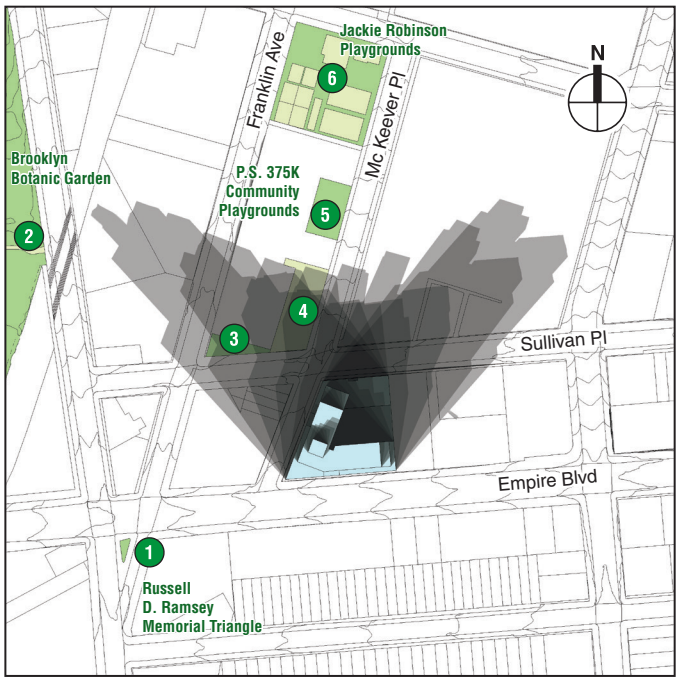
The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. At times earlier or later than this timeframe window of analysis, the sun is down near the horizon and the sun's rays reach the Earth at very tangential angles, diminishing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

TIER 3 SCREENING ASSESSMENT RESULTS

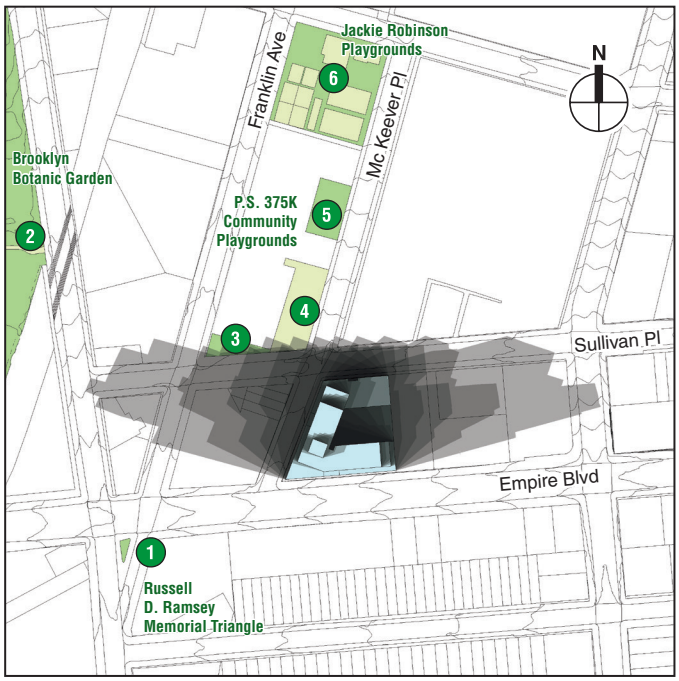
Figure E-2 illustrates the range of shadows that would occur, in the absence of intervening buildings, from the Proposed Project on the four representative days for analysis. As they move clockwise and generally west to east over the landscape, the shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). **Table E-1** summarizes which analysis day or days each resource could potentially receive project-generated shadow.

[4] Bentley MicroStation

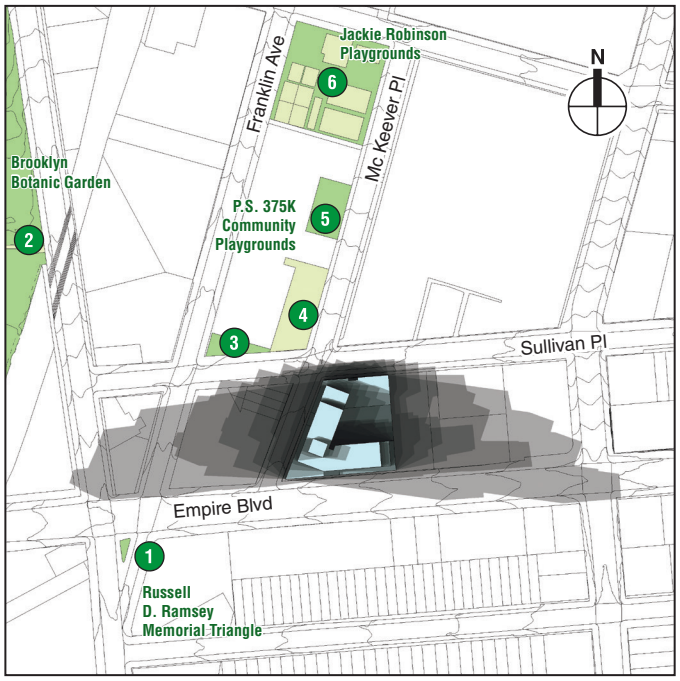
7.28.22



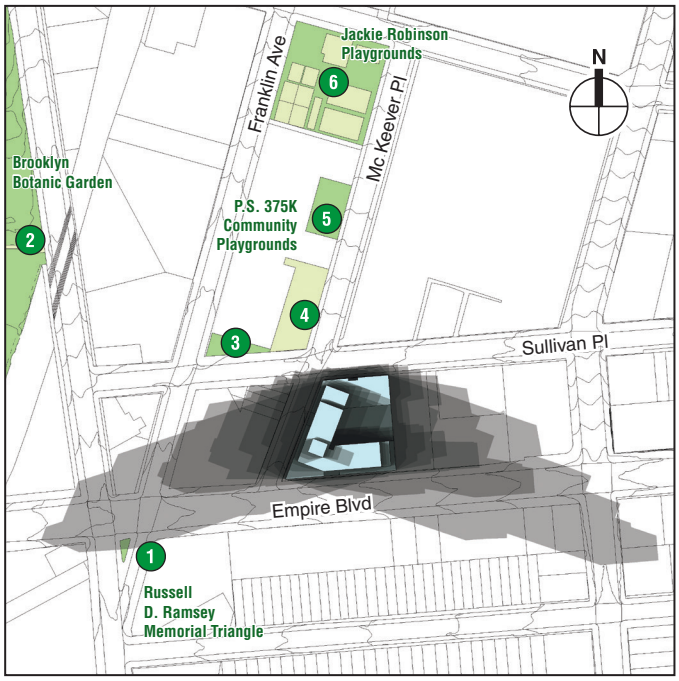
December 21



March 21 / September 21



May 6 / August 6



June 21

Proposed Project

Publicly Accessible Open Space, primarily passive (see Table E-1)

Publicly Accessible Open Space, primarily active (see Table E-1)

This figure illustrates the range of shadows that would occur from the proposed building on each of the four representative analysis days. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). The Tier 3 assessment does not account for future No Action shadows, and the shadows shown in this figure do not represent incremental shadows. The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening or surrounding buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Tier 3 Assessment

Table 5-3
Tier 3 Assessment

Map Reference	Name	Potential Incremental Shadow			
		December 21	March 21/ September 21	May 6/ August 6	June 21
1	Russell D. Ramsey Memorial Triangle	No	No	No	Potential
2	Brooklyn Botanic Garden	No	No	No	No
3	P.S. 375K – Sullivan Place sitting area	Potential	Potential	No	No
4	P.S. 375K – Basketball courts / running track	Potential	Potential	No	No
5	P.S. 375K – McKeever Place garden / sitting area	No	No	No	No
6	Jackie Robinson Playground	No	No	No	No

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

The Tier 3 assessment concluded that no project-generated shadow could reach the Brooklyn Botanic Garden, the Jackie Robinson Playground, or the garden and sitting area on McKeever Place associated with P.S. 375K on any of the representative analysis dates, and therefore no further assessment was required for those resources. Project-generated shadow could potentially reach the other two open space areas associated with P.S. 375K on the December 21 and March 21/September 21 representative dates and could also potentially reach the Russell D. Ramsey Greenstreets Triangle early in the morning of the June 21 analysis day. Therefore, these resources required additional assessment.

D. DETAILED SHADOW ANALYSIS

A detailed analysis is warranted when the screening analysis does not rule out the possibility that project-generated shadows would reach sunlight-sensitive resources. The detailed analysis establishes a baseline condition, the future without the Proposed Project (the "No Action" condition), to illustrate the shadows cast by existing buildings (and other future planned buildings). This baseline is then compared to the future condition with the Proposed Project (the "With Action" condition) to distinguish the additional (incremental) shadow cast by the Proposed Project. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadow that would be cast on a sunlight-sensitive resource as a result of the Proposed Project. Because existing (or future No Action) buildings may already cast shadows on a sunlight-sensitive resource, the Proposed Project may not result in additional, or incremental, shadows on that resource.

Following the analysis framework described in Attachment A, "Project Description and Screening Analyses," a detailed analysis was performed for the analysis year of 2026, comparing the Proposed Project to the future No Action condition. In the No Action condition, absent the Proposed Actions, the Project Site would be redeveloped as-of-right with a new two story (40-foot-tall) commercial building (see **Figure A-3**). This as-of-right building was added to the 3D model as part of the baseline No Action condition. Three-dimensional representations of existing buildings and future planned developments in the study area were added to the baseline 3D model using best-available spatial data and information from publicly available filings with the New York City Department of Buildings and other sources.

Shadows are in constant movement. The computer simulation software utilized produces a minute-by-minute animation showing the movement of shadows over the course of each analysis period.

The analysis determines the time when incremental shadow would enter each resource, and the time it would exit. Shadow analyses were performed for each of the representative days and analysis periods indicated in the Tier 3 assessment.

DETERMINATION OF IMPACT SIGNIFICANCE

The determination of significance of shadow impacts on a sunlight-sensitive resource is based on (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. The goal of the assessment is to determine whether the effects of incremental shadows on a sunlight-sensitive resource are significant under CEQR.

A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

Per CEQR, a significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- **Vegetation:**
  - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the No Action condition). In the growing season, six to eight hours of direct sunlight is typically a minimum requirement for vegetation. Four to six hours a day of sunlight is a minimum requirement for vegetation that can tolerate partial sun, such as established tree canopies, shrubs, or perennials.
  - A reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).
- **Historic and Cultural Resources:**
  - A substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of a historic or cultural resource.
- **Open Space Utilization:**
  - A substantial reduction in the usability of open space as a result of increased shadows, accounting for anticipated new users and the open space's utilization rates throughout the affected time periods.
- **For Any Sunlight-Sensitive Feature of a Resource:**
  - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

SUMMARY OF ANALYSIS RESULTS

The analysis showed that new shadow would fall in the fall, winter, and early spring months, in the morning, on portions of the sitting area along Sullivan Place and the basketball courts/running track space, both of which are associated with P.S. 375K. Incremental shadow durations would range from 2 to 2 and a half hours on the sitting area and for 3 and a half to 4 hours on the active

space during these fall, winter, and early spring months. The size of the incremental shadow would vary from negligible to large depending on the date and time, as described in more detail below. No incremental shadow would fall on these spaces in the late spring and summer months. Less than 10 minutes of incremental shadow would fall on the Russell D. Ramsey Triangle at the start of the June 21 analysis day but not on any other analysis day.

Table E-2 summarizes the entry and exit times and total duration of incremental shadows on each affected sun-sensitive resource. **Figure E-3** shows a high-resolution aerial photo of the affected open spaces with certain relevant features/amenities indicated, and **Figures E-4 to E-7** document the results of the analysis by providing graphic representations from the computer animation of times when incremental shadow would fall on a sun-sensitive resource. The figures illustrate the extent of additional, incremental shadow at that moment in time (highlighted in red), and also show existing shadow and remaining areas of sunlight.

Table E-2
Incremental Shadow Durations

Map Reference	Name	Dec. 21	Mar. 21 / Sept. 21	May 6 / Aug. 6	Jun. 21
Publicly Accessible Open Spaces					
1	Russell D. Ramsey Memorial Triangle	—	—	—	5:57am to 6:04am Total 7 min
3	P.S. 375K – Sullivan Pl. sitting area	8:51am to 10:55am Total: 2 hr 4 min	7:36am to 10:05am Total 2 hr 29 min	—	—
4	P.S. 375K –ball courts / running track	8:51am to 12:15pm Total: 3 hr 24 min	7:36am to 11:30am Total 3 hr 54 min	—	—

Notes: Table indicates entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine actual clock time.

ASSESSMENT OF SHADOW IMPACTS BY RESOURCE

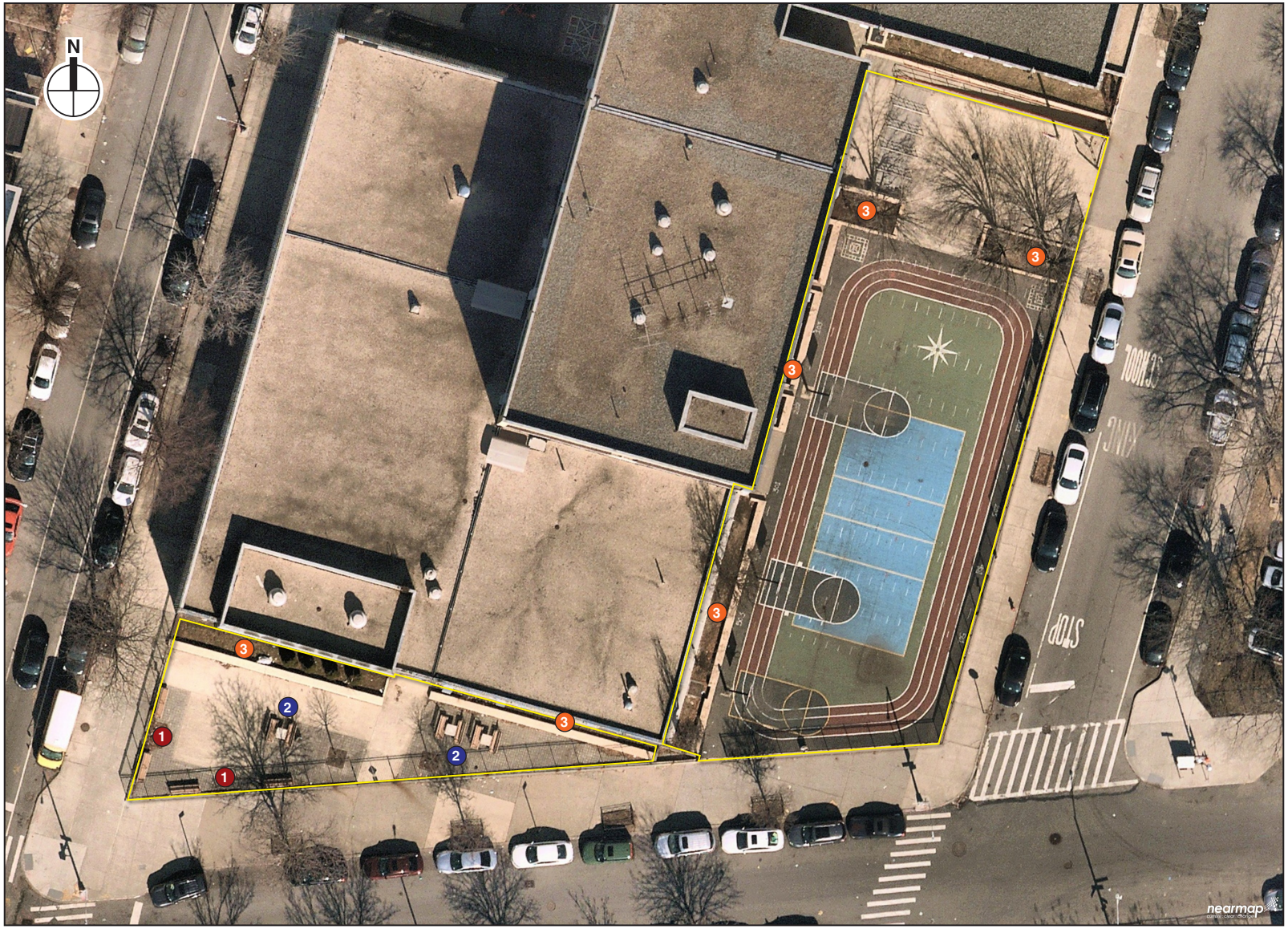
The following section briefly describes each affected resource that would receive more than 10 minutes of incremental shadow,[5] its sunlight sensitivity, and the extent, duration, and potential effects of incremental shadow. Descriptions of resource condition and utilization rates were taken from Attachment D, "Open Space." Map reference numbers are included with the name, for convenience.

Times are given in Eastern Standard Time (EST) in all seasons, as mandated by the *CEQR Technical Manual*, but Eastern Daylight Time (EDT) is in effect for all representative analysis days except for December 21, and times are also provided parenthetically in EDT when relevant, for informational purposes.

P.S. 375K – SULLIVAN PLACE SITTING AREA

The sitting area fronting on Sullivan Place and Franklin Avenue is entirely paved, with the exception of two tree pits, each with a young tree. This space contains three tables with benches,

[5] Per *CEQR Technical Manual* guidelines, incremental shadow is not considered significant when its duration is no more than 10 minutes and the resource otherwise continues to receive substantial sunlight. *CEQR Technical Manual*, 2020 edition, page 8-27.



Open Space

1 Benches

2 Benches and Table

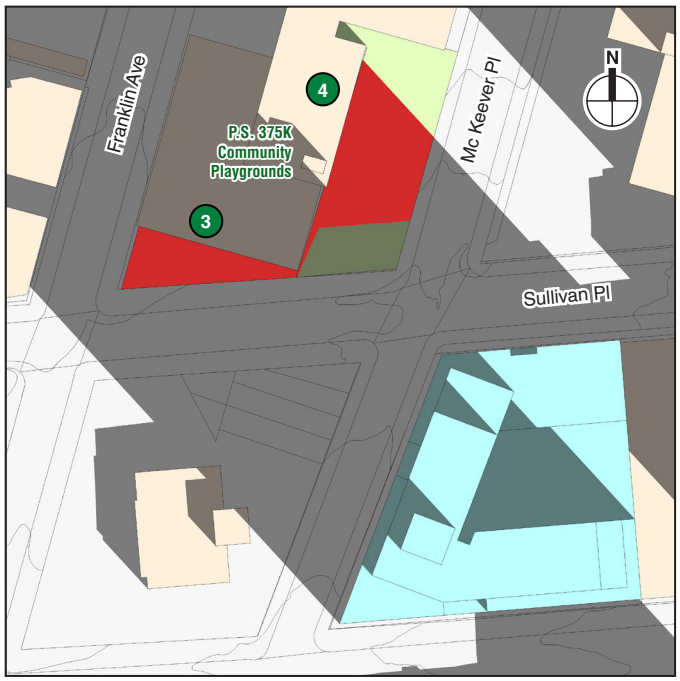
3 Planters with Ledge Seating

P.S. 375K Community Playgrounds

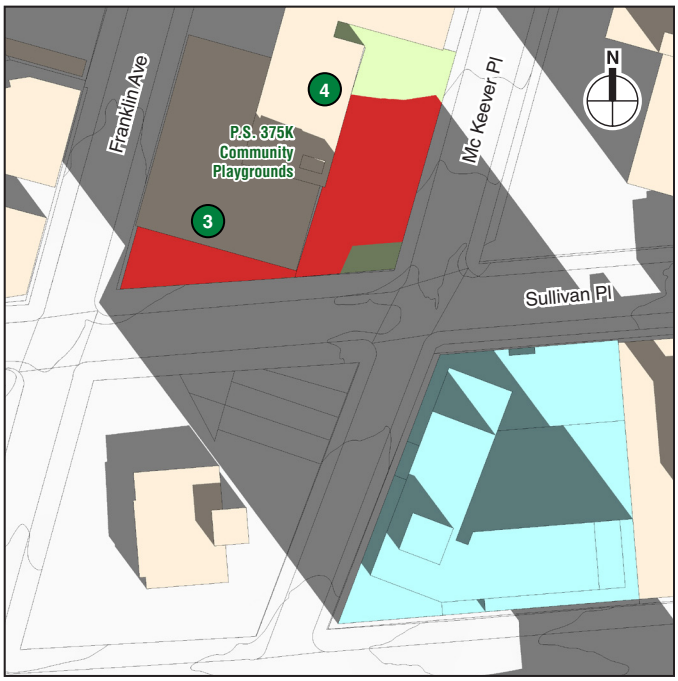
73-99 EMPIRE BOULEVARD

Figure E-3

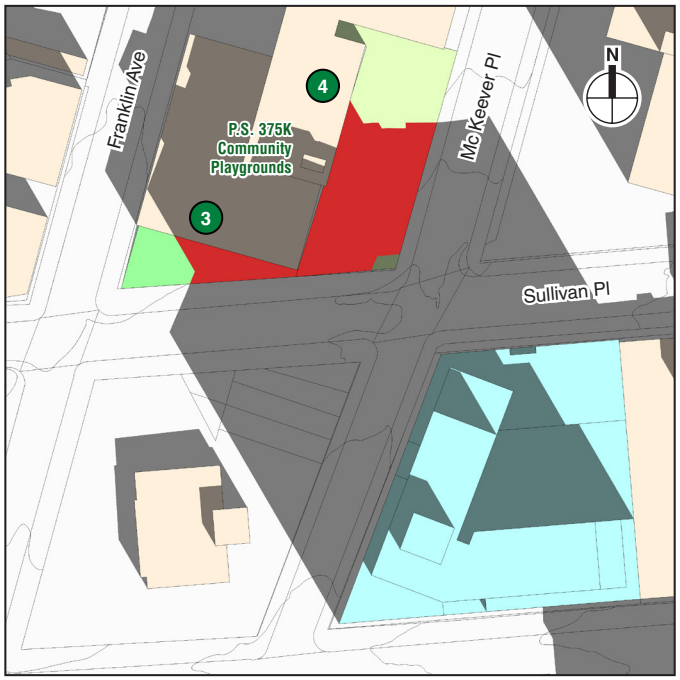
7.28.22



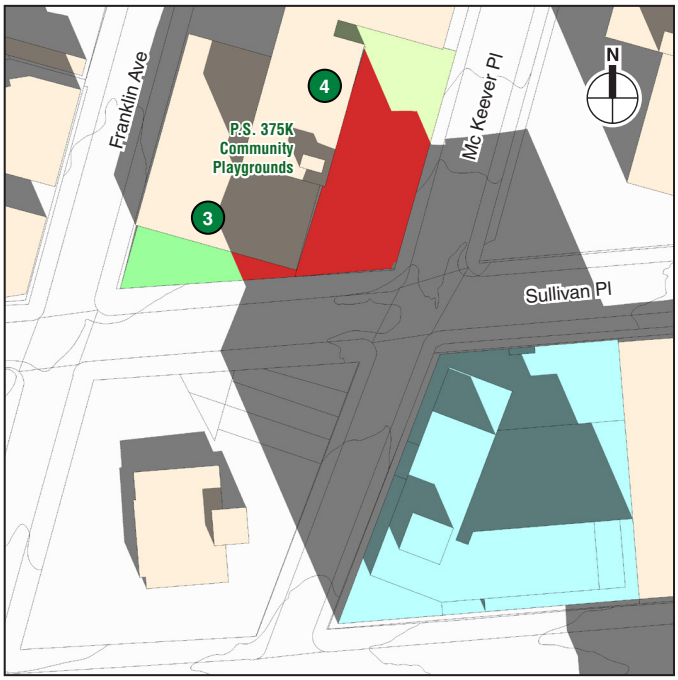
8:51AM



9:30AM



9:50 AM



10:20 AM

Proposed Project

Publicly Accessible Open Space, primarily passive (see Table E-1)

Publicly Accessible Open Space, primarily active (see Table E-1)

NOTES: Only the areas of shadow highlighted in red represent incremental shadow resulting from the proposed project. All other shadow is future No Action shadow, i.e. baseline shadow from existing buildings and the future No Action building.

Detailed Analysis - Shadows
December 21

73-99 EMPIRE BOULEVARD

Figure E-4

7.28.22



10:50AM



11:20AM



11:50AM



12:15PM

Proposed Project

Publicly Accessible Open Space, primarily passive (see Table E-1)

Publicly Accessible Open Space, primarily active (see Table E-1)

NOTES: Only the areas of shadow highlighted in red represent incremental shadow resulting from the proposed project. All other shadow is future No Action shadow, i.e. baseline shadow from existing buildings and the future No Action building.

Detailed Analysis - Shadows
December 21

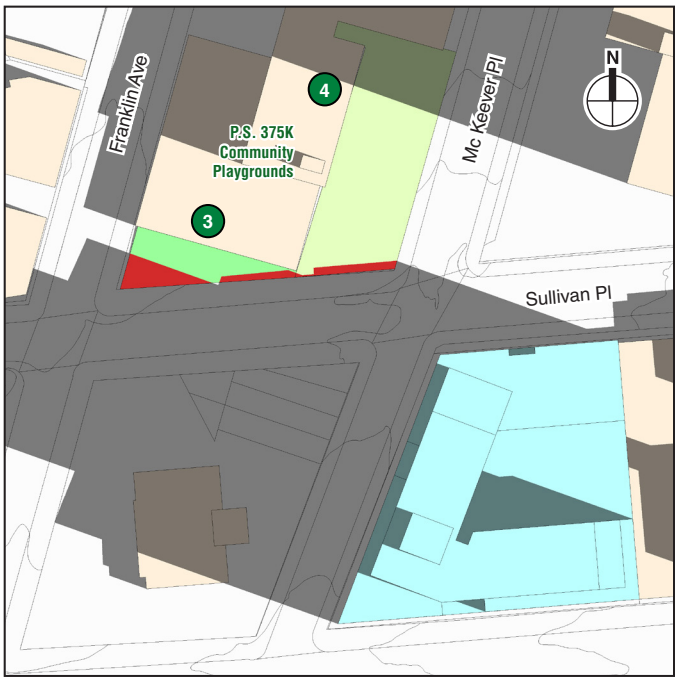
73-99 EMPIRE BOULEVARD

Figure E-5

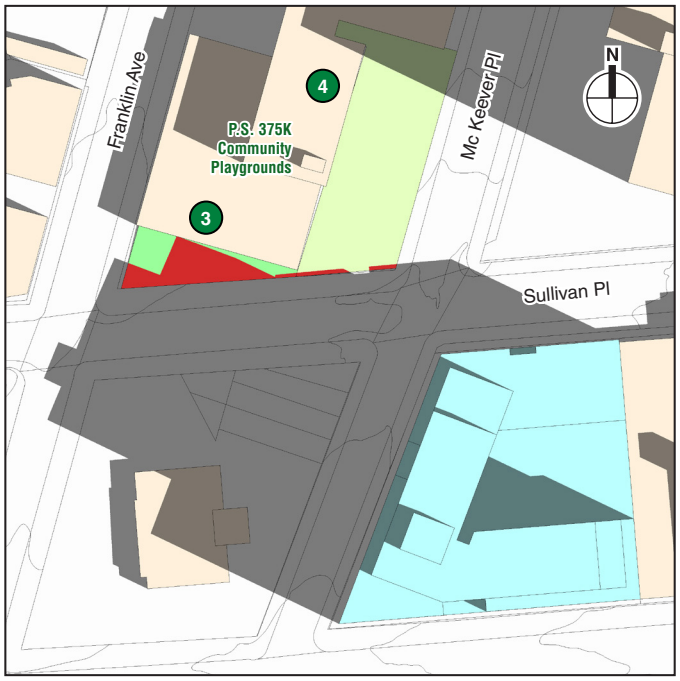
7.28.22



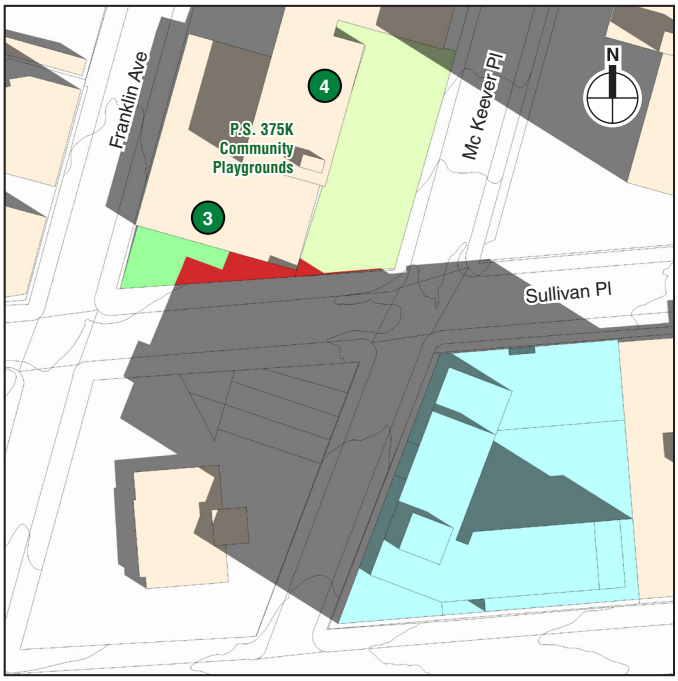
7:36AM



8:00AM



8:30AM



9:00AM

Proposed Project

Publicly Accessible Open Space, primarily passive (see Table E-1)

Publicly Accessible Open Space, primarily active (see Table E-1)

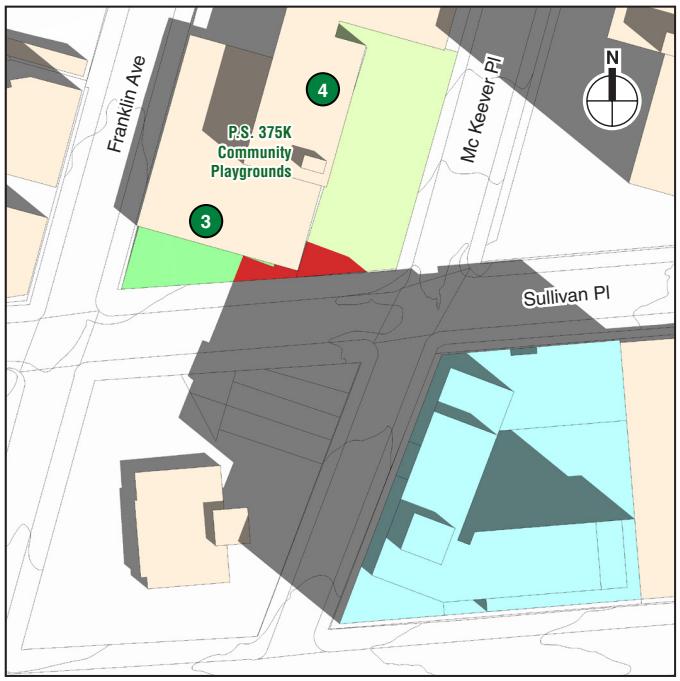
NOTES: Only the areas of shadow highlighted in red represent incremental shadow resulting from the proposed project. All other shadow is future No Action shadow, i.e. baseline shadow from existing buildings and the future No Action building. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Detailed Analysis - Shadows
March 21 / September 21

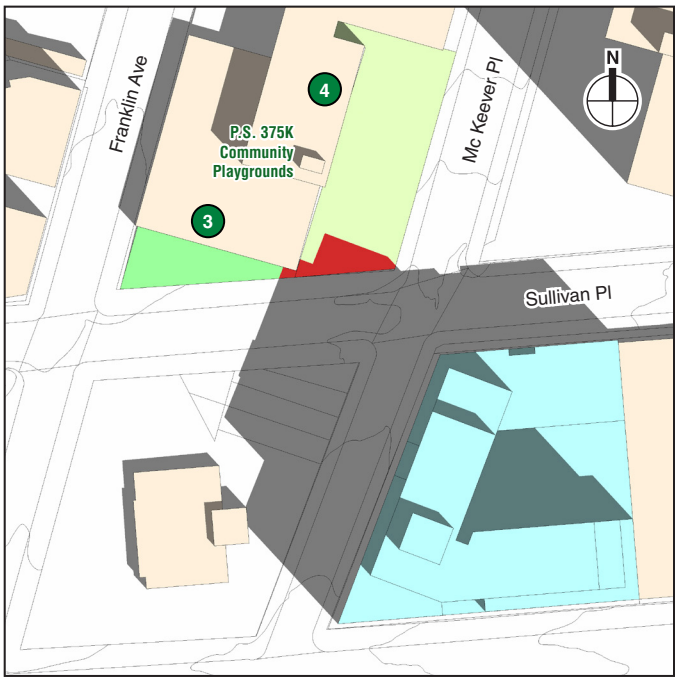
73-99 EMPIRE BOULEVARD

Figure E-6

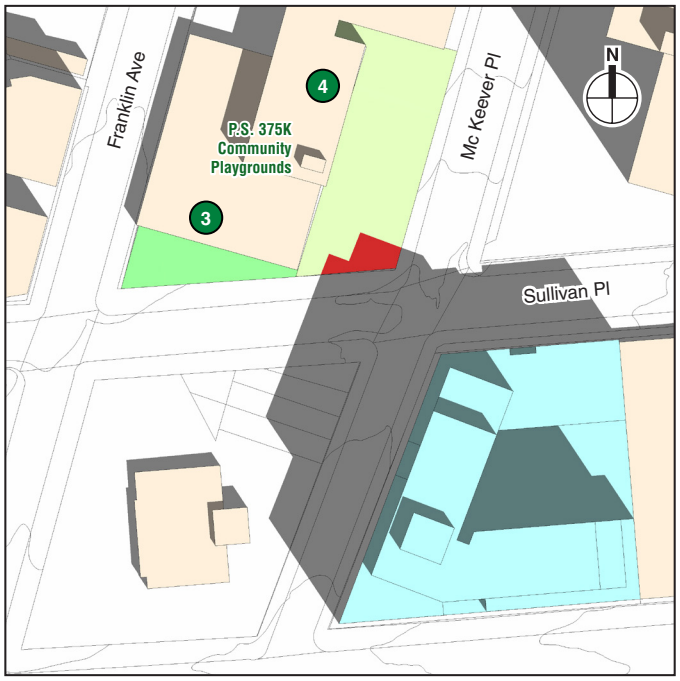
7.28.22



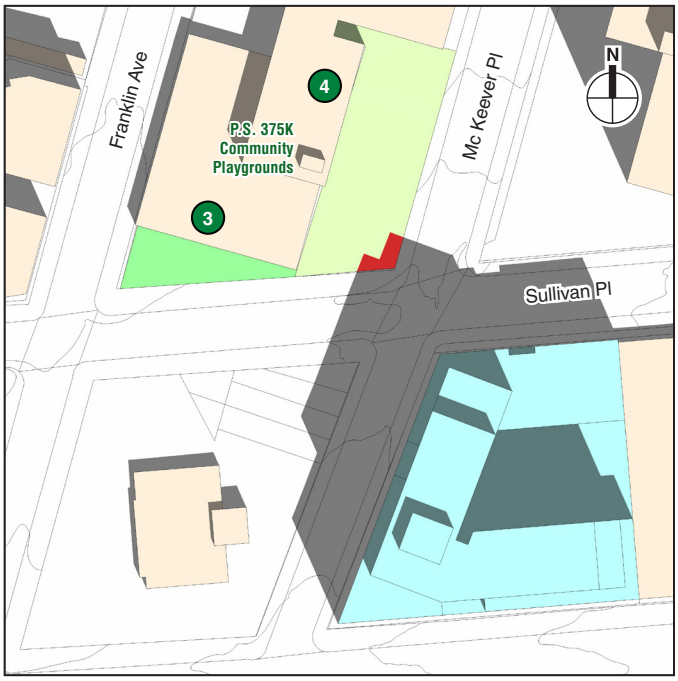
9:30AM



10:00AM



10:30AM



11:00AM

Proposed Project

Publicly Accessible Open Space, primarily passive (see Table E-1)

Publicly Accessible Open Space, primarily active (see Table E-1)

NOTES: Only the areas of shadow highlighted in red represent incremental shadow resulting from the proposed project. All other shadow is future No Action shadow, i.e. baseline shadow from existing buildings and the future No Action building. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Detailed Analysis - Shadows
March 21 / September 21

73-99 EMPIRE BOULEVARD

Figure E-7

four more benches along the perimeter in the southwest portion, and planters with ledge seating along the northern side abutting the school building (see **Figure E-3**).

On December 21, when shadows are longest, incremental shadow would move across the space for the first two hours of the day, from 8:51 AM to 10:55 AM (see **Figures E-4 and E-5**). The incremental shadow would eliminate all the sunlight for the first 30 minutes, until about 9:20 AM, then continue to shift eastward, allowing sunlight onto the western side of the space. By 9:50 AM, the eastern side would continue to be in incremental shadow while the western side would be in sun, including several benches, a table, and some ledge seating. A half-hour after that, at 10:20 AM, only about 20 percent of the space would still be in incremental shadow, at the eastern end. The space would be in sun for the remainder of the day.

After the first 30 to 45 minutes of the morning, sunlit seating areas would be available for users seeking such amenities and would continue to be available throughout the rest of the day. Usage of this space is likely to be light on winter mornings, due to the cold and/or inclement weather typical of the season. Given these factors, the incremental shadow would not be expected to cause significant adverse impacts to the use of this space in winter. Regarding vegetation in the space, the winter months are outside the growing season in New York City and consequently the Proposed Project's incremental shadows at this time would not substantially affect the health of the trees and plantings.

On the March 21/September 21 analysis day, incremental shadow would cover a small portion of the space along the southern edge at the start of the analysis day at 7:36 AM (8:36 AM EDT), and then move eastward, increasing in size so that from 8:10 AM to 8:45 AM (9:10 AM to 9:45 AM EDT) between a half and two-thirds of the space would be covered (see **Figure E-6**). Then the size of the incremental shadow would steadily decrease, so that 45 minutes later, by 9:30 AM (10:30 AM EDT), only about 15 percent of the space would be in incremental shadow, and after continuing to decrease in size the incremental shadow would exit after another 35 minutes at 10:05 AM (11:05 AM EDT) (see **Figure E-7**).

Even at the time of the incremental shadow's largest extent, there would be sunlit seating areas available for users. The space would be entirely in sun from about 10:00 AM to 3:00 PM (11:00 AM to 4:00 PM EDT), and mostly in sun after that until the end of the analysis day an hour and a half later. The seating area in the northwest quarter of Jackie Robinson Playground on the northern end of the block—on the opposite side of the school—would be in sun after 8:30 AM (9:30 AM EDT) as an additional option for users seeking sunlight at that time. Given all these factors, the incremental shadow would not be expected to cause significant adverse impacts to the use of this space in the fall and early spring months, or any other time of year. Regarding the space's vegetation, the trees and planters would receive a minimum of approximately 6 hours of direct sunlight throughout the growing season, adequate even for species preferring full sunlight.

P.S. 375K – BALL COURTS AND RUNNING TRACK

This large space fronting Sullivan Place and McKeever Place is paved with basketball courts, a running track painted on the surface, and planters with ledge seating along the western perimeter abutting the school building and also near the north end of the space, separating the active play area from the building entrance area.

Incremental shadow would move across portions of this space on winter days from 8:51 AM to 12:15 PM (see **Figures E-4 and E-5**), and on fall and early spring mornings from 7:36 AM to 11:30 AM (**Figures E-6 and E-7**). The incremental shadow would have no impact on school days, when

the space is accessible to the public only after school hours in the mid- to late afternoon. However, on weekends and holidays, the incremental shadow would have the potential to affect public users of this space. No incremental shadow would reach the space in late spring and summer months.

On December 21, more than half the space would be in incremental shadow until about 11:50 AM. Most of the space would be in sun in the early afternoon, until the end of the analysis day at 2:53 PM, with some existing shadow from the school building falling on the western side during this time.

On weekend and holiday mornings in the winter, usage of this space by the public would likely be light due to the cold and/or inclement weather typical of the season. After 10:30 AM, the basketball courts in Jackie Robinson Playground on the north end of the block would be in sun, as an additional option for users seeking sunlit areas to play ball from 10:30 AM to 11:30 AM, and from approximately noon until the end of the analysis day in mid-afternoon much or all of the space would be in sun. Given all these factors, including the limited weekly availability of the space to public users in the mornings when incremental shadow would occur (weekends and holidays only), the incremental shadow would not be expected to cause a significant adverse impact to the use of this space in winter. Regarding vegetation in the space, the winter months are outside the growing season in New York City and consequently the Proposed Project's incremental shadows at this time would not substantially affect the health of the trees and plantings.

On March 21/September 21, representing the fall and early spring months, incremental shadow would move across the southern end of the space between 7:36 AM and 11:30 AM (8:36 AM to 12:30 PM EDT). The incremental shadow would remain small throughout the affected period, leaving 90 percent or more of the space in sun throughout. Given the limited extent of incremental shadow and large areas of remaining available sunlight, the Proposed Project would not cause a significant adverse shadow impact to the public users of this space on weekend and holiday mornings. Regarding the space's vegetation, the trees in the planters would receive a minimum of 4 to 6 hours of direct sunlight throughout the growing season and their health would therefore not be significantly impacted by the incremental shadow.

E. CONCLUSIONS

The Proposed Project would cast new shadows on portions of two publicly accessible spaces associated with P.S. 375K primarily during mornings in the fall, winter, and early spring months. In the fall and early spring, when shadows are of moderate length, the incremental shadows would generally cover small areas within these spaces and would not significantly affect their use, nor the health of their vegetation, which would receive adequate sunlight for much of the day and in the late spring and summer seasons. In winter, when shadows are longer, the incremental shadows would cover larger areas at times. Due to their transient nature, however, and given public usage levels and patterns described in detail above and the availability of similar open space amenities in the nearby Jackie Robinson Playground that would be in sun during all or a portion of the affected times, these incremental shadows would not significantly affect the public use of these spaces in winter. The Proposed Project would also cast very brief early-morning shadow with negligible impact on a Greenstreets triangle on one of the four representative analysis dates only. Therefore, the Proposed Project would not have a significant adverse impact related to shadows. ✷

A. INTRODUCTION

This attachment assesses the potential for the Proposed Project to affect historic and cultural resources. As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the construction of a 13-story mixed-use building containing residential and commercial uses (the "Proposed Project") on the Project Site at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhoods of Brooklyn, Community District 9 (Block 1306, Lot 28). The Proposed Actions include a zoning map amendment and zoning text amendment.

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

B. METHODOLOGY

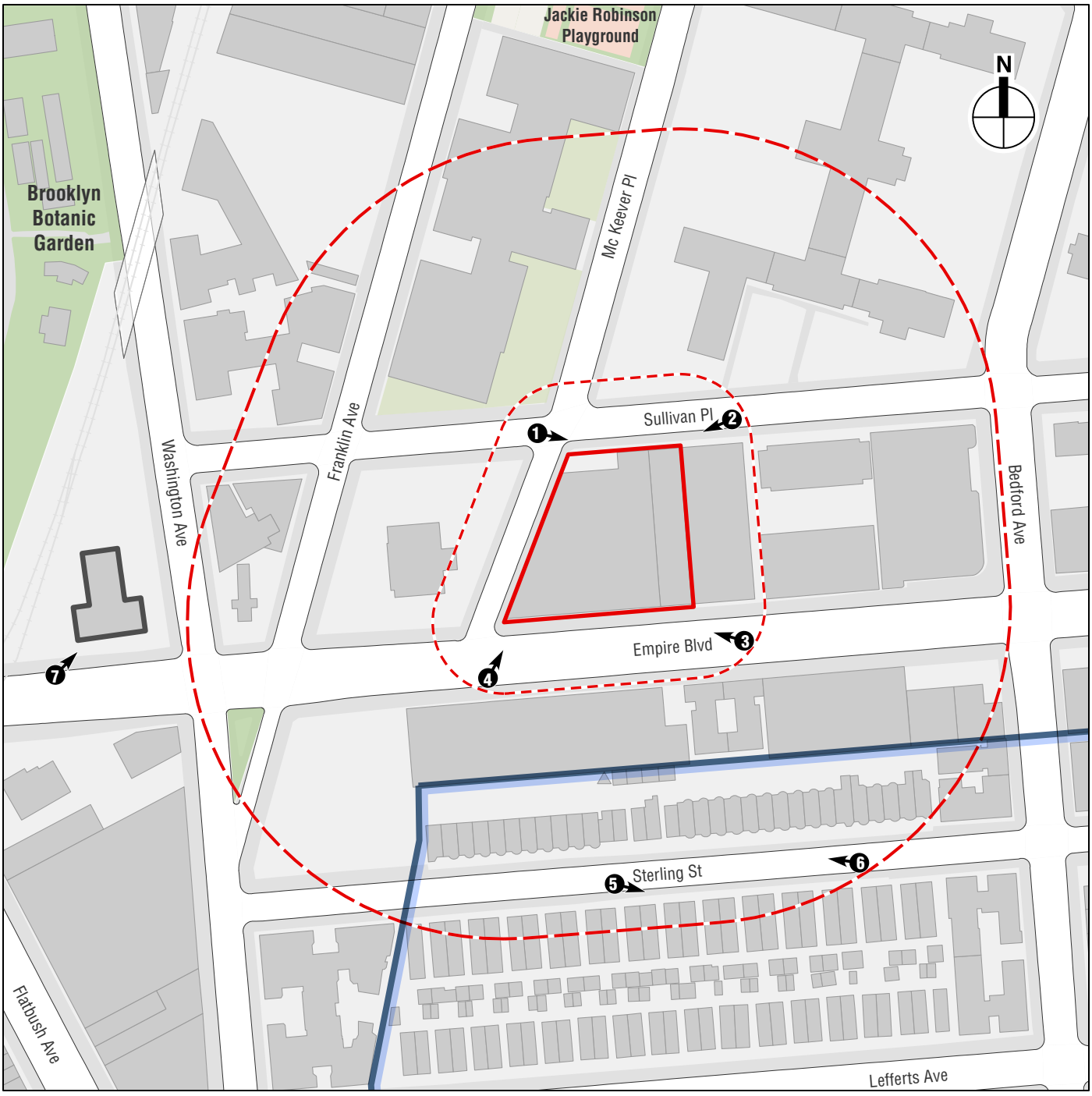
ARCHAEOLOGICAL RESOURCES

Pursuant to CEQR, consultation was initiated with New York City Landmarks Preservation Commission (LPC) in order to obtain a preliminary determination of the Project Site's potential archaeological sensitivity. In a comment letter dated February 3, 2023, LPC determined that the Project Site (Brooklyn Block 1306, Lot 28) is not potentially archaeologically significant (see **Appendix D**). As such, no further archaeological analysis is warranted, and the project would not result in significant adverse impacts on archaeological resources. The remainder of this chapter therefore focuses only on historic architectural resources.

ARCHITECTURAL RESOURCES

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

Impacts on architectural resources can include both direct physical impacts and indirect impacts. Direct impacts include damage from vibration (i.e., from construction blasting or pile driving) and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery. As defined in the New York City Department



Architectural Resources

73-99 EMPIRE BOULEVARD

Figure F-1

of Building's (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88,* adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource.[1]

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

Study areas for architectural resources are determined based on the area of potential effect for construction period impacts, as well as the larger area in which there may be visual or contextual impacts. Consistent with *CEQR Technical Manual* guidelines, the study area for architectural resources has been defined as the area within an approximately 400-foot radius of the Project Site (see **Figure F-1**). Within the study area, architectural resources that were analyzed include New York City Landmarks (NYCLs), Interior Landmarks, Scenic Landmarks, and New York City Historic Districts (NYCHDs); and properties pending such designation; State and National Registers of Historic Places (S/NR)-listed or S/NR-eligible properties or properties contained within a S/NR-listed or S/NR-eligible historic district, and properties recommended by the New York State Board for listing on the S/NR; and National Historic Landmarks (NHLs). Additionally, a survey of the study area was conducted to identify any previously undesignated properties that appear to meet NYCL or S/NR eligibility criteria ("potential architectural resources").

C. EXISTING CONDITIONS

PROJECT SITE

The Project Site consists of Brooklyn Block 1306, Lot 28, which is bordered by Empire Boulevard to the south, McKeever Place to the west, Sullivan Place to the north, and commercial and residential structures to the east. The Project Site contains two buildings: a 1-story, approximately 30,679-sf commercial building built in 1952, which is currently vacant, and a 1-story, approximately 8,000-sf commercial building built in 1925, currently occupied by a laundromat (see Views 1-4 of **Figures F-2 and F-3**). The Project Site also includes 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place. The buildings on the Project Site do not appear to meet criteria for S/NR listing or NYCL designation and have not been identified as potential architectural resources.

STUDY AREA

There are two known architectural resources located in the study area (see **Figure F-1**). No potential architectural resources were identified in the study area.

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



Project site, view east on Sullivan Place from McKeever Place **1**



Project site, view west on Sullivan Place **2**

Project Site Photographs

Figure F-2



Project site, view west on Empire Boulevard **3**



Project site, view northeast on Empire Boulevard at McKeever Place **4**

KNOWN ARCHITECTURAL RESOURCES

Prospect Lefferts Gardens Historic District (S/NR-eligible)

The Prospect Lefferts Gardens Historic District is located to the south and east of the Project Site (see **Figure F-1** and Views 5 and 6 of **Figure F-4**). It is roughly bounded by Sterling Street to the north, New York Avenue to the east, Lincoln Road and Rutland Road to the south, and Washington Avenue to the west. The historic district was determined eligible for the National Register under Criterion C in the area of architecture, as a collection of late 19th and early 20th century residential, commercial, religious, and civic buildings representing popular architectural styles of the period, including Renaissance Revival, Romanesque Revival, Spanish Mission style, Colonial Revival, Tudor Revival, and Art Deco. Many of the buildings in the historic district were developed by influential Brooklyn developers and designed by prominent Brooklyn architects for upwardly mobile middle-class families.

The buildings in the historic district closest to the Project Site are on the north side of Sterling Street west of Bedford Avenue, approximately 250 feet south of the Project Site. The historic district buildings on this side of Sterling Street are two stories tall with a raised basement, typically faced in limestone (some now painted), with a low masonry stoop and a projecting canted front. The buildings on the south side of Sterling Street between Bedford and Franklin Avenues are two-story red brick paired buildings in the Tudor Revival style. Some of the paired buildings have entries capped with steeply sloped, hip-roofed hoods, which extend over the entries of both buildings.

Fire Alarm Telegraph Bureau, aka Brooklyn Central Office, Bureau of Fire Communications, 35 Empire Boulevard (S/NR-eligible; NYCL)

The Fire Alarm Telegraph Bureau is located at the western edge of the study area, approximately 400 feet from the Project Site. The one and a half story building, designed in the form of a garden pavilion in an Italian Renaissance Eclectic style, was completed in 1916 (see View 7 of **Figure F-5**). The building is T-shaped and is fronted by light brick trimmed with terra cotta and limestone and capped by a hipped terra cotta roof. It has a triple arched, recessed loggia at the center of the front façade. The building was designed by Frank J. Helmle, who also designed an identical telegraph bureau in the Bronx. Like the city's other telegraph bureaus, this structure was sited in a park to minimize the risk of fire from adjacent buildings. All signals of a Brooklyn fire came here first before transmittal to the appropriate firehouse. The creation of these borough communications stations reflected the growing centralization of the fire department and the expansion of the city in the early 20th century.

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

PROJECT SITE

In the No Action condition, in 2026, it is expected that the Applicant would redevelop the Project Site as-of-right with a new two-story (40-foot-tall), approximately 114,534-gsf (1.9 FAR) commercial building. The No Action development would contain retail and supermarket use above grade, and accessory parking spaces in a below-grade facility.



Prospect Lefferts Gardens Historic District, view southeast on Sterling Street **5**



Prospect Lefferts Gardens Historic District, view northwest on Sterling Street **6**

Architectural Resources in Study Area



Fire Alarm Telegraph Bureau, view northeast on Empire Boulevard **7**

Architectural Resources in Study Area

Figure F-5

STUDY AREA

As discussed in Attachment B, "Land Use, Zoning, and Public Policy," there are two developments located within the study area that are anticipated to be completed by the 2026 analysis year: 1 Sullivan Place and 1730 Bedford Avenue. The 1 Sullivan Place development to the northwest of the Project Site, at the northeast corner of Washington Avenue and Sullivan Place, is anticipated to include residential use in a 119-foot-tall building. The 1 Sullivan Place development site is located more than 90 feet from the Fire Alarm Telegraph Bureau resource. The development at 1730 Bedford Avenue is located on the Project Site block, to the east of the Project Site on Bedford Avenue. It is anticipated to be 94 feet tall and include residential, community facility, and commercial uses and parking. The 1730 Bedford Avenue development site is located more than 90 feet from the Prospect Lefferts Gardens Historic District resource.

In the No Action condition, the status of architectural resources could change. S/NR-eligible properties could be listed on the Registers and potential architectural resources could be determined S/NR-eligible or considered for NYCL designation.

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

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

The New York City Building Code, in Section BC 3309: Protection of Adjoining Property, provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

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

E. THE FUTURE WITH THE PROPOSED ACTIONS

PROJECT SITE

Approval of the Proposed Actions would facilitate the development of the Proposed Project on the Project Site. The Proposed Project would replace the existing buildings and vacant lot on the Project Site with a new 13-story, approximately 384,429 gross square foot (gsf) mixed-use building with residential (including affordable housing), retail, and supermarket uses as well as accessory parking in a below-grade facility (see **Figures A-1 and A-2**). The Proposed Project would reach a total height of 145 feet, rising 75 feet before setting back 10 feet along Empire Boulevard. The northern portion of the building with street frontage on Sullivan Place would rise to 75 feet before setting back 15 feet in deference to the lower-density residential context on Sullivan Place.

As there are no known or potential architectural resources on the Project Site, no such resources would be affected by the Proposed Project.

STUDY AREA

There are no known architectural resources within 90 feet of the Project Site. Therefore, no architectural resources in the study area would be directly affected by the Proposed Actions.

The Proposed Actions would not result in any significant adverse visual or contextual impacts to the architectural resources in the study area. The Proposed Project would be taller and of a modern design compared to the architectural resources in the study area. However, the new development would not adversely impact the visibility or context of these architectural resources because the architectural resources are already located away from the Project Site and do not have meaningful visual or contextual relationships to the Project Site. The buildings in the Prospect Lefferts Gardens Historic District are predominately smaller, low-scale buildings that are located at a distance from the Project Site, beyond intervening buildings. Therefore, the buildings in this historic district do not having a meaningful visual relationship to the Project Site or Project Area. Similarly, the Fire Alarm Telegraph Bureau is located at a distance from the Project Site, beyond intervening buildings. The architectural resources in the study area are already located within a mixed context of existing newer, older, taller, and shorter buildings, including the Ebbets Field Apartments, a 25-story apartment building on the block directly northeast of the Project Site. Therefore, the Proposed Project would be consistent with the mixed character of the study area near the historic district and would not adversely alter the setting of the Prospect Lefferts Garden Historic District or the Fire Alarm Telegraph Bureau. The Proposed Project would not obstruct public views of any known architectural resources in the study area. The architectural resources in the study area are located more than 250 feet from the Project Site and separated by intervening streets and buildings. While some views of architectural resources in the study area may include the upper stories of the proposed development, study area architectural resources are already located within the context of older and newer buildings, including tall buildings.

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

A. INTRODUCTION

As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions include a zoning map amendment and a zoning text amendment subject to City Planning Commission (CPC) approval to facilitate the development of a 13-story mixed-use building with affordable housing (the "Proposed Project") at 73-99 Empire Boulevard in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9 (the "Project Site").

This attachment assesses the potential for the Proposed Actions to affect urban design and visual resources. As defined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. These components include streets, buildings, visual resources, open spaces, natural resources, and wind. A visual resource can include views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings, and natural resources. An urban design assessment under CEQR must consider whether and how a project may change the experience of a pedestrian in a project area.

As described below, this preliminary assessment concludes that the Proposed Actions would not result in any significant adverse impacts to urban design and visual resources and no further analysis is warranted.

B. METHODOLOGY

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 modify zoning on the Project Site from a combination of C8-2 and R6/C1-3 districts to a C4-4D district, which would permit a higher density of development compared to existing zoning. Therefore, the Proposed Actions would result in physical alterations at the Project Site beyond those allowed by the existing zoning and would meet the threshold for a preliminary assessment of urban design and visual resources. The *CEQR Technical Manual* guidelines recommend the preparation of a preliminary assessment of urban design and visual resources, followed by a detailed analysis, if warranted based on the conclusions of the preliminary assessment.

According to the *CEQR Technical Manual*, the study area for urban design is the area where a proposed project may influence land use patterns and the built environment and is generally consistent with that used for the land use analysis. For visual resources, the view corridors

within the study area from which such resources are publicly viewable should be identified. In accordance with *CEQR Technical Manual* methodologies, the study area for the urban design and visual resources analysis has been defined as a 400-foot radius around the Project Site, consistent with the study area for the analysis of land use, zoning, and public policy. The urban design and visual resources study area is roughly bounded by the midblock between Montgomery Street and Sullivan Place to the north, Bedford Avenue to the east, Sterling Street to the south, and Washington Avenue to the west (see **Figures G-1 and G-2**).

The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that would result in the construction of large buildings at locations that experience high wind conditions (such as along the waterfront, or other location where winds from the waterfront are not attenuated by buildings or natural features), which may result in an exacerbation of wind conditions due to "channelization" or "downwash" effects that may affect pedestrian safety. The Project Site is not located along a waterfront or in an area that experiences high wind conditions. Therefore, a pedestrian wind analysis is not warranted.

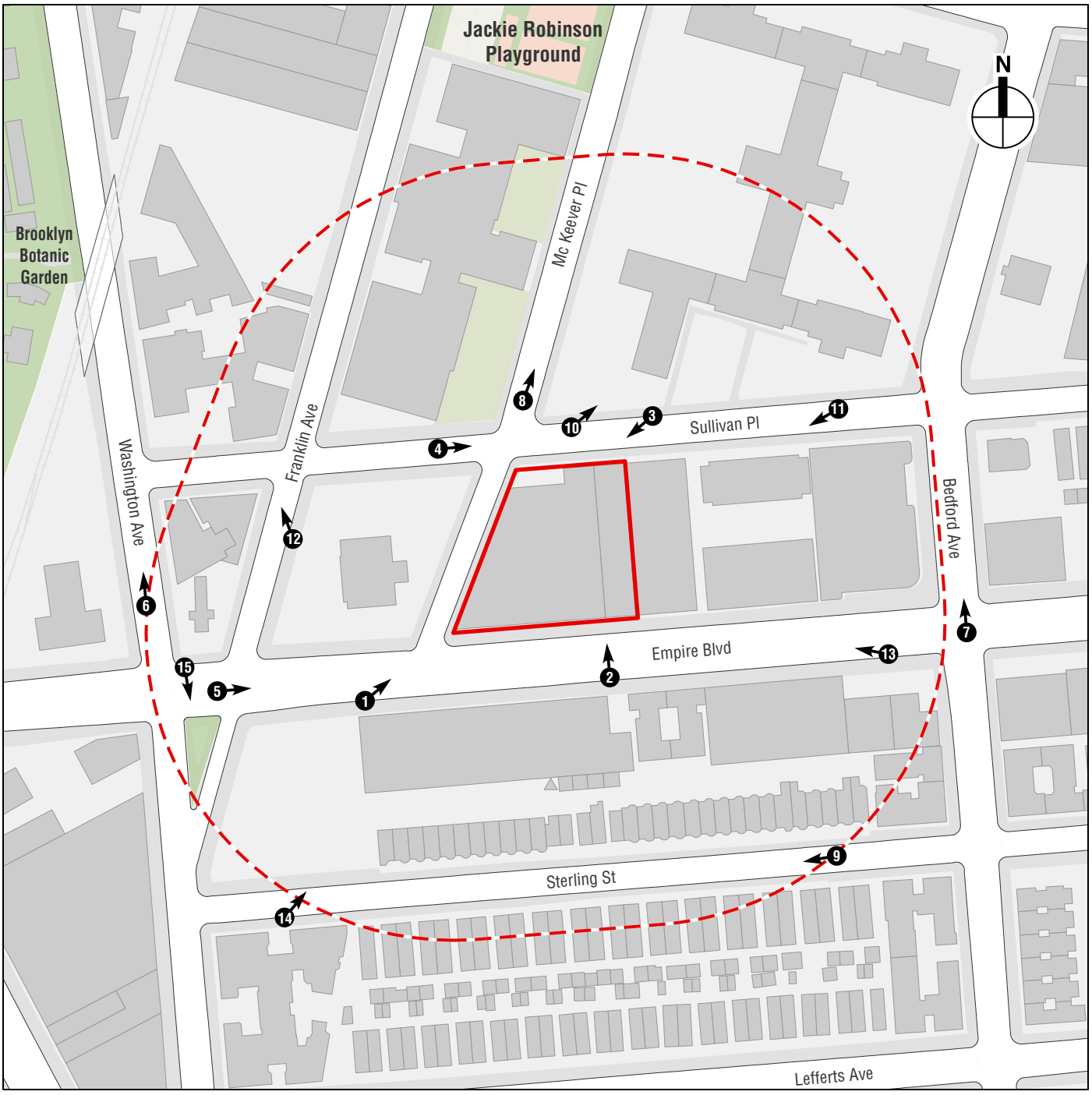
C. EXISTING CONDITIONS

URBAN DESIGN

PROJECT SITE

The Project Site comprises Block 1306, Lot 28, a 38,118-square foot (sf) trapezoidal-shaped lot that occupies the west end of the block bounded by Sullivan Place to the north, McKeever Place to the west, Empire Boulevard to the south, and Bedford Avenue to the east (see **Figure G-1**). The site contains a vacant one-story building and a one-story laundromat building, described below, as well as 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place. There are curb cuts along Empire Boulevard and Sullivan Place at vehicle entrances to the buildings. The vacant area contains vegetation and is enclosed in wire fence (see Views 1 to 3 of **Figures G-2 and G-3**).

The vacant one-story building is 30,679 sf, with a primary (south) façade on Empire Boulevard. The building is irregular in plan, conforming to the streets that surround the lot on three sides. The approximately 18-foot-tall building is clad in yellow and red brick on the west and north façades and has a decorative terracotta cladding on the primary (south) façade. The west and south streetfronts of the building meet McKeever Place and Empire Boulevard, respectively, and the rear (north) streetfront is partially set back from Sullivan Place behind the fenced-in vacant area. Approximately 40 feet of the rear façade meets Sullivan Place, containing a single-bay garage entrance and a single window. The building's windows and doors are sealed. The laundromat building adjoins the vacant building to the east, with a primary (south) façade on Empire Boulevard and a loading dock at the rear façade on Sullivan Place. The one-story, approximately 18-foot-tall building is 8,000 sf and clad in brick. Its primary façade is a modern storefront with an access ramp and steps leading up to the entrance. The Project Site is currently developed to an FAR of 1.01.



Urban Design and Visual Resources
Key to Photographs

73-99 EMPIRE BOULEVARD

Figure G-1



Vacant building occupying the western portion of the Project Site along Empire Boulevard **1**



View north to the Project Site from Empire Boulevard **2**

Project Site Photographs



The south side of Sullivan Place, showing the rear of buildings on the Project Site and the vacant area at the corner of Sullivan Place and McKeever Place **3**



View east on Sullivan Place from McKeever Place showing the Project Site to the right. Ebbets Field Apartments is shown to the left and 90 Sullivan Place is shown to the right **4**

Project Site Photographs
Figure G-3

STUDY AREA

Streets

The study area streets form an irregular grid, with a rectilinear pattern interrupted by Franklin Avenue and McKeever Place, which extend through the grid at a diagonal (see **Figure G-1**). South of Empire Boulevard is one rectangular block with long frontages along Empire Boulevard and Sterling Street. North of Empire Boulevard, the blocks in the study area are more irregular in size and shape; south of Empire Boulevard are rectangular blocks oriented east-west. The study area streets terminate to the west at the Brooklyn Botanical Garden and Prospect Park, outside the study area.

The study area streets are 50 to 100 feet wide with traffic lanes flanked by curbside parking lanes and sidewalks (see Views 4 to 9 of **Figures G-3 and G-5**). Empire Boulevard is a 4-lane, 100-foot-wide east-west thoroughfare that crosses through the center of the study area. The street has two-way traffic. Sullivan Place and Sterling Street, also east-west corridors through the study area, are one-way streets each measuring approximately 70 feet wide. Forming the western and eastern boundaries of the study area, Washington Avenue and Bedford Avenue are 80-foot-wide corridors with two lanes of traffic and wide sidewalks. McKeever Place is a 50-foot-wide street with its southern terminus at the Project Site, and its northern terminus at Montgomery Street north of the study area. Within the study area, MTA bus route 48 traverses Washington Avenue and Franklin Avenue, and MTA bus route 43 runs along Empire Boulevard and Bedford Avenue. There are no subway stations in the study area. Bedford Avenue has a dedicated bicycle lane painted in white on the pavement. A portion of sidewalk at the northwest corner of Washington Avenue and Empire Boulevard is partially paved in Belgian blocks. Brick paving is on a sidewalk surrounding a triangle at the junction of Empire Boulevard and Franklin Avenue.

Street furniture in the study area includes fire hydrants, trashcans, street signs, and sidewalk fences.

Buildings

The built environment of the study area is characterized by a school, mid- and high-rise apartment buildings, two-story rowhouses, and low-rise commercial buildings occupying large lots and containing uses such as supermarkets, storage, retail, and fast-food restaurants. The Project Site is in a transitional space between low-rise buildings to the south and taller residential buildings to the north. The southern portion of the study area is primarily characterized by older two-story rowhouses that are approximately 20 feet wide and with FAR of less than 1. These buildings are located within the Prospect Lefferts Gardens Historic District (described in Attachment F, "Historic and Cultural Resources"). North of Sullivan Place, the study area is comprised of taller buildings with larger footprints. The buildings have less lot coverage as they are set back from the street behind open space and parking areas. Properties in the northern portion of the study area have FARs ranging from 1 to 6. Buildings in the northern portion of the study area include apartment buildings and a school, described below.

Ebbets Field Apartments, a large residential tower, is located directly northeast of the Project Site (see View 10 of **Figure G-6**). Within the study area, Ebbets Field Apartments has frontages on McKeever Place and Sullivan Place. The 25-story, approximately 210-foot-tall apartment building is set back from the streets and surrounded by landscaping and surface parking lots. The property has a FAR of 5.73. On Sullivan Place and McKeever Place, an iron fence borders the



View east on Empire Boulevard from Franklin Avenue, showing low-rise commercial buildings **5**



View north on Washington Avenue from north of Empire Boulevard, showing telecommunications tower to the left **6**

Study Area Photographs
Figure G-4



View north on Bedford Avenue from Empire Boulevard **7**



View north on McKeever Place from Sullivan Place, showing P.S. 375 to the left **8**



Rowhouses on Sterling Street, view northeast from between Franklin and Bedford Avenues **9**



Ebetts Field Apartments, view northeast from Sullivan Place and McKeever Place **10**

Study Area Photographs
Figure G-6

property along the sidewalk, which includes multiple curb cuts and vehicular entrances, including an entrance to a parking lot at the northeast corner of Sullivan Place and McKeever Place immediately north of the Project Site. The brick building rises to its full height with no setbacks.

Northwest of the Project Site, the Jackie Robinson School (aka P.S. 375) located at 945 Franklin Avenue is a mid-20th century era school building occupying the southern portion of the block bounded by Sullivan Place, McKeever Place, Montgomery Street, and Franklin Avenue. The property has a FAR of 1.03. The one- to four-story, approximately 50-foot-tall building is clad in black brick and concrete, with banded windows. the school has frontages on Sullivan Place, McKeever Place, and Franklin Avenue; the primary entrance is on McKeever Place. At the corner of Sullivan Place and McKeever Place, the school property is bordered by an iron fence that encloses a paved play area with basketball hoops and a small running track. The portion of the building fronting on Franklin Avenue is windowless and built to the lot line.

Mid-rise apartment buildings are located east and west of the Project Site. These buildings have high lot coverage and FARs ranging from approximately 3 to 5. Directly east of the Project Site on the project block is 90 Sullivan Place, a six-story, approximately 70-foot-tall apartment building with mostly vacant commercial storefronts and a storefront church on the ground floor (see View 11 of **Figure G-7**). The building has a 140-foot-long frontage on Sullivan Place. Northwest of the Project Site, a seven-story, approximately 74-foot-tall apartment building at 1035 Washington Avenue occupies the end of the block on the northern side of Sullivan Place between Franklin and Washington Avenues. The older building is clad in yellow brick with decorative brickwork between the stories and across the cornice line (see View 12 of **Figure G-7**).

One-story commercial buildings are located east and west of the Project Site, south of Sullivan Place. Fast-food restaurants occupy the small blocks in the western portion of the study area. These properties comprise one-story buildings surrounded by parking areas, with multiple curb cuts along the sidewalks that surround the properties. Other commercial buildings in the vicinity include brick warehouse buildings, characterized by windowless streetwalls. A storage facility also shares the block with the Project Site, comprising a 70-foot-tall, aluminum-clad building with a frontage on Empire Boulevard (see View 13 of **Figure G-8**). The building has a FAR of 2.54. At the far end of the project block, at the northwest corner of Empire Boulevard and Bedford Avenue, is a site that is undergoing preparation for redevelopment and is surrounded by a plywood barrier.

In the southern portion of the study area, Sterling Street is developed with late-19th and early 20th-century two-story, approximately 26-foot-tall rowhouses, located within the Prospect Lefferts Gardens Historic District (described in Attachment F, "Historic and Cultural Resources"). The buildings are faced in stucco and brick, set back behind planted yards and areaways. Iron fences line the sidewalk (see View 9 of **Figure G-6**). The western end of the block, with frontages on Sterling Street, Franklin Avenue, and Empire Boulevard, is a surface parking area (see View 14 of **Figure G-8**).

Natural Features and Open Space

The topography of the study area has a slight downward slope from northwest to southeast. A triangular traffic island at the corner of Empire Boulevard, Washington Avenue, and Franklin Avenue contains tree plantings and brick sidewalks (see View 15 of **Figure G-9**). A landscaped portion of the Ebbets Field Apartments development within the study area includes a grassy area



The mixed-use residential and commercial building at 90 Sullivan Place, view southwest on Sullivan Place **11**



View northwest on Franklin Avenue showing mid-rise apartment building at 1035 Washington Avenue, the building under construction at 1 Sullivan Place, and the mural at 1028 Franklin Avenue **12**

Study Area Photographs



View east on Empire Boulevard west of Bedford Avenue, showing storage building on the north side of the street **13**



Parking lot on east side of Franklin Avenue north of Sterling Street, view northeast from Sterling Street **14**

Study Area Photographs



Landscaped triangle at the junction of Franklin Avenue, Washington Avenue and Empire Boulevard. View south from Empire Boulevard **15**

Study Area Photographs

and several trees and shrubs, enclosed by a metal rail fence. The portion of the Jackie Robinson School site along Sullivan Place between Franklin Avenue and McKeever Place contains raised beds, tree plantings and shrubs, bench seating, and picnic tables, enclosed by a metal rail fence. Street trees are limited in the central portion of the study area, along Empire Boulevard and Sullivan Place, with smaller trees spaced further apart, whereas the streets to the north and south have more street trees.

VISUAL RESOURCES AND VIEW CORRIDORS

PROJECT SITE

As defined in the *CEQR Technical Manual*, a visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources. The Project Site does not contain any visual resources. Views from the sidewalks surrounding the Project Site include view west to trees in Prospect Park and the southernmost edge of the Brooklyn Botanic Garden from Empire Boulevard.

STUDY AREA

Within the study area there is one visual resource: a multi-colored mural on the east façade of a one-story warehouse building at 1028 Franklin Avenue. The mural was created by artist John Paul O'Grodnick in 2018, commissioned by Uber (see View 12 of **Figure G-7**).[1]

Views along the wide Empire Boulevard establish a view corridor to the east, which include trees and mid-rise buildings in the distance. Views to the south and north are available along Washington Avenue and Bedford Avenue. However, due to the flat topography of the study area and presence of street trees lining the avenues, distant views to the east, north and south are limited. Views to the west include trees within Prospect Park and the southernmost edge of the Brooklyn Botanic Garden, located west of the study area. Also visible to the west of the study area is a tall telecommunications tower at the northwest corner of Sullivan Place and Washington Avenue.

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

URBAN DESIGN

PROJECT SITE

In the future without the Proposed Actions (the No Action condition), the Applicant would redevelop the Project Site as-of-right with a new two-story (40-foot-tall), approximately 114,354-gsf (1.9 FAR) commercial building (see Figures A-3 and A-4). The No Action development would contain approximately 182 accessory parking spaces in a below-grade facility.

The as-of-right building would be built to the lot line on Empire Boulevard, McKeever Place, and Sullivan Place. The streetfront on Sullivan Place would include one vehicular entrance to the

[1] According to the artist's Instagram @JPOart.

subsurface parking and one loading dock entrance. The building would be uniform in height on all streets, rising two stories and 40 feet tall.

STUDY AREA

As described in Attachment B, "Land Use, Zoning, and Public Policy," there are two projects in the study area planned for completion by 2026: a 119-foot-tall building at 1 Sullivan Place, and a 94-foot-tall building at 1730 Bedford Avenue. The building at 1 Sullivan Avenue, at the northeast corner of Washington Avenue and Sullivan Place, is anticipated to include 52 dwelling units (DU). The development at 1730 Bedford Avenue is located at the northwest corner of Bedford Avenue and Empire Boulevard on the project block. It is anticipated to include 57 DUs, community facility uses, and 209 parking spaces.

The as-of-right building to be developed on the Project Site in the future without the Proposed Actions would contribute to the pedestrian experience along Empire Boulevard, McKeever Place, and Sullivan Place, by introducing an active commercial ground floor use to replace a vacant building that has a windowless streetwall. Rising 40 feet, the building would be similar in height to the existing one-story buildings on the Project Site and would be shorter than the mixed-use residential and commercial property at 90 Sullivan Place and the 70-foot-tall storage facility on the block. The building also would be shorter than the planned buildings at 1 Sullivan Place and 1730 Bedford Avenue. With an FAR of approximately 1.9, the as-of-right building would have a lower FAR than the mid-rise and high-rise residential buildings that characterize the northern portion of the study area as well as other buildings on the project block, including the 2.54 FAR storage building at 115 Empire Boulevard, the 3.35 FAR mixed-use building at 90 Sullivan Place, and the planned residential building at 1730 Bedford Avenue.

VISUAL RESOURCES AND VIEW CORRIDORS

PROJECT SITE

As described above, there are no visual resources on the Project Site. There are no important view corridors from the Project Site that would be affected by the No Action condition as existing views on the surrounding streets would remain available. The sidewalk along Empire Boulevard would continue to include views west of trees in Prospect Park and the southernmost edge of the Brooklyn Botanic Garden.

STUDY AREA

Neither the No Action condition building on the Project Site nor the planned developments at 1 Sullivan Place and 1730 Bedford Avenue would obstruct or obscure views of the mural at 1028 Franklin Avenue.

E. THE FUTURE WITH THE PROPOSED ACTIONS

URBAN DESIGN

The *CEQR Technical Manual* guidelines state that if the preliminary assessment shows that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed analysis is appropriate. Examples include projects that would potentially obstruct view corridors, compete with icons in the skyline, or make substantial

alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings. Detailed analyses also are generally appropriate for area-wide rezonings that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district or components of a historic building that contribute to the resource's historic significance. As described below, the Proposed Actions as compared to the future without the Proposed Actions (the No Action condition) would not result in substantial changes to the urban design character of the Project Site or the surrounding area, or to any visual resources or view corridors in the study area. Therefore, further analysis of urban design and visual resources in the form of a detailed analysis is not required.

PROJECT SITE

The footprint of the Proposed Project would fully occupy the Project Site and would have frontages on Empire Boulevard, McKeever Place, and Sullivan Place, as in the No Action scenario (see **Figure G-10**). The Proposed Project would be taller than the building planned for the No Action scenario. On Empire Boulevard, the Proposed Project would rise 13 stories, or a maximum of approximately 145 feet, for an incremental height increase of 105 feet over the No Action scenario. According to preliminary designs, the proposed building's streetwall would be approximately six stories, or approximately 75 feet, before setting back 15 feet along the narrower Sullivan Place and 10 feet along the wider Empire Boulevard.

In the With Action condition, the proposed building would contain supermarket and destination retail space on the cellar, ground, and second floors and residential units on the upper floors. The proposed building would have entrances to the commercial spaces along Empire Boulevard and McKeever Place, activating the pedestrian experience along these streetfronts. The streetwall along McKeever Place also would include the entrance to the residential lobby. Also contributing to the activation of this streetfront, the Proposed Project would include widening the sidewalk on McKeever Place adjacent to the Project Site by five feet. As in the No Action condition, the Sullivan Place streetfront would include one vehicular entrance to the subsurface parking and one loading dock entrance.

STUDY AREA

The Proposed Project would be developed on an existing block and therefore would not alter street orientation, street patterns, or block shapes in the study area. In comparison to the No Action condition, the proposed building would have residential use in addition to commercial. The residential use would be consistent with existing uses in the study area.

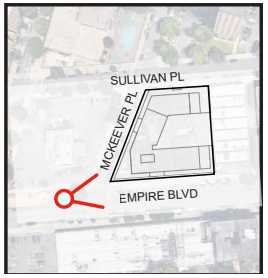
At 145 feet, the proposed building's height would be 105 feet taller than the adjacent properties on the project block, but would be in keeping with the tall buildings that characterize the northern portion of the study area, including the 74-foot-tall apartment building at 1035 Washington Avenue and the 25-story, approximately 210-foot-tall Ebbets Field Apartments. The Proposed Project also would be similar in height to the 94-foot-tall building planned for the eastern end of the project block at 1730 Bedford Avenue and the 119-foot-tall building planned for 1 Sullivan Place. The narrower setback on the Empire Boulevard streetwall of the proposed building would be in keeping with the wider avenue, while the setback on Sullivan Place would be deeper for this narrower street.

Similar to the No Action condition, the Proposed Project would contribute to the pedestrian experience along the study area's streets by introducing new active ground-floor commercial

4.1.23



Source: S9 Architecture



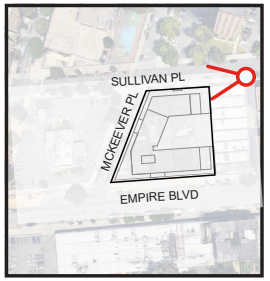
Illustrative Rendering of Proposed Project from Empire Boulevard

73-99 EMPIRE BOULEVARD

Figure G-10a



Source: S9 Architecture



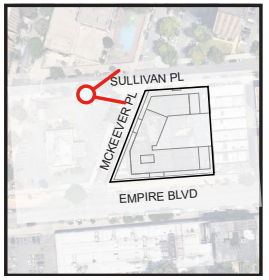
Illustrative Rendering of Proposed Project,
View West from Sullivan Place

Figure G-10b

4.1.23



Source: S9 Architecture



Illustrative Rendering of Proposed Project,
View East from Sullivan Place

73-99 EMPIRE BOULEVARD

Figure G-10c

uses. The Proposed Project would widen the sidewalk along McKeever Place adjacent to the Project Site, enhancing the pedestrian experience along this street. The Proposed Project also would introduce residential and commercial uses to the site, which would further activate the streetscape and would enhance the pedestrian experience of nearby areas of the study area.

The Proposed Project would not result in any significant adverse impacts to the pedestrian experience. Compared to the No Action scenario, the Proposed Project would introduce a taller building on the Project Site; however, the surrounding built environment includes several tall buildings, and the Project Site is in a transitional space along a major corridor between lower-rise buildings to the south and taller buildings to the north. Both the No Action scenario and the Proposed Project would enhance the pedestrian experience of the study area, by having active commercial uses on the ground floor and consistent streetwalls that meet the sidewalk; the Proposed Project also would enhance the pedestrian experience with the widening of the McKeever Place sidewalk. As such, the Proposed Project would not adversely alter the urban design context and would not be considered an adverse impact on the pedestrian's experience of the study area.

VISUAL RESOURCES AND VIEW CORRIDORS

According to the guidance of the *CEQR Technical Manual*, additional visual resources analysis is required if: a project would partially or totally block a view corridor or a natural or built resource or a natural or built visual resource, and that resource is rare in the area or considered a defining feature of the neighborhood; or, a project would change urban design features so that the context of a natural or built visual resource is altered (for example, if a project alters the street grid so that the approach to the resource changes; if a project changes the scale of surrounding buildings so that the context changes; or if a project removes lawns or other open areas that serve as a setting for the resource).

Key considerations in the assessment of the significance of a visual resource impact may include whether the project obstructs important visual resources and whether such obstruction would be permanent, seasonal, or temporary; how many viewers would be affected; whether the view is unique or do similar views exist; or whether the visual resource can be seen from many other locations.

PROJECT SITE

As described above, there are no visual resources on the Project Site. There are no important view corridors from the Project Site that could be affected by the Proposed Project, as existing views on the surrounding streets would remain available. The sidewalk along Empire Boulevard adjacent to the Project Site would continue to include views west to trees in Prospect Park and at the southernmost edge of the Brooklyn Botanic Garden. Therefore, the Proposed Actions would not adversely affect any visual resources or view corridors from the Project Site.

STUDY AREA

As in the No Action condition, views of the mural at 1028 Franklin Avenue would not be obstructed or obscured with the Proposed Project.

The view corridors along the study area streets would not be obstructed or obscured by the development on the Project Site. The view corridors toward trees in Prospect Park and the southernmost edge of the Brooklyn Botanic Garden to the west would not change with the

Proposed Actions, as the Proposed Project would not alter street patterns or otherwise obstruct views along these streets.

In summary, the Proposed Project would not result in any significant adverse impacts to urban design and visual resources, or the pedestrian's experience of the urban design character of the area. ✷

A. INTRODUCTION

This attachment addresses the potential for the presence of hazardous materials resulting from previous and existing uses at or near the Project Site, and potential risks with respect to any such hazardous materials. As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the construction of a 13-story mixed-use building containing residential, retail, and supermarket uses and a below-grade parking garage (the "Proposed Project") on the Project Site at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhoods of Brooklyn, Community District 9 (Block 1306, Lot 28). The approximately 38,118-square-foot (sf) Project Site consists of Block 1306, Lot 28, and is controlled by the Applicant.[1] Lot 28 contains two buildings: a 1-story, approximately 30,679-sf vacant commercial building, built in 1952 and a 1-story, approximately 8,000-sf commercial building currently occupied by a laundromat that was built in 1925. Lot 28 also contains 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place. Construction of the new building would require demolition of the two existing structures.

This assessment is based on a Phase I Environmental Site Assessment (ESA) and a Subsurface (Phase II) Investigation. An ESA documents the findings of a reconnaissance of a Project Site, an evaluation of readily available historical information, previous environmental reports for a Project Site, and selected environmental databases and electronic records in accordance with American Society for Testing and Materials (ASTM) E1527-13. A Phase II investigation includes results of laboratory analyses of soil, groundwater and soil vapor samples collected from the subsurface of a Project Site.

B. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

Based on the 2013 United States Geologic Survey (USGS) Topographic Quadrangle Map of Brooklyn, New York, the Project Site is approximately 75 feet above mean sea level. During the Phase II Investigation (see below), neither bedrock nor groundwater was encountered in the deepest boring which extended approximately 63 feet below grade. Groundwater in the area is not used as a source of potable water. During the Phase II Investigation, subsurface materials consisted of fill material (mostly brown silty sand and gravel). Isolated areas with brick, wood, and concrete were observed on the eastern and northern portions of the Project Site. Below the fill material was red brown sand.

[1] Brooklyn Block 1306, Lots 28, 32, and 35 were recently merged to create the current Lot 28.

PHASE I ESA

A Phase I ESA was prepared by Vertex Companies, Inc. in December 2020. It identified the following:

- The current vacant commercial building was constructed in 1925 and until the late 1930s was occupied by Mack Truck Auto Service. Operations included the use of a gasoline tank and a forge. The building was then occupied by a garage in the mid-1940s and then occupied by an auto, truck and equipment manufacturer and auto parts and service station from the early 1950s through the early 2000s. A laundromat occupied the building from the early 2000s through 2014. The building has remained vacant since 2014.
- The current laundry building on former Lot 35 was constructed in 1930 and was occupied by the parts department of Mack Truck Auto Service and Tire Sales & Service until the early 1960s when it was occupied (until the late 1980s) by an auto and truck manufacturer. From the late 1980s through the early 1990s, the site was listed as Family Services. The building was vacant from 1994 to 2014, following which World Laundry has occupied the building.
- The current vacant area (former Lot 32) was developed with a store and an apartment prior to 1932. The structures were demolished sometime between 1932 and 1951. The parcel has since remained an undeveloped/paved parking lot.

The Phase I ESA identified evidence of Recognized Environmental Conditions (RECs), i.e., "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property," including:

- Historical uses included auto service, a forge, and/or auto, truck, and equipment manufacturing from the mid-1920s to late 1980s.
- During the site inspection, a 1,500-gallon aboveground storage tank (AST) containing fuel oil was observed in the basement of the vacant building. The AST was encased in concrete so is likely considered an underground storage tank (UST) by the New York State Department of Environmental Conservation (NYSDEC). A second tank, suspected to be an expansion tank possibly associated with a former boiler, was observed in the basement. A gasoline UST was identified on historical maps. VERTEX was not provided with any closure documentation or subsurface investigation information related to the AST or UST.
- Remnants of hydraulic lifts were observed in the vacant building. VERTEX was not provided with any closure documentation or subsurface investigation information related to the former hydraulic lifts.
- A 55-gallon drum was observed in the basement of the vacant building. The drum was in poor condition; however, the concrete floor beneath the drum was in good condition. The contents of the drum could not be determined.
- Based on a review of historical resources, historical uses on the surrounding properties included: the block to the west (directly across McKeever Place) having a filling station, gasoline tanks, auto repair, and a used car dealership until the early 1990s, when the property was redeveloped with the existing commercial building. The block to the south included garages, gasoline tanks, and auto repair shops. The eastern adjacent block included garages, gasoline tanks, auto sales & service, private garages, unnamed commercial and manufacturing businesses, and warehouses.

Other non-REC issues were also identified including:

- The regulatory review identified that the Project Site was identified as Victor Logan Collison Corporation on the Resource Conservation and Recovery Act (RCRA) Non-Generator, Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO), and manifest databases. These listings are for the generation and disposal of hazardous wastes, such as ignitable waste and nonhalogenated solvents, but VERTEX did not consider these to represent a REC as no violations were reported.
- Based on the age of the structures on the Project Site, asbestos-containing materials (ACM) may be present and painted surfaces may contain lead-based paint (LBP).

SUBSURFACE (PHASE II) INVESTIGATION

A Subsurface (Phase II) Investigation was conducted by VERTEX to determine whether former on-site or off-site activities had adversely affected the subsurface conditions at the Project Site. Field activities in December 2020 consisted of: a geophysical survey (limited to the vicinity of proposed bring locations, but which did not identify anomalies consistent with USTs); the advancement of 15 soil borings (with collection and laboratory analysis of one soil sample from each); and the installation of five probes through the building slabs for the collection and laboratory analysis of five soil vapor samples. Additional borings, test pits, and soil sampling were conducted in March and August 2021 in the vicinity of a soil hotspot identified in one of the initial borings, to further investigate whether the source of the polycyclic aromatic hydrocarbons (PAH) impacts in soil (described below) was former site operations or the historical fill material and the unsuccessful attempt to investigate groundwater quality (described above).

Soil sample analytical results were compared to 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for Unrestricted Use (UUSCOs) and Restricted-Residential Use (RRSCOs). Although there are currently no regulatory or published guidance values for volatile organic compounds (VOCs) in soil vapor, soil vapor data was used to assess the potential for exposure to receptors and to help define the nature and extent of contamination at the Project Site. A summary of the analytical results is as follows:

Soil

- Of the volatile organic compounds (VOCs) detected in soil only acetone, a common laboratory contaminant, exceeded its UUSCO (but not the RRSCO). Methylene chloride, toluene, xylenes, acetone, tetrachloroethene (PCE), styrene, and methyl acetate were also detected, but at levels meeting their UUSCOs.
- The class of semi-volatile organic compounds (SVOCs) known as polycyclic aromatic hydrocarbons (PAHs) were detected in multiple samples, in some cases exceeding RRSCOs. PAHs, a class of compounds common in coal ash and other combustion byproducts, are commonly found in historical fill material.
- Lead and mercury exceeded RRSCOs in some samples. These findings are most likely attributable to the fill materials, which often contain highly variable concentrations of metals.
- Based on the laboratory results, a petroleum spill was reported to the NYSDEC on June 4, 2021 and Spill No. 2102064 was assigned. VERTEX provided additional information to the NYSDEC regarding the nature of the spill and the Owner's intent to apply to the New York State Brownfield Cleanup Program (BCP), and the NYSDEC closed the spill case on June 22, 2021.

Soil Vapor

The New York State Department of Health (NYSDOH) has established indoor Air Guideline Values (AGVs) and Soil Vapor/Indoor Air Matrices for certain of the VOCs analyzed. Tetrachloroethene (PCE) was the only one detected above AGVs: 36.8 micrograms per cubic meter of air ($\mu g/m^3$) in one sample (the AGV is 30 $\mu g/m^3$), but none of the findings indicated the need for monitoring or mitigation based on the Matrices. Typically, gasoline-related compounds (including 2,2,2-trimethylpentane, benzene, toluene, ethylbenzene, xylenes, and heptane) were detected, as was the common laboratory contaminant acetone.

C. THE FUTURE WITHOUT THE PROPOSED ACTIONS

Absent the Proposed Actions, it is anticipated that the Applicant would redevelop the Project Site as-of-right with a new two-story commercial building with accessory parking spaces in a below-grade facility. Regulatory requirements relating to petroleum tanks, ACM, LBP, etc. would continue to apply to the demolition/excavation associated with this redevelopment, but without the Remedial Action Plan (RAP), Construction Health and Safety Plan (CHASP) and agency oversight that would be associated with the future with the Proposed Actions (see below).

D. THE FUTURE WITH THE PROPOSED ACTIONS

In the future with the Proposed Actions, the Project Site would undergo demolition followed by ground disturbance for construction of the proposed new building which would include below grade space. The potential for impacts related to hazardous materials would be avoided by incorporating the following:

- Prior to demolition, the two remaining buildings would be surveyed for asbestos by a NYC-certified asbestos investigator and any ACM would be removed and disposed of prior to demolition in accordance with local, state, and federal requirements.
- Demolition would be performed in accordance with applicable LBP requirements (including federal OSHA regulation 29 CFR 1926.62–Lead Exposure in Construction).
- Unless there is labeling or test data indicating that any suspect PCB-containing electrical equipment and fluorescent lighting fixtures do not contain PCBs, and that any fluorescent lighting bulbs do not contain mercury, disposal of these items would be conducted in accordance with applicable federal, state, and local requirements.
- Based upon the findings of the Phase I ESA and Phase II investigation, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared and submitted to the New York City Department of Environmental Protection (DEP) for review and approval. If DEP were to determine additional subsurface testing is required, a Work Plan for this testing would be prepared for DEP's approval. Following implementation of any such additional testing (and preparation of a report documenting its performance and describing its findings), the RAP and CHASP would set out procedures to be followed to avoid the potential for adverse impacts related to hazardous materials identified by the studies/investigations as well as other hazardous materials that could be (unexpectedly) encountered. The RAP would address requirements for items such as: UST/AST removal, soil management (including stockpiling, handling, transportation, and disposal), dust control and air monitoring, and contingency measures should USTs or soil contamination be encountered. If required by DEP, the RAP would include requirements for vapor controls (e.g., a vapor barrier around the foundation elements) to avoid the potential for soil vapor intrusion into the

new structure. The CHASP would present a hazard assessment for the construction workers and set out the requirements for real-time air monitoring (for respirable dust and VOCs) during portions of the subsurface disturbance, to protect both the construction workers and the community. Following construction, occupancy permits would only be issued once DEP received and approved a Remedial Closure Report, certified by a New York licensed Professional Engineer, that documented the RAP and CHASP were properly implemented.

- If the applicant applies for and is accepted into the NYSDEC BCP, rather than DEP, NYSDEC would be the responsible agency for determining if additional testing is warranted, approving the RAP and CHASP, etc.
- Removal of all known USTs, ASTs, and any unforeseen petroleum tanks would be performed in accordance with applicable regulatory requirements including NYSDEC requirements relating to spill reporting and tank registration.
- To ensure these measures are implemented, an (E) designation for hazardous materials would be placed on the Zoning Map. This would ensure building permits involving subsurface disturbance and subsequently temporary or permanent Certificates of Occupancy are not issued without the DEP confirming to the Department of Buildings that required procedures have been adhered to.

E. CONCLUSION

With these measures included as part of the Proposed Actions, no significant adverse impacts related to hazardous materials would occur. ✷

A. INTRODUCTION

This attachment examines the potential effects of the Proposed Actions on transportation systems. Empire Boulevard Holdings LLC (the "Applicant") is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") subject to City Planning Commission (CPC) approval to facilitate the development of a mixed-use building with affordable housing (the "Proposed Project") at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9. The Project Site is bounded by Sullivan Place to the north, Bedford Avenue to the east, Empire Boulevard to the south, and Reginald Nero's Way/McKeever Place to the west. The Project Site is comprised of two 1-story commercial buildings; one is vacant, and the other is currently occupied by a laundromat.

Under the No Action condition, absent the Proposed Actions, the Project Site would be redeveloped with a two-story commercial building containing approximately 72,878 gross square feet (gsf) of retail space and approximately 182 accessory parking spaces in a below-grade facility. The ground floor would contain local neighborhood retail and supermarket uses, while the second floor would contain destination retail use. Specifically, there would be approximately 8,232 gsf of local retail use, 24,168 gsf of supermarket use, and 40,478 gsf of destination retail use (including the approximately 2,360 gsf second floor retail lobby space). The retail entrances would be located on Empire Boulevard and Reginald Nero's Way/McKeever Place, and the supermarket entrance would be located on Empire Boulevard. The loading docks and the below-grade parking facility would be accessed from Sullivan Place.

Under the With Action condition, the Project Site would be redeveloped with a mixed-use building containing approximately 285 dwelling units (DUs), 99,221 gsf of commercial space and 191 accessory parking spaces in a below-grade facility. The ground floor and cellar would contain approximately 24,168 gsf of supermarket use, and the remaining ground floor, cellar, and second floor commercial space would be destination retail uses totaling approximately 75,053 gsf. The residential entrance to the building would be located on Reginald Nero's Way/McKeever Place. The retail entrances would be located on Empire Boulevard and Reginald Nero's Way/McKeever Place, and the supermarket entrance would be located on Empire Boulevard. The loading docks and the below-grade parking facility would be accessed from Sullivan Place. Additionally, the Proposed Project would include a building setback along the Reginald Nero's Way/McKeever Place frontage to provide for a five-foot sidewalk widening.

Table I-1 summarizes the program differences between the No Action and With Action conditions for the Project Site.

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

Components	No Action	With Action	Increment
Residential (DU)	0	285	285
Retail (GSF)			
Local Retail	8,232	0	-8,232
Destination Retail	40,478	75,053	34,575
Supermarket	24,168	24,168	0
Total	72,878	99,221	26,343
Accessory Parking Spaces	182	191	9
Sources: Empire Boulevard Holdings, LLC			

The travel demand projections and screening assessments in this chapter have been conducted pursuant to the methodologies outlined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*.

B. TRANSPORTATION SCREENING ASSESSMENTS

The *CEQR Technical Manual* identifies procedures for evaluating a project's potential impacts on traffic, transit, ferry, 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 a 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 a proposed project would result in 50 or more peak hour vehicle trips, 200 or more peak hour transit trips (subway/rail or bus riders), 50 or more peak hour Citywide Ferry Service (CWFS) ferry trips, 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, ferry routes, and pedestrian elements. If the results of this analysis show that the project would generate 50 or more peak hour vehicle trips through an intersection, 200 or more peak hour pedestrian trips per pedestrian element, 50 or more peak hour bus riders on a bus route in a single direction, 25 or more passenger ferry trips in a single direction on a single route, 50 or more passengers at a ferry landing, or 200 or more peak hour subway passengers at any given station or on a subway line, further quantified analyses may be warranted to evaluate the potential for significant adverse traffic, transit, ferry, and pedestrian impacts and parking shortfalls.

LEVEL 1 SCREENING ASSESSMENT

Trip generation factors for the No Action and With Action developments are based on information from the *CEQR Technical Manual*, the New York City Department of Transportation (DOT)'s travel demand surveys, U.S. Census Data, the 2017 *120 5th Avenue EAS*, and the 2021 *Gowanus Neighborhood Rezoning and Related Actions FEIS,* as summarized in **Table I-2**.

Table I-2
Travel Demand Assumptions

Use	Residential				Local Retail				Destination Retail				Supermarket			
Total Daily Person Trip	(1) Weekday 8.180 Trips / DU			Saturday 9.080	(1) Weekday 329.00 Trips / KSF			Saturday 358.00	(1) Weekday 78.20 Trips / KSF			Saturday 92.50	(1) Weekday 256.00 Trips / KSF			Saturday 300.00
Trip Linkage	0%			0%	0%			0%	0%			0%	0%			0%
Net Daily Person Trip	Weekday 8.180 Trips / DU			Saturday 9.080	Weekday 329.00 Trips / KSF			Saturday 358.00	Weekday 78.20 Trips / KSF			Saturday 92.50	Weekday 256.00 Trips/KSF			Saturday 300.00
	AM	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
Temporal	(1)				(1)				(1)				(1)			
	9.3%	5.6%	8.5%	8.4%	4.8%	8.0%	10.9%	11.7%	3.0%	9.0%	9.0%	11.0%	4.0%	7.0%	10.6%	9.5%
Direction	(1)				(1)				(1)				(1)			
In	22%	50%	63%	51%	53%	50%	50%	50%	63%	53%	49%	52%	51%	51%	50%	50%
Out	78%	50%	37%	49%	47%	50%	50%	50%	37%	47%	51%	48%	49%	49%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(3)				(4)				(5)				(5)			
	AM	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
Auto	12.0%	12.0%	12.0%	12.0%	11.0%	11.0%	11.0%	11.0%	59.0%	59.0%	59.0%	59.0%	21.0%	21.0%	21.0%	14.0%
Taxi	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	5.0%	3.0%	3.0%	3.0%	5.0%
Subway	71.0%	71.0%	71.0%	71.0%	3.0%	3.0%	3.0%	3.0%	18.0%	18.0%	18.0%	18.0%	14.0%	14.0%	14.0%	8.0%
Bus	9.0%	9.0%	9.0%	9.0%	2.0%	2.0%	2.0%	2.0%	15.0%	15.0%	15.0%	13.0%	4.0%	4.0%	4.0%	6.0%
Walk	7.0%	7.0%	7.0%	7.0%	84.0%	84.0%	84.0%	84.0%	5.0%	5.0%	5.0%	5.0%	58.0%	58.0%	58.0%	67.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2)(3) Weekday			Saturday	(4) Weekday			Saturday	(5) Weekday			Saturday	(5) Weekday			Saturday
Auto	1.14			1.14	1.20			1.20	2.00			2.70	1.58			1.90
Taxi	1.40			1.40	1.20			1.20	2.00			2.80	1.58			1.90
Daily Delivery Trip Generation Rate	(1) Weekday 0.06 Delivery Trips / DU			Saturday 0.02	(1) Weekday 0.35 Delivery Trips / KSF			Saturday 0.04	(5) Weekday 0.35 Delivery Trips / KSF			Saturday 0.02	(5) Weekday 0.35 Delivery Trips / KSF			Saturday 0.04
Delivery Temporal	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**	**AM**	**MD**	**PM**	**Saturday**
	(1)				(1)				(5)				(5)			
	12.0%	9.0%	2.0%	9.0%	8.0%	11.0%	2.0%	11.0%	7.7%	11.0%	1.0%	11.0%	8.0%	11.0%	2.0%	11.0%
Delivery Direction	(1)				(1)				(5)				(5)			
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) 2021 *CEQR Technical Manual*
(2) *120 5th Avenue EAS* (2017)
(3) U.S. Census American Community Survey (ACS) 2015–2019 Journey-to-Work (JTW) Data for Kings County Census tracts 177, 213, 321, 323, 325, 327, 329, 798.01, 798.02 and 800
(4) Based on DOT mode choice surveys
(5) *Gowanus Neighborhood Rezoning and Related Actions FEIS* (2021)

RESIDENTIAL

The daily person trip rate and temporal and directional distributions for the residential component of the With Action condition are from the *CEQR Technical Manual*. The modal splits and auto vehicle occupancy are from the U.S. Census American Community Survey (ACS) 2015-2019 Journey-to-Work (JTW) estimates for Brooklyn census tracts 177, 213, 321, 323, 325, 327, 329, 798.01, 798.02, and 800. The taxi vehicle occupancy is from the 2017 *120 5th Avenue EAS*. 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 and directional distributions for the local neighborhood retail component of the No Action condition are from the *CEQR Technical Manual*. The modal

splits and vehicle occupancies are based on travel demand surveys conducted by DOT. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

DESTINATION RETAIL

The daily person trip rate and temporal and directional distributions for the destination retail component of the No Action and With Action conditions are from the *CEQR Technical Manual*. The modal splits and vehicle occupancies are from the 2021 *Gowanus Neighborhood Rezoning and Related Actions FEIS*. The daily delivery trip rate and temporal and directional distributions are also from the 2021 *Gowanus Neighborhood Rezoning and Related Actions FEIS.*

SUPERMARKET

The daily person trip rate and temporal and directional distributions for the supermarket component of the No Action and With Action conditions are from the *CEQR Technical Manual*. The modal splits and vehicle occupancies are from the 2021 *Gowanus Neighborhood Rezoning and Related Actions FEIS*. The daily delivery trip rate and temporal and directional distributions are also from the 2021 *Gowanus Neighborhood Rezoning and Related Actions FEIS.*

TRAVEL DEMAND PROJECTION SUMMARY

As summarized in **Table I-3**, under the No Action condition, the anticipated uses at the Project Site would generate 473, 935, 1,234, and 1,448 person trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Approximately 93, 190, 230, and 224 vehicle trips would be generated during the same respective peak hours.

As summarized in **Table I-4**, under the With Action condition, the Proposed Project would generate 614, 1,047, 1,333, and 1,606 person trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Approximately 127, 255, 297, and 294 vehicle trips would be generated during the same respective peak hours.

Table I-3
Trip Generation Summary: No Action

Program	Hour	In/Out	Person Trip						Vehicle Trip			
			Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Local Retail **8,232 GSF**	AM	In	8	0	2	1	58	69	7	0	0	7
		Out	7	0	2	1	51	61	6	0	0	6
		Total	15	0	4	2	109	130	13	0	0	13
	Midday	In	12	0	3	2	91	108	10	0	0	10
		Out	12	0	3	2	91	108	10	0	0	10
		Total	24	0	6	4	182	216	20	0	0	20
	PM	In	16	0	4	3	124	147	13	0	0	13
		Out	16	0	4	3	124	147	13	0	0	13
		Total	32	0	8	6	248	294	26	0	0	26
	Saturday	In	19	0	5	3	145	172	16	0	0	16
		Out	19	0	5	3	145	172	16	0	0	16
		Total	38	0	10	6	290	344	32	0	0	32
Destination Retail **40,478 GSF**	AM	In	35	2	11	9	3	60	18	2	1	21
		Out	21	1	6	5	2	35	11	2	1	14
		Total	56	3	17	14	5	95	29	4	2	35
	Midday	In	89	5	27	23	8	152	45	5	1	51
		Out	79	4	24	20	7	134	40	5	1	46
		Total	168	9	51	43	15	286	85	10	2	97
	PM	In	82	4	25	21	7	139	41	4	0	45
		Out	86	4	26	22	7	145	43	4	0	47
		Total	168	8	51	43	14	284	84	8	0	92
	Saturday	In	126	11	39	28	11	215	47	8	0	55
		Out	117	10	36	26	10	199	43	8	0	51
		Total	243	21	75	54	21	414	90	16	0	106
Supermarket **24,168 GSF**	AM	In	27	4	18	5	73	127	17	6	0	23
		Out	25	4	17	5	70	121	16	6	0	22
		Total	52	8	35	10	143	248	33	12	0	45
	Midday	In	46	7	31	9	128	221	29	8	0	37
		Out	45	6	30	8	123	212	28	8	0	36
		Total	91	13	61	17	251	433	57	16	0	73
	PM	In	69	10	46	13	190	328	44	12	0	56
		Out	69	10	46	13	190	328	44	12	0	56
		Total	138	20	92	26	380	656	88	24	0	112
	Saturday	In	48	17	28	21	231	345	25	18	0	43
		Out	48	17	28	21	231	345	25	18	0	43
		Total	96	34	56	42	462	690	50	36	0	86
Total	AM	In	70	6	31	15	134	256	42	8	1	51
		Out	53	5	25	11	123	217	33	8	1	42
		Total	123	11	56	26	257	473	75	16	2	93
	Midday	In	147	12	61	34	227	481	84	13	1	98
		Out	136	10	57	30	221	454	78	13	1	92
		Total	283	22	118	64	448	935	162	26	2	190
	PM	In	167	14	75	37	321	614	98	16	0	114
		Out	171	14	76	38	321	620	100	16	0	116
		Total	338	28	151	75	642	1,234	198	32	0	230
	Saturday	In	193	28	72	52	387	732	88	26	0	114
		Out	184	27	69	50	386	716	84	26	0	110
		Total	377	55	141	102	773	1,448	172	52	0	224

Table I-4
Trip Generation Summary: With Action

Program	Hour	In/Out	Person Trip						Vehicle Trip			
			Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Residential **285 DU**	AM	In	5	0	31	4	3	43	4	1	1	6
		Out	19	2	112	14	11	158	17	1	1	19
		Total	24	2	143	18	14	201	21	2	2	25
	Midday	In	7	1	43	5	4	60	6	2	1	9
		Out	7	1	43	5	4	60	6	2	1	9
		Total	14	2	86	10	8	120	12	4	2	18
	PM	In	14	1	82	10	8	115	12	2	0	14
		Out	8	1	48	6	5	68	7	2	0	9
		Total	22	2	130	16	13	183	19	4	0	23
	Saturday	In	12	1	73	9	7	102	11	2	0	13
		Out	12	1	70	9	7	99	11	2	0	13
		Total	24	2	143	18	14	201	22	4	0	26
Destination Retail **75,053 GSF**	AM	In	61	3	19	16	5	104	31	3	1	35
		Out	36	2	11	9	3	61	18	3	1	22
		Total	97	5	30	25	8	165	49	6	2	57
	Midday	In	154	8	47	39	13	261	77	8	1	86
		Out	137	7	42	35	12	233	69	8	1	78
		Total	291	15	89	74	25	494	146	16	2	164
	PM	In	143	7	44	36	12	242	72	8	0	80
		Out	148	8	45	38	13	252	74	8	0	82
		Total	291	15	89	74	25	494	146	16	0	162
	Saturday	In	219	19	67	48	19	372	81	13	0	94
		Out	202	17	62	45	17	343	75	13	0	88
		Total	421	36	129	93	36	715	156	26	0	182
Supermarket **24,168 GSF**	AM	In	27	4	18	5	73	127	17	6	0	23
		Out	25	4	17	5	70	121	16	6	0	22
		Total	52	8	35	10	143	248	33	12	0	45
	Midday	In	46	7	31	9	128	221	29	8	0	37
		Out	45	6	30	8	123	212	28	8	0	36
		Total	91	13	61	17	251	433	57	16	0	73
	PM	In	69	10	46	13	190	328	44	12	0	56
		Out	69	10	46	13	190	328	44	12	0	56
		Total	138	20	92	26	380	656	88	24	0	112
	Saturday	In	48	17	28	21	231	345	25	18	0	43
		Out	48	17	28	21	231	345	25	18	0	43
		Total	96	34	56	42	462	690	50	36	0	86
Total	AM	In	93	7	68	25	81	274	52	10	2	64
		Out	80	8	140	28	84	340	51	10	2	63
		Total	173	15	208	53	165	614	103	20	4	127
	Midday	In	207	16	121	53	145	542	112	18	2	132
		Out	189	14	115	48	139	505	103	18	2	123
		Total	396	30	236	101	284	1,047	215	36	4	255
	PM	In	226	18	172	59	210	685	128	22	0	150
		Out	225	19	139	57	208	648	125	22	0	147
		Total	451	37	311	116	418	1,333	253	44	0	297
	Saturday	In	279	37	168	78	257	819	117	33	0	150
		Out	262	35	160	75	255	787	111	33	0	144
		Total	541	72	328	153	512	1,606	228	66	0	294

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

Table I-5
Trip Generation Summary: Net Increments

Program	Hour	In/Out	Person Trip						Vehicle Trip			
			Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Residential **285 DU**	AM	In	5	0	31	4	3	43	4	1	1	6
		Out	19	2	112	14	11	158	17	1	1	19
		Total	24	2	143	18	14	201	21	2	2	25
	Midday	In	7	1	43	5	4	60	6	2	1	9
		Out	7	1	43	5	4	60	6	2	1	9
		Total	14	2	86	10	8	120	12	4	2	18
	PM	In	14	1	82	10	8	115	12	2	0	14
		Out	8	1	48	6	5	68	7	2	0	9
		Total	22	2	130	16	13	183	19	4	0	23
	Saturday	In	12	1	73	9	7	102	11	2	0	13
		Out	12	1	70	9	7	99	11	2	0	13
		Total	24	2	143	18	14	201	22	4	0	26
Local Retail **-8,232 GSF**	AM	In	-8	0	-2	-1	-58	-69	-7	0	0	-7
		Out	-7	0	-2	-1	-51	-61	-6	0	0	-6
		Total	-15	0	-4	-2	-109	-130	-13	0	0	-13
	Midday	In	-12	0	-3	-2	-91	-108	-10	0	0	-10
		Out	-12	0	-3	-2	-91	-108	-10	0	0	-10
		Total	-24	0	-6	-4	-182	-216	-20	0	0	-20
	PM	In	-16	0	-4	-3	-124	-147	-13	0	0	-13
		Out	-16	0	-4	-3	-124	-147	-13	0	0	-13
		Total	-32	0	-8	-6	-248	-294	-26	0	0	-26
	Saturday	In	-19	0	-5	-3	-145	-172	-16	0	0	-16
		Out	-19	0	-5	-3	-145	-172	-16	0	0	-16
		Total	-38	0	-10	-6	-290	-344	-32	0	0	-32
Destination Retail **34,575 GSF**	AM	In	26	1	8	7	2	44	13	1	0	14
		Out	15	1	5	4	1	26	7	1	0	8
		Total	41	2	13	11	3	70	20	2	0	22
	Midday	In	65	3	20	16	5	109	32	3	0	35
		Out	58	3	18	15	5	99	29	3	0	32
		Total	123	6	38	31	10	208	61	6	0	67
	PM	In	61	3	19	15	5	103	31	4	0	35
		Out	62	4	19	16	6	107	31	4	0	35
		Total	123	7	38	31	11	210	62	8	0	70
	Saturday	In	93	8	28	20	8	157	34	5	0	39
		Out	85	7	26	19	7	144	32	5	0	37
		Total	178	15	54	39	15	301	66	10	0	76
Supermarket **0 GSF**	AM	In	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0
	Saturday	In	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0
Total	AM	In	23	1	37	10	-53	18	10	2	1	13
		Out	27	3	115	17	-39	123	18	2	1	21
		Total	50	4	152	27	-92	141	28	4	2	34
	Midday	In	60	4	60	19	-82	61	28	5	1	34
		Out	53	4	58	18	-82	51	25	5	1	31
		Total	113	8	118	37	-164	112	53	10	2	65
	PM	In	59	4	97	22	-111	71	30	6	0	36
		Out	54	5	63	19	-113	28	25	6	0	31
		Total	113	9	160	41	-224	99	55	12	0	67
	Saturday	In	86	9	96	26	-130	87	29	7	0	36
		Out	78	8	91	25	-131	71	27	7	0	34
		Total	164	17	187	51	-261	158	56	14	0	70

TRAFFIC

As shown in **Table I-5**, the Proposed Project would generate 34, 65, 67, and 70 incremental vehicle trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. The incremental vehicle trips would be 50 vehicle trips or greater during the weekday midday, PM, and Saturday peak hours. Therefore, a Level 2 screening assessment (presented in the section below) has been conducted for these three peak hours to determine if a quantified traffic analysis is warranted.

TRANSIT

As detailed in **Table I-5**, the incremental transit trips generated by the Proposed Project would be 152, 118, 160, and 187 person trips by subway, and 27, 37, 41, and 51 person trips by bus during the weekday AM, midday, PM, and Saturday peak hours, respectively. The incremental subway trips are below the *CEQR Technical Manual* analysis threshold of 200 peak hour subway trips. Therefore, a detailed analysis of subway facilities is not warranted, and the Proposed Project is not expected to result in any significant adverse subway impacts. The incremental bus trips would be dispersed onto the area's multiple local bus routes such that trip-making for any local bus route would not exceed the *CEQR Technical Manual* analysis threshold of 50 or more peak hour bus riders in a single direction. Therefore, a detailed bus line-haul analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse bus line-haul impacts.

PEDESTRIANS

For pedestrians, as shown in **Table I-5**, the incremental pedestrian trips generated by the Proposed Project would be 141, 112, 99, and 158 during the weekday AM, midday, PM, and Saturday peak hours, respectively. The incremental pedestrian trips are below the *CEQR Technical Manual* analysis threshold of 200 peak hour pedestrian trips. Therefore, a detailed pedestrian analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse pedestrian impacts.

LEVEL 2 SCREENING ASSESSMENT

As part of the Level 2 screening assessment, project-generated trips were assigned to specific intersections near the Project Site. The *CEQR Technical Manual* states that further quantified analyses to assess the potential impacts of a project on the transportation system may be warranted if the trip assignments were to identify key intersections incurring 50 or more peak hour vehicle.

SITE ACCESS AND EGRESS

In both the No Action and With Action conditions, the proposed building's retail entrances would be located on Empire Boulevard and Reginald Nero's Way/McKeever Place, the supermarket entrance would be located on Empire Boulevard, and its loading docks and below-grade parking facility would be accessed from Sullivan Place. For the With Action building, the residential entrance would be located on Reginald Nero's Way/McKeever Place.

TRAFFIC

The most likely routes to and from the Project Site, prevailing travel patterns, commuter origin-destination (O-D) summaries from the Census data, the configuration of the roadway network, and the anticipated locations of site access and egress were examined to develop trip assignment

patterns. Because there would be on-site accessory parking spaces provided for both the No Action and With Action buildings, auto trips were assigned to the Project Site and the related person trips would enter the buildings directly via interior connections. Taxi trips were assigned to various Project Site frontages. Delivery trips were assigned to the Project Site via DOT-designated truck routes. Traffic assignments for the autos, taxis, and deliveries for the various proposed uses are discussed below.

Residential

Auto trips generated by the With Action residential use were assigned to the surrounding roadway network based on the 2012-2016 U.S. Census ACS JTW O-D estimates. Many of the residential trips would be traveling to work destinations within the local region of Brooklyn (50 percent), with the remaining trips traveling to Manhattan (20 percent), Queens (13 percent), the Bronx (6 percent), Long Island (5 percent), New Jersey (3 percent), Staten Island (2 percent), and Connecticut (1 percent). Auto vehicle trips were assigned to the on-site accessory parking garage.

Local Retail

The No Action local retail use is anticipated to serve patrons primarily from the immediate area. Auto trips were generally assigned from local origins within the neighborhood and adjacent residential areas. Approximately 30 percent of vehicle trips are anticipated to originate from east of the Project Site, 30 percent of vehicle trips are anticipated to originate from west of the Project Site, 20 percent of vehicle trips are anticipated to originate from north of the Project Site, and 20 percent of vehicle trips are anticipated to originate from south of the Project Site. Auto vehicle trips were assigned to the on-site accessory parking garage.

Destination Retail

The No Action and With Action destination retail use is anticipated to draw from a larger geographic area than the local retail use. In consultation with DOT, the destination retail trip distribution patterns were developed based on the Census population density within ½-mile of the Project Site. Approximately 35 percent of vehicle trips are anticipated to originate from east of the Project Site, 25 percent of vehicle trips are anticipated to originate from south of the Project Site, 20 percent of vehicle trips are anticipated to originate from north of the Project Site, and 20 percent of vehicle trips are anticipated to originate from west of the Project Site. Once in the immediate vicinity of the Project Site, the destination retail trip assignments are anticipated to generally be comparable to those for the local retail use. Auto vehicle trips were assigned to the on-site accessory parking garage.

Supermarket

The No Action and With Action supermarket trip distribution patterns are similar to the local retail land use. This use is anticipated to serve patrons primarily from the immediate area. Auto trips were generally assigned from local origins within the neighborhood and adjacent residential areas. Approximately 30 percent of vehicle trips are anticipated to originate from east of the Project Site, 30 percent of vehicle trips are anticipated to originate from west of the Project Site, 20 percent of vehicle trips are anticipated to originate from north of the Project Site, and 20 percent of vehicle trips are anticipated to originate from south of the Project Site. Auto vehicle trips were assigned to the on-site accessory parking garage.

Taxis

Taxi pick-ups and drop-offs for the various development uses were assigned to the Project Site frontages along Empire Boulevard and Reginald Nero's Way/McKeever Place. Taxi trips

generated by the residential use were assigned adjacent to the residential lobby located on Reginald Nero's Way/McKeever Place. Taxi trips generated by the local retail, destination retail, and supermarket uses were assigned adjacent to their entrances located on Empire Boulevard and Reginald Nero's Way/McKeever Place.

Deliveries

Truck delivery trips for the various development uses were assigned based on DOT-designated truck routes and are anticipated to take place at the loading docks accessed from Sullivan Place.

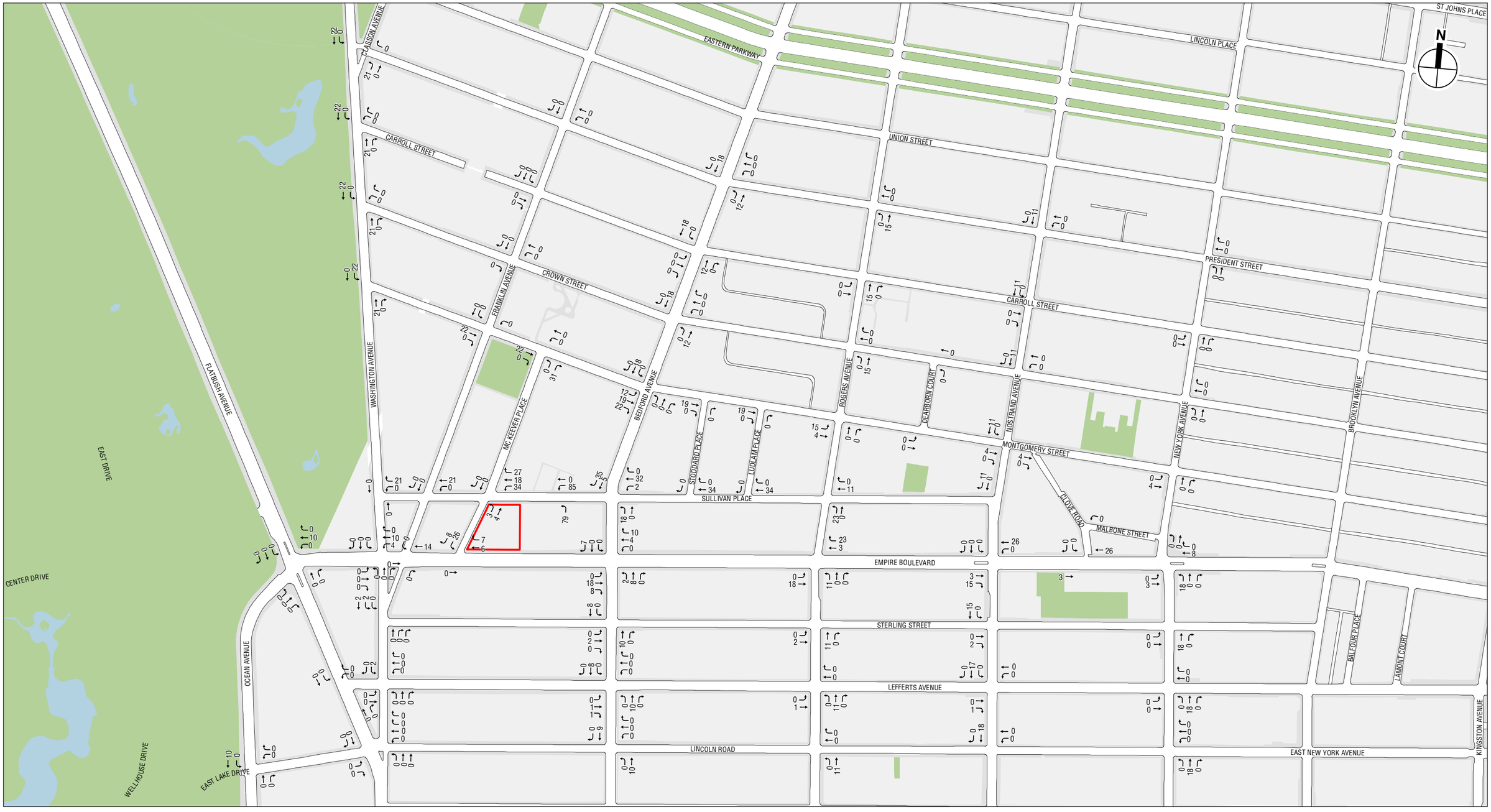
Summary

Figures I-1 through I-3 show the No Action project-generated vehicle trips for the weekday midday, PM, and Saturday peak hours assigned to the traffic network. **Figures I-4 through I-6** show the With Action project-generated vehicle trips for the weekday midday, PM, and Saturday peak hours assigned to the traffic network. **Figures I-7 through I-9** show the incremental vehicle trips for the weekday midday, PM, and Saturday peak hours.

Table I-6
Traffic Level 2 Screening Analysis Results

Traffic Intersections	Incremental Vehicle Trips		
	Weekday Midday	Weekday PM	Saturday
Ocean Avenue and Parkside Avenue	9	9	11
Washington Avenue and North Service Road	6	10	7
Washington Avenue and Eastern Parkway	15	15	16
Washington Avenue and South Service Road	15	15	16
Washington Avenue/Classon Avenue and President Street	15	15	16
Washington Avenue and Caroll Street	15	15	16
Washington Avenue and Crown Street	15	15	16
Washington Avenue and Montgomery Street	15	15	16
Reginald Nero's Way/McKeever Place and Montgomery Street	21	23	25
Reginald Nero's Way/McKeever Place and Sullivan Place	29	29	32
Reginald Nero's Way/McKeever Place and Empire Boulevard	13	12	13
Bedford Avenue and North Service Road	6	5	12
Bedford Avenue and Eastern Parkway	15	15	22
Bedford Avenue and South Service Road	15	15	22
Bedford Avenue and Union Street	15	15	22
Bedford Avenue and President Street	15	15	22
Bedford Avenue and Caroll Street	15	15	22
Bedford Avenue and Crown Street	15	15	22
Bedford Avenue and Montgomery Street	28	30	36
Bedford Avenue and Sullivan Place	31	33	33
Bedford Avenue and Empire Boulevard	18	19	18
Bedford Avenue and Sterling Street	9	10	10
Bedford Avenue and Lefferts Avenue	9	10	12
Bedford Avenue and Lincoln Road	9	10	11
Bedford Avenue and Maple Street	9	10	11
Bedford Avenue and Parkside Avenue	8	9	10
Rogers Avenue and Eastern Parkway	11	12	11
Rogers Avenue and Empire Boulevard	13	11	7
Nostrand Avenue and Eastern Parkway	11	12	11
Nostrand Avenue and Montgomery Street	6	10	8

10.11.22



Project Site

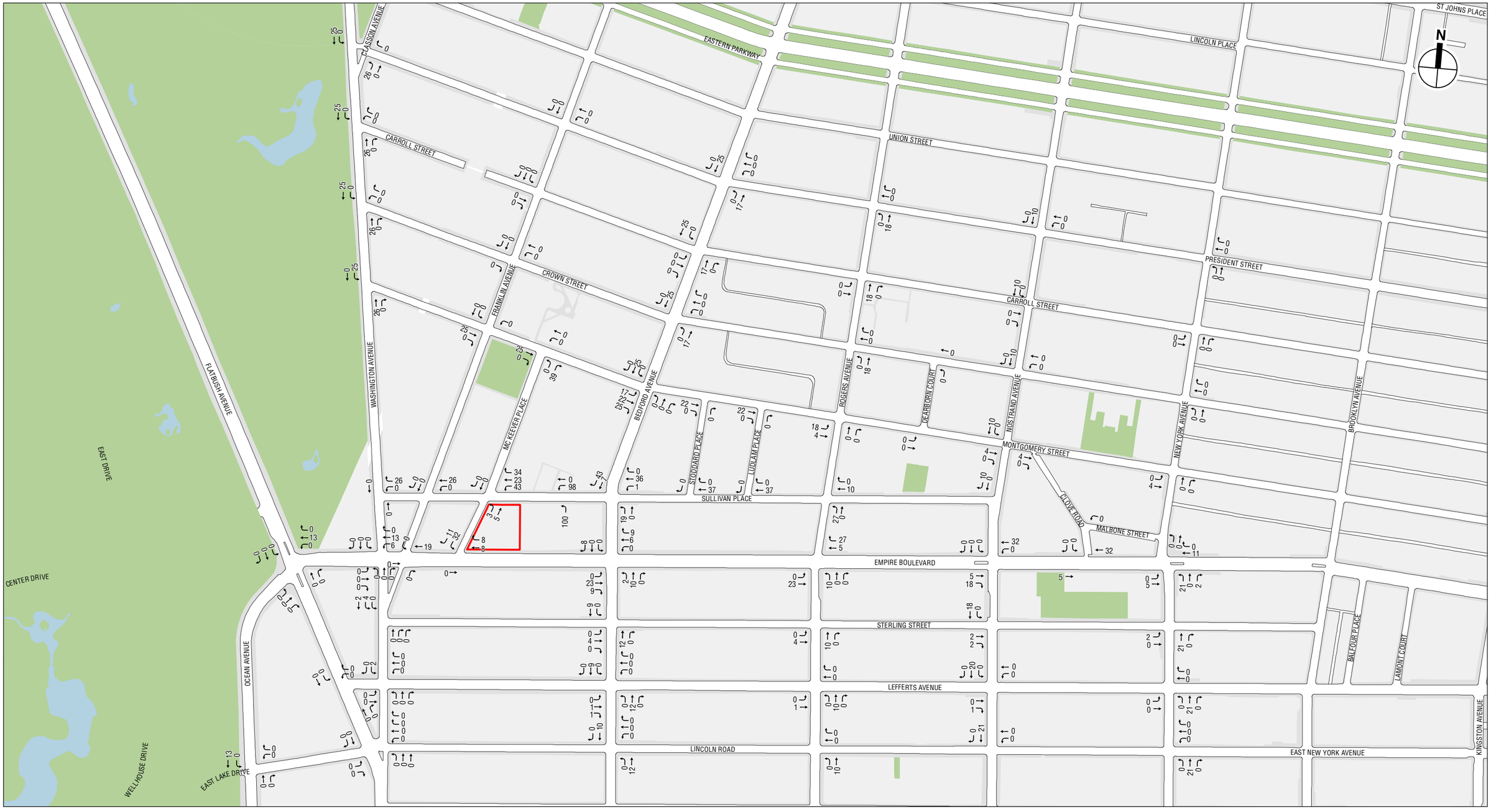
0 200 FEET

No Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-1

10.11.22

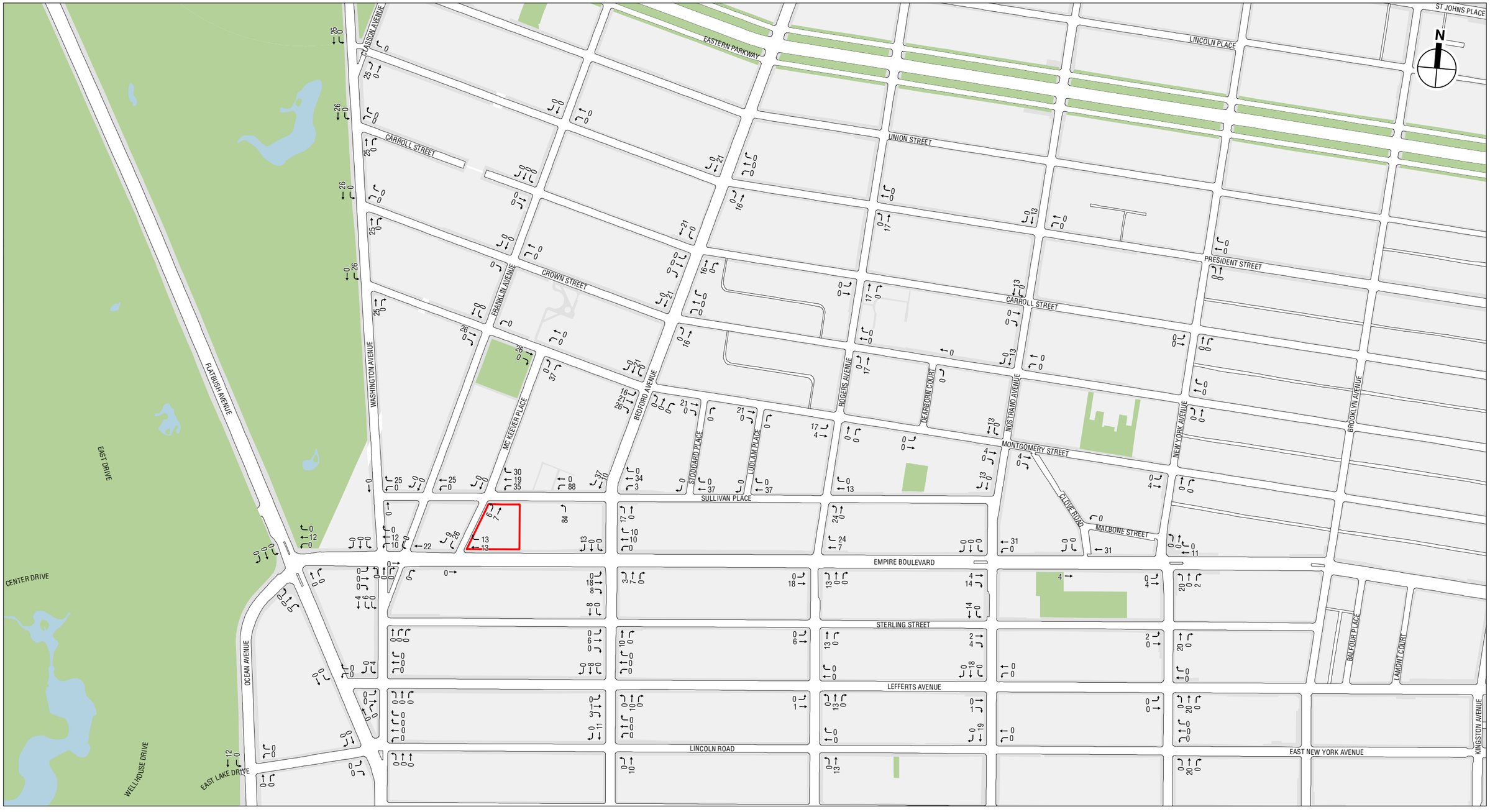


Project Site

0 200 FEET

No Action Project Generated Vehicle Trips
Weekday PM Peak Hour

10.11.22



Project Site

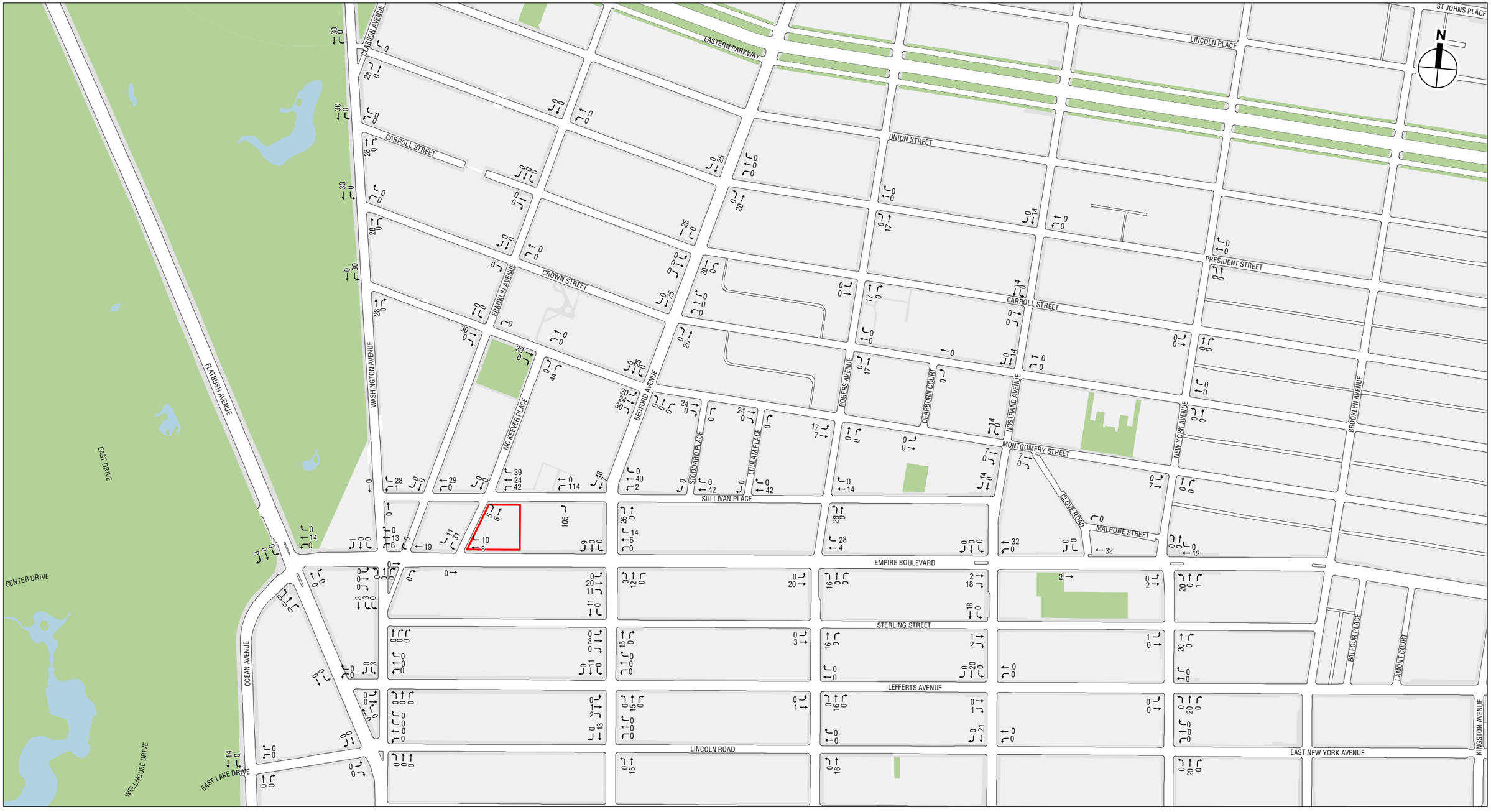
0 200 FEET

No Action Project Generated Vehicle Trips
Saturday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-3

10.11.22



Project Site

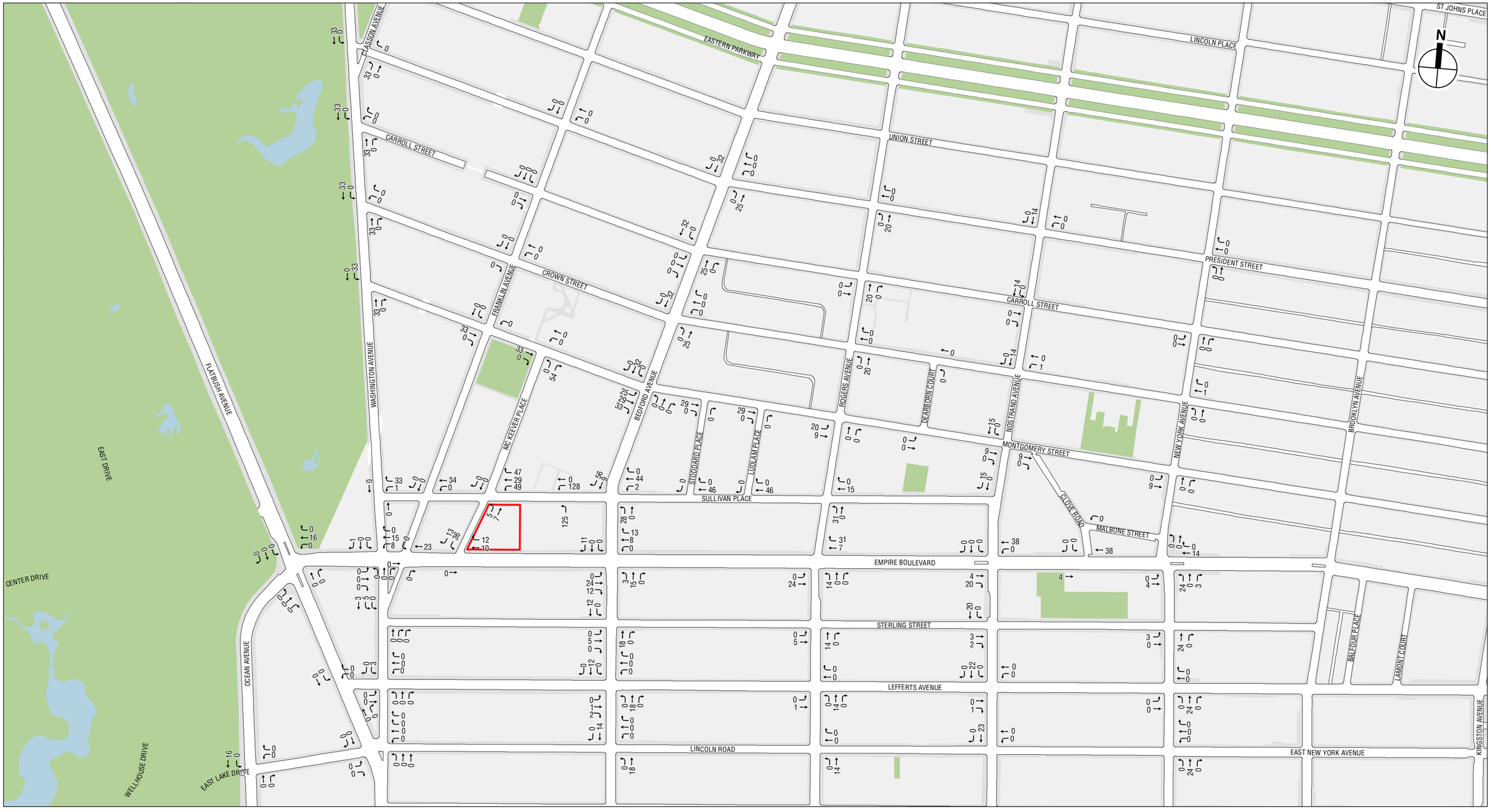
0 200 FEET

With Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-4

10.11.22



Project Site

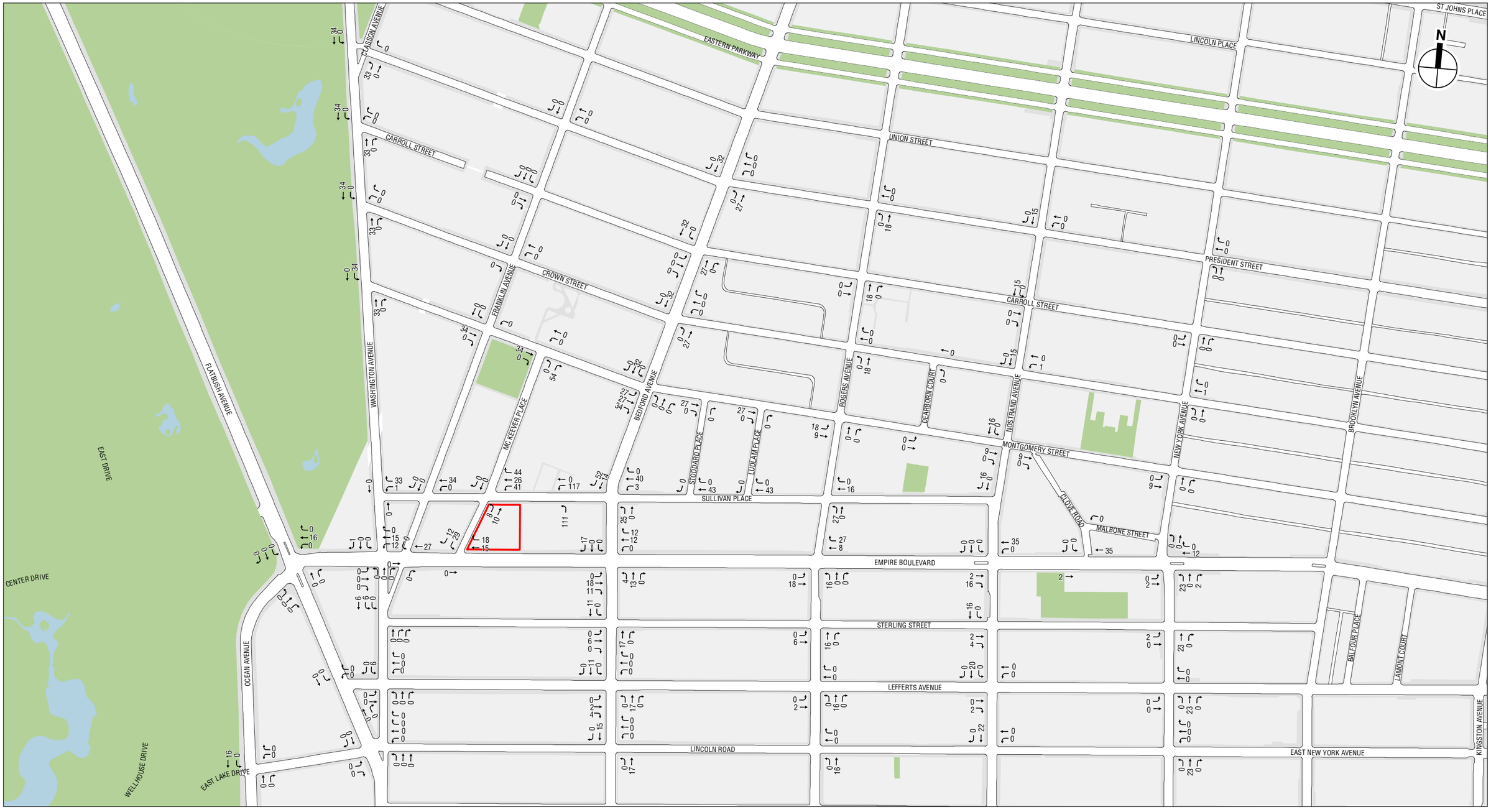
0 200 FEET

With Action Project Generated Vehicle Trips
Weekday PM Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-5

10.11.22



Project Site

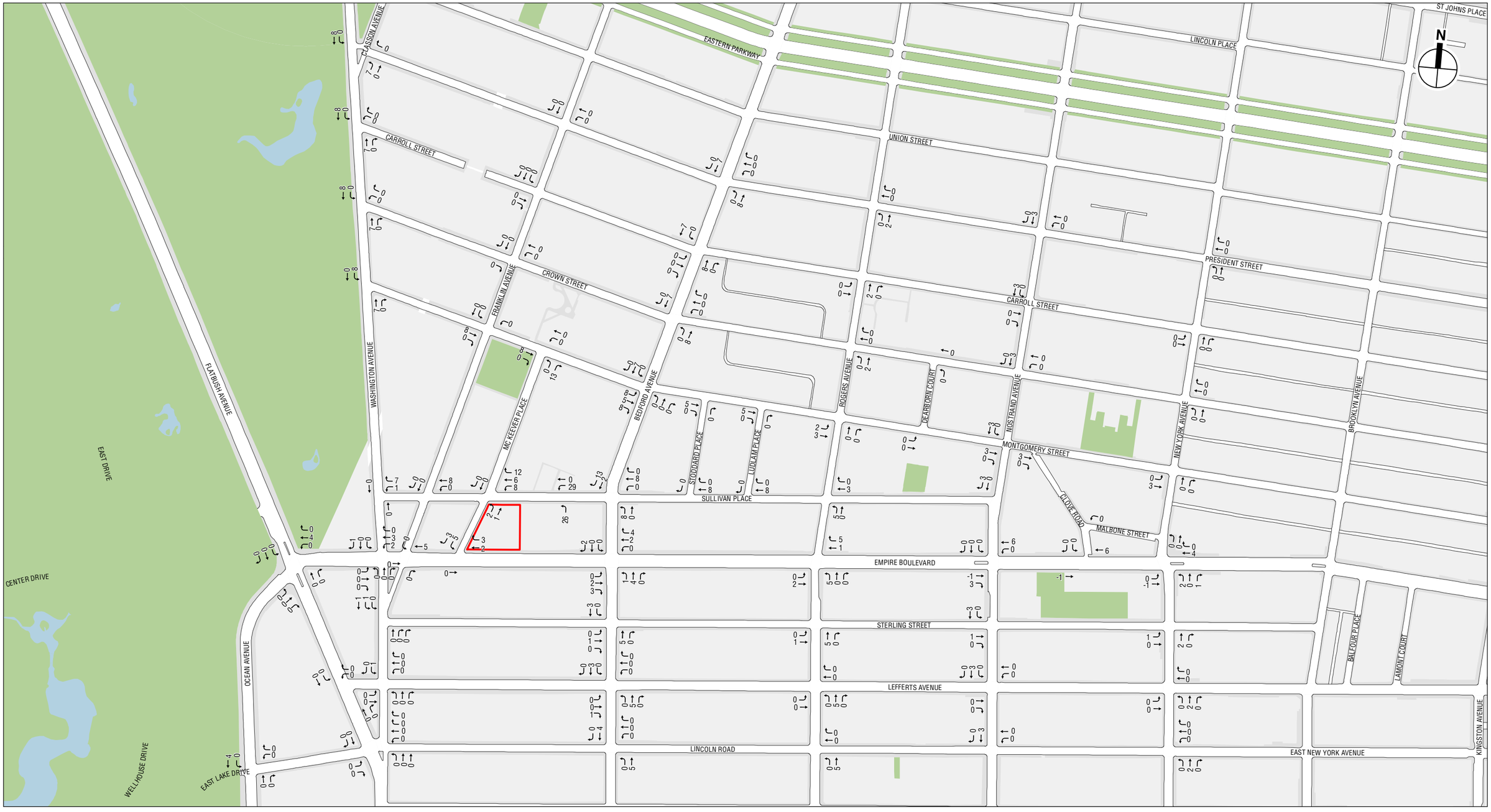
0 200 FEET

With Action Project Generated Vehicle Trips
Saturday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-6

10.11.22



Project Site

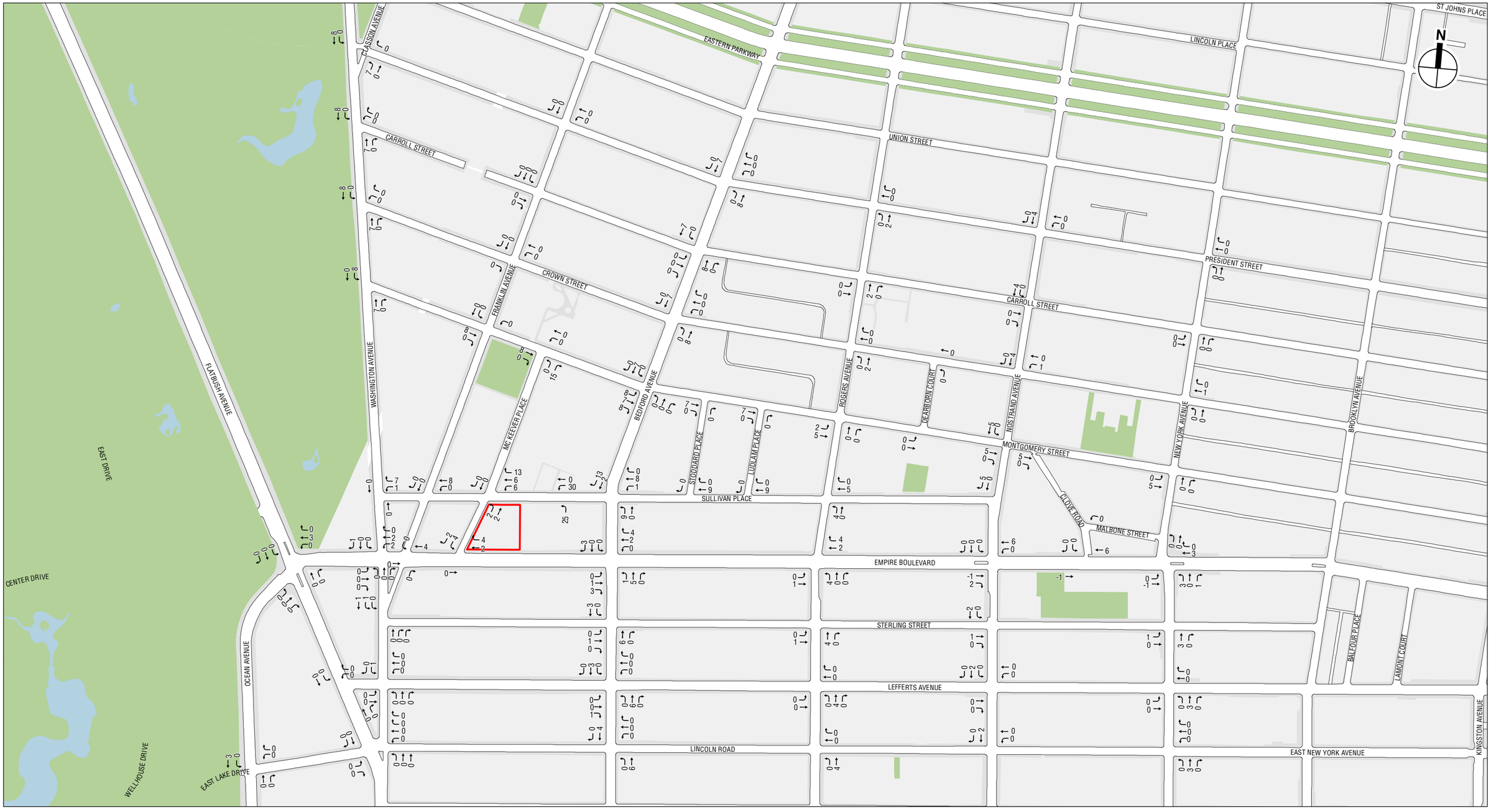
0 200 FEET

With Action Incremental Vehicle Trips
Weekday Midday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-7

10.11.22



Project Site

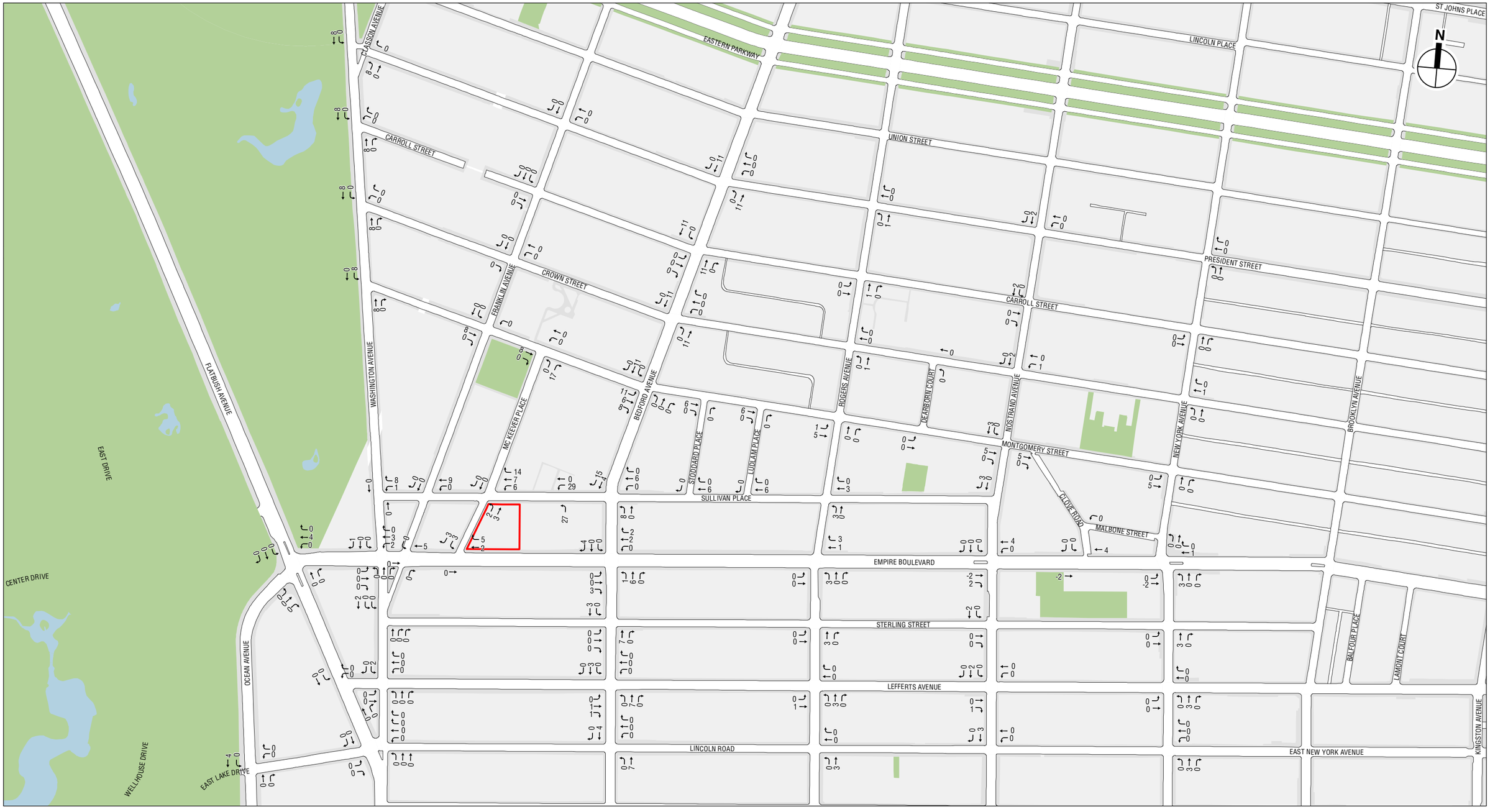
0 200 FEET

With Action Incremental Vehicle Trips
Weekday PM Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-8

10.11.22



Project Site

0 200 FEET

With Action Incremental Vehicle Trips
Saturday Peak Hour

73-99 EMPIRE BOULEVARD

Figure I-9

As summarized above in **Table I-6** and shown in **Figures I-7 through I-9**, none of the surrounding intersections would incur 50 or more incremental vehicle trips as a result of the Proposed Project. Therefore, a detailed traffic analysis is not warranted, and the Proposed Project is not expected to result in any significant adverse traffic impacts.

PARKING

The *CEQR Technical Manual* states that if a quantified traffic analysis is not required, an assessment of parking supply and utilization is also typically not warranted. The Proposed Project would also provide accessory parking spaces to accommodate the parking demand generated by its uses. Therefore, as a result of the conclusions described above for traffic and accessory parking spaces provided by the Proposed Project, an on- and off-street parking analysis is not required, and the Proposed Project is not expected to result in any significant parking shortfalls.

C. CONCLUSION

As demonstrated above, the Proposed Project would not have any significant adverse transportation-related impacts, as related to traffic, transit, ferry, and pedestrians or result in any significant parking shortfalls. ✷

A. INTRODUCTION

As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would result in the development of a mixed-use building with affordable housing (the "Proposed Project") at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9.

As described in Attachment I, "Transportation," the Proposed Project would not exceed any thresholds defined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual* for detailed traffic analysis. The maximum hourly increase in traffic volume due to the Proposed Development would be below the carbon monoxide (CO) screening threshold defined in the *City Environmental Quality Review (CEQR) Technical Manual* (170 peak hour vehicle trips at an intersection in the study area). A mobile source screening was performed to confirm the Proposed Project would not exceed *CEQR Technical Manual* screening thresholds for particulate matter (PM). In addition, the Proposed Project would include a 191-space accessory parking garage. Therefore, an assessment of the potential CO and PM impacts associated with the proposed parking facility was performed.

Since the Proposed Project would potentially include fossil fuel-fired hot water systems, a stationary source analysis was conducted to evaluate the potential impact from these sources on air quality.

The potential for emissions from existing nearby manufacturing or processing facilities to impact air quality at the Proposed Project was assessed. In addition, potential large or major sources in the vicinity of the Proposed Project were assessed.

B. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS

MOBILE SOURCES

INTERSECTION SCREENING

As shown in Attachment I, "Transportation," the maximum incremental trips generated by the Proposed Project would be 33 during the midday and PM peak hours, and 36 during the Saturday peak period.

Therefore, projected vehicle trips generated by the Proposed Project does not exceed the carbon monoxide (CO) threshold of 170 vehicles in a peak hour at any intersection. For the PM screening, the $PM_{2.5}$ screening worksheet referenced in Section 201 of the *CEQR Technical Manual* was utilized to calculate the number of heavy-duty truck equivalents. The worksheet calculates the

number of project-generated vehicles based on vehicle classification and roadway classification information.

The thresholds are as follows:

- 12 or more HDDV for paved roads with average daily traffic fewer than 5,000 vehicles;
- 19 or more HDDV for collector roads;
- 23 or more HDDV for principal and minor arterials; or
- 23 or more HDDV for expressways and limited access roads.

For the PM screening, all trucks that would be generated by the Proposed Project were classified using the HDDV7 vehicle category. All other vehicles were classified as LDGT1. Roadway classifications were determined at intersections in the vicinity of the Project Site based on New York City Department of Transportation (DOT) Functional Classification Maps[1] and traffic volumes, where available.

PARKING FACILITY ANALYSIS

The Proposed Project would include an approximately 191-space accessory parking garage. Emissions from vehicles using the parking garage could potentially affect levels of CO and PM concentrations in the immediate vicinity of the ventilation outlet.

The emissions from the outlet vent and its dispersion were analyzed using the methodology defined in the *CEQR Technical Manual*. Maximum 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 increments were determined for peak daily (24-hour) use. The number of vehicles entering and exiting the garage were derived from the trip generation analysis.

For the parking garage, to determine pollutant concentrations, the outlet vents were analyzed as a "virtual point source" using the methodology in EPA's *Workbook of Atmospheric Dispersion Estimates, AP-26*. This methodology estimates concentrations at various distances from an outlet vent by assuming that the concentration at the vent represents the emission rate divided by the fresh air ventilation rate, and determining the appropriate initial horizontal and vertical dispersion coefficients at the vent faces.

The air from the analyzed parking garage was conservatively assumed to be vented through a single outlet at a height of approximately 10 feet. The closest receptors to the potential vent location were assumed to be on the sidewalk receptors along Sullivan Place; therefore, "near" and "far" receptors were placed along the sidewalks at a pedestrian height of 6 feet and at distances of 5 feet and 48 feet. A receptor was also modeled at the vent height, 10 feet away from the vent, to conservatively assess the air quality impacts on the Proposed Project building windows or other air intake location from a potential elevated garage vent discharge. A persistence factor of 0.70 was used to convert the maximum 1-hour average CO concentrations to 8–hour averages, per *CEQR Technical Manual* guidance, and factors of 0.6 and 0.1 were used to convert maximum 1-

[1] New York State Department of Transportation Functional Classification. http://gis3.dot.ny.gov/html5viewer/?viewer=FC

hour $PM_{2.5}$ concentrations to 24-hour and annual averages, respectively, per EPA guidance,[2] accounting for meteorological variability over the longer averaging periods.

Background and on-street concentrations were added to the modeling results to obtain the total ambient levels. The on-street pollutant concentrations were determined using the methodology in the Air Quality Appendix of the *CEQR Technical Manual*, utilizing No Build and Build traffic volumes from the traffic survey conducted in the study area.

Emissions from vehicles entering, parking, and exiting the garages were estimated using the EPA MOVES3 mobile source emission model, based on county-specific hourly temperature and relative humidity data obtained from the New York State Department of Environmental Conservation (NYSDEC). For all arriving and departing vehicles, an average speed of five miles per hour was conservatively assumed for travel within the parking garage. In addition, all departing vehicles were assumed to idle for 1 minute before proceeding to the exit. The concentration of CO and PM within the garage was conservatively calculated assuming a minimum ventilation rate, based on New York City Building Code requirements, of 1 cubic foot per minute of fresh air per gross square foot of garage area. To determine compliance with the NAAQS, CO concentrations were determined for the maximum 8-hour average period.

HEATING AND HOT WATER SYSTEMS

The Proposed Project would potentially include natural gas-fired heating and hot water systems. Therefore, a stationary source analysis was conducted to evaluate potential future pollutant concentrations from pollutant emissions from the heating and hot water systems.

AERMOD ANALYSIS

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

[2] EPA. *AERSCREEN User's Guide*. EPA-454/B-21-005. April 2021.

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 sources, 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 and annual NO_2 concentrations, added to representative background concentrations in the area, were compared with the National Ambient Air Quality Standard (NAAQS). Potential 24-hour and annual average incremental concentrations of $PM_{2.5}$ were compared with the $PM_{2.5}$ *de minimis* criteria defined in the *CEQR Technical Manual*.

For the analysis of the 1-hour average NO_2 concentration from the Proposed Project's heating and hot water systems, AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was used to analyze chemical transformation within the model. PVMRM incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. The model applied ozone concentrations measured in 2015–2019 at the nearest available NYSDEC ozone monitoring station—the Queens College monitoring station in Queens. An initial NO_2 to NO_x ratio of 10 percent at the source exhaust stack was assumed for boilers, which is considered representative.

Five years of surface meteorological data collected at JFK International Airport (2015–2019) and concurrent upper air data collected at Brookhaven, New York were used in the analysis. The meteorological data were selected to match the years selected for background concentrations.

EMISSION RATES AND STACK PARAMETERS

The Proposed Project would potentially utilize natural gas-fired heating and hot water systems. 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 each portion of the Proposed Project, as recommended in the *CEQR Technical Manual*, and applying emission factors for natural gas-fired boilers.[3]

For the heating and hot water systems, the short-term emission rates (24-hour and shorter) were estimated by scaling the annual emissions to account for a 100-day heating season. $PM_{2.5}$ emissions include both the filterable and condensable components.

Since design information was not available regarding the heating and hot water systems, it was assumed that a single stack would exhaust three feet above the bulkhead on the roof, at a height of approximately 163 feet above grade.

To calculate the exhaust velocity for the modeled exhaust stack of the Proposed Project's heating and hot water system, the fuel consumption of the was multiplied by EPA's fuel factor for natural gas,[4] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature, and the exhaust velocity was calculated based on the stack diameter. Assumptions for exhaust temperature for the Proposed Project's heating and hot water system

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

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

were obtained from a survey of boiler exhaust data provided by New York City Department of Environmental Protection (DEP).[5]

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

Table J-1
Heating and Hot Water Systems
Exhaust Stack Parameters and Emission Rates

Stack Parameter	Value
No. of Modeled Stacks	1
Stack Height (feet)	163
Stack Diameter (feet)(1)	3.19
Exhaust Velocity (feet/second)(1)	4.32
Exhaust Temperature (degrees Fahrenheit)(1)	307.8
Emission Rates (g/s)	
NO_2 (1-hour average)	0.0966
NO_2 (Annual average)	0.0265
$PM_{2.5}$ (24-hour average)	0.0073
$PM_{2.5}$ (Annual average)	0.0020

Note: (1) Stack parameter assumptions were obtained from a survey of boiler exhaust data provided by DEP.

Annual NO_2 concentrations from heating and hot water sources were conservatively estimated assuming full conversion of NO_x to NO_2 (EPA "Tier 1"). For the 1-hour NO_2 analysis, concentrations were determined 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 emission sources were first added to the seasonal hourly background monitored concentrations; then the highest combined daily 1-hour NO_2 concentration was determined at each location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally the 98th percentile concentrations were averaged over the five years modeled.

BACKGROUND CONCENTRATIONS

To estimate the maximum expected pollutant concentration at a given location (receptor), the predicted impacts must be added to a background value that accounts for existing pollutant concentrations from other sources that are not directly accounted for in the model (see **Table J-2**).

Table J-2
Maximum Background Pollutant Concentrations

Pollutant	Average Period	Location	Concentration (µg/m³)	NAAQS (µg/m³)
NO_2	1-hour	Queens College	103.7	188
	Annual	Queens College	28.5	100
$PM_{2.5}$	24-hour	JHS 126	17.8	35

Source: New York State Air Quality Report Ambient Air Monitoring System, NYSDEC, 2017–2019.

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

To develop background levels for each pollutant, concentrations measured at the most representative ambient monitoring station operated by NYSDEC over a three-year period (2017–2019) were used (consistent with NYSDEC guidance). More recent data were not used because of uncertainties in the representativeness of background concentrations for these years due to effects of COVID-19.

The annual NO_2 background is based on the maximum annual average value measured over the same three-year period.

$PM_{2.5}$ 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 2017–2019 was used to establish the *de minimis* value of 8.6 $\mu g/m^3$. $PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared to the $PM_{2.5}$ *de minimis* criteria without considering the annual background. Therefore, the annual $PM_{2.5}$ background is not presented in **Table J-2**.

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. The nearest building of similar or greater height is located at a distance of 118 feet from the Proposed Project. Other, more distant buildings were also modeled.

Discrete receptors were modeled along existing building façades to represent potentially sensitive locations such as operable windows and intake vents. Rows of receptors at each elevation were spaced at intervals of 5 meters (16.4 feet) along the modeled buildings. Receptors were placed at multiple elevations (beginning at a height of six feet, then again at 15 feet, repeated at every 10 feet until the maximum height of the building was reached). Receptors were also placed at sidewalk locations every 16.4 feet at a pedestrian elevation of six feet.

An additional fine receptor grid was included to identify potential pollutant concentrations at the P.S. 375K community playground located at the Jackie Robinson School, to the northwest of the Project Site.

INDUSTRIAL SOURCES

Nearby industrial facilities were examined to identify any potential for significant adverse impacts on future residents of the Proposed Project from air toxics. All industrial and manufacturing uses within 400 feet of Project Site were considered for inclusion in the air quality impact analysis, as per the *CEQR Technical Manual*.

Land use maps and aerial photographs were reviewed to identify potential sources of emissions from manufacturing/industrial operations. A search of federal, state, and city permit data within the study area was conducted using DEP's Clean Air Tracking System (CATS) database[6] and EPA's Envirofacts database at all commercial-zoned properties.[7]

[6] DEP. *Clean Air Tracking System database*. https://a826-web01.nyc.gov/DEP.BoilerInformationExt.

[7] EPA. *Envirofacts Data Warehouse*. https://www3.epa.gov/enviro/.

No permitted activities were identified based on the permit search and no sources of emissions were identified in the land use review. Therefore, no significant impacts on the Proposed Project are anticipated from industrial source emissions.

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 Proposed Project, a review of existing permitted facilities was conducted. Sources of information reviewed included the NYSDEC Title V and State Facility Permit websites. The review of major- and large-sources permits found no such facilities within 1,000 feet of the Project Site.[8] Therefore, no analysis is required, and no significant adverse impacts would occur on the Proposed Project from major or large stationary sources of emissions.

C. THE FUTURE WITH THE PROPOSED ACTIONS

MOBILE SOURCE INTERSECTION SCREENING

The intersections with the greatest number of project-generated trips, at Bedford Avenue and Montgomery Street and Bedford Avenue and Sullivan Place, were found to be below the equivalent truck screening threshold for $PM_{2.5}$. Of the 30 intersections evaluated in the Level 2 traffic screening, the only intersection that was found to exceed the $PM_{2.5}$ equivalent truck threshold was at Reginald Nero's Way/McKeever Place and Sullivan Place, during the midday, PM, and Saturday Peak periods. At this location, the maximum number of equivalent heavy-duty trucks was found to slightly exceed the threshold of 13. Given the very small number of project-generated vehicles at this location (the maximum is 32) and limited occurrence, the potential for $PM_{2.5}$ incremental concentrations to exceed the *de minimis* criteria is considered to be negligible. Therefore, no significant adverse air quality impact at intersections is anticipated due to the Proposed Project.

PARKING FACILITY ANALYSIS

Based on the methodology previously described, the maximum predicted CO and PM concentrations from the proposed parking facility were predicted assuming a near side sidewalk receptor on the same side of the street as the parking facility and a far side sidewalk receptor on the opposite side of the street from the parking facility.

The maximum predicted 1-hour average CO concentration is 3.0 ppm. This value includes a predicted concentration of 0.6 ppm from emissions within the parking garage and a background level of 2.4 ppm.

The maximum predicted 24-hour and annual average $PM_{2.5}$ increments are 0.25 $\mu g/m^3$ and 1.57 $\mu g/m^3$, respectively. The maximum predicted $PM_{2.5}$ increments are below the respective $PM_{2.5}$ *de minimis* criteria of 8.6 $\mu g/m^3$ for the 24-hour average concentration and 0.3 $\mu g/m^3$ for the annual

[8] NYSDEC. *Access to DEC Air Permits*. https://www.dec.ny.gov/chemical/8569.html.

average concentration. Therefore, the proposed parking facility would not result in any significant adverse air quality impacts.

HEATING AND HOT WATER SYSTEMS

The results of the AERMOD analysis for NO_2 and $PM_{2.5}$ for the Proposed Project's heating and hot water systems are presented in **Table J-3**. As shown, there are no exceedances of the NO_2 1-hour NAAQS. In addition, the maximum predicted incremental concentrations of $PM_{2.5}$ are not predicted to exceed the CEQR *de minimis* criteria. Overall, based on the analysis presented, the Proposed Project's heating and hot water systems would not result in any significant adverse air quality impacts.

Table J-3
Maximum Modeled Pollutant Concentrations (µg/m^3)

Pollutant	Averaging Period	Maximum Modeled Concentration	Background Concentration	Total Concentration	Criterion
NO_2	1-hour	141.78 (1)	N/A	141.78	188(2)
	Annual	0.83	27.5	28.33	100(2)
$PM_{2.5}$	24-hour	1.6	N/A	N/A	8.6 (3)
	Annual	0.06	N/A	N/A	0.3(4)

Notes: N/A – Not Applicable
(1) The 1-hour NO_2 concentration presented represents the average 98th percentile 1-hour NO_2 concentration predicted at each receptor over five years 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/m^3.
(4) $PM_{2.5}$ *de minimis* criteria—annual.

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 for Block 1309, Lot 6 through an Air Quality (E) Designation [E-XXX] that would be mapped on the property in connection with the proposed zoning map amendment. These restrictions were determined based on the analysis results presented in **Table J-3** and would avoid the potential for significant air quality impacts from stationary sources based on the conservative assumptions used in the analysis.

The restrictions through [E-XXX] are as follows:

(Block 1306, Lot 28)

Any new residential development on Block 1306, Lot 28 must utilize only natural gas in any fossil fuel-fired hot water equipment, and the heating and hot water exhaust stack must be located on the tallest portion of the proposed development and at least 163 feet above grade and no less than 137 feet to the lot line facing Sullivan Place, to avoid potential significant adverse air quality impacts. ✷

A. INTRODUCTION

This attachment considers the potential for the Proposed Actions to result in significant adverse noise impacts. The Proposed Actions would facilitate the development of a mixed-use building with affordable housing (the "Proposed Project") at 73-99 Empire Boulevard (the "Project Site") in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9. This attachment considers whether the Proposed Actions would result in increases in noise levels that could have a significant adverse impact on nearby sensitive receptors and also considers the effect of existing and future noise levels on the Proposed Project.

According to the guidelines established in the 2021 *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.

A mobile source analysis was conducted to determine whether there are any noise-sensitive locations where project-generated traffic would have the potential to result in significant adverse noise impacts. The noise analysis also considered on the level of building attenuations necessary to ensure that interior noise levels within the proposed building would satisfy applicable interior noise criteria. Consequently, the noise analysis is focused on the level of building attenuations necessary to ensure that interior noise levels within the proposed building would satisfy applicable interior noise criteria.

B. ACOUSTICS FUNDAMENTALS

Sound is a fluctuation in air pressure. Sound pressure levels are measured in units called "decibels" (dB). The particular character of the sound that we hear (e.g., a whistle compared with a diesel engine, for example) 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 left-most keys on a piano).

"A"-WEIGHTED SOUND LEVEL (DBA)

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

daily activity; levels above 70 dBA would be considered noisy, and then loud, intrusive, and deafening as the scale approaches 130 dBA.

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 K-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: 2021 *CEQR Technical Manual*	

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}.

The L_{10} descriptor has been selected as the noise descriptor to be used in this noise impact evaluation. The 1-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines when vehicular traffic is the dominant noise source.

C. NOISE STANDARDS AND CRITERIA

NEW YORK CEQR NOISE CRITERIA

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

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

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	---------- DNL ≤ 60 dBA ----------	NA	---------- 60 < DNL ≤ 65 dBA ----------	NA	(i) 65 < DNL ≤ 75 dBA	NA	---------- 75 dBA < DNL ----------
Hospital, nursing home		$L_{10} \leq 55$ dBA		55 < L_{10} ≤ 65 dBA		65 < L_{10} ≤ 80 dBA		$L_{10} > 80$ 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 K-3**). Where vehicular traffic is the dominant noise source, recommended noise attenuation values for buildings are designed to maintain an interior L_{10} noise level of 45 dBA for residential and community facility uses and 50 dBA for commercial office uses. Where rail activity is the dominant noise source, recommended noise attenuation values for buildings are designed to maintain an interior L_{dn} noise level of 40 dBA for residential and community facility uses and 45 dBA for commercial office uses.

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

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Aircraft[A]	$65 < DNL \leq 68$	$68 < DNL \leq 71$	$71 < DNL \leq 73$	$73 < DNL \leq 75$	$75 < DNL$
Train	$65 < L_{dn} \leq 68$	$68 < L_{dn} \leq 71$	$71 < L_{dn} \leq 73$	$73 < L_{dn} \leq 75$	$75 < L_{dn}$
Attenuation[B]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	See note [C]

Notes:
[A] DNL descriptor based on average values of L_{dn} over a year period.
[B] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.
[C] The required attenuation value is the difference between L_{build} and $L_{interior}$, using the appropriate noise descriptor
Where:
L_{build} is the projected noise level under the build condition rounded up to the whole number
$L_{interior}$ is the designed interior noise level (45 dBA for vehicular noise, 40 dBA for aircraft and train noise)
Source: New York City Department of Environmental Protection.

D. EXISTING NOISE LEVELS

A total of 3 receptor locations adjacent to the Project Site were selected for evaluation of noise attenuation requirements. These locations are detailed below in **Table K-4** and shown in **Figure K-1**.

Table K-4
Noise Measurement Locations

Site	Location	Duration
1	Empire Boulevard in between McKeever Place and Bedford Avenue	20 minutes
2	McKeever Place in between Empire Boulevard and Sullivan Place	20 minutes
3	Sullivan Place in between McKeever Place and Bedford Avenue	20 minutes

At each receptor site (where traffic is the dominant noise source), 20-minute spot noise measurements were conducted during the typical weekday AM (7:00 AM—9:00 AM), midday (12:00 PM—2:00 PM), and PM (4:30 PM—6:30 PM) peak periods, approximately 5 feet above grade. Measurements were conducted on December 1, 2022.

EQUIPMENT USED DURING NOISE MONITORING

Measurements were performed using one Brüel & Kjær Sound Level Meter (SLM) Type 2270, one Brüel & Kjær 1/2-inch microphone Type 4189, and one Brüel & Kjær Sound Level Calibrator Type 4231. The SLM has a valid laboratory calibration within 1 year, as is standard practice. The SLMs are Class 1 instruments according to ANSI Standard S1.4-1983 (R2006). The microphones were 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 Receptor Locations

73-99 EMPIRE BOULEVARD

Figure K-1

NOISE MEASUREMENT RESULTS

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

Table K-5
Existing Noise Levels at Receptor Sites (in dBA)

Receptor Site	Measurement Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}
1	Empire Boulevard in between McKeever Place and Bedford Avenue	AM	66.9	76.5	69.5	64.5	59.7
		MD	67.1	77.3	69.5	62.2	57.8
		PM	64.0	73.5	67.1	60.8	55.6
2	McKeever Place in between Empire Boulevard and Sullivan Place	AM	60.3	68.9	63.6	57.9	54.3
		MD	59.9	71.0	61.8	56.9	54.2
		PM	57.9	66.4	61.2	54.6	51.6
3	Sullivan Place in between McKeever Place and Bedford Avenue	AM	58.9	68.0	60.8	56.2	53.7
		MD	62.6	68.8	65.1	61.6	58.1
		PM	55.5	64.4	58.2	52.0	48.9

Note: Measurements were performed by AKRF, Inc. on December 1, 2022.

For each receptor site, vehicular traffic on the adjacent and/or nearby roadways was the dominant noise source. Measured levels are relatively low to moderate and reflect the level of vehicular activity on the adjacent roadways. In terms of the CEQR criteria, the existing noise levels at Site 1 is in the "marginally acceptable" category and the existing noise levels at Sites 2 and 3 are in the "acceptable" category.

E. NOISE PREDICTION METHODOLOGY

GENERAL METHODOLOGY

Future noise levels (including in the future without the Proposed Actions and the future with the Proposed Actions) at the sites where traffic was the dominant source of noise (i.e., Sites 1 through 3) were conservatively estimated using a proportional modeling technique. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual*. The selected time periods are when the Proposed Actions would be expected to result in the maximum traffic generation, and therefore result in the maximum potential for significant adverse noise impacts. The proportional modeling used for the noise analysis is described below.

PROPORTIONAL MODELING

Proportional modeling was used to determine locations with the potential for having significant noise impacts. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels where traffic is the dominant noise source is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No Action condition and With Action condition noise levels. Vehicular traffic volumes are converted into Noise Passenger Car Equivalent (Noise PCE) values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of 13 cars, and one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and

one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of 18 cars. Future noise levels are calculated using the following equation:

F NL - E NL = 10 * $\log_{10}$ (F PCE / E PCE)

where:

F NL = Future Noise Level

E NL = Existing Noise Level

F PCE = Future Noise PCEs

E PCE = Existing Noise PCEs

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

F. THE FUTURE WITHOUT THE PROPOSED ACTIONS

Using the methodology previously described, No Action condition noise levels were projected at the three mobile source noise analysis receptors. These No Action values are shown in **Table K-6**.

The maximum increase in $L_{eq(1)}$ noise levels for the No Action condition would be 3.1 dBA along Sullivan Place. Changes of this magnitude would be considered "just noticeable."[1] Increases along Empire Boulevard and McKeever Place would be less than 2 dBA, which would be considered imperceptible.

In terms of CEQR noise exposure guidelines, the No Action condition noise levels at all locations are categorized as "marginally acceptable."

Table K-6
No Action Condition Noise Levels (in dBA)

Receptor	Measurement Location	Time	Existing $L_{eq(1)}$	No Action $L_{eq(1)}$	$L_{eq(1)}$ Change	No Action $L_{10(1)}$
1	Empire Boulevard	AM	66.9	67.0	0.1	69.6
		MD	67.1	67.2	0.1	69.6
		PM	64.0	64.1	0.1	67.2
2	McKeever Place	AM	60.3	61.7	1.4	65.0
		MD	59.9	60.7	0.8	62.6
		PM	57.9	59.6	1.7	62.9
3	Sullivan Place	AM	58.9	60.6	1.7	62.5
		MD	62.6	65.7	3.1	68.2
		PM	55.5	58.1	2.6	60.8

Notes:
Noise levels at all receptor locations were calculated by using proportional modeling.

[1] 2021 *CEQR Technical Manual* Chapter 19, Section 122.

G. THE FUTURE WITH THE PROPOSED ACTIONS

Using the methodology previously described, With Action condition noise levels were calculated at the three mobile source noise analysis. These With Action values are shown in **Table K-7**.

The maximum increase in $L_{eq(1)}$ noise levels for the With Action condition would be less than 2 dBA at all noise analysis receptors. Changes of this magnitude would be considered imperceptible and not significant according to *CEQR Technical Manual* noise impact criteria.

In terms of CEQR noise exposure guidelines, With Action condition noise levels at all locations are categorized as "marginally acceptable."

Table K-7
With Action Condition Noise Levels (in dBA)

Receptor	Measurement Location	Time	No Action $L_{eq(1)}$	With Action $L_{eq(1)}$	$L_{eq(1)}$ Change	With Action $L_{10(1)}$
1	Empire Boulevard	AM	67.0	67.1	0.1	69.7
		MD	67.2	67.3	0.1	69.7
		PM	64.1	64.1	0.0	67.2
2	McKeever Place	AM	61.7	63.6	1.9	66.9
		MD	60.7	62.3	1.6	64.2
		PM	59.6	59.9	0.3	63.2
3	Sullivan Place	AM	60.6	61.0	0.4	62.9
		MD	65.7	66.4	0.7	68.9
		PM	58.1	58.6	0.5	61.3

Notes: Noise levels at all receptor locations were calculated by using proportional modeling.

H. NOISE ATTENUATION MEASURES

The Proposed Project 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 in the acceptable range for residential, community facility, and/or commercial uses. Furthermore, because the exterior $L_{10(1h)}$ noise levels at the Project Site would be less than 70 dBA, the *CEQR Technical Manual* does not provide a specific requirement for the level of window/wall attenuation.

I. 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 A
NO ACTION DEVELOPMENT PROJECTS

Table 1
No Action Development Projects

ID	Name/Address	Description
Land Use Study Area (400 ft)		
1	1 Sullivan Place	52 DUs
2	1730 Bedford Avenue	57 DUs; 64,397 gsf of retail uses; 45,535 gsf of community facility uses; 209 parking spaces
400-foot Study Area Total		**109 DUs; 64,397 gsf of retail uses; 45,535 gsf of community facility uses; 209 parking spaces**
Socioeconomic & Open Space Study Area (1/2-Mile, Census Tract-Based)		
3	61 Clarkson Street	11 DUs
4	26 Hawthorne Street	6 DUs
5	322 Lincoln Road	8 DUs
6	1550 Bedford Avenue	100 hotel rooms
¼-mile Study Area Total		**134 DUs; 64,397 gsf of retail uses; 45,535 gsf of community facility uses; 100 hotel rooms; 209 parking spaces**
Sources: NYC Department of Planning—Active Major Construction		

APPENDIX B
JAMAICA BAY WATERSHED PROTECTION PLAN
PROJECT TRACKING FORM

Print Form

Jamaica Bay Watershed Protection Plan
Project Tracking Form

The Jamaica Bay Watershed Protection Plan, developed pursuant to Local Law 71 of 2005, mandates that the New York City Department of Environmental Protection (DEP) work with the Mayor's Office of Environmental Coordination (MOEC) to review and track proposed development projects in the Jamaica Bay Watershed (http://www.nyc.gov/html/oec/downloads/pdf/ceqr/Jamaica_Bay_Watershed_Map.jpg) that are subject to CEQR in order to monitor growth and trends. If a project is located in the Jamaica Bay Watershed, (the applicant should complete this form and submit it to DEP and MOEC. This form must be updated with any project modifications and resubmitted to DEP and MOEC.

The information below will be used for tracking purposes only. It is not intended to indicate whether further CEQR analysis is needed to substitute for the guidance offered in the relevant chapters of the CEQR Technical Manual.

A. GENERAL PROJECT INFORMATION

1. CEQR Number: [TBD] 1a. Modification ☐
2. Project Name: 73-99 Empire Boulevard Rezoning
3. Project Description:

   The Proposed Project is the development of an approximately 384,429 gross-square-foot (gsf) mixed-use building at 73-99 Empire Boulevard, Brooklyn, NYC, (Block 1306, Lot 28) which would provide residential, retail, and office uses (C4-4D) (see Attachment 1 for further detail).

4. Project Sponsor: Empire Boulevard Holdings LLC
5. Required approvals: See Attachment 1
6. Project schedule (build year and construction schedule): Construction 2023-2025, Build Year 2026

B. PROJECT LOCATION:

1. Street address: 73-99 Empire Boulevard, Brooklyn, New York City, NY, 11225
2. Tax block(s): 1306 Tax Lot(s): 28
3. Identify existing land use and zoning on the project site: See Attachment 1
4. Identify proposed land use and zoning on the project site: See Attachment 1
5. Identify land use of adjacent sites (include any open space): See Attachment 1
6. Describe existing density on the project site and the proposed density:

Existing Condition	Proposed Condition
Low-density commercial structures	Medium-density mixed-use (commercial and residential) structure

7. Is project within 100 or 500 year floodplain (specify)? ☐ **100 Year** ☐ **500 Year** ☒ **No**

C. GROUND AND GROUNDWATER

1. Total area of in-ground disturbance, if any (in square feet): 38,118
2. Will soil be removed (if so, what is the volume in cubic yards)? ~45,176
3. Subsurface soil classification:
   (per the New York City Soil and Water Conservation Board): Urban land, till substratum
4. If project would change site grade, provide land contours (**attach** map showing existing in 1' contours and proposed in 1' contours).
5. Will groundwater be used (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
6. Will project involve dewatering (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
7. Describe site elevation above seasonal high groundwater:

During the Phase II Investigation, neither bedrock nor groundwater was encountered in the deepest boring which extended approximately 63 feet below grade.

D. HABITAT

1. Will vegetation be removed, particularly native vegetation? ☒ **Yes** ☐ **No**

   If YES,
   - **Attach** a detailed list (species, size and location on site) of vegetation to be removed (including trees >2" caliper, shrubs, understory planting and groundcover).
   - **List** species to remain on site.
   - **Provide** a detailed list (species and sizes) of proposed landscape restoration plan (including any wetland restoration plans).
2. Is the site used or inhabited by any rare, threatened or endangered species? ☐ **Yes** ☒ **No**
3. Will the project affect habitat characteristics? ☐ **Yes** ☒ **No**

   If YES, describe existing wildlife use and habitat classification using "Ecological Communities of New York State." at http://www.dec.ny.gov/animals/29392.html.

N/A

4. Will pesticides, rodenticides or herbicides be used during construction? ☐ **Yes** ☒ **No**

   If YES, estimate quantity, area and duration of application.
5. Will additional lighting be installed? ☐ **Yes** ☒ **No**

   If YES and near existing open space or natural areas, what measures would be taken to reduce light penetration into these areas?

E. SURFACE COVERAGE AND CHARACTERISTICS

(describe the following for both the existing and proposed condition):

	Existing Condition	Proposed Condition
1. ***Surface area:***		
Roof:	36,763 sq ft.	38,118 sq ft.
Pavement/walkway:	1,355 sq ft. (pavement)	0 sq ft.
Grass/softscape:	0 sq ft.	0 sq ft.
Other (describe):	0 sq ft.	0 sq ft.
2. ***Wetland*** (regulated or non-regulated) area and classification:	0 sq ft.	0 sq ft.
3. ***Water surface area:***	0 sq ft.	0 sq ft.

4. ***Stormwater management*** (describe):

Existing – how is the site drained?

The project area is served by a combined sewer system. Stormwater drains into city catch basins and feeds into the existing water sewage system infrastructure.

Proposed – describe, including any infrastructure improvements necessary off-site:

No infrastructure improvements are necessary to facilitate the Proposed Project. The Proposed Actions would not result in development exceeding the thresholds of existing drainage infrastructure.

A. GENERAL PROJECT INFORMATION

3. PROJECT DESCRIPTION:

Empire Blvd Holdings, LLC (the "Applicant") is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") subject to City Planning Commission (CPC) approval to facilitate the development of a mixed-use building at 73-99 Empire Boulevard (Block 1306, Lot 28) in the Crown Heights/Prospect Lefferts Gardens neighborhood of Brooklyn, Community District 9. The Applicant controls the approximately 38,118-square-foot (sf) lot (the "Project Site"). The Proposed Actions include a zoning map amendment that would rezone the Project Site from the existing mix of C8-2 and R6/C1-3 zoning on the site to C4-4D. The Proposed Actions 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 an 13-story (145-foot tall), approximately 384,429 gross-square-foot (gsf) mixed-use building to be built on the Project Site (the "Proposed Project"). Completion of project construction and opening is projected for 2026.

4. REQUIRED APPROVALS:

The following actions are necessary to facilitate the Proposed Project:

1. An amendment to Zoning Map 16d to rezone the Project Area from the existing mix of C8-2 and R6/C1-3 zoning to a C4-4D zoning district (see EAS Figure 3).
2. A Zoning Text Amendment to ZR Appendix F to designate the Project Area as a Mandatory Inclusionary Housing Area (MIHA). Within this MIHA, all new developments, enlargements, and conversions that provide residential floor area will have to comply with the MIH program requirements of either Option 1 or 2.

The above-referenced actions are subject to approval by CPC pursuant to the Uniform Land Use Review Procedure (ULURP).

B. PROJECT LOCATION

3. IDENTIFY EXISTING LAND USE AND ZONING ON THE PROJECT SITE:

The Project Site is bordered by Empire Boulevard to the south, McKeever Place to the west, Sullivan Place to the north, and commercial and residential structures to the east. The site is currently owned by the Applicant and contains two buildings, a 1-story, approximately 30,679-sf commercial building that is currently vacant and a 1-story, approximately 8,000-sf commercial building built in 1925, currently occupied by a laundromat. The Project Site also includes 1,355 sf of vacant land located at the corner of McKeever Place and Sullivan Place. The site is split between a C8-2 commercial district on its southern portion and an R6 residential district with a C1-3 commercial overlay on its northern portion.

4. IDENTIFY PROPOSED LAND USE AND ZONING ON THE PROJECT SITE:

Approval of the Proposed Actions would facilitate the development of the Proposed Project, a new 13-story mixed-use building with residential (including affordable housing), retail, and office uses as well as accessory parking. The Proposed Project would include approximately 384,429 gsf of floor area (approximately 274,126 zoning square feet) and would have a floor-to-area ratio (FAR) of 7.2. It would contain approximately 285 dwelling units (DUs), approximately 86 of which would be permanently affordable, and approximately 99,221 gsf of commercial uses. The ground floor would contain approximately 24,168 gsf of supermarket use, and the remaining ground floor, cellar, and second floor commercial space would be destination retail uses totaling approximately

75,053 gsf. Approximately 191 accessory parking spaces would be located in a below-grade facility. The Proposed Actions would modify zoning on the Project Site from a combination of C8-2 and R6/C1-3 districts to a C4-4D district.

5. IDENTIFY LAND USE OF ADJACENT SITES (INCLUDE ANY OPEN SPACE):

The block to the west of the Project Site is occupied by a single-story McDonalds drive-thru restaurant with on-site parking, and the block further to the west is occupied by a single-story commercial building on its northern portion, a single-story building in use by the Gospel Truth Church of God on its western portion, and a single-story Checkers drive-thru restaurant on its southern portion. The block to the south of the Project Site extending between Washington Avenue and Bedford Avenue contains a parking lot on its westernmost portion and single-story commercial buildings on its Empire Boulevard frontage. Two six-story apartment buildings are also located on the block's Empire Boulevard frontage and two four-story apartment buildings are located at the block's southeast corner. The southern portion of the block, fronting on Sterling Street, contains two-story row houses. Two-story semi-detached houses are located on the south side of Sterling Street, in the southernmost portion of the study area. No parkland, forest, or open space is present within the immediate vicinity of the Project Site; however, Prospect Park is located approximately 600 feet to the west of the Project Site.

D. HABITAT

1. WILL VEGETATION BE REMOVED, PARTICULARLY NATIVE VEGETATION:

Any ecological communities and wildlife habitat previously present on the Project Site or surrounding area have been cleared and are currently developed, containing paved surface parking, commercial structures, and a few trees. Vegetation within the Project Site includes princess tree (*Paulownia tomentosa*), tree-of-heaven (*Ailanthus altissima*), white mulberry (*Morus alba*), and mugwort (*Artemisia vulgaris*). There are approximately five trees growing within the Project Site, all of which would be removed under the Proposed Actions. These tree species are invasive, and their removal would not cause a significant loss of wildlife habitat within the Project Site. Any wildlife present within the vicinity of the Project Site are disturbance-tolerant species, which would relocate to similar habitat nearby and would not suffer as a result of on-site vegetation removal.

2. IS THE SITE USED OR INHABITED BY ANY RARE, THREATENED, OR ENDANGERED SPECIES?

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) tool identifies five federally-listed species as having the potential to occur within the Project Site: northern long-eared bat (*Myotis septentrionalis*, Endangered), piping plover (*Charadrius melodus*, Threatened), red knot (*Calidris canutus rufa*, Threatened), monarch butterfly (*Danaus plexippus*, Candidate), and seabeach amaranth (*Amaranthus pumilus*, Threatened).

The northern long-eared bat inhabits mature, closed-canopy forests within heavily forested landscapes and hibernates inside caves and mines during winter (Owen et al. 2003, Carter and Feldhammer 2005, Ford et al. 2005). The red knot, a migratory shorebird which winters in South America and breeds in the high Arctic, refuels at key staging areas on the Atlantic coastline (Baker et al. 2004, Morrison et al. 2007). This species uses beaches, bays, and estuaries as staging areas and is particularly dependent upon horseshoe crab (Limulus polyphemus) eggs as a food source; for this reason, Delaware Bay is a primary refueling location for migrating red knots (Morrison and Hobson 2004, Niles 1999). Piping plover, a small shorebird, requires wide, open expanses of

unvegetated coastal beach for breeding and foraging habitat (Elliot-Smith and Haig 2004). Seabeach amaranth, an annual herbaceous plant, grows along Atlantic sandy beaches in areas of accreting shoreline, upper beach, foredune, and overwash flat, as well as beach nourishment sites (USFWS 2012).

Due to a lack of appropriate habitat for these species, northern long-eared bat, piping plover, red knot, and seabeach amaranth do not have the potential to occur within the Project Site. Monarch butterflies, a candidate species under the Endangered Species Act (ESA), have the potential to use the limited wildflowers on the Project Site as forage. However, the Brooklyn Botanic Garden, located less than 0.5 miles from the Project Site, provides higher quality habitat for monarch butterflies.

4. WILL PESTICIDES, RODENTICIDES, OR HERBICIDES BE USED DURING CONSTRUCTION?

Construction contracts may include provisions for a rodent (i.e., mouse and rat) control program. Before the start of construction, the contractor would survey and bait the appropriate areas with rodenticides and provide for proper site sanitation. During construction, the contractor would carry out a maintenance program, as necessary.

E. SURFACE COVERAGE AND CHARACTERISTICS

The Project Site is currently occupied by two commercial buildings, for a total of 36,763 sf of roof surface area. The Project Site also includes 1,355 sf of paved area. In the future with the Proposed Project, the Project Site would have 38,118 sf of roof surface area, and no pavement, grass/softscape, or other area. There are no current or proposed wetlands on the Project Site. There is no current or proposed water surface area on the Project Site. The project area is served by a combined sewer system. Stormwater drains into city catch basins and feeds into the existing water sewage system infrastructure. No infrastructure improvements are necessary to facilitate the Proposed Project. The Proposed Actions would not result in development exceeding the thresholds of existing drainage infrastructure.

F. REFERENCES

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Elliott-Smith, E. and S.M. Haig. 2004. Piping Plover (Charadrius melodus). In: The Birds of North America Online (A. Poole, Ed.). Cornell Lab of Ornithology, Ithaca, NY. Retrieved from http://bna.birds.cornell.edu.bnaproxy.birds.cornell.edu/bna/species/002doi:10.2173/bna.2

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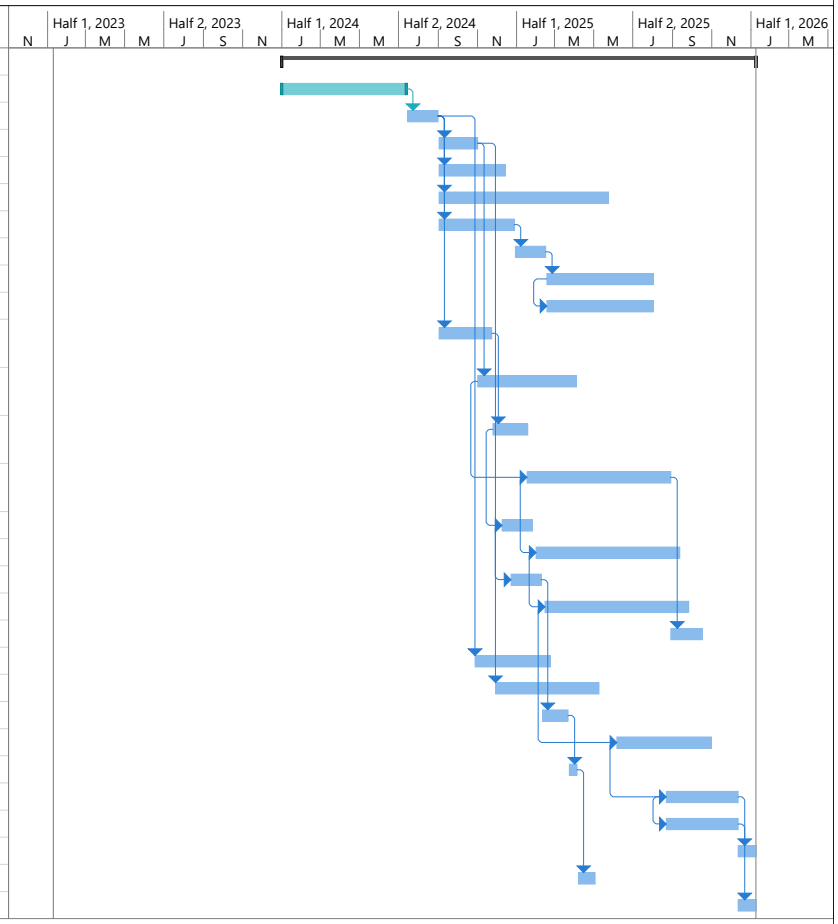
APPENDIX C
CONSTRUCTION SCHEDULE

MJM
Associates Construction

73-99 EMPIRE BLVD
CRITICAL PATH SCHEDULE
1.10.2023

ID	Task Mode	Task Name	Duration	Start	Finish
1		73-99 EMPIRE BLVD CRITICAL PATH SCHEDULE	529 days	Mon 1/1/24	Thu 1/8/26
2		EXCAVATION / FOUNDATION/PARKING LEVEL	140 days	Mon 1/1/24	Fri 7/12/24
3		RETAIL SUPERSTRUCTURE	35 days	Mon 7/15/24	Fri 8/30/24
4		RESIDENTIAL SUPERSTRUCTURE	44 days	Mon 9/2/24	Thu 10/31/24
5		MASONRY INSTALLATION	75 days	Mon 9/2/24	Fri 12/13/24
6		HOIST ELEVATOR LINE	190 days	Mon 9/2/24	Fri 5/23/25
7		EXTERIOR WALL FRAMING	85 days	Mon 9/2/24	Fri 12/27/24
8		WATERPROOFING MEMBRANE (EXTERIOR WALL)	35 days	Mon 12/30/24	Fri 2/14/25
9		FAÇADE SYSTEM	120 days	Mon 2/17/25	Fri 8/1/25
10		WINDOWS / GLAZING SYSTEM	120 days	Mon 2/17/25	Fri 8/1/25
11		RETAIL CARPENTRY - PARTITION LAYOUT, & METAL STUD & TRACK FRAMING	60 days	Mon 9/2/24	Fri 11/22/24
12		RESIDENTIAL CARPENTRY - PARTITION LAYOUT, & METAL STUD & TRACK FRAMING	110 days	Fri 11/1/24	Thu 4/3/25
13		RETAIL PLUMBING ROUGHING (SPRINKLER, DOMESTIC, SANITARY, STORM & GAS)	40 days	Mon 11/25/24	Fri 1/17/25
14		RESIDENTIAL PLUMBING ROUGHING (SPRINKLER, DOMESTIC, SANITARY, STORM & GAS)	160 days	Fri 1/17/25	Thu 8/28/25
15		RETAIL MECHANICAL	35 days	Mon 12/9/24	Fri 1/24/25
16		RESIDENTIAL MECHANICAL	160 days	Fri 1/31/25	Thu 9/11/25
17		RETAIL ELECTRICAL	35 days	Mon 12/23/24	Fri 2/7/25
18		RESIDENTIAL ELECTRICAL	160 days	Fri 2/14/25	Thu 9/25/25
19		ROOF	35 days	Fri 8/29/25	Thu 10/16/25
20		RETAIL VERTICAL TRANSPORTATION	85 days	Mon 10/28/24	Fri 2/21/25
21		PASSENGER ELEVATORS	115 days	Fri 11/29/24	Thu 5/8/25
22		RETAIL SHEETROCK AND TAPING	30 days	Mon 2/10/25	Fri 3/21/25
23		RESIDENTIAL SHEETROCK AND TAPING	105 days	Fri 6/6/25	Thu 10/30/25
24		RETAIL PAINT (PRIME& 2 FINISH COATS)	10 days	Mon 3/24/25	Fri 4/4/25
25		RESIDENTIAL PAINT (PRIME& 2 FINISH COATS)	80 days	Fri 8/22/25	Thu 12/11/25
26		APARTMENT FINISHES	80 days	Fri 8/22/25	Thu 12/11/25
27		RESIDENTIAL CLOSE-OUT / PUNCHLIST / PRE-TCO PHASE	20 days	Fri 12/12/25	Thu 1/8/26
28		RETAIL TCO (NO FIT OUT)	20 days	Mon 4/7/25	Fri 5/2/25
29		RESIDENTIAL TCO	20 days	Fri 12/12/25	Thu 1/8/26



Project: EMPIRE SCHEDULE
Date: Tue 1/10/23

Task | Split | Milestone | Summary
Project Summary | Inactive Task | Inactive Milestone | Inactive Summary
Manual Task | Duration-only | Manual Summary Rollup | Manual Summary
Start-only | Finish-only | External Tasks | External Milestone
Deadline | Progress | Manual Progress

APPENDIX D
LPC 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

ARCHAEOLOGY

Project number: 77DCP897K (DEPARTMENT OF CITY PLANNING)
Project: 73-99 EMPIRE BLVD REZONING
Address: 73-97 EMPIRE BOULEVARD **BBL:** 3013060028
Date Received: 2/1/2023

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

[X] No archaeological significance

[ ] Designated New York City Landmark or Within Designated Historic District

[ ] Listed on National Register of Historic Places

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Comments:

2/3/2023

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 36866_FSO_DNP_02032023.docx