NEW YORK CITY ENVIRONMENTAL QUALITY REVIEW
REVISED ENVIRONMENTAL ASSESSMENT STATEMENT*

LA HERMOSA REZONING
5 WEST 110TH STREET
BOROUGH OF MANHATTAN

Prepared For:
La Hermosa Christian Church
5 West 110th Street
Manhattan, New York, 10026

Prepared By:
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Lead Agency:

New York City Department of City Planning (DCP)
120 Broadway, 31st Floor
Manhattan, New York, 10271

CEQR Number: 19DCP116M
3 May, 2019
***Revised: October 11, 2019**

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*Following the certification of the related land use application (ULURP Nos. 190434ZMM, N190433ZRM, 190435ZSM, 190436ZSM) on May 6, 2019, the Applicant has revised the Proposed Actions to increase bulk at the base of the building fronting Frawley Circle and decrease the overall building envelope height to 385 feet. This Revised Negative Declaration supersedes the Negative Declaration issued on May 6, 2019 and reflects the Revised EAS dated October 11, 2019, which assesses the changes to the application. As described in the Revised EAS Appendix D, the changes would not alter the conclusions of the previous EAS.

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PART I: ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM
(CITY ENVIRONMENTAL QUALITY REVIEW)

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

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

Part I: GENERAL INFORMATION

PROJECT NAME La Hermosa Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
19DCP116M	N/A
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable)
190433 ZRM, 190434 ZMM, 190435 ZSM, and 190436 ZSM	(*e.g.*, legislative intro, CAPA) N/A

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			La Hermosa Christian Church		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Olga Abinader			James Cella		
ADDRESS 120 Broadway, Floor 31			ADDRESS Hudson Development LLC		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10026
TELEPHONE (212)720-3493	EMAIL oabinader@planning.nyc.gov		TELEPHONE (917) 743-1993	EMAIL James.Cella@HudsonDevelopmentLLC.com	

3. *Action Classification and Type*

SEQRA Classification

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

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

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

4. *Project Description*

The Applicant, La Hermosa Christian Church, is requesting approval of four discretionary actions affecting Block 1594, Lots 30, 40, 41, and portions of (p/o) Lots 29 and 42 (the "Directly Affected Area") in the Borough of Manhattan, Community District 10. The Proposed Actions include a zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district; a City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations; a CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and a zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area (collectively, the "Proposed Actions"). The Proposed Actions would facilitate the development of a 33-story (approximately 410 feet) mixed-use building containing both residential and community facility uses. The Proposed Project would include (i) approximately 194,182 gross square feet (gsf) of residential floor area (160 dwelling units, of which approximately 48 would be designated as permanently affordable) and (ii) approximately 37,647 gsf of community facility floor area.

Project Location

BOROUGH Manhattan	COMMUNITY DISTRICT(S) 10	STREET ADDRESS 6 West 111 Street, New York NY
TAX BLOCK(S) AND LOT(S) Block 1594, Lots 30, 40, 41, and portions of (p/o) Lots 29 and 42		ZIP CODE 10026

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Directly Affected Area is bounded by East 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; Central Park North to the south, and two, five-story, multi-family walk-up residential buildings to the west.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R7-2 and R8 with a partial C1-4 overlay.	ZONING SECTIONAL MAP NUMBER 6B

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

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION: Special Permits pursuant to §74-851 and §73-533.

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

☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 46,049
Waterbody area (sq. ft.) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): 43,594
Other, describe (sq. ft.): approximately 2,455 sf of grass

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 231,856 gsf
NUMBER OF BUILDINGS: One
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 231,856
HEIGHT OF EACH BUILDING (ft.): Approximately 410 feet
NUMBER OF STORIES OF EACH BUILDING: 33

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: 15,016 (Lot 41)
The total square feet not owned or controlled by the applicant: 31,033 (Lots 30 and 40, and part of Lots 29 and 42)

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 15,016 sq. ft. (width x length)
VOLUME OF DISTURBANCE: Approx. 180,192 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 15,016 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2022
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22 Months
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: See Attachment M

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

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

ATTACHMENT A: PROJECT DESCRIPTION

INTRODUCTION

The Applicant, La Hermosa Christian Church, is requesting approval of four (4) discretionary actions: (i) a zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district; (ii) City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations; (iii) CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and (iii) a zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area. The requested discretionary actions (collectively, the "Proposed Actions") would affect Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42 (the "Directly Affected Area") (Figures A-1, A-2, and A-3).

In addition to the Proposed Actions, but not subject to environmental review, the Applicant intends to pursue a zoning lot merger to combine Block 1594, Lot 41 (the "Project Site") with the adjacent property (Lot 30) through a zoning lot development agreement (ZLDA). The ZLDA would result in the acquisition of approximately 42,320 zsf from Lot 30.

Approval of the Proposed Actions, in conjunction with the ZLDA, would facilitate the development of a 33-story (approximately 410 feet) mixed residential and community facility building containing approximately 231,856-gross square feet (gsf) (the "Proposed Project") on Block 1594, Lot 41. The Proposed Project would comprise approximately 194,182 gsf of mixed-income residential area, including approximately 160 dwelling units, of which approximately 30 percent (48 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent Area Median Income (AMI);[1] and approximately 37,674 gsf of community facility floor area. (Figure A-4).

DIRECTLY AFFECTED AREA

The Directly Affected Area consists of the Project Site and the area subject to any change in regulatory controls. The approximately 46,049 sf Directly Affected Area is located in the Central Harlem neighborhood of Manhattan (Figure A-1). The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) and is bounded by East 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; Central Park North to the south, and two, five-story, multi-family walk-up residential buildings to the west. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings (Figures A-2 and A-3).

[1] The average dwelling unit size of the Proposed Project is approximately 1,214 gsf.

The Directly Affected Area is within both an R7-2 and an R8 zoning district; a C1-4 commercial overlay encompasses Block 1594, Lot 40 and a portion of Lot 41. The northern portion of the Directly Affected Area is within an R7-2 zoning district. The northern portion of the Directly Affected Area (approximately 26,133 sf) comprises Lots 40 and 42, and portions of Lots 29, 30 and 41. R7-2 zoning districts permit residential and community facility uses (Use Groups 1-4) at a maximum Floor Area Ratio (FAR) of 3.44 and 6.50, respectively. In an R7-2 zoning district, off-street parking is required for 50 percent of a development's dwelling units, but requirements are lower for income-restricted housing units (IRHU). The southern portion of the Directly Affected Area is within an R8 zoning district. The southern portion of the Directly Affected Area (approximately 19,916 sf) comprises Lot 30, and portions of Lots 29 and 41. R8 zoning districts permit residential and community facility uses (Use Group 1-4) at a maximum FAR of 6.02 and 6.50, respectively. In an R8 zoning district, off-street parking is required for 40 percent of a development's dwelling units, but requirements are lower for IRHU. The maximum achievable residential FAR in both the R7-2 and R8 zoning district is contingent on the Open Space Ratio (OSR) and adherence to the sky exposure plane regulations. The C1-4 commercial overlay permits commercial uses at an FAR of 2.00. The Directly Affected Area is also within a Transit Zone, waiving the requirement to provide off-street parking for any IRHU.

The Special Park Improvement District is immediately east of the Directly Affected Area extending south along Fifth Avenue. The Directly Affected Area is served by public transportation with access to the 2 and 3 lines of the New York City Transit (NYCT) subway at the Central Park North (110 Street) Station, west of the Directly Affected Area on Malcolm X Boulevard. Additionally, the NYCT M2, M3, and M4 busses are accessible at Frawley Circle, adjacent to the Directly Affected Area. The NYCT M1 bus is accessible at the intersection of West 111 Street and Fifth Avenue.

PROJECT SITE

The Project Site consists of Block 1594, Lot 41, in the Central Harlem neighborhood of Manhattan, Community District 10. The approximately 15,016 square-foot (sf) irregularly shaped Project Site is generally bound by East 111th Street to the north; a six story multi-family walk-up building containing ground floor commercial use to the northeast; Fifth Avenue to the east; Frawley Circle to the southeast; Central Park North to the south; and a three (3)-story church and a five (5)-story multi-family residential building to the west. Lot 41 has been partially improved with La Hermosa Church, a three story building constructed in 1940 that occupies approximately half of the Project Site with a parking lot on the remainder. The northern portion of the Project Site (p/o Lot 41), is zoned R7-2; and the southern portion (p/o Lot 41), is zoned R8. The C1-4 commercial overlay extends westward from Fifth Avenue to a depth of approximately 100 feet on the Project Site.

DESCRIPTION OF THE PROPOSED ACTIONS

The Proposed Actions include:

1. Zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district;

2. City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations;

3. CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and

4. Zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area.

PURPOSE AND NEED

The Directly Affected Area is located at one of the four corners of Central Park, which generally serve as gateways to the park. The current zoning districts that partition the Directly Affected Area however, do not encourage development consistent with the existing character of the developments surrounding Frawley Circle or the character of the three other gateway corners of Central Park.

The southwest corner of Central Park fronts Columbus Circle, which is surrounded by a 44-story mixed residential and commercial building, a 54-story mixed residential and commercial building, a ten-story community facility (museum), and a 28-story mixed residential and commercial building. The southeast corner of Central Park fronts Grand Army Plaza, which is surrounded by a 19-story mixed residential and commercial building, a 50-story commercial office building, a 38-story multi-family residence, and an 18-story multi-family residence. The northwest corner of Central Park fronts Frederick Douglass Circle, which is surrounded by a 20-story multi-family residence, another 20-story residence, and an 11-story mixed residential and commercial building. The northeast corner of Central Park fronts Duke Ellington Circle, which is surrounded by a 19-story mixed residential and commercial building, two 34-story multi-family residences, and the Project Site.

The existing zoning districts that partition the Directly Affected Area require adherence to multiple height, setback, and yard requirements that would result in inefficient floor plates, uneconomical building design, and a contextually incoherent development. The Proposed Actions would provide relief from these requirements and allow the Project Site to be improved with a contextually appropriate development containing affordable housing while maintaining the independent identity of La Hermosa Church. The Proposed Actions would also result in facilitating a development that is consistent in character with the other three gateway corners.

The Project Site is underbuilt and has been partially improved with a three-story approximately 23,196-gsf community facility/ institutional building occupied by La Hermosa Christian Church. La Hermosa Christian Church, the oldest Latino church on the East Coast, has occupied Lot 41 since 1960. The approval of the Proposed Actions would present a unique opportunity to ensure the

preservation of a prominent community resource in the Central Harlem neighborhood while providing additional, much needed, affordable housing.

Pursuant to MIH Option 2, the Proposed Project would include approximately 48 permanently affordable dwelling units for households with incomes averaging at or below 80 percent AMI. The Applicant maintains the Proposed Project would support the vision set forth in Mayor Bill de Blasio's Housing New York: A Five-Borough, Ten-Year Plan to create and preserve affordable housing in New York City by providing permanently affordable dwelling units.

The Applicant maintains the approval of the Proposed Actions would facilitate contextually consistent development, improve the prominence of the park entrance so it is equivalent to the entrances at the other three corners, and promote the creation of permanently affordable housing while preserving the important presence of La Hermosa Christian Church within the Central Harlem neighborhood.

PROPOSED PROJECT

The Proposed Actions would facilitate the development of a 33-story (approximately 410 feet) mixed-use building containing both residential and community facility uses. The Proposed Project would comprise (i) approximately 194,182 gsf of mixed-income residential area, including approximately 160 dwelling units, of which approximately 30 percent (48 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent AMI[2] and (ii) approximately 37,647 sf of community facility floor area that would be occupied by the La Hermosa Christian Church.

Development of the Proposed Project is anticipated to occur in a single phase. Demolition of the existing building on the Project Site is anticipated to begin after the Proposed Actions have been approved. Construction is anticipated to begin shortly after approval, upon granting of building permits. The Proposed Project is anticipated to be complete and operational by 2022.

SURROUNDING AREA

The area within 400 feet of the Directly Affected Area (the "Study Area") includes primarily residential and community facility/ institutional uses (Figure A-5). The area to the north, west, and east is predominantly residential, comprised of multi-family walk-up and multi-family elevator residences. Institutional uses are dispersed intermittently throughout the Study Area and commercial uses are located along Fifth Avenue and Madison Avenue. Central Park is located to the southeast of the Directly Affected Area and comprises about a quarter of the Study Area. Public School (P.S.) 185 Early Childhood Discovery and Design Magnet School, occupies the majority of Block 1595, located to the north of the Directly Affected Area. The King Towers New York City Housing Authority (NYCHA) residential development, located at 90 Lenox Avenue, contains ten buildings, between 13 and 14-stories tall, across approximately 13.75 acres.[3]

[2] For the purpose of environmental review, development in the With-Action Condition would contemplate 20 percent of the residential floor area (approximately 60 dwelling units) as affordable for households with incomes averaging at or below 80 percent Area Median Income (AMI).
[3] *https://my.nycha.info/DevPortal/Portal (Date Accessed: 05/03/2018)*

As shown in Figure A-6, zoning districts within the Study Area include residential districts (R7-2, R8A, R8, and R9) to the west, north, and east, a C1-9 zoning district is located immediately east of the Directly Affected Area, and a C4-6 zoning district located southeast of the Directly Affected Area. There is a C1-4 commercial overlay mapped along the west side of Fifth Avenue to a depth of approximately 100 feet and parkland to the south and southwest of the Directly Affected Area.

The Special Park Improvement District is immediately east of the Directly Affected Area extending south along Fifth Avenue. The Directly Affected Area is served by public transportation with access to the 2 and 3 lines of the New York City Transit (NYCT) subway at the Central Park North (110 Street) Station, west of the Directly Affected Area on Malcolm X Boulevard. Additionally, the NYCT M2, M3, and M4 busses are accessible at Frawley Circle, adjacent to the Directly Affected Area. The NYCT M1 bus is accessible at the intersection of West 111 Street and Fifth Avenue.

LA HERMOSA REZONING

FIGURE A-1
REGIONAL LOCATION MAP

Map Reference: ESRI Basemap

Directly Affected Area

CENTRAL HARLEM, MANHATTAN, NY

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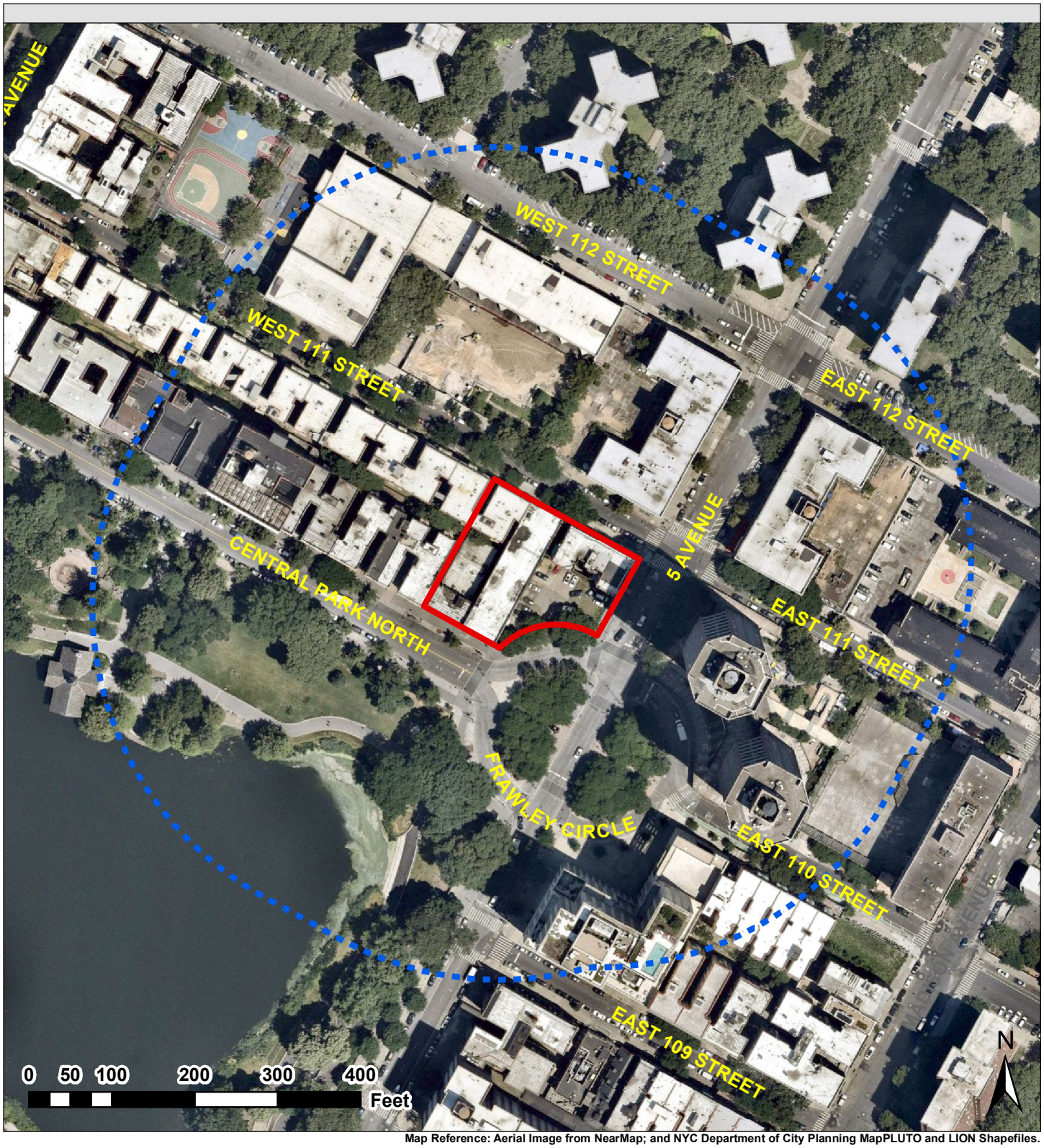
FIGURE A-2

LA HERMOSA REZONING

DIRECTLY AFFECTED AREA LOCATION MAP



Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Study Area (400-foot radius)

CENTRAL HARLEM, MANHATTAN, NY

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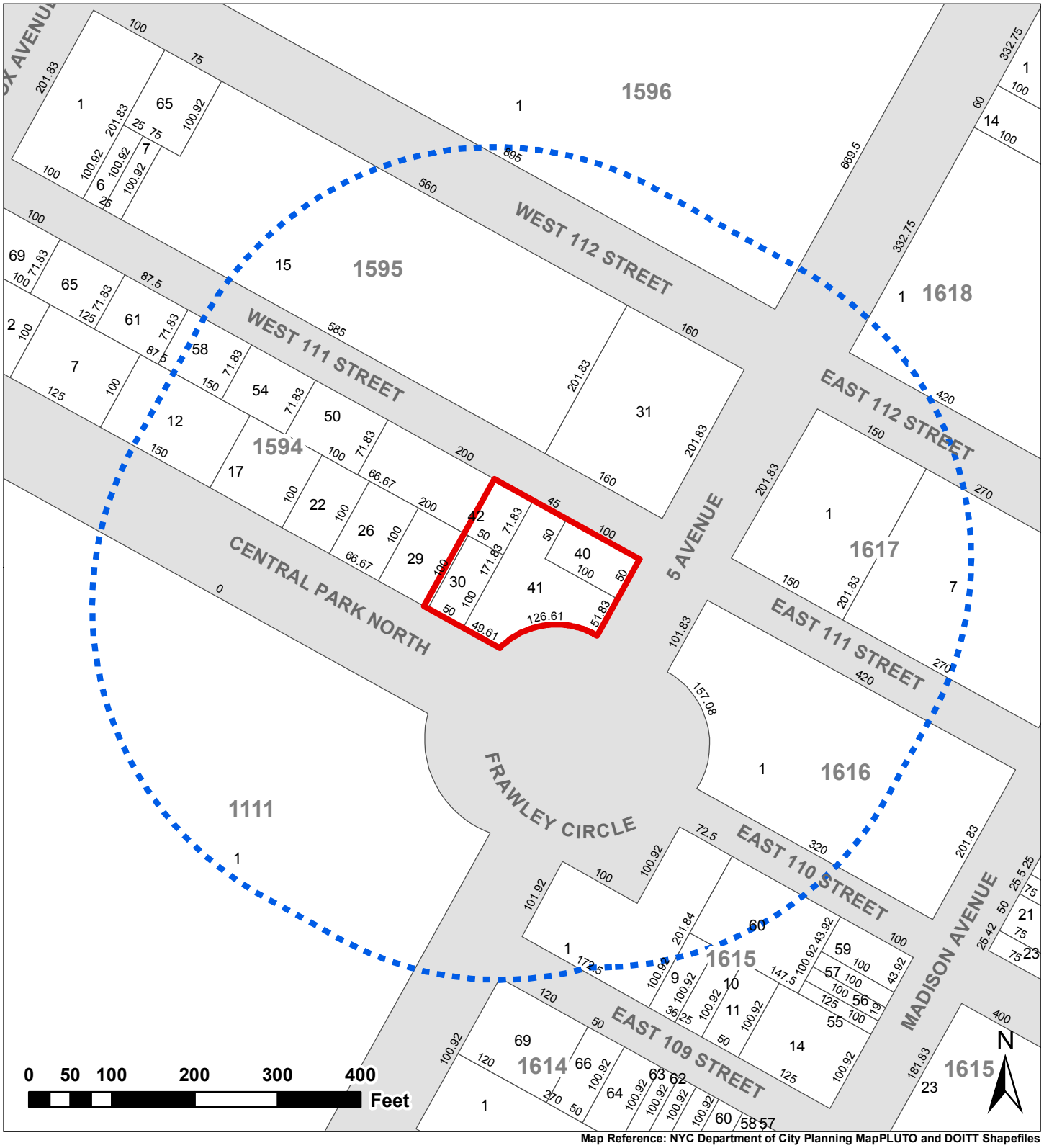
LA HERMOSA REZONING

FIGURE A-3
TAX MAP



Map Reference: NYC Department of City Planning MapPLUTO and DOITT Shapefiles

Directly Affected Area

Study Area (400-foot radius)

41 Tax Lot

1594 Tax Block

CENTRAL HARLEM, MANHATTAN, NY

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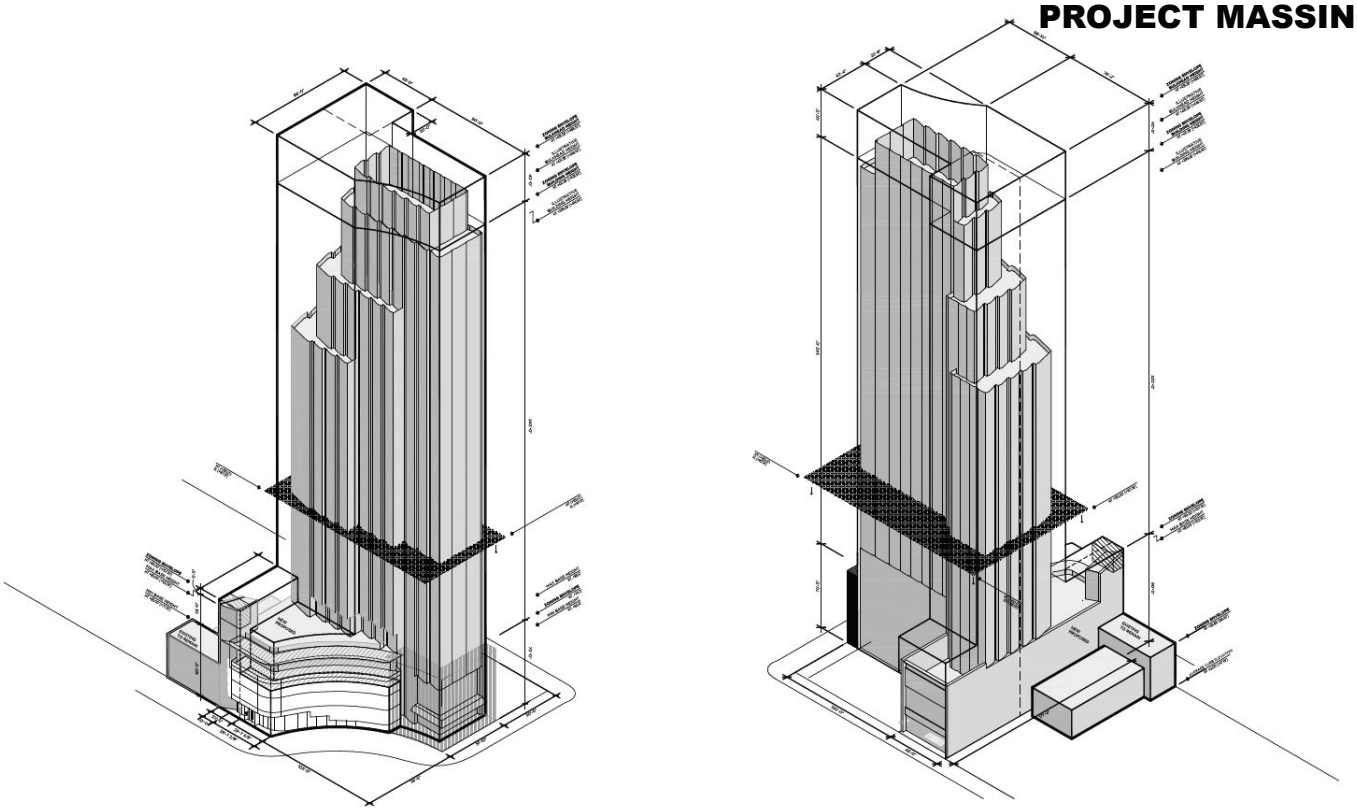
FIGURE A-4

LA HERMOSA REZONING

PROPOSED PROJECT MASSING AND SITE PLAN

PROJECT MASSING



SITE PLAN

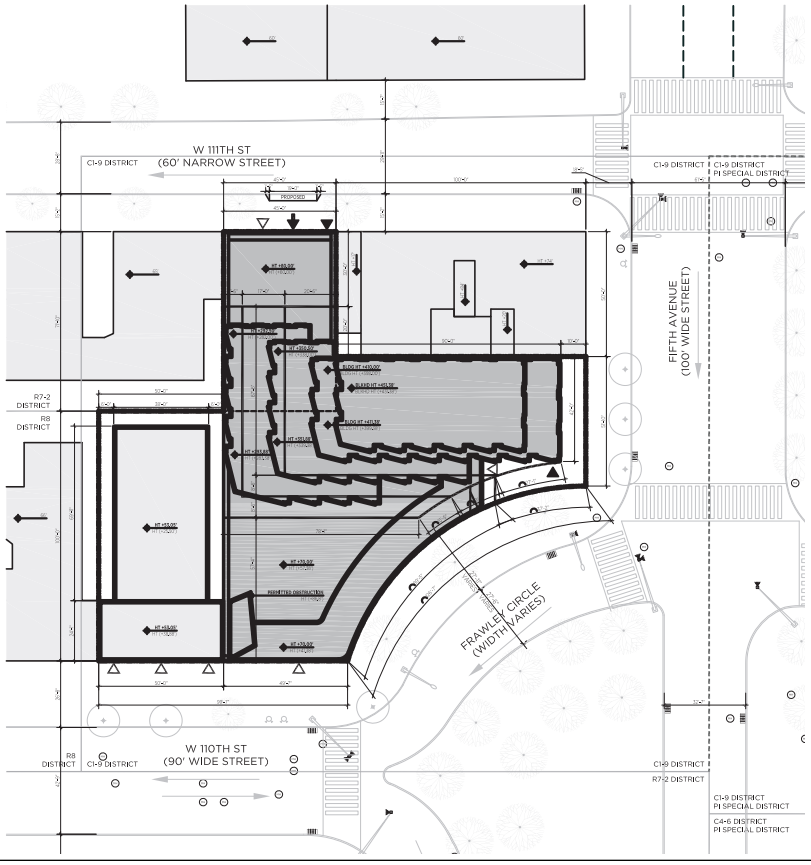
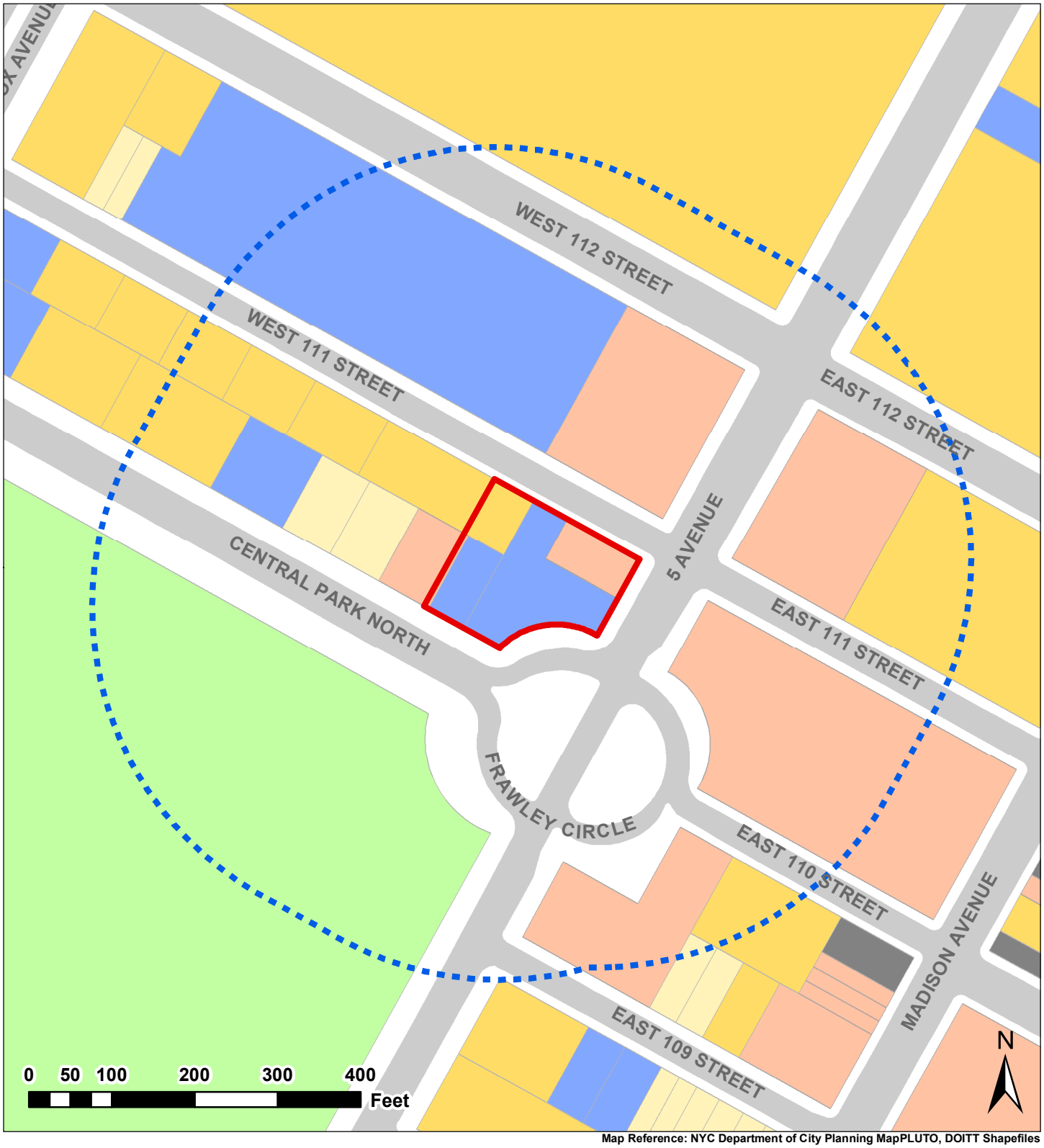


Image Source: FXCollaborative Architects LLP
For Illustrative Purposes Only

FIGURE A-5

EXISTING LAND USE MAP

LA HERMOSA REZONING



Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Directly Affected Area

Study Area (400-foot radius)

Land Use

- One & Two Family Residences
- Multifamily Walkup Residences
- Multifamily Elevator Residences
- Mixed Residential/ Commercial
- Commercial Uses
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities/Institutions
- Open Space
- Parking
- Vacant Land

CENTRAL HARLEM, MANHATTAN, NY

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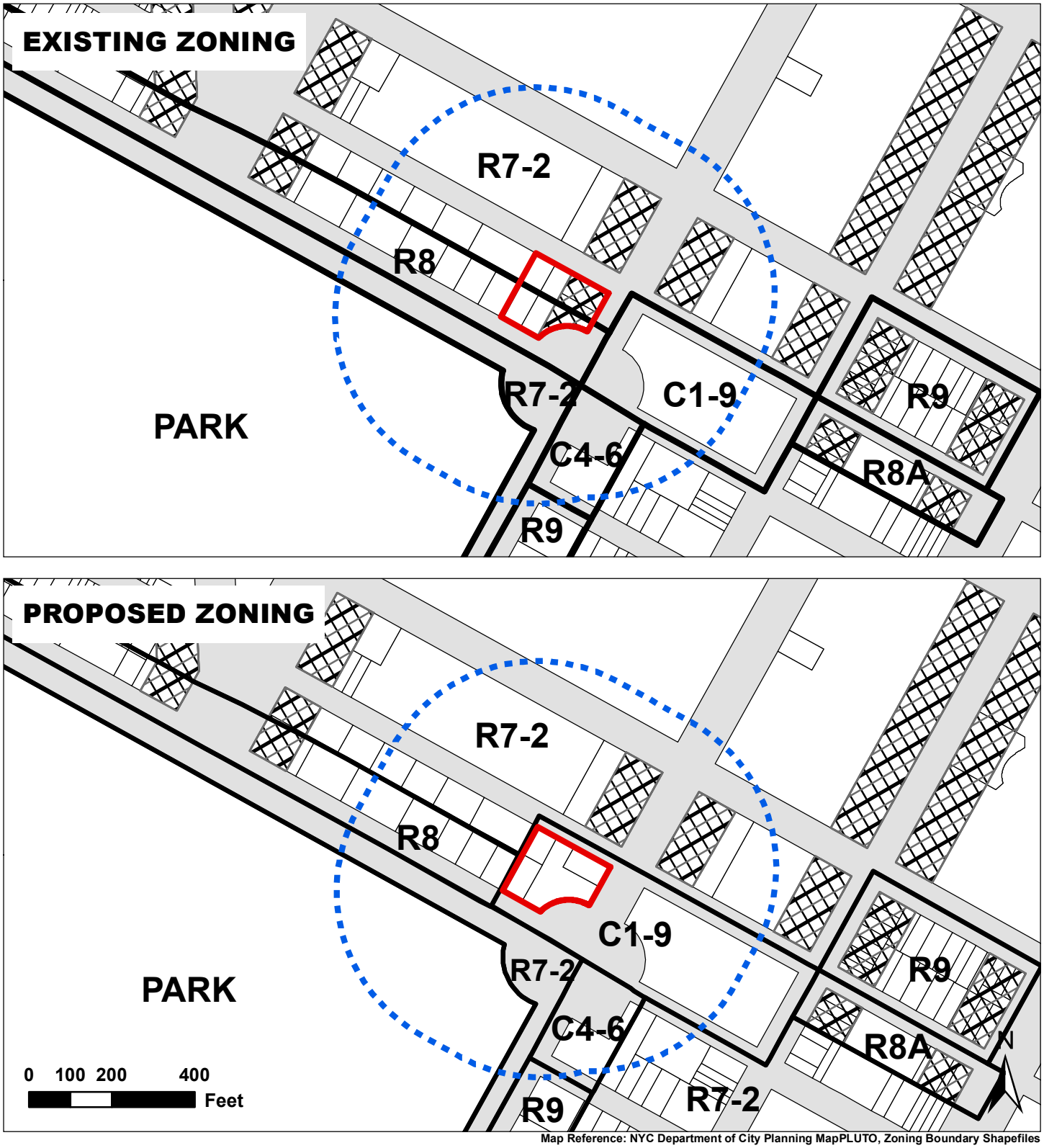
FIGURE A-6

LA HERMOSA REZONING

EXISTING & PROPOSED ZONING MAP



Map Reference: NYC Department of City Planning MapPLUTO, Zoning Boundary Shapefiles

Directly Affected Area

Study Area (400-foot radius)

R8 Zoning District

Commercial Overlay

C1-4

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DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures		Multi-family Elevator	Multi-family Elevator	-
No. of dwelling units		103	300	197
No. of low- to moderate-income units		0	60	60
Gross floor area (sq. ft.)		73,925	204,415	130,490
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type (retail, office, other)				
Gross floor area (sq. ft.)				
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	House of Worship	House of Worship	House of Worship	-
Gross floor area (sq. ft.)	23,196	16,540	39,694	23,154
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Attended or non-attended				
Lots	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	-
No. of accessory spaces	Approx. 20 spaces	46 required spaces	0 required spaces	-46 required spaces
Operating hours	During Church operations	24 hours	24 hours	-
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				

POPULATION				
Residents	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify number:		395	1,047	688
Briefly explain how the number of residents was calculated:	The 2012-2016 ACS Selected Housing Characteristics average household size of renter-occupied unit for Census Tract 186 is 3.49			
Businesses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. and type				
No. and type of workers by business				
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:				
Other (students, visitors, concert-goers, *etc.*)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	R8/R7-2 w/ C1-4	R8/R7-2 w/ C1-4	C1-9	-
Maximum amount of floor area that can be developed	97,604 zsf	97,604 zsf	231,865 zsf	134,261 zsf
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Community Facility, Multifamily Elevator, and Mixed Residential and Commercial.	Community Facility, Multifamily Elevator, and Mixed Residential and Commercial.	Community Facility, Multifamily Elevator, and Mixed Residential and Commercial.	-
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Part II: TECHNICAL ANALYSIS

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

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

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

	YES	NO
○ Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☐
v. Effects on Industry		
○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☐
○ Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☐
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
○ Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Libraries		
○ Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
○ If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. Public Schools		
○ Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
○ If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iv. Health Care Facilities		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☒	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☒
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
○ If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐
○ If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5 percent? See Attachment D	☐	☒
○ If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	☐	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐

	YES	NO
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Attachment E		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment 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?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10. See Attachment G		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11 Refer to Attachment E		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☒	☐
○ If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment H	☐	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒

	YES	NO
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week):		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs):		
(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? See Attachment I	☒	☐
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment J		
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) Would the proposed project result in the development of 350,000 square feet or more?	☐	☒
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18?	☐	☐
○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment K		

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. See Attachment L		
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 M		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	SIGNATURE	DATE
Robert R. Kulikowski, Ph.D		10/11/2019

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

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

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

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

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

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

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

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

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

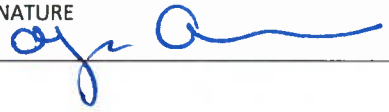
☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result.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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME	DATE
Olga Abinader	October 11, 2019

SIGNATURE



Project Name: La Hermosa Rezoning
CEQR #: 19DCP116M
SEQRA Classification: Unlisted

REVISED NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

A detailed analysis of the potential for the proposed actions to result in significant adverse impacts related to hazardous materials and noise was included in the EAS. To ensure that the proposed actions would not result in significant adverse hazardous materials and noise impacts, an (E) Designation (E-538) will be placed on the Project Site (Block 1594, Lot 41). Refer to "Determination of Significance Appendix: (E) Designation" for the applicable (E) designation requirements. The analysis for hazardous materials and noise concluded that with the (E) Designation requirements in place, the proposed actions would not result in significant adverse impacts.

Land Use, Zoning, and Public Policy

The EAS includes an analysis of the effects of the proposed actions on Land Use, Zoning, and Public Policy and determined that no significant ipmacts would occur. The proposed zoning map amendment from R7-2/R8 district with a partial C1-4 commercial overylay to C1-9 district; proposed zoning text amendment to establish the affected area as a Mandatory Inclusionary Housing Area; and special permits to waive required parking and modify underlying bulk regulations (the Proposed Actions) would not result in impacts related to Land Use, Zoning or Public Policy. The Proposed Actions would facilitate the development of a mixed-use tower building containing residential and community facility uses. The study area primarily comprises residential and community facility uses and the development facilitated by the proposed actions would reflect those surrounding land uses. Furthermore, the proposed C1-9 zoning district would be an extension of the existing zoning immediately eat of the directly affected area. Finally, the proposed actions would facilitate the development of mixed-income affordable housing which promotes the goals defined by OneNYC and Housing New York.

Shadows

The EAS includes a detailed analysis related to Shadows and determined that no significant impacts would occur. According to the CEQR Technical Manual, a significant adverse impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and depending on extent and duration, reduces its direct sunlight exposure. The proposed project would have the potential to generate incremental shadows on six sunlight-sensitive open space resources. However, due to the duration and time of day of the incremental shadow, size of the resources, and hours of operation of the resources, the incremental shadows would not adversely affect the enjoyment of the sunlight-sensitive resources. The analysis concludes that the proposed actions would not result in any significant adverse shadows impacts.

Urban Design and Visual Resources

The EAS includes an analysis related to Urban Design and Visual Resources and determined that no significant impacts would occur. The proposed actions would facilitate the development of a mixed residential and community facility building. While the proposed actions would allow for a larger building than the existing zoning and would modify the underlying bulk restrictions, the proposed development would evenly distribute bulk between the tower and the building base and would not change the pedestrian experience or obstruct any views to visual resources within the study area. It is therefore concluded that the proposed actions would not result in significant adverse impacts on urban design and visual resources.

Project Name: La Hermosa Rezoning
CEQR #: 19DCP116M
SEQRA Classification: Unlisted

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Rupsha Ghosh at (212) 720-3250.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | (212) 720-3493
NAME Olga Abinader	DATE October 11, 2019
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE October 15, 2019
SIGNATURE	

*Following the certification of the related land use application (ULURP Nos. 190434ZMM, N190433ZRM, 190435ZSM, 190436ZSM) on May 6, 2019, the Applicant has revised the Proposed Actions to reflect an increase in bulk at the base of the building and decrease the overall building height to 385 feet. The modifications are assessed in the Revised EAS dated October 11, 2019. This Revised Negative Declaration supersedes the Negative Declaration issued on May 6, 2019. As described in the Revised EAS, the changes would not alter the conclusions of the previous EAS.

Appendix 1: (E) Designations

To ensure that there would be no significant adverse hazardous materials, air quality, or noise impacts associated with the proposed project, an E designation (E-538) will be placed on the project sites as follows:

The E designation requirements related to hazardous materials, air quality, and noise would apply to:

Project Site:
Block 1594, Lot 41

Hazardous Material

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

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

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

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

Air Quality

Block 1594, Lot 41: Any new residential and/or community facility development on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning systems (HVAC) and ensure that the HVAC stack is located at the highest tier to avoid any potential significant adverse air quality impacts.

Noise

Block 1594, Lot 41: In order to ensure an acceptable interior noise environment, future residential/commercial/community facility uses must provide a closed-window condition with a minimum of 33 dB(A) window/wall attenuation on façades in order to maintain an interior noise level not greater than 45 dB(A) for residential and community facility uses or not greater than 50 dB(A) for commercial uses. To maintain a closed window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

PART II: ENVIRONMENTAL (CEQR) ANALYSIS

ATTACHMENT B: CEQR ANALYSIS FRAMEWORK

INTRODUCTION

The Proposed Actions consist of (i) a zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district; (ii) City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations; (iii) CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and (iv) a zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area. The Proposed Actions are discretionary and therefore subject to review under City Environmental Quality Review (CEQR), which is New York City's process for implementing the New York State Environmental Quality Review Act (SEQRA), by which City agencies review proposed discretionary actions to identify and disclose the potential effects those actions may have on the environment. This Environmental Assessment Statement (EAS) has been prepared pursuant to Mayoral Executive Order No. 91 of 1977, as amended, the CEQR Rules of Procedure found at Title 62 RCNY Chapter 5 (CEQR), and the implementing regulations for SEQRA found at 6 NYCRR Part 617. This EAS will inform the New York City Department of City Planning (DCP), acting as lead agency on behalf of CPC, in making the determination as to whether the Proposed Actions would have the potential to result in significant adverse environmental impacts and require further environmental quality review.

ANALYSIS FRAMEWORK

The framework for the EAS analysis is based on the guidelines established in the March 2014 Edition of the CEQR Technical Manual (*CEQR Technical Manual*). For each technical area, the *CEQR Technical Manual* defines thresholds that, if met or exceeded, typically require a detailed analysis. Accordingly, preliminary screening analyses were conducted for all applicable CEQR technical areas to determine if detailed analyses would be necessary. The following sections of this EAS report provide additional analyses and information for technical categories listed in Part II of the EAS for which CEQR thresholds were determined to have been met or exceeded, or if supplemental information is needed to complete the analysis.

Build Year

The development in the With-Action Condition would be anticipated to be developed in a single phase. Construction would commence as soon as the necessary discretionary approvals and building permits are granted. The development in the With-Action Condition would be complete and operational by 2022 ("Build Year").

REASONABLE WORST CASE DEVELOPMENT SCENARIO (RWCDS)

A Reasonable Worst Case Development Scenario (RWCDS) is broadly defined as the potential development under both the future No-Action and With-Action conditions that is used to determine the change in permitted development created by a discretionary action. In order to assess the potential effects of the Proposed Actions, a Reasonable Worst-Case Development Scenario (RWCDS) for the future without the Proposed Actions (No-Action Condition) and the future with the Proposed Actions (With-Action Condition) was developed for the 2022 Build Year. The No-Action Condition identifies development projections for 2022, absent the approval of the Proposed Actions. The With-Action Condition identifies the extent, type, and location of development that would be expected to occur by the end of 2022 as a result of the Proposed Actions.

From the range of possible development scenarios that are considered reasonable and likely to occur, the scenario with the potential to result in the worst environmental consequences (the "most intensive development scenario") is to be analyzed in both the No-Action and With-Action Conditions. The potential environmental effects of the Proposed Actions are subsequently evaluated by analyzing the incremental difference between the development in the No-Action and the With-Action Conditions.

For the purpose of presenting a conservative assessment, the With-Action Condition contemplates a development that would maximize the permitted building envelope and floor area pursuant to the proposed C1-9 zoning district and zoning special permits. However, as described in Attachment A, "Project Description," the actual Proposed Project would be less intensive than the development in the With-Action Condition, specifically with regard to the proposed building envelope and floor area.

No-Action Condition

The No-Action Condition contemplates the most intensive development scenario that could be reasonably anticipated to occur on the Project Site, absent approval of the Proposed Actions.

As defined in the *CEQR Technical Manual,* there are two criteria that must be satisfied when determining if a lot is eligible to be considered a soft site.[4] The first criteria relates to the existing condition of the lot; if it is substantially underbuilt, there may be sufficient incentive to develop it in the future. The second criteria relates to the size of the lot itself; small lots (i.e. 5,000 sf or less) are not considered likely to be developed.[5]

The *CEQR Technical Manual* specifies that even if a lot were to satisfy both of the soft site criteria, there are a number of conditions that would reduce the likelihood of a lot to be developed. These conditions include:

(i) Full block and newly constructed buildings with utility uses;
(ii) Long-standing institutional uses with no known development plans; and
(iii) Residential buildings with six or more units constructed before 1974.

The Directly Affected Area is improved with exclusively residential or community facility/ institutional uses. Lots 29, 40, and 42 contain approximately 29, 25, and 50 residential dwelling units, respectively, all of which were constructed prior to 1974. Lot 30 contains Bethel Christian Church, a long-standing institutional use with no known development plans.

Based on this information, the development in the No-Action Condition would only contemplate the most intensive development that could be reasonably anticipated to occur on Lot 41.

On the northern portion of the Project Site (approximately 7,458 sf), the existing R7-2 zoning district permits residential and community facility uses at an FAR of 3.44 and 6.50, respectively. On the southern portion of the Project Site (approximately 7,558 sf), the existing R8 zoning district permits residential and community facility uses at an FAR of 6.02 and 6.50, respectively. The C1-4 commercial overlay permits commercial uses at an FAR of 2.00. Off-street parking would be required for 50 percent and 40 percent of dwelling units within R7-2 and R8 zoning districts, respectively. Additionally, in R7 and R8 zoning districts, no accessory group parking facility shall contain more than 200 off-street parking spaces.

As shown in Table B-2, Lot 41 would be improved with a 20-story (232 feet), approximately 105,481[6] gsf mixed residential and community facility building. The development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required parking spaces.

[4] Soft sites are sites where a specific development is not currently proposed or being planned, but may reasonably be expected to occur by the projected build year.
[5] *CEQR Technical Manual 2014*
[6] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

With-Action Condition

The With-Action Condition contemplates the most intensive development scenario that could be reasonably anticipated to occur on the Project Site as a result of the approval of the Proposed Actions.

For the same reasons the majority of the Directly Affected Area (Block 1594, Lots 30, 40, and portions of Lots 29 and 42) was not designated as a soft site, development would not be anticipated to occur on these sites in the With-Action Condition either. As a result, the development in the With-Action Condition would only contemplate the most intensive development that could be reasonably anticipated to occur on the Project Site.

In the With-Action Condition, the proposed C1-9 zoning district, combined with an increase in FAR designated by the MIH program, would permit residential and community facility uses at an FAR of 12.00 and 10.00, respectively. Off-street parking would be required for 40 percent of dwelling units within C1-9 zoning districts; however, the Special Permit pursuant to ZR §74-533 would waive all required parking.

In the With-Action Condition, the Project Site would be developed to maximize the allowable floor area provided by the approved C1-9 zoning district regulations and MIH area. As shown in Table B-2, the Project Site would be improved with a 33-story (410 feet), approximately 259,125 gsf mixed residential and community facility building.[7] The development in the With-Action Condition would comprise approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space. Pursuant to MIH Option 2, the development in the With-Action Condition would include approximately 60 permanently affordable dwelling units for households with incomes averaging at or below 80 percent AMI.[8]

Table B-1: Maximum Permitted Zoning Floor Area and Proposed Zoning Floor Area (ZSF)

	No-Action Condition	With-Action Condition
Maximum Permitted Zoning Floor Area		
Commercial ZSF	10,986	40,032
Community Facility ZSF	97,604	200,160
Residential ZSF	71,155	240,192
Maximum ZSF Permitted	**97,604**	**240,192**
Proposed Zoning Floor Area		
Commercial ZSF	0	0
Community Facility ZSF	15,752	33,325
Residential ZSF	70,405	189,187
Total ZSF Proposed	**86,157**	**222,512**

[7] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

[8] For the purpose of environmental review, development in the With-Action Condition would contemplate 20 percent of the residential floor area (approximately 60 dwelling units) as affordable for households with incomes averaging at or below 80 percent Area Median Income (AMI).

Incremental Difference: No-Action and With-Action Conditions

The potential environmental effects of the Proposed Actions are evaluated by analyzing the incremental difference between the most intensive development scenario that can be reasonably anticipated to occur in both the No-Action and the With-Action conditions.

As shown in Table B-2, the development in the With-Action Condition would result in a total increment of approximately 130,490 gsf of residential floor area (197 total dwelling units), a net *increase* of approximately 23,154 gsf of community facility floor area, and a net *decrease* of approximately 46 required accessory off-street parking spaces. The maximum building height of the development in the With-Action Condition would be 410 feet, which represents an *increase* of approximately 178 feet as compared to the development in the No-Action Condition.

Table B-2: No-Action and With-Action Conditions

Land Use (Use Group)	No-Action Condition (gsf)	With-Action Condition (gsf)	Increment (gsf)
Residential (UG 2)	73,925	204,415	**130,490**
Residential Units	*103*	*300*	***197***
Affordable Residential Units	*0*	*60*	***60***
Commercial	0	0	**0**
Community Facility	16,540	39,694	**23,154**
Required Accessory Parking	46 spaces	0 spaces	**-46 spaces**
Building Height	232 feet	410 feet	**178 feet**
TOTAL[1]	**105,481**	**259,125**	**153,644**

Notes:
[1] The development in both the No-Action and With-Action Conditions contains a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

Pursuant to ZR §25-12 and ZR §36-12, the same number of permitted accessory off-street parking spaces would be allowed as-of-right in both the No-Action and With-Action Conditions.

The potential adverse environmental effects resulting from the net incremental difference between the two development conditions are evaluated in the following sections of this EAS report.

ATTACHMENT C: LAND USE, ZONING AND PUBLIC POLICY

INTRODUCTION

According to *CEQR Technical Manual* guidelines, a land use analysis assesses the uses and development trends in the area that may be affected by a proposed project and determines whether that proposed project is compatible with those conditions or may affect them. Similarly, the analysis considers the project's compliance with, and effect on, the area's zoning and other applicable public policies.

The Proposed Actions include:

1. Zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district;

2. City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations;

3. CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and

4. Zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area.

The Proposed Actions would facilitate the development of a mixed-use building containing both residential and community facility uses. The development in the With-Action Condition would comprise (i) approximately 204,415 gsf of mixed-income residential area, including approximately 300 dwelling units, of which approximately 20 percent (60 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent AMI, and (ii) approximately 39,694 sf of community facility floor area.[9]

According to the *CEQR Technical Manual*, a detailed assessment of land use, zoning, and public policy is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Because the Proposed Actions include a zoning map and zoning text amendment, a detailed assessment of land use and zoning assessments is warranted. A detailed public policy analysis was also prepared to determine the potential for the Proposed Actions to alter or conflict with applicable public policies. The detailed land use, zoning, and public policy analysis in this chapter (i) describes land uses and development trends in the area that could potentially be affected by the Proposed Actions; (ii) describes zoning and public policies that guide development; and (iii) determines whether the Proposed Actions are compatible with those conditions and policies or whether it may adversely affect them.

[9] The community facility space would be occupied by La Hermosa Christian Church.

METHODOLOGY

The analysis methodology is based on the guidelines in the *CEQR Technical Manual* and involves an assessment of the Proposed Action's consistency with existing land use patterns, development trends, zoning regulations, and applicable public policies. The land use, zoning, and public policy assessment utilizes a 400-foot radius around the Directly Affected Area (the "Study Area"). Existing conditions within the Study Area were identified through field studies and research of available resources, including DCP's Land Use & CEQR Application Tracking System (LUCATS) and Primary Land Use Tax Lot Output (PLUTO™) data files; the New York City Mayor's Office of Environmental Coordination's (MOEC) CEQR Access; and the Manhattan Community District 10 website. The ZR and DCP's web-based Zoning and Land Use Application (ZOLA) were utilized to identify and describe existing zoning districts in the Study Area and for the zoning evaluation of the No-Action and With-Action conditions. Relevant public policy documents were examined to assist in identifying and describing existing public policies that have the potential to affect the Project Site and Study Area.

LAND USE

Existing Conditions

The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) in the Central Harlem neighborhood of Manhattan. The 46,049 sf Directly Affected Area is bounded by East 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; Central Park North to the south, and two, five-story, multi-family walk-up residential buildings to the west. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings.

Study Area

As shown in Figure A-5, the Study Area is characterized by a mix of primarily residential and community facility/ institutional uses. The area to the north, west, and east is predominantly residential, comprised of multi-family walk-up and multi-family elevator residences. Institutional uses are dispersed intermittently throughout the Study Area and commercial uses are located along Fifth Avenue and Madison Avenue. Central Park is located to the southeast of the Directly Affected Area and comprises about a quarter of the Study Area. Public School (P.S.) 185 Early Childhood Discovery and Design Magnet School, occupies the majority of Block 1595, located to the north of the Directly Affected Area. The King Towers New York City Housing Authority (NYCHA) residential development, located at 90 Lenox Avenue, contains ten buildings, between 13 and 14-stories tall, across approximately 13.75 acres.[10]

[10] *https://my.nycha.info/DevPortal/Portal (Date Accessed: 05/01/2019)*

No-Action Condition

In the No-Action Condition, the Project Site (Block 1594, Lot 41) would be developed pursuant to the underlying R7-2/R8 zoning districts and C1-4 commercial overlay. The existing three-story building on Block 1594, Lot 41 would be demolished and replaced with a 20-story (232 feet), approximately 105,481[11] gsf mixed residential and community facility building with approximately 46 required parking spaces. The existing buildings on the remainder of the Directly Affected Area (Block 1594, Lots 30 and 40, and p/o Lots 29 and 42) would not be anticipated to be demolished in the No-Action Condition. The development in the No-Action Condition would be predominantly residential with a community facility (La Hermosa Church) occupying the first three floors. The new residential and community facility uses would be similar to the existing residential uses surrounding the Directly Affected Area and the community facility uses to the north and west of the Directly Affected Area.

With-Action Condition

In the With-Action Condition, the Project Site would be developed pursuant to the proposed C1-9 zoning district regulations and the Mandatory Inclusionary Housing (MIH) program. The existing three-story building on the Project Site would be demolished and replaced with a 33-story (410 feet), approximately 259,125 gsf building containing residential and community facility uses. The development in the With-Action Condition would comprise (i) approximately 204,415 gsf of mixed-income residential area, including approximately 300 dwelling units, of which approximately 20 percent (60 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent AMI, and (ii) approximately 39,694 sf of community facility floor area.[12] Although the development in the With-Action Condition would include residential uses at a comparatively higher density, the proposed uses would be similar to the predominant multi-family elevator residential uses located north and west of the Directly Affected Area. In addition, the proposed community facility use would be similar to the existing community facility uses located along Central Park North and north of the Directly Affected Area. The development in the With-Action Condition is also appropriate, with regard to form and scale, to the developments along Frawley Circle, and in a larger context, to the developments occupying each corner of Central Park.

Conclusion

The Proposed Actions would facilitate the development of a predominately residential building with community facility uses on the Project Site. As described above, the Study Area primarily comprises residential uses and community facility uses along Central Park North and West 111 Street. The development facilitated by the Proposed Actions would reflect these surrounding land uses.

Based on this information, the Proposed Actions would not result in any potentially significant adverse impacts to the existing land uses in the Study Area; therefore, further analysis of land use is not warranted.

[11] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[12] The community facility space would be occupied by La Hermosa Christian Church.

ZONING

Existing Conditions

The Directly Affected Area is within both an R7-2 and an R8 zoning district; a C1-4 commercial overlay encompasses Block 1594, Lot 40 and a portion of Lot 41. The northern portion of the Directly Affected Area is within an R7-2 zoning district. The northern portion of the Directly Affected Area (approximately 26,133 sf) comprises Lot 40 and 42, and portions of Lots 29, 30, and 41. R7-2 zoning districts permit residential and community facility uses (Use Groups 1-4) at a maximum Floor Area Ratio (FAR) of 3.44 and 6.50, respectively. Off-street parking is required for 50 percent of a development's dwelling units, but requirements are lower for income-restricted housing units (IRHU). The southern portion of the Directly Affected Area is within an R8 zoning district. The southern portion of the Directly Affected Area (approximately 19,916 sf) comprises Lot 30, and portions of Lots 29 and 41. R8 zoning districts permit residential and community facility uses (Use Group 1-4) at a maximum FAR of 6.02 and 6.50, respectively. Off-street parking is required for 40 percent of a development's dwelling units, but requirements are lower for IRHU. The maximum achievable residential FAR in both the R7-2 and R8 zoning districts is contingent on the Open Space Ratio (OSR) and adherence to the sky exposure plane regulations. The C1-4 commercial overlay permits commercial uses at an FAR of 2.00. The Directly Affected Area is also within a Transit Zone, waiving the requirement to provide off-street parking for any IRHU.

Study Area

As shown in Figure A-6, zoning districts within the Study Area include residential districts (R7-2, R8A, R8, and R9) to the west, north, and east, a C1-9 zoning district is located immediately east of the Directly Affected Area, and a C4-6 zoning district located southeast of the Directly Affected Area. There is a C1-4 commercial overlay mapped along the west side of Fifth Avenue to a depth of approximately 100 feet and parkland to the south and southwest of the Directly Affected Area.

R8A zoning districts permit residential and community facility uses at a maximum FAR of 7.20 and 6.50, respectively. R9 zoning districts permit residential and community facility uses at a maximum FAR of 8.00 and 10.00, respectively. The C1-9 zoning district located immediately east of the Directly Affected Area permits commercial uses at a maximum FAR of 2.00. The C1-9 zoning district has a residential district equivalent of an R10 zoning district; therefore, residential and community facility uses are also permitted at a maximum FAR of 12.00 and 10.00, respectively.

No-Action Condition

In the No-Action Condition, the Project Site (Block 1594, Lot 41) would be developed pursuant to the underlying R7-2/R8 zoning districts and C1-4 commercial overlay. On the northern portion of the Project Site (approximately 7,458 sf), the existing R7-2 zoning district permits residential and community facility uses at an FAR of 3.44 and 6.50, respectively. On the southern portion of the Project Site (approximately 7,558 sf), the existing R8 zoning district permits residential and community facility uses at an FAR of 6.02 and 6.50, respectively. The C1-4 commercial overlay permits commercial uses at an FAR of 2.00.

The existing three-story building on Block 1594, Lot 41 would be demolished and replaced with a 20-story (232 feet), approximately 105,481[13] gsf mixed residential and community facility building. The existing buildings on the remainder of the Directly Affected Area (Block 1594, Lots 30 and 40, and p/o Lots 29 and 42) would not be anticipated to be demolished in the No-Action Condition. The development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required parking spaces.

With-Action Condition

The development in the With-Action Condition would maximize the FAR permitted by the proposed C1-9 zoning district and MIH program regulations. The Project Site would be improved with a 33-story (410 feet), approximately 259,125 gsf mixed residential and community facility building.[14] The C1-9 zoning district, combined with an increase in FAR designated by the MIH program, permits residential uses at a maximum FAR of 12.00. The proposed Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 would provide the development in the With-Action Condition relief from the height and setback regulations required by C1-9 zoning districts and the R10 residential district equivalent. The proposed Special Permit pursuant to ZR §73-533 would waive all required accessory off-street parking; however, it would not preclude the provision of permitted accessory off-street parking.[15]

Pursuant to the proposed C1-9 zoning district regulations and the MIH program, the development in the With-Action Condition would include approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space. Pursuant to MIH Option 2, the development in the With-Action Condition would include approximately 60 permanently affordable dwelling units for households with incomes averaging at or below 80 percent AMI.

Conclusion

The Proposed Actions include rezoning the Directly Affected Area, currently mapped with an R7-2/R8 zoning district with a C1-4 commercial overlay, to a C1-9 zoning district. As described above, the proposed C1-9 zoning district would be an extension of the existing zoning immediately east of the Directly Affected Area across Fifth Avenue. The net increase in residential floor area would include approximately 60 permanently affordable dwelling units (20 percent of the total residential floor area), which would provide the neighborhood with mixed-income dwelling units, and would support the City's efforts to increase the amount of affordable housing. Based on this information, the Proposed Actions are not anticipated to result in potentially significant adverse impacts to zoning, therefore, further analysis of zoning is not warranted.

[13] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[14] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[15] In the proposed C1-9 zoning district, parking is not required for community facility uses, but is required for 40 percent of the market rate dwelling units.

PUBLIC POLICY

According to the *CEQR Technical Manual*, a proposed project located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy identifies and describes relevant public policies, including formal plans or published reports, which pertain to the Study Area. If the proposed action could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

Public policies applicable to portions of the Study Area include *One New York: The Plan for a Strong and Just City* (OneNYC) and *Housing New York: A Five-Borough, Five-Year Plan* (*Housing New York*). The Directly Affected Area also falls within a New York City Food Retail Expansion to Support Health Program (FRESH) Zone and Transit Zone.

OneNYC

OneNYC, originally released as PlaNYC in 2007, is a policy document designed to address New York City's long-term challenges, including a projected population increase to 9 million residents by 2040, changing climate conditions, an evolving economy, and aging infrastructure. OneNYC builds upon PlaNYC and focuses on four guiding principles: growth, equity, sustainability, and resiliency.

The Proposed Actions are consistent with several of OneNYC's initiatives and support the growth goals of Vision 1, which aim to create the world's most dynamic urban economy where families, businesses, and neighborhoods thrive. The development facilitated by the Proposed Actions would support the goals of "Housing" and "Thriving Neighborhoods" under Vision 1 of OneNYC.

Housing

Goal: New Yorkers will have access to affordable, high-quality housing coupled with robust infrastructure and neighborhood services.

To ensure that all New Yorkers have access to housing they can afford, OneNYC's goal for housing is to produce and preserve affordable units, increase the overall supply of all types of new housing, and coordinate with regional partners to stimulate production of more housing to meet demand.[16] The Proposed Actions would support the following initiatives and sub-initiatives under this goal:

- Creating and preserving 200,000 affordable housing units over ten years to alleviate New Yorker's rent burden and meet the needs of a diverse population; and supporting efforts by the private market to produce 160,000 additional new units of housing over ten years to accommodate a growing population;

- Establishing a MIH program to promote economic diversity and affordable-housing development; and

[16] *OneNYC* (http://www1.nyc.gov/html/onenyc/visions/thriving/goal-3.html)

The Development in the With-Action Condition would comprise approximately 300 dwelling units on the Project Site, of which approximately 60 dwelling units would be permanently affordable (20 percent of the residential floor area). By facilitating the creation of permanently affordable housing, the Proposed Actions would encourage a diverse socio-economic residential population and would create additional affordable housing options within Manhattan.

Based on this information, the Proposed Actions are consistent with the policies of OneNYC.

Housing New York

Housing New York is the City's comprehensive housing development policy that includes a primary goal of building or preserving 200,000 units of high-quality affordable housing over the next decade. *Housing New York* was developed in conjunction with the New York City Department of Housing and Preservation (HPD) to create housing opportunities for New Yorkers with a range of incomes, while fostering vibrant and diverse neighborhoods. Framed by the policy goals and objectives in *Housing New York*, the City Council adopted an amendment to the ZR to establish the MIH program on March 22, 2016 that requires that a percent of new housing be permanently affordable when an increase in residential floor area is requested (i.e., an upzoning).

The primary components of *Housing New York* include:

- Mandatory affordable housing: production of affordable housing would be a condition of residential development when developers build in a designated MIH area, whether rezoned as part of a City neighborhood plan or a private rezoning application; and

Affordable housing would be permanent: there would be no expiration to the affordability requirement of apartments generated through MIH, making them a long-term, stable reservoir of affordable housing.

The Proposed Actions would support the policies and goals of *Housing New York*. The development in the With-Action Condition would introduce approximately 300 new residential dwelling units, of which, approximately 60 dwelling units would be designated as permanently affordable under the MIH program. The Proposed Actions would therefore provide the Central Harlem neighborhood with new mixed-income, permanently affordable housing, which would support the City's effort to increase the overall supply of affordable housing.

Based on this information, the Proposed Actions would align with the goals and objectives of *Housing New York*.

Conclusion

The Proposed Actions would facilitate the development of mixed-income affordable housing in the Central Harlem neighborhood of Manhattan, promoting the initiatives and goals defined by OneNYC and *Housing New York*. Based on this information, the Proposed Actions would support the public policies discussed above.

ATTACHMENT D: OPEN SPACE

INTRODUCTION

The *CEQR Technical Manual* defines open space as publicly or privately owned land that is publicly accessible and designated for leisure, play or sport, or land set aside for the protection and enhancement of the natural environment. An open space assessment is typically conducted to determine whether or not a proposed project would result in the displacement or alteration of a highly-utilized open space (direct impact) or result in an increase in population that would overburden available open space (indirect impact). Under the *CEQR Technical Manual* guidelines, the threshold for requiring an analysis of a project's indirect effects varies depending on whether a project site is located in an area identified as well-served, underserved, or neither, by open space.

In addition to the analysis provided in this section, Attachment E, "Shadows," provides an assessment of the Proposed Action's potential shadow effects on open space resources.

METHODOLOGY

Direct Effects

According to *CEQR Technical Manual*, a proposed project would directly affect open space resources if it would encroach upon, limit public access to, or cause a loss of, public open space. Direct effects may also occur if the facilities within an open space would be so changed that the open space no longer serves the same user population, or if the proposed project would result in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. Because no open space resources would be physically displaced as a result of the Proposed Actions, no analysis of direct effects is warranted; therefore, this chapter analyzes only the Proposed Actions' indirect effects on existing open space resources.

Indirect Effects

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add sufficient population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment is conducted if a proposed project would generate more than 200 residents or 500 employees; however, the need for an open space assessment may vary in certain areas of the City that are considered either underserved or well-served by open space. For areas underserved by open space, the threshold for assessment is more than 50 residents or 125 employees; for areas well-served by open space, the threshold for assessment is more than 350 residents or 750 employees; and for areas that are neither well-served nor underserved by open space, the threshold for assessment is more than 200 residents or 500 employees.

According to the City of New York Department of Parks and Recreation (DPR) Parkland Division, the Directly Affected Area falls within the boundaries of a well-served area within Manhattan Community District 10; therefore, the threshold for assessment is more than 350 residents or 750 employees.

Pursuant to *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated incremental residents generated by the development in the With-Action Condition. As described in Attachment B, "CEQR Analysis Framework," the Proposed Actions would result in an incremental increase of approximately 130,490 gsf of residential floor area (197 total dwelling units, of which approximately 60 would be designated as permanently affordable), a net *increase* of approximately 23,154 gsf of community facility floor area, and a net *decrease* of approximately 46 required accessory off-street parking spaces. The increase in residential floor area would result in the addition of approximately 688 residents as compared to the development in the No-Action Condition. The increase in community facility floor area would result in the addition of approximately 77 employees as compared to the development in the No-Action Condition.

Open Space Study Area

According to the *CEQR Technical Manual*, an open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreation areas—typically a 0.5-mile radius for residential projects and a 0.25-mile radius for commercial projects with an employee population. Because the employee population generated by the development in the With-Action Condition falls well below the threshold of 750 additional employees, and given that the development in the With-Action Condition is primarily residential, a 0.5-mile radius is used as an appropriate study area boundary (the "Open Space Study Area").

Based on *CEQR Technical Manual* guidelines, the Open Space Study Area includes all census tracts with at least 50 percent of their area within the 0.5-mile radius and the publicly accessible open spaces within them. As shown in Figure D-1, the Open Space Study Area includes Manhattan Census Tracts 168, 172, 174.01, 174.02, 182, 184, 186, 190, 216, and 218. Additionally, the Open Space Study Area includes the acreage of all publicly accessible open spaces that fall within a 0.5-mile radius of the Project Site because, as described in the *CEQR Technical Manual,* residents generated as a result of the Proposed Actions would be reasonably anticipated to travel 0.5 miles to reach local open space and recreation areas. The existing open space resources within the Open Space Study Area include Central Park, Martin Luther King, Jr. Playground, El Gallo Community Garden, A. Philip Randolph Square, Marcus Garvey Park, Eugene McCabe Field, James Weldon Johnson Playground, White Playground, Poor Richard's Playground, Peter Minuit Playground, Mae Grant Playground, P.S. 185 Playground, P.S. 208 Playground, and P.S. 241 Playground.

Open Space Ratio (OSR)

The *CEQR Technical Manual* defines Open Space Ratio (OSR) as the amount of open space acreage per 1,000-user population. Based on the *CEQR Technical Manual,* because local OSR's vary widely in New York City, as a planning goal, an OSR of 2.5 acres per 1,000 residents represents an area well-served by open space, and is consequently used as an optimal benchmark for residential populations in large-scale plans and proposals.

According to the *CEQR Technical Manual*, if the OSR would increase or remain substantially the same in the With-Action Condition compared to the No-Action Condition, no further analysis of open space is needed. If there is a decrease in the OSR that approaches or exceeds five percent, it is generally considered to be a substantial change warranting more detailed analysis. However, a greater percentage of change (more than five percent) may be tolerated if open space in the area exceeds the planning goal of 2.5 acres of open space per 1,000 residents.

Analysis Framework

Based on the *CEQR Technical Manual,* if a project exceeds thresholds outlined in Section 200 of Chapter 7, "Open Space," a preliminary assessment is required to determine whether a more detailed analysis is warranted. However, in areas that are particularly scarce with regard to open space, even a small reduction in the OSR may be considered potentially significant; therefore, a detailed analysis to evaluate any indirect impacts of the Proposed Actions on open space resources should be conducted.

The adequacy of open space can be assessed both quantitatively and qualitatively. According to the *CEQR Technical Manual*, the quantitative approach requires assessing the OSR (ratio of open space acreage to the population in the study area). The qualitative assessment examines other factors that may affect utilization, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic age characteristics of the study area population.

To estimate the population expected in the Study Area in the Future Without the Proposed Actions (No-Action Condition), an average household size of 3.49 persons is applied to the number of new housing units expected to occur in the Study Area.[17] Open space ratios are calculated for the future With-Action Condition and compared to the No-Action Condition ratios to determine changes in future levels of adequacy.

Impact Assessment

Open space impacts are based in part on how the Proposed Actions would change open space ratios in the Open Space Study Area. In addition to quantitative analyses, the *CEQR Technical Manual* also recommends conducting a qualitative assessment in order to identify the potential for open space impacts. Qualitative analyses consider the availability of open space resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with City defined guidance. Accordingly, the ratios provided by City guidance to measure quantitative impacts are often not attainable for many areas of the City, and the City does not consider these ratios as its open space policy for every neighborhood. Per *CEQR Technical Manual* guidelines, the ratios do not constitute an absolute impact threshold, but rather benchmarks that represent how well an area is served by its open space.

[17] 2012-2016 American Community Survey 5 Year Estimates average household size of renter-occupied units for Manhattan Census Tract 186.

EXISTING CONDITIONS

The Open Space Study Area contains approximately 140.98 acres of publicly accessible open space. Open space resources within 0.5 miles of the Development Site include Central Park (129.12 acres), Martin Luther King, Jr. Playground (1.0 acre), El Gallo Community Garden (0.08 acres), A. Philip Randolph Square (0.07 acres), Marcus Garvey Park (3.43 acres), Eugene McCabe Field (0.08 acres), James Weldon Johnson Playground (1.05 acres), White Playground (0.68 acres), Poor Richard's Playground (1.42 acres), Peter Minuit Playground (0.94 acres), Mae Grant Playground (0.97 acres), P.S. 185 Playground (0.60 acres), P.S. 208 Playground (0.87 acres), and P.S. 241 Playground (0.67 acres). The Open Space Study Area has an existing residential population of approximately 58,110; creating an existing OSR for the Study Area of approximately 2.426 acres of open space per 1,000 residents.

Central Park

Central Park is an 840.01-acre flagship park bounded by Fifth Avenue to the east, Central Park West to the west, 59 Street to the south, and Central Park North to the north. The park contains a number of amenities including numerous athletic fields and courts, bicycling paths and greenways, fishing areas, fitness equipment, historic houses, nature centers, paddleboat rentals, playgrounds, and a zoo.[18] Lasker Pool is located within Central Park, west of the Harlem Meer, and operates as a free community pool during the summer (from the end of June to Labor Day Weekend) and an ice skating rink in the winter. Lasker Pool is open daily in the summer between 11:00AM and 7:00PM, with early bird and night owl lap swimming available daily from 7:00 – 8:30AM and 7:00- 8:30PM, respectively.

Martin Luther King, Jr. Playground

Martin Luther King, Jr. Playground is a 1.0-acre neighborhood park located along Lenox Ave between West 113 Street and West 114 Street. The park contains basketball courts, handball courts, a playground, and spray showers.[19]

A. Philip Randolph Square

A. Philip Randolph Square is a 0.07-acre triangle/plaza located at the intersection of Adam Clayton Powell Jr. Boulevard between West 116 Street and West 117 Street. The park contains trees, planted areas, and seating.[20]

Marcus Garvey Park

Marcus Garvey Park is a 20.16-acre community park bounded by 124 Street to the north, Madison Avenue to the east, 120 Street to the south, and Mount Morris Park West to the west. The park contains basketball courts, fitness equipment, outdoor pools, playground equipment, and spray showers.[21]

[18] https://www.nycgovparks.org/parks/central-park (Date Accessed: May 3, 2019)
[19] https://www.nycgovparks.org/parks/martin-luther-king-playground_manhattan (Date Accessed: May 3, 2019)
[20] https://www.nycgovparks.org/parks/a-philip-randolph-square (Date Accessed: May 3, 2019)
[21] https://www.nycgovparks.org/parks/marcus-garvey-park/map (Date Accessed: May 3, 2019)

El Gallo Community Garden

El Gallo Community Garden is a 0.08-acre garden located at the intersection of Lexington Avenue and East 118 Street. El Gallo Community Garden is supported by the NYC DPR Greenthumb Program.

Eugene McCabe Field

Eugene McCabe Field is a 0.79-acre jointly operated playground located along Park Avenue between East 121 Street and East 120 Street. The park contains handball courts and playground equipment.[22]

James Weldon Johnson Playground

James Weldon Johnson Playground is a 1.05-acre jointly operated playground located along Lexington Avenue between East 114 Street and East 115 Street. The park contains basketball courts, handball courts, and playground equipment.[23]

White Playground

White Playground is a 0.68-acre playground generally bounded by East 106 Street to the north, Third Avenue to the east, East 105 Street to the south, and Lexington Avenue to the west. The park contains basketball courts, handball courts, and playground equipment.[24]

Poor Richard's Playground

Poor Richard's Playground is a 1.58-acre jointly operated playground located at the southeast corner of the intersection of East 109 Street and Third Avenue. The park contains basketball courts, handball courts, playground equipment, and spray showers.[25]

Peter Minuit Playground

Peter Minuit Playground is a 0.94-acre jointly operated playground located along Park Avenue between East 109 Street and East 108 Street. The park contains handball courts and playground equipment.[26]

Mae Grant Playground

Mae Grant Playground is a 0.97-acre neighborhood park located along East 104 Street between Park Avenue and Madison Avenue. The park contains handball courts and playground equipment.[27]

[22] https://www.nycgovparks.org/parks/eugene-mccabe-field/ (Date Accessed: May 3, 2019)
[23] https://www.nycgovparks.org/parks/james-weldon-johnson-playground/ (Date Accessed: May 3, 2019)
[24] https://www.nycgovparks.org/parks/white-playground/ (Date Accessed: May 3, 2019)
[25] https://www.nycgovparks.org/parks/poor-richards-playground/ (Date Accessed: May 3, 2019)
[26] https://www.nycgovparks.org/parks/peter-minuit-playground/ (Date Accessed: May 3, 2019)
[27] https://www.nycgovparks.org/parks/mae-grant-playground/ (Date Accessed: May 3, 2019)

P.S. 185 Playground

P.S. 185 Playground is a 0.60-acre school playground located along West 111 Street between Malcolm X Boulevard and Fifth Avenue. The playground is available to the public while school is not in session and contains basketball courts and playground equipment.

P.S. 208 Playground

P.S. 208 playground is a 0.87-acre school playground located along West 112 Street between Malcolm X Boulevard and Fifth Avenue. The playground is available to the public when school is not in session and contains basketball courts and playground equipment.

P.S. 241 Playground

P.S. 241 playground is a 0.67-acre school playground located along West 113 Street between Frederick Douglass Boulevard and Adam Clayton Powell Jr. Boulevard.

Table D-1: Open Space Resources within 0.5-Mile Open Space Study Area

Map No.	Open Space Resource	Location	Condition	Acreage within Study Area
1	Central Park	Fifth Avenue to the east, Central Park West to the west, 59 Street to the south, and Central Park North to the north	Acceptable	129.12
2	El Gallo Community Garden	Lexington Avenue and 118 Street.	Unreported	0.08
3	Martin Luther King, Jr. Playground	Lenox Ave between West 113 Street and West 114 Street	Acceptable	1.00
4	A Philip Randolph Square	The intersection of Adam Clayton Powell Jr. Boulevard between West 116 Street and West 117 Street	Acceptable	0.07
5	Marcus Garvey Park	Generally bounded by 124 Street to the north, Madison Avenue to the east, 120 Street to the south, and Mount Morris Park West to the west	Acceptable	3.43
6	Eugene McCabe Field	Park Avenue between East 121 Street and East 120 Street	Acceptable	0.08
7	James Weldon Johnson Playground	Lexington Avenue between East 114 Street and East 115 Street	Acceptable	1.05
8	White Playground	Generally bounded by East 106 Street to the north, Third Avenue to the east, East 105 Street to the south, and Lexington Avenue to the west	Unacceptable	0.68
9	Poor Richard's Playground	The southeast corner of the intersection of East 109 Street and Third Avenue	Unacceptable	1.42
10	Peter Minuit Playground	Park Avenue between East 109 Street and East 108 Street	Acceptable	0.94
11	Mae Grant Playground	East 104 Street between Park Avenue and Madison Avenue	Acceptable	0.97
12	P.S. 185	West 111 Street between Malcolm X Boulevard and Fifth Avenue	Unreported	0.60
13	P.S. 208	West 111 Street between Malcolm X Boulevard and Fifth Avenue	Unreported	0.87
14	P.S. 241	West 113 Street between Frederick Douglass Boulevard and Adam Clayton Powell Jr. Boulevard	Unreported	0.67
			Total Existing Open Space	**140.98**

Source: *NYC Department of Parks and Recreation (DPR) (Website Accessed: May 3, 2019)*

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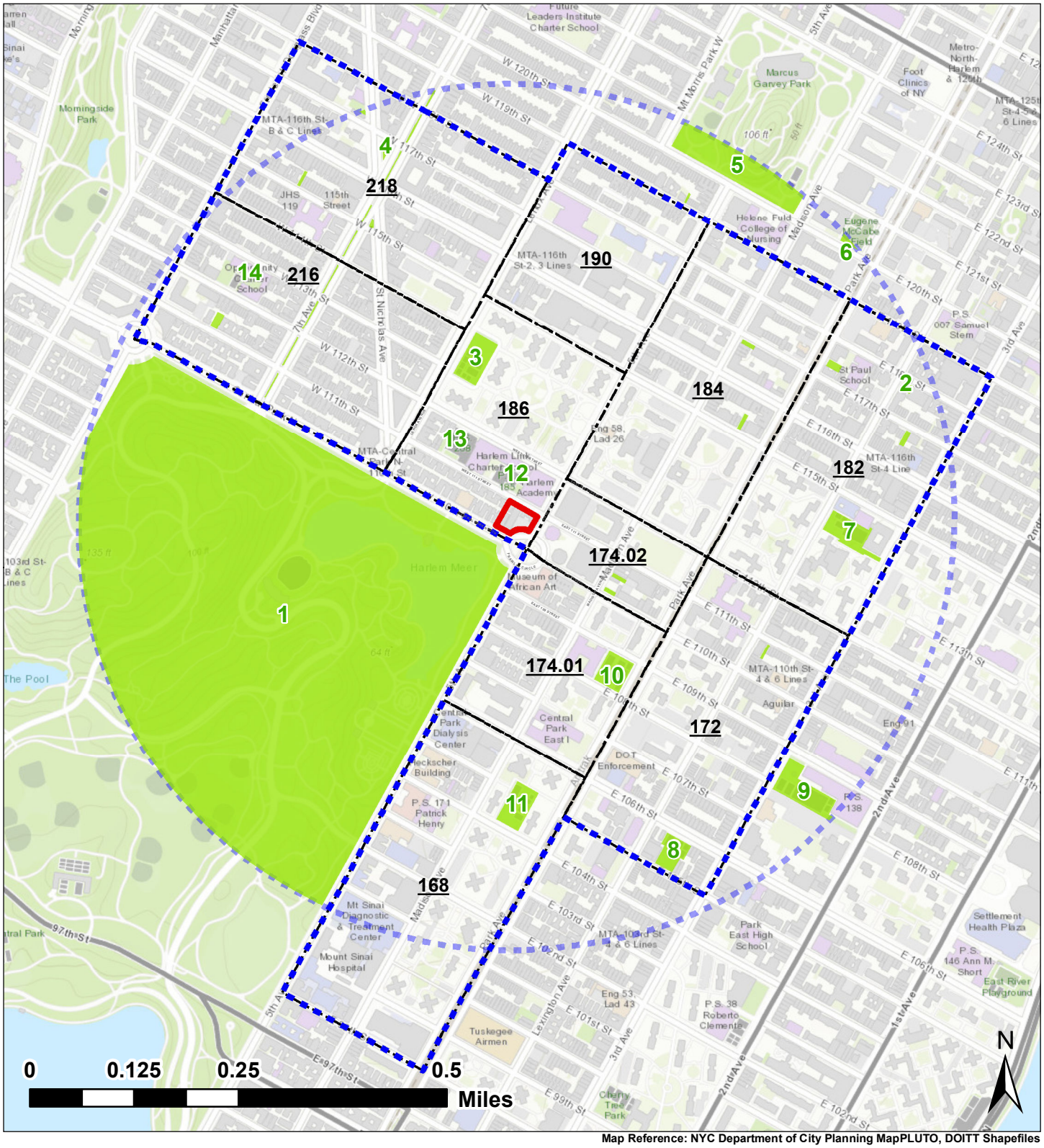
FIGURE D-1
OPEN SPACE



Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Directly Affected Area
Open Space Study Area
0.5-mile Radius
186 Census Tracts
Open Space Resources

CENTRAL HARLEM, MANHATTAN, NY

LANGAN

ASSESSMENT

Direct Effects

The Proposed Action would not displace or alter any existing open space; therefore, an assessment of direct effects on open space is not warranted.

Indirect Effects

Based on the U.S. Census Bureau 2012-2016 American Community Survey 5-Year Estimates, the existing residential population within the Open Space Study Area is approximately 58,110. As shown in Table D-2, with approximately 140.98 acres of publicly accessible open space, there is an existing OSR of 2.426.

The development in the With-Action Condition would result in an incremental increase of approximately 197 dwelling units compared to the development in the No-Action Condition. Based on the average renter occupied household size of 3.49 residents per dwelling unit in Manhattan Census Tract 186, the additional residential dwelling units would generate approximately 688 additional residents.

With approximately 140.98 acres of publicly accessible open space within a 0.5-mile radius of the Directly Affected Area, and a No-Action Residential population of approximately 58,469, the OSR in the No-Action Condition would be approximately 2.411 acres per 1,000 residents. In the With-Action Condition, no additional open space is anticipated to be created within the 0.5-mile study area. The development in the With-Action Condition would result in a residential population of approximately 59,157; therefore, the OSR in the With-Action Condition would be approximately 2.383 acres per 1,000 residents, which represents a decrease of approximately 1.16 percent compared to the OSR in the No-Action Condition.

Table D-2: Open Space Ratio (OSR) Calculations

Existing Residential Population within 0.5-mile[1]	58,110
Residential Population in the No-Action Condition[2]	58,469
Residential Population in the With-Action Condition[3]	59,157
Total Open Space within 0.5-mile (acres)	140.98
Existing OSR (acres per 1,000 residents)	2.426
No-Action OSR (acres per 1,000 residents)	2.411
With-Action OSR (acres per 1,000 residents)	2.383
Change in Open Space Ratio (acres per 1000 residents)	**-1.16 %**

Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Manhattan Census Tracts: 168, 172, 174.01, 174.02, 182, 184, 186, 190, 216, and 218.

Notes:

[1] The No-Action Condition would result in an additional population of 359 residents from 103 units.

[2] The With-Action Condition would result in an additional population of 1,047 residents from 300 units.

CONCLUSION

As described above, neither the development in the No-Action Condition nor the development in the With-Action Condition would result in the physical loss or alteration of a public open space; therefore, an analysis of direct open space effects was not warranted.

Based on the analysis of project-generated *indirect effects* on open space above, the development in the With-Action Condition is anticipated to result in an approximately 1.16 percent reduction in OSR compared to the development in the No-Action Condition. Therefore, the Proposed Actions are not anticipated to result in potentially significant adverse impacts to open space; therefore, no further analysis is necessary.

ATTACHMENT E: SHADOWS

INTRODUCTION

According to the *CEQR Technical Manual*, a shadow assessment is necessary when a proposed action would result in a new structure(s) or additions to an existing structure(s) that are greater than 50 feet in height and/or are adjacent to an existing sunlight-sensitive resource. The *CEQR Technical Manual* defines a shadow as a condition that results when a building or other built structure blocks sunlight that would otherwise directly reach a certain area, space, or feature. An adverse shadow impact could occur when a shadow from a proposed project falls on a publicly accessible open space, historic landscape, or other historic resource that requires sunlight for its enjoyment by the public, or its architectural and historic integrity (*e.g.*, stained glass windows), or if the shadow falls on an important natural feature and adversely affects its use or landscaping and vegetation. Shadows occurring on non-significant features (city streets, sidewalks, buildings, and privately-owned open space), or within 1.5 hours of sunrise or sunset, generally are not considered significant under CEQR.

In the No-Action Condition, Lot 41 would be improved with a 20-story (232 feet), approximately 105,481[28] gsf mixed residential and community facility building. The development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required accessory off-street parking spaces.

In the With-Action Condition, Lot 41 would be improved with a 33-story (410 feet), approximately 259,125 gsf mixed residential and community facility building.[29] The development in the With-Action Condition would comprise approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space. Accordingly, the development in With-Action Condition would represent an approximately 178 foot incremental building height increase.

PRINCIPAL CONCLUSIONS

Based on a preliminary assessment, the shadow study area includes 12 potentially sunlight-sensitive resources that may be affected by incremental shadows from the development in the With-Action Condition. These sunlight-sensitive resources include open space resources and natural resources. Therefore, a detailed shadow analysis was conducted.

Based on the detailed shadow analysis, the Proposed Actions would result in incremental shadow coverage on six potentially sunlight-sensitive resources: Central Park, Lasker Pool, the Harlem Meer, P.S. 185 Playground, P.S. 208 Alain L. Locke Playground, and Martin Luther King Jr. Playground. The incremental project-generated shadows would not substantially reduce or eliminate direct sunlight on any of the three sunlight-sensitive resources, and thus would not result in significant adverse impacts.

[28] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[29] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

METHODOLOGY

The analysis methodology is based on the guidelines of the *CEQR Technical Manual*, which includes conducting a preliminary assessment to determine whether shadows resulting from a proposed project could reach any sunlight-sensitive resource at any time of year. The Tier 1 screening assessment identifies a shadow study area based on the height of structure(s) in the future with the proposed action and the longest shadow a proposed structure(s) could cast, which in New York City is 4.3 times the height of the structure. If there are sunlight-sensitive resources within the shadow study area, a Tier 2 screening assessment is warranted. As stated in the *CEQR Technical Manual*, because of the path 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, the area is between -108 and +108 degrees from true north. If the area outside this triangular area contains a sunlight-sensitive resource(s), further analysis is necessary. The Tier 3 screening assessment is a detailed assessment that further refines the analysis once sunlight-sensitive resources have been identified by analyzing specific representative days of the year and determining the maximum extent of shadows over the course of each representative day on these sunlight-sensitive resources.

Based on the guidelines of the *CEQR Technical Manual*, if the three-tiered screening analysis described above does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources, a detailed shadow analysis is warranted.

The 1,935 foot buffer surrounding the structure is defined as the shadow study area and is used to determine if a sunlight-sensitive open space and historic resources could be shaded by the incremental shadows cast as a result of the development in the With-Action Condition. According to the *CEQR Technical Manual*, public open spaces and certain publicly-accessible designated historic landmarks – such as landmarks that have sunlight sensitive components including stained glass or ornate carving on the façade (the enjoyment of which relies on sunlight)- are considered sunlight-sensitive resources.

The development in the With-Action Condition would result in an approximately 178 foot increase in building height compared to the development in the No-Action Condition. Therefore, a three-tiered shadow screening assessment was performed, in accordance with *CEQR Technical Manual* guidelines using the maximum building height of 410 feet to determine the longest shadow study area and the sunlight-sensitive open space and historic resources within a study area that could be shaded by the incremental shadows cast as a result of the development in the With-Action Condition.

Tier 1 Screening Assessment

As shown in Figure E-1, a building with a maximum height of 410 feet could cast a shadow extending over a maximum radius of 1,763 feet—the "Shadow Study Area" occurring on December 21, the winter solstice (410 feet x 4.3 = 1,763 feet). This Shadow Study Area contains multiple sunlight-sensitive open space resources and a scenic landmark. Accordingly, a Tier 2 screening assessment is necessary to determine which of these sunlight-sensitive resources are within the portion of the Shadow Study Area that could potentially be shaded as a result of the development in the With-Action Condition.

Tier 2 Screening Assessment

According to the *CEQR Technical Manual,* shadows cast by a proposed building generally fall to the north, east, and west depending on the day and time. In New York City, the shadow area is between –108 degrees and +108 degrees from true north (Figure E-2). Accordingly, any area lying to the south of a site in the triangular area between these angles cannot be shaded by a proposed project.

As shown in Figure E-2, the portion of the Shadow Study Area that has the potential to be shaded contains multiple sunlight-sensitive open space resources and a designated scenic landmark. As listed in Table E-1, the sunlight-sensitive open space resources include Adam Clayton Powell Jr. Malls, Martin Luther King Jr. Playground, Central Park, Lasker Pool, Peaceful Valley Garden, La Cuevita Garden, James Weldon Johnson Playground, Pueble Unido Garden, Family Community Garden, the Harlem Meer, P.S. 185 Playground, and P.S. 208 Alain L. Locke Playground. Therefore, a Tier 3 screening assessment is required to determine whether the incremental shadow resulting from the development in the With-Action Condition could affect any of these resources during the representative analysis days.

Table E-1: Sunlight-Sensitive Resources – Tier 2 Shadow Screening Assessment

Sunlight-sensitive Resource	Type of Resource
Adam Clayton Powell Jr. Malls	Public Open Space
Martin Luther King Jr. Playground	Public Open Space
Central Park	Public Open Space and Scenic Landmark
Lasker Pool	Public Open Space (within Central Park)
Peaceful Valley Garden	Public Open Space
La Cuevita Garden	Public Open Space
James Weldon Johnson Playground	Public Open Space
Pueble Unido Garden	Public Open Space
Family Community Garden	Public Open Space
Harlem Meer	Surface Water Body (within Central Park)
P.S. 185 Playground	Public Open Space
P.S. 208 Alain L. Locke Playground	Public Open Space

FIGURE E-1

TIER 1 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
S/NR Resource
Individual Landmark
Waterbodies
Open Space
Historic District

FIGURE E-2

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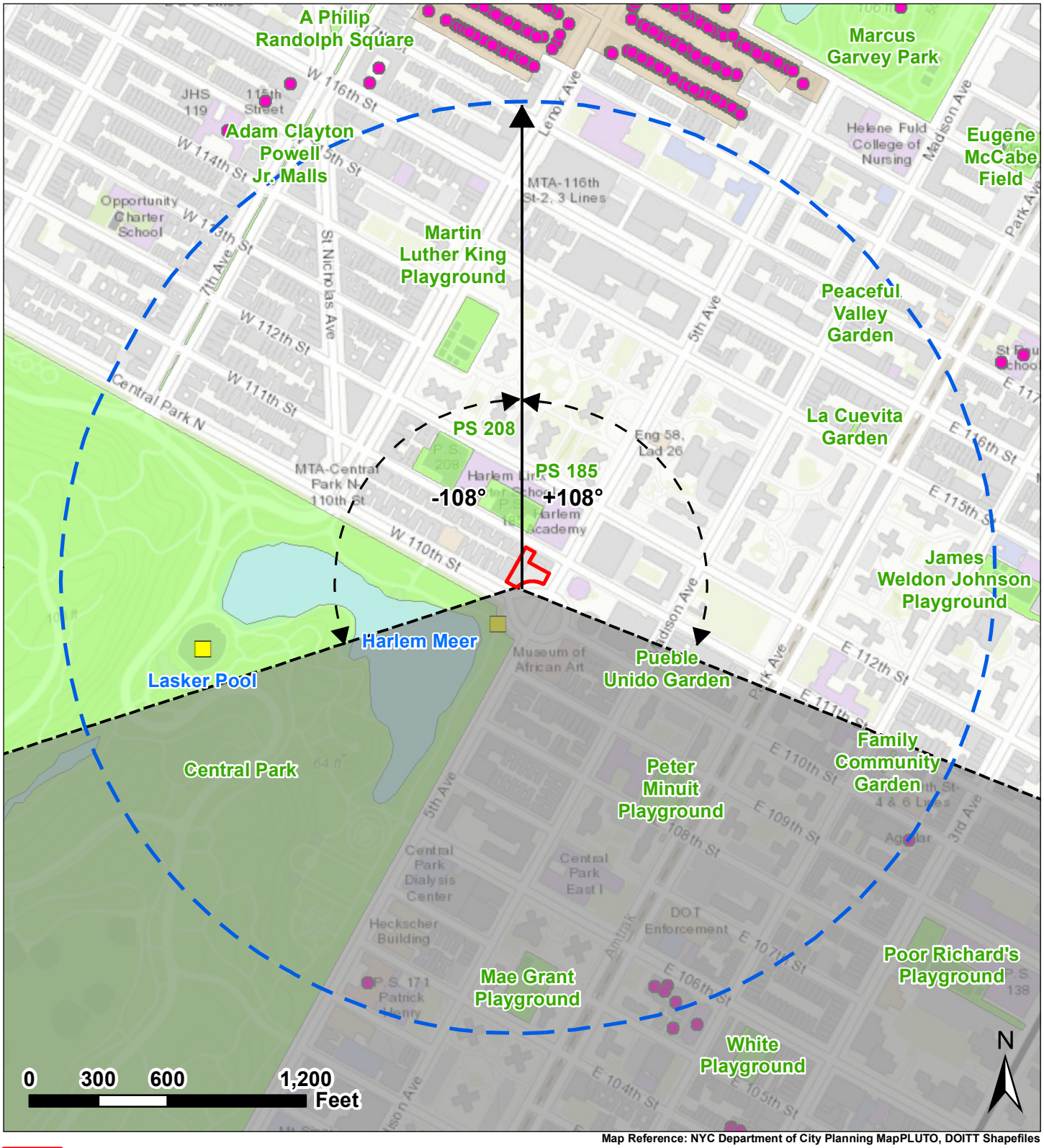
TIER 2 SCREENING ASSESSMENT



Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site | Area that cannot be shaded | Individual Landmark | Open Space

Shadow Study Area | S/NR Resource | Waterbodies | Historic District

CENTRAL HARLEM, MANHATTAN, NY

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Tier 3 Screening Assessment

In accordance with the guidelines in the *CEQR Technical Manual*, a Tier 3 screening assessment was performed for four representative days of the year: March 21, the vernal equinox (which is equivalent to September 21, the autumnal equinox); May 6, the midpoint between the vernal equinox and summer solstice (which is equivalent to August 6, the midpoint between the summer solstice and autumnal equinox); June 21, the summer solstice and longest day of the year, and December 21, the winter solstice and shortest day of the year.[30]

The Tier 3 shadow assessment indicates the difference in the shadows cast between the development in the No-Action and With-Action conditions, and the times when the development in the With-Action Condition would increase shadows cast on the sunlight sensitive resources in the absence of intervening buildings. As the earth rotates around the sun, shadows fall in an ellipse on the ground, opposite the movement of the sun. When the sun rises, shadows fall to the west. As the sun travels across the southern part of the sky throughout the day, shadows move in a clockwise direction until they stretch east as the sun sets in the west. Midday shadows are always shorter than those at other times because the sun is highest in the sky at that time. Because of the tilt of the earth's axis, the angle at which the sun's rays strike the earth varies throughout the year, so that during the summer, the sun is higher in the sky and shadows are shorter than during the winter. Because the sun is low in the sky, winter shadows, although longest, move the most quickly along their paths and do not affect the growing season of outdoor trees and plants. The development in the With-Action Condition represents the worst-case development scenario for environmental assessment and was used for all modeling of shadows.

The Tier 3 screening assessment used the maximum building height of 410 feet to determine the shadows on the four representative days of the year. Shadows in the With-Action Condition were then compared to the shadows from the No-Action Condition to determine the incremental shadow. Incremental shadows resulting from the development in the With-Action Condition are shown in dark gray on Figures E-3 through E-6. The sunlight-sensitive resources identified in the Tier 3 screening assessment are listed in Table E-2. The results of the shadow assessment are discussed below.

[30] Pursuant to CEQR Technical Manual guidelines, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight savings time that is in effect from mid-March to early November.

Table E-2: Tier 3 Shadow Screening Assessment Results

Resource Name	March 21/Sept 21 (7:36AM- 4:29PM)	May 6/August 6 (6:27AM- 5:18PM)	June 21 (5:57AM- 6:01PM)	December 21 (8:51AM – 2:53PM)	Analysis Days
P.S. 185 Playground	Shaded	Shaded	Shaded	Shaded	**4**
Central Park	Shaded	Shaded	Shaded	Not Shaded	**3**
Harlem Meer	Not Shaded	Shaded	Shaded	Not Shaded	**2**
P.S. 208 Playground	Shaded	Not Shaded	Not Shaded	Shaded	**2**
Adam Clayton Powell Jr. Malls	Not Shaded	Not Shaded	Not Shaded	Shaded	**1**
Martin Luther King Jr. Playground	Not Shaded	Not Shaded	Not Shaded	Shaded	**1**
Lasker Pool	Not Shaded	Not Shaded	Shaded	Not Shaded	**1**
Peaceful Valley Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
La Cuevita Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
James Weldon Johnson Playground	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
Pueble Unido Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
Family Community Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**

According to the *CEQR Technical Manual*, the uses associated with open space that rely on sunlight include passive recreation, such as sitting or sunning, and active recreation, such as using playfields or paved courts, gardening, or playing in children's wading pools and sprinklers. Vegetation requiring direct sunlight includes tree canopies, flowering plants, and plots in community gardens. Four to six hours a day of sunlight, particularly in the growing season (defined in the *CEQR Technical Manual* as March to October), is a general minimum requirement. Shade created by trees and other natural features is not considered to be shadow of concern for the assessment; however, incremental shadows on a tree-shaded environment may create an adverse impact because the incremental shadow is not redundant with tree shade, and the tree canopy may be considered a sunlight-sensitive resource.

Table E-2 summarizes the results of the Tier 3 screening assessment. Based on the Tier 3 screening assessment, Peaceful Valley Garden, La Cuevita Garden, James Weldon Johnson Playground, Pueble Unido Garden, and Family Community Garden *would not* receive project-generated shadows on any of the four analysis days; therefore, these resources would not require further analysis.

As shown in Table E-2, five open space resources (Lasker Pool, Adam Clayton Powell Jr. Malls, P.S. 185 Playground, P.S. 208 Playground, and Martin Luther King Jr. Playground), one open space resource that is also a scenic landmark (Central Park), and one surface water body (Harlem Meer) could, in the absence of intervening buildings, receive project-generated shadows on one or more analysis days. Accordingly, a detailed shadows assessment was performed for these seven sunlight-sensitive resources.

March 21/ September 21

As shown on Figure E-3, on March 21, which is equivalent to September 21, the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. The incremental shadow generated by the development in the With-Action Condition on the March 21/September 21 analysis day would have the potential to reach one open space resource/ scenic landmark (Central Park), and two open space resources (P.S. 185 Playground and P.S. 208 Playground).

May 6/ August 6

As shown in Figure E-4, on May 6, which is equivalent to August 6, the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. The incremental shadow generated by the development in the With-Action Condition on the May 6/August 6 analysis day would have the potential to reach one open space resource/ scenic landmark (Central Park), one surface water body (Harlem Meer), and one open space resource (P.S. 185 Playground).

June 21

As shown in Figure E-5, on June 21, the time period for shadows analysis begins at 5:57 AM and continues until 6:01 PM. The incremental shadow generated by the development in the With-Action Condition on the June 21 analysis day would have the potential to reach one open space resource/ scenic landmark (Central Park), one surface water body (Harlem Meer), and two open space resources (Lasker Pool and P.S. 185 Playground).

December 21

As shown in Figure E-6, on December 21, the time period for shadows analysis begins at 8:51 AM and continues until 2:53 PM. The incremental shadow generated by the development in the With-Action Condition on the December 21 analysis day would have the potential to reach four open space resources (Adam Clayton Powell Jr. Malls, Martin Luther King Jr. Playground, P.S. 185 Playground, and P.S. 208 Playground).

FIGURE E-3

LA HERMOSA REZONING

TIER 3 MARCH 21 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- With-Action Condition Shadow
- S/NR Resource
- Individual Landmark
- Waterbodies
- Open Space
- Historic District

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FIGURE E-4

LA HERMOSA REZONING

TIER 3 MAY 6 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
No-Action Condition Shadow
With-Action Condition Shadow
S/NR Resource
Individual Landmark
Waterbodies
Open Space
Historic District

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FIGURE E-5

LA HERMOSA REZONING

TIER 3 JUNE 21 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- With-Action Condition Shadow
- S/NR Resource
- Individual Landmark
- Waterbodies
- Open Space
- Historic District

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FIGURE E-6

LA HERMOSA REZONING

TIER 3 DECEMBER 21 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
No-Action Condition Shadow
With-Action Condition Shadow
S/NR Resource
Individual Landmark
Waterbodies
Open Space
Historic District

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Detailed Shadow Analysis

To evaluate the duration and extent of a shadow that could potentially be cast on a sunlight-sensitive resource, existing intervening buildings within the Shadow Study Area must be accounted for. Intervening buildings could either intercept the shadow cast by the development in the With-Action Condition, or would cast shadows of their own, with or without the development of the Proposed Project. Accordingly, the breadth of such shadows must be accounted for in the detailed shadow analysis. If modeling indicates the incremental shadow cast as result of the development in the With-Action Condition would fall partially or entirely within the boundary of the shadow cast by an existing intervening building, that portion of overlapping shadow would not be considered incremental for the purposes of the detailed shadow analysis.

Considering existing intervening buildings, it was determined the Adam Clayton Powell Jr. Malls would not be anticipated to experience incremental shadows from the development in the With-Action Condition (Figure E-10). Pursuant to the *CEQR Technical Manual*, detailed shadow analyses were then performed for the six identified sunlight-sensitive resources on the four representative days of the year. The CEQR guidelines define the shadow analysis day as 1.5 hours after sunrise to 1.5 hours before sunset and shadows before or after these times are not considered significant for CEQR purposes. As discussed above, the results of the shadows assessment indicate the incremental shadows between the development in the No-Action and With-Action conditions.

As shown in Table E-3, accounting for intervening buildings, incremental shadows would have the potential to reach six of the seven sun-sensitive resources identified in the Tier 3 assessment (Table E-2). An increase in shadow coverage would occur at one resource on four analysis days, one resource on three analysis days, at two resources on two analysis days, and at two resources on one analysis day. Figures E-7 through E-10 illustrate incremental shadow coverage for the four sunlight-sensitive resources on each day.

Table E-3: Incremental Shadow Duration on Sunlight-Sensitive Resources (With-Action Condition)

Sunlight-sensitive Resource	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
		March 21/Sept. 21	May 6/ August 6	June 21	December 21
		7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
Central Park	Shadow enter-exit time	7:36 – 8:05 AM	6:27 – 8:24 AM	5:57 – 8:44 AM	-
	Incremental shadow duration	29 minutes	1 hour and 57 minutes	2 hours and 47 minutes	-
Lasker Pool	Shadow enter-exit time	-	-	5:57-6:22 AM	-
	Incremental shadow duration	-	-	25 Minutes	-
Harlem Meer	Shadow enter-exit time	-	6:27 – 7:37 AM	5:57 – 7:44 AM	-
	Incremental shadow duration	-	1 hour and 10 minutes	1 hour and 47 minutes	-
Adam Clayton Powell Jr. Malls	Shadow enter-exit time	-	-	-	-
	Incremental shadow duration	-	-	-	-
P.S. 185 Playground	Shadow enter-exit time	9:46 AM – 1:13 PM	10:34 AM – 12:36 PM	11:25 AM – 12:29 PM	8:51 AM – 12:26 PM
	Incremental shadow duration	3 hours and 27 Minutes	2 hours and 2 minutes	1 hour and 4 minutes	3 hours and 35 minutes
P.S. 208 Playground	Shadow enter-exit time	9:20 – 10:23 AM	-	-	8:51 – 10:19 AM
	Incremental shadow duration	1 hour and 3 minutes	-	-	1 hour and 28 minutes
Martin Luther King Jr. Playground	Shadow enter-exit time	-	-	-	10:09 – 11:16 AM
	Incremental shadow duration	-	-	-	1 hour and 7 minutes

***Notes**: All times are Eastern Standard Time (EST); Daylight Savings Time was not accounted for per CEQR Technical Manual guidelines. Table 6-4 indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.*

Central Park

Central Park is an 840.01-acre flagship park bounded by Fifth Avenue to the east, Central Park West to the west, 59 Street to the south, and Central Park North to the north. The park contains a number of amenities including numerous athletic fields and courts, bicycling paths and greenways, fishing areas, fitness equipment, historic houses, nature centers, paddleboat rentals, playgrounds, and zoos and aquariums.[31] Lasker Pool and Rink is located within Central Park, west of the Harlem Meer, and operates as a free community pool during the summer (from the end of June to Labor Day Weekend) and as an ice skating rink in the winter.

March 21/September 21

As shown in Figure E-7 and Table E-3, on March 21/September 21, incremental shadows would enter a small portion of Central Park beginning at approximately 7:36 AM, the beginning of the analysis day, traversing only lawn and paths before exiting the park at 8:05 AM.

May 6/ August 6

As shown in Figure E-8 and Table E-3, on May 6/August 6, incremental shadows would enter a portion of Central Park beginning at approximately 6:27 AM, the beginning of the analysis day, traversing a portion of the Harlem Meer for approximately one hour in a diminishing shadow pattern before exiting the Meer at 7:37 AM, and fully exiting the park by 8:24 AM.

[31] https://www.nycgovparks.org/parks/central-park (Date Accessed: May 3, 2019)

June 21

As shown in Figure E-9 and Table E-3, on June 21, incremental shadows would traverse a maximum of approximately 3.04 acres of Central Park beginning at 5:57 AM before exiting the park at 8:44 AM.

ASSESSMENT

While there would be coverage of Central Park due to incremental shadows generated by the development in the With-Action Condition, the maximum duration would be approximately 2 hours and 47 minutes on the June 21 analysis day early in the morning. Incremental shadows would not be present on Central Park for the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the day. The park would continue to receive adequate sunlight during the growing season and vegetation would not be affected because the incremental shadows would shift across the landscape and no one specific area would shaded for the entirety of the incremental shadow duration. In addition, in relation to the size of the park, the largest generated incremental shadow would represent less than one percent of the total park acreage. Therefore, the project-generated shadows are not anticipated to adversely impact Central Park.

Lasker Pool

As stated previously, Lasker Pool and Rink is S/NR listed and is located within Central Park (an LPC scenic landmark), west of the Harlem Meer, and operates as a free community pool during the summer (from the end of June to Labor Day Weekend) and as an ice skating rink in the winter. Lasker Pool is open daily in the summer between 11:00AM and 7:00PM, with early bird and night owl lap swimming available daily from 7:00 – 8:30AM and 7:00- 8:30PM, respectively. The development in the With-Action Condition would result in an incremental shadow only on the June 21 analysis day; and would not experience shadows on any of the other analysis days.

June 21

As shown in Figure E-9 and Table E-3, on June 21, incremental shadows would cover a portion of Lasker Pool beginning at 5:57 AM.

ASSESSMENT

While there would be coverage of only the southeastern portion of Lasker Pool due to incremental shadows generated by the development in the With-Action Condition, the maximum duration would be approximately 25 minutes. Additionally, the shadows anticipated to be generated by the development in the With-Action Condition would impinge on Lasker Pool beginning at 5:57AM and exit the pool at 6:22 AM, prior to the opening of the pool to the public for the early bird lap swim at 7:00 AM and the general opening at 11:00 AM. Throughout the remaining morning, afternoon, and evening hours when the pool would be in use, there would be no incremental shadow on the pool. Therefore, project-generated incremental shadow coverage would not adversely impact Lasker Pool.

Harlem Meer

In the City, surface water bodies are important natural resources that serve as: (1) habitat for a wide variety of aquatic life, including finfish and bottom organisms ("benthic organisms"); (2) resources for shipping and boating; (3) recreational resources; and (4) in limited cases, water supply.[32] The Harlem Meer is located on the northeast corner of Central Park and is considered a surface water body, pursuant to the *CEQR Technical Manual*.

The development in the With-Action Condition would result in incremental shadows of varying duration and coverage on the May 6 and June 21 analysis days.

May 6/ August 6

As shown in Figure E-8 and Table E-3, on May 6, which is equivalent to August 6, incremental shadow coverage would begin on the Meer at approximately 6:27 AM, the beginning of the analysis day. Between 6:27 AM and 7:37 AM, incremental shadows would traverse the Meer with a decreasing footprint, before exiting the Meer at approximately 7:37 AM. There would be no incremental shadow on the Meer for the remainder of the May 6/August 6 analysis day.

June 21

As shown in Figure E-9 and Table E-3, on June 21, incremental shadows would begin casting on a portion of the Meer at approximately 5:57 AM, the beginning of the analysis day. Between 5:57 AM and 7:44 AM, incremental shadows would traverse the Meer in a decreasing footprint before exiting the Meer at approximately 7:44 AM. There would be no incremental shadow on the Meer for the remainder of the June 21 analysis day.

ASSESSMENT

While there would be partial coverage of the Harlem Meer due to incremental shadows generated by the development in the With-Action Condition, the maximum duration would be approximately 1 hour and 47 minutes. Accordingly, because these durations occur at the beginning of the analysis day and are not anticipated to result in a reduction in sunlight to less than four to six hours, the habitat and ecology of the Meer would not be anticipated to be affected by the incremental shadows. Additionally, the Meer would continue to receive adequate sunlight during the growing season and vegetation would not be affected because the incremental shadows would shift across the Meer and no one specific area would shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact the Harlem Meer.

[32] *CEQR Technical Manual, 2014*

P.S. 185 Playground

P.S. 185 Playground is a 0.60-acre playground located along West 111 Street between Malcolm X Boulevard and Fifth Avenue. The park contains basketball courts and a playground that is only available to the public during non-school hours. The development in the With-Action Condition would result in an incremental shadow on all four analysis days.

March 21/September 21

As shown in Figure E-7 and Table E-3, on March 21/September 21, incremental shadows would cover a portion of P.S. 185 Playground beginning at approximately 8:51 AM. Between 8:51 AM and 12:26 PM, the incremental shadow would proceed east across the playground.

May 6/ August 6

As shown in Figure E-8 and Table E-3, on May 6/August 6, incremental shadows would cover a portion of P.S. 185 Playground beginning at approximately 10:34 AM traversing a portion of the playground at the southeast corner before exiting the playground by 12:36 PM.

June 21

As shown in Figure E-9 and Table E-3, on June 21, incremental shadows would cover a small portion of the P.S. 185 Playground beginning at 11:25 AM and traversing the southeast corner before exiting by12:29 PM.

December 21

As shown in Figure E-10 and Table E-3, on December 21, incremental shadows would cover a portion of P.S. 185 Playground beginning at 8:51 AM. Between 8:51 AM and 12:26 PM, the incremental shadows would proceed east.

ASSESSMENT

The maximum shadow duration on P.S. 185 Playground would be approximately 3 hours and 27 minutes. The shadows anticipated to be generated by the development in the With-Action Condition would affect the playground primarily during school hours, when the playground is not accessible to the public. When New York City public schools are closed (the end of June to the beginning of September) and the playground is more accessible to the public, the longest incremental shadow duration would be approximately 1 hour and 4 minutes and would cover approximately 0.04-acres of the park. Incremental shadows would not be present on P.S. 185 playground for the majority of the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the time in which it could be accessed (i.e. when school is not in session). Additionally, the playground is mostly comprised of paved area, and vegetation would not be affected because the incremental shadows would shift across the playground with no one specific area being shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact P.S. 185 Playground.

P.S. 208 Playground

P.S. 208 Playground is a 0.87-acre playground located along West 111 Street between Malcolm X Boulevard and Fifth Avenue. The park contains basketball courts and a playground that is only available to the public during non-school hours. The development in the With-Action Condition would result in an incremental shadow on two analysis days.

March 21/ September 21

As shown in Figure E-7 and Table E-3, on March 21/September 21, incremental shadows would cover a portion of P.S. 208 Playground beginning at approximately 9:20 AM traversing a portion of the playground at the southeast corner before exiting the playground at 10:23 AM.

December 21

As shown in Figure E-10 and Table E-3, on December 21, incremental shadows would cover a portion of P.S. 208 Playground beginning at 8:51 AM, the beginning of the analysis day. Between 8:51 AM and 10:19 AM, the incremental shadows would proceed east.

ASSESSMENT

The maximum shadow duration on P.S. 208 Playground would be approximately 1 hour and 28 minutes. The shadows anticipated to be generated by the development in the With-Action Condition would affect the playground primarily during school hours, when the playground is not accessible to the public. Incremental shadows would not be present on P.S. 208 playground for the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the time in which it could be accessed (i.e. when school is not in session). When New York City public schools are closed (the end of June to the beginning of September) and the playground is more accessible to the public, the playground is not anticipated to receive any incremental shadows. Additionally, the playground is mostly comprised of paved area, and vegetation would not be affected because the incremental shadows would shift across the playground with no one specific area being shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact P.S. 208 Playground.

Martin Luther King Jr. Playground

Martin Luther King, Jr. Playground is a 1.0-acre neighborhood park located along Lenox Ave between West 113 Street and West 114 Street. The park contains basketball courts, handball courts, a playground, and spray showers.[33] The development in the With-Action Condition would result in an incremental shadow only on the December 21 analysis day.

[33] https://www.nycgovparks.org/parks/martin-luther-king-playground_manhattan (Date Accessed: May 3, 2019)

December 21

As shown in Figure E-10 and Table E-3, on the December 21 analysis day, incremental shadow coverage would begin at approximately 10:09 AM at the southeastern portion of the playground and traversing the playground in a northeasterly direction before exiting the playground at approximately 11:16 AM for a duration of 1 hour and 7 minutes. There would be no incremental shadow coverage for the remainder of the December 21 analysis day.

Assessment

The portion of the playground anticipated to be shaded contains both active and passive uses. While there would be coverage of the playground due to incremental shadows generated by the development in the With-Action Condition, the maximum duration would be approximately 1 hour and 7 minutes in mid-to-late morning. During the remaining morning, afternoon, and evening hours, there would be no incremental shadow on the playground. Accordingly, the playground is anticipated to continue to receive at least four to six hours a day of sunlight. Additionally, passive uses within Martin Luther King Jr. Playground are anticipated to be less utilized during the December 21 analysis day due to cold weather. There are no incremental shadows impinging on the playground on any of the other analysis days. Therefore, project-generated incremental shadow coverage is not expected to adversely impact the Martin Luther King Jr. Playground.

FIGURE E-7

LA HERMOSA REZONING

MARCH 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

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FIGURE E-8

MAY 6 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

FIGURE E-9

LA HERMOSA REZONING

JUNE 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

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FIGURE E-10

LA HERMOSA REZONING

DECEMBER 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- Intervening Building Shadow
- With-Action Condition Shadow
- Waterbodies
- Open Space
- Historic District

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CONCLUSION

The Proposed Actions would have the potential to generate incremental shadows on six potentially sunlight-sensitive resources. The open space resources under consideration include Central Park, Lasker Pool and Rink, P.S. 185 Playground, P.S. 208 Playground, and Martin Luther King Jr. Playground. Incremental shadows would be cast on Central Park; however, due to the duration of the shadow and size of the resource, the incremental shadows would not adversely affect the enjoyment of the park. Incremental shadows would be cast on Lasker Pool and Rink; however, due to the duration of the shadow and hours of operation, the incremental shadows would not adversely affect the enjoyment of the pool during swimming season. Incremental shadows would be cast on both P.S. 185 Playground and P.S. 208 Playground; however, due to the time of day shadows are anticipated to affect the resource, the restricted hours of accessibility, and prevalence of pavement, the incremental shadows would not adversely affect the enjoyment of either playground. Incremental shadows would be cast on Martin Luther King Jr. Playground; however, due to the short duration and low passive open space utilization in winter cold weather months, the incremental shadows would not adversely affect the enjoyment of the playground. Incremental shadows would be cast on the Harlem Meer; however, due to the duration, the shadows are not anticipated to adversely affect the habitat and ecology of the Meer.

Based on this information, the Proposed Actions are not anticipated to result in any adverse environmental effects from shadows generated by the development in the With-Action Condition and no further analysis is necessary.

ATTACHMENT F: HISTORIC AND CULTURAL RESOURCES

INTRODUCTION

The *CEQR Technical Manual* identifies architectural resources as historically important buildings, structures, objects, sites, and districts. These include buildings and properties designated as a New York City Landmark (NYCL) by the New York City Landmarks Preservation Commission (LPC); properties listed on the State/National Register of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL) designated by the U.S. Secretary of the Interior; and properties not identified by one of the programs listed above, but that meet their eligibility requirements by the New York State Historic Preservation Office (SHPO).

According to the *CEQR Technical Manual*, a historic district is a geographically definable area that possesses a significant concentration of associated buildings, structures, urban landscape features, or archaeological sites, united historically or aesthetically by plan and design or physical development and historical and/or architectural relationships. In Title 36 of the Code of Federal Regulations Part 60 (36 CFR Part 60), the U.S. Secretary of the Interior has established criteria for listing on the S/NR that consider whether the significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. Further, it is determined if resources are associated with (i) events that have made a significant contribution to the broad patterns of our history; or (ii) the lives of persons significant in our history; or that (iii) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (iv) that have yielded, or may be likely to yield, information important in prehistory or history.[34]

Archaeological resources are defined in the *CEQR Technical Manual* as physical remains, usually subsurface, such as burials, foundations, artifacts, wells, and privies of the prehistoric, Native American, and historic periods.

According to the *CEQR Technical Manual*, an assessment of potential impacts on architectural resources is typically required if a proposed project would result in the following:

- New construction, demolition, or significant physical alteration to any building, structure, or object;
- A change of scale, visual prominence, or visual context of an historic resource. The *CEQR Technical Manual* describes visual prominence as generally the way in which a historic resource is viewed. Visual context is the character of the surrounding built or natural environment;
- Additions to or significant removal, grading, or replanting of significant historic landscape features;
- Screening or elimination of publicly accessible views; or

[34] 36 CFR Part 60.4, Criteria for Evaluation

- Introduction of significant new shadows or significant lengthening of the duration of shadows on an historic landscape or on an historic structure that depends on sunlight.

METHODOLOGY

Based on *CEQR Technical Manual* guidelines, the first step in evaluating if a proposed project may affect historic resources is to consider what area the project might affect and then identify historic resources, whether officially recognized or eligible for such recognition, within that area. Accordingly, to assess the potential impacts of the Proposed Actions on historic resources, an inventory of historic resources within a 400-foot radius of the Directly Affected Area (the "Study Area") was compiled using the SHPO's *Cultural Resource Information System (CRIS)* database and LPC's *Discover NYC Landmarks* online map. The inventory was supported through consultation with LPC in the form of an environmental review request for comment on the architectural and archaeological significance of the development in the With-Action Condition and potential historic resources in the Study Area. All correspondence with LPC is included in Appendix B.

Correspondence with LPC indicates the Project Site is not located within an archeologically sensitive area. Additionally, the Project Site does not contain any buildings or structures identified as, or eligible to become, a New York City, New York State, or National historic landmark.

EXISTING CONDITIONS

As listed in Table F-1, the Study Area contains one LPC scenic landmark with one contributing resource, one S/NR historic district with two contributing structures, and two S/NR eligible buildings.

Table F-1: Historic and Cultural Resources

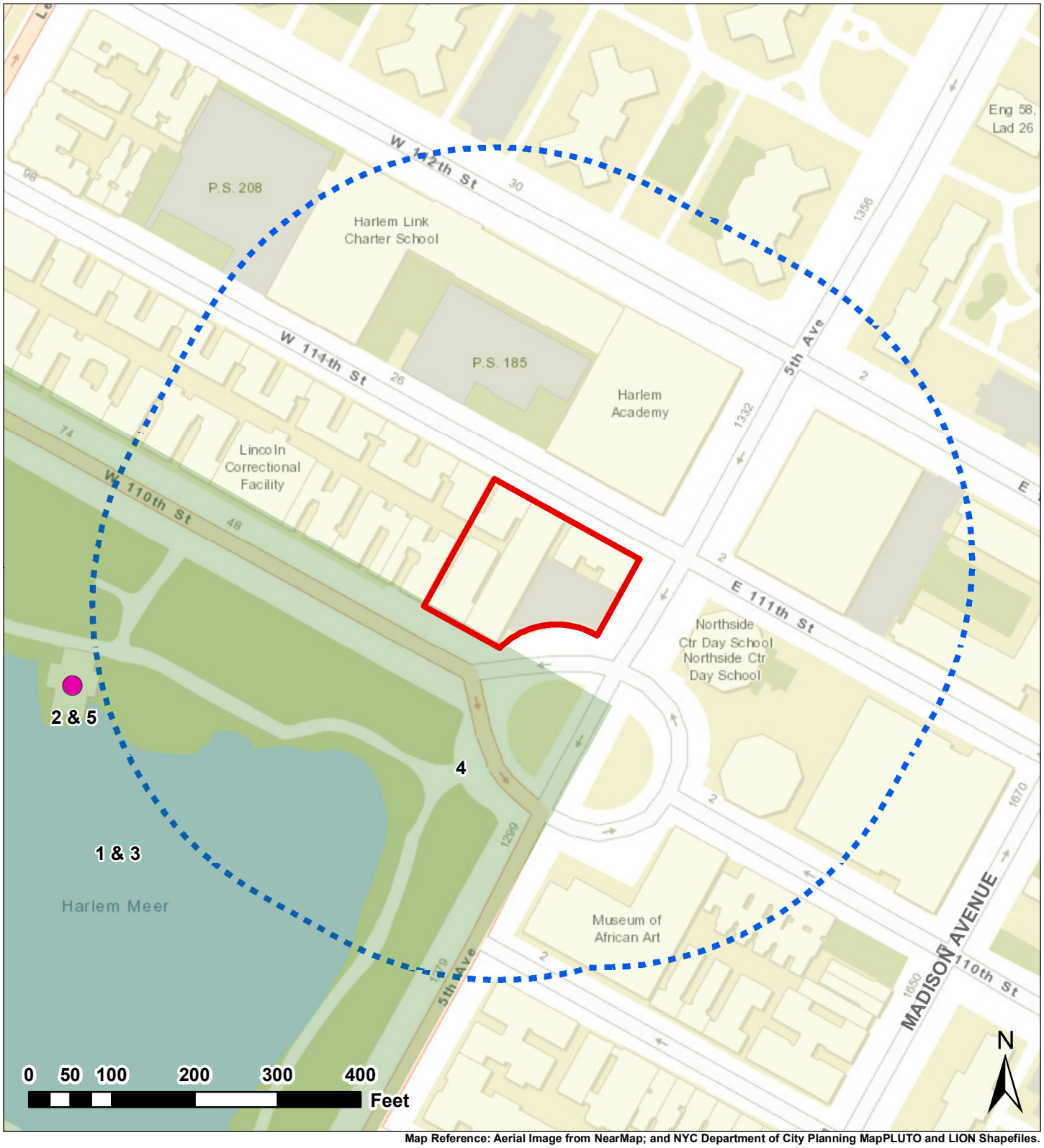
No.	Resource Name	Location (New York, NY)	Designation
1&2	Central Park	Generally bounded by West 110 Street, Fifth Avenue, West 59th Street, and Central Park West	LPC Scenic Landmark
			S/NR Historic District
3	W 110 Street Boat House	Central Park North	LPC Contributing
4	Pioneer's Gate	Frawley Circle	S/NR Contributing
5	W 110 Street Boat House	Central Park North	S/NR Contributing
6	P.S. 208 Alain L. Locke School	21 West 111 Street	S/NR Eligible
7	P.S. 185 John Mercer Langston School	20 West 111 Street	S/NR Eligible

Source:
SHPO's Cultural Resource Information System (CRIS) (https://cris.parks.ny.gov; Accessed on May 3, 2019)
LPC's Discover NYC Landmarks Online Map (http://nyclpc.maps.arcgis.com/apps/webappviewer/index.html?id=93a88691cace4067828b1eede432022b; Accessed on May 3, 2019)

FIGURE F-1

LA HERMOSA REZONING

HISTORIC AND CULTURAL RESOURCES



Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Study Area (400-foot radius)

Central Park Scenic Landmark

Individual Landmark Building

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ASSESSMENT

The following section assesses the Proposed Action's potential to result in significant adverse impacts on architectural resources.

Architectural Resources

Direct Effects

According to the *CEQR Technical Manual*, direct impacts on architectural resources occur when a project results in new construction, demolition, or significant physical alteration to any landmarked or landmark eligible historic building, structure, or object. Based on correspondence with LPC, the Directly Affected Area contains no architecturally significant resources. Therefore, the Proposed Action would not result in new construction, demolition, or significant physical alteration to any landmarked or landmark eligible historic building, structure, or object.

Indirect Effects

According to the *CEQR Technical Manual*, a project may result in adverse indirect impacts on historic resources when it affects its context or visual prominence and if the change is likely to alter or eliminate the significant characteristics of the resource that make it an important resource. Indirect impacts include those that result from construction, action-generated shadows, or other effects on historic resources in the study area once construction is completed.

With-Action Condition

The development in the With-Action Condition would comprise a 33-story (approximately 410 feet) mixed residential and community facility building containing approximately 259,125 gsf on Block 1594, Lot 41. The development in the With-Action Condition would be approximately 178 feet taller than the development in the No-Action Condition. As a result, the development in the With-Action Condition is anticipated to cast shadows on historic resources within 400 feet of the Directly Affected Area. As described in Attachment E, "Shadows," because the incremental shadows on historic resources would not shade sunlight dependent features, no adverse environmental effects would be anticipated.

The development in the With-Action Condition would setback to separate the residential component of the building from the community facility component. The setback would position the taller residential portion of the building towards the center of the Project Site and away from Central Park. Additionally, the development in the With-Action Condition would continue to taper in width as it gains in height; therefore, the Proposed Actions would not alter existing view corridors or alter any historic resource's setting or visual relationship with the streetscape within the 400-foot Study Area.

CONCLUSION

Based on this information, the Proposed Actions would not result in any potentially significant adverse effects on historic and cultural resources.

ATTACHMENT G: URBAN DESIGN AND VISUAL RESOURCES

INTRODUCTION

This section assesses the potential effects on urban design and visual resources that could occur as a result of the Proposed Actions. According to 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 street level, a physical alteration beyond that allowed by the existing zoning, including (i) projects that permit the modification of yard, height, and setback requirements; and (ii) projects that result in an increase in built floor area beyond what would be allowed as-of-right or in the No-Action Condition. City Environmental Quality Review (CEQR) requires a detailed analysis for projects that would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings.

In the No-Action Condition, the Project Site would be improved with a 20-story (232 feet), approximately 105,481[35] gsf mixed residential and community facility building. The development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required accessory off-street parking spaces. In the With-Action Condition, the Project Site would be improved with a 33-story (410 feet), approximately 259,125 gsf mixed residential and community facility building.[36] The development in the With-Action Condition would comprise approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space.

The development in the With-Action Condition would result in a building height increment of approximately 178 feet. The development in the With-Action Condition has the potential to alter the arrangement, appearance, and functionality of the built environment and, consequently, change the experience of a pedestrian in the project study area; therefore, an urban design and visual resources assessment is required.

METHODOLOGY

Based on the guidelines and definitions in the *CEQR Technical Manual*, this assessment of urban design and visual resources considers the Proposed Actions' potential effect on the following elements:

1. Streetscape: This urban design component refers to the arrangement and orientation of streets (the "street grid") that defines the location and flow of activity in an area, sets street views, and creates the blocks on which buildings and open spaces are organized. Streetscape elements are physical features that make up a streetscape, such as building street walls, building entrances, building fenestrations, sidewalks, street trees, street

[35] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[36] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

furniture, and other permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands that are critical to making a successful streetscape.

2. Buildings: Buildings support the street grid and the streetscape by conveying a sense of the overall form and design of a block or a larger area. A building's street wall forms the most common backdrop for public space and includes a building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block. Active uses and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape.

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

STUDY AREA

According to the *CEQR Technical Manual*, the study area for an urban design analysis is defined as the area where the project may influence land use patterns and the built environment, and is generally consistent with that used for the land use analysis (400-foot study area). Therefore, this urban design and visual resources assessment focuses on a 400-foot study area around the Directly Affected Area ("Study Area") (Figure G-1), and considers views within the Study Area that could potentially be altered because of the development on the Project Site in the With-Action Condition.

EXISTING CONDITIONS

Project Site

The Project Site consists of Block 1594, Lot 41, in the Central Harlem neighborhood of Manhattan, Community District 10. The approximately 15,016 square-foot (sf) irregularly shaped Project Site is generally bound by East 111th Street to the north; a six story multi-family walk-up building containing ground floor commercial use to the northeast; Fifth Avenue to the east; Frawley Circle to the southeast; Central Park North to the south; and a three (3)-story church and a five (5)-story multi-family residential building to the west. Lot 41 has been partially improved with La Hermosa Christian Church, a three story building constructed in 1940 that occupies approximately half of the Project Site. The remaining unimproved portion of the Project Site fronts Frawley circle and contains a partially paved surface parking area.

Existing Streetscape

The Directly Affected Area comprises the eastern portion of the block bounded by (i) West 111 Street to the north, a one-lane, approximately 30-foot-wide, one-way local street with 12 to 14-foot sidewalks on either side; (ii) Fifth Avenue to the east, a three-lane, approximately 60-foot-wide, one-way local street with 15 to 20-foot sidewalks on either side; (iii) West 110 Street to the south, a two-lane, approximately 45-foot-wide, two-way local street with 25 to 30-foot sidewalks; and (iv) Malcolm X Boulevard to the west, a four-lane, approximately 70-foot-wide, two-way local street with 30 to 45-foot sidewalks on either side. The Project Site has one curb cut along Frawley Circle. The street grid in the Study Area is a traditional north-south, east-west grid pattern with the exception of one traffic circle adjacent to the Project Site to the south east.

Existing Buildings

The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) in the Central Harlem neighborhood of Manhattan. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings. The area to the north, west, and east is predominantly residential, comprised of low-to-mid-rise multi-family walk-up and multi-family elevator residences. The development surrounding Frawley Circle, however, is characterized by increased density and height. Directly east of the Project Site, Block 1616, Lot 1 contains a pair of 34-story (approximately 330 feet) multi-family elevator buildings. Additionally, the southeast corner of Frawley Circle is improved with a 19-story (approximately 213 feet) mixed residential and commercial building.

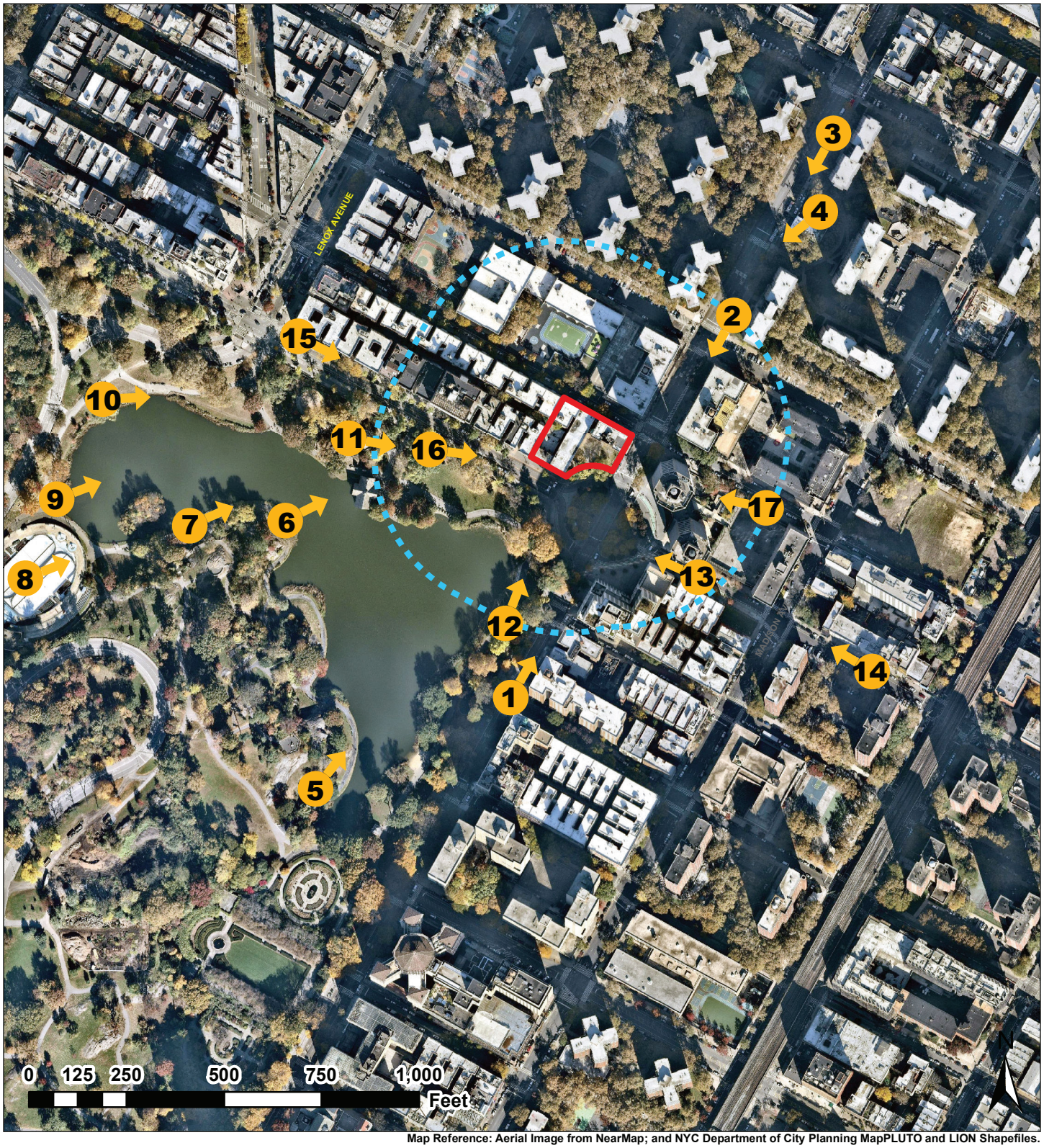
Visual Resources

As discussed in Attachment F, "Historic and Cultural Resources," the study area contains one LPC scenic landmark (Central Park), one S/NR historic district (Central Park) with two contributing structures (Pioneer's Gate and the W110 Street Boat House), and two S/NR eligible buildings. Accordingly, an assessment of the potential impact of the development in the With-Action Condition on the identified visual resources is warranted.

FIGURE G-1

LA HERMOSA REZONING

URBAN DESIGN VIEWSHED LOCATION MAP



Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Study Area (400-foot radius)

1 Viewshed Location/Direction

CENTRAL HARLEM, MANHATTAN, NY

LANGAN

ASSESSMENT

Streetscape

The development in the With-Action Condition would be built to the lot line along West 111 Street, Fifth Avenue, Frawley Circle, and West 110 Street. This configuration would create a continuous approximately 40 foot street wall along Fifth Avenue, West 110 Street and Frawley Circle, and an approximately 60 foot street wall along West 111 Street. The development in the With-Action Condition would include streetscape improvements, such as the planting of eight new street trees. It is the Applicant's intention that the proposed building configuration and streetscape improvements would enhance the overall pedestrian experience and public realm within the Study Area. The development in the With-Action Condition would not alter the existing streets, street grid, streetscape, or sidewalks in the Study Area.

Buildings

The development in the With-Action Condition would be designed to create two distinguishable physical forms within a single building. The community facility component of the development in the With-Action Condition would be built to the lot line and occupy the first three floors of the building. With a street wall height of approximately 60 feet along West 111 Street and 40 feet along Fifth Avenue, Frawley Circle, and West 110 Street, the development in the With-Action Condition would be consistent with the buildings adjacent to the Project Site. The residential component of the development in the With-Action Condition would then setback approximately 90 feet from West 110 Street and step back from west to east and from south to north as it gains in height. As a result, the residential component would become less imposing as it steps up and away from Central Park towards Fifth Avenue. By locating the tallest portion of the development in the With-Action Condition along Fifth Avenue, the development building would be consistent with the taller, denser buildings surrounding Frawley Circle.

Visual Resources

As stated under Existing Conditions, Central Park is the primary visual resource of significance within the Study Area. Central Park is located south across West 110 Street from the Directly Affected Area.

As such, for visual resource assessment, the viewsheds and view corridors include: (1) viewsheds along the neighborhood street grid from which Central Park is publicly viewable – the Fifth Avenue Viewshed, (Figures G-2 through G-5), (2) the northern viewshed from Central Park towards the Directly Affected Area (Figures G-6 through G-13), and (3) views towards Central Park and the Directly Affected Area from adjacent streets, and various neighborhood street intersections (Figures G-14 through G-18).[37]

[37] *CEQR* only contemplates views from public and publicly-accessible locations. As such, views from private residences or places of business are not considered as part of this analysis.

Views of Central Park

Fifth Avenue Corridor

Fifth Avenue is a one-way, southbound wide street located to the east of the Directly Affected Area, running adjacent to Central Park for the entire length of the park.

As shown in Figures G-2 through G-5, the development in the With-Action Condition would setback from west to east and south to north as it gains in height, placing the bulk of the building away from Central Park and towards the taller buildings along Fifth Avenue and Frawley Circle. South of the intersection of Fifth Avenue and West 110 Street, Central Park is visible to the west from the street level and the development in the With-Action Condition would not interfere with these views (Figure G-2). North of the intersection of Fifth Avenue and West 110 Street, existing six-story buildings on the west side of Fifth Avenue and the 13-story buildings within the New York City Housing Authority (NYCHA) Kings Towers development obstruct any potential views of Central Park from Fifth Avenue (G-2 through G-5). Accordingly, and as evidenced in the referenced figures, the development in the With-Action Condition would not have the potential to obstruct views of Central Park from the Fifth Avenue Corridor. Additionally, as shown in Figures G-2 and G-3, from a built environment perspective, the development in the With-Action Condition would be consistent with the taller developments fronting Frawley Circle (bisected by Fifth Avenue) and reinforce the prominence of the entrance to Central Park.

No other visual resources are visible from the Fifth Avenue Corridor.

Adjacent Streets and Major Intersections

Tito Puente Way is an eastern continuation of West 110 Street beyond the Directly Affected Area and Frawley Circle. As shown in Figure G-14, due to the existing 19-story building on the south side of Tito Puente Way between Madison Avenue and Frawley Circle, Central Park is not visible from the pedestrian perspective. Moving further east along Tito Puente Way (Figure G-15), additional existing five-story buildings and the 20-story buildings within the NYCHA Lehman Houses development obstruct any potential views of Central Park from Tito Puente Way.

West 110 Street runs adjacent to Central Park along its northern boundary and provides a buffer between the Directly Affected Area and Central Park. Due to existing six-story buildings along the north side of West 110 Street, the development in the With-Action Condition would not be visible until approximately the middle of the block between Malcolm X Boulevard and Fifth Avenue. Because Central Park is south of West 110 Street and the development in the With-Action Condition would be built on the north side of West 110 Street, there is no potential for the development in the With-Action Condition to obstruct views of Central Park along West 110 Street, Additionally, as shown in Figure G-17, the development in the With-Action Condition would step up and away from Central Park so as to not encroach on the pedestrian perspective.

Fifth Avenue divides 111 Street east and west and runs parallel to 110 Street, to the north of the Directly Affected Area. Views of Central Park from the portion of East 111 Street to the east of the Directly Affected Area are entirely obstructed by two 34-story octagonal buildings fronting Frawley Circle. Crossing Fifth Avenue along 111 Street, due to the existing six-story buildings on the south

side of West 111 Street, views of Central Park from the portion of West 111 to the west of the Directly Affected Area are entirely obstructed as the entire block between Malcolm X Boulevard and Fifth Avenue is built out. Additionally, as shown in Figure G-18, views of the development in the With-Action Condition would also be obstructed by the existing 34-story buildings on the north east corner of Frawley Circle.

Due to the density and size of existing buildings within the Study Area, the development in the With-Action Condition would not have the potential to obstruct views of Central Park from Tito Puente Way, East 110 Street, or West 111 Street.

Views from Central Park

Northern Views

The development in the With-Action Condition would be visible when looking to the northeast from within Central Park, particularly in the areas surrounding the Harlem Meer as the body of water creates an absence of tree canopy and foliage that would otherwise partially obstruct views from within the park. As shown in Figures G-6 through G-13, the building in the With-Action Condition would uniformly set back from west to east and from south to north as it gains in height, placing the bulk of the building away from Central Park and towards the taller buildings along Fifth Avenue and Frawley Circle. Additionally, as shown in Figure G-6, the development in the With-Action Condition would reinforce the prominence of the entrance to Central Park along Frawley Circle by improving the underbuilt Project Site that reflects developments at other corner entrances to Central Park such as the Time Warner Center on Columbus Circle. Moving closer to the northern boundary of Central Park, views of the development in the With-Action Condition begin to be obstructed by the existing tree canopy and foliage within Central Park, revealing only the portions of the development that setback away from the park. While the development in the With-Action Condition would extend above the tree line surrounding Central Park, as shown in Figure G-9, multiple buildings can be seen breaking the tree line across the northern boundary of the park. Furthermore, the development in the With-Action Condition would emulate a similar height progression as observed on the northwestern portion of the Central Park, creating a consistent visual environment above Central Park's tree line.

CONCLUSION

Although the Proposed Actions would result in a building that is larger in height and bulk (scale), because of the separate three-floor community facility form, from a pedestrian's perspective, the development in the With-Action Condition would be consistent with the street wall within the surrounding area. Accordingly, the Proposed Actions are not anticipated to result in any significant adverse effects on pedestrians' experience of the neighborhood at street level, or the existing built environment characterizing the Study Area. Although the development in the With-Action Condition would be larger and taller than the development in the No-Action Condition, the development in the With-Action Condition would not obstruct any views to visual resources within the Study Area. The development in the With-Action Condition would conform to the unique shape and contours of the Project Site and the intersection of Frawley Circle and Fifth Avenue. The building would be massed away from Central Park placing the bulk of the building towards the taller buildings along Fifth Avenue and Frawley Circle where it would be more contextual. Additionally, the development in the With-Action Condition would reinforce the prominence of the entrance to Central Park along Frawley Circle by improving the underbuilt Project Site that reflects developments at other corner entrances to Central Park such as the Time Warner Center on Columbus Circle.

With the exception of winter months, views to the north from within Central Park are partially obstructed by tree canopy and foliage for most of the year. Additionally, the development in the With-Action Condition would ultimately assist in the homogenization of the visual environment above the Central Park tree line and the reinforcement of the entrance to the park along Frawley Circle, creating a gateway to the Central Harlem neighborhood.

Based on this information, the Proposed Actions are not anticipated to result in any potentially significant adverse effects on urban design and visual resources; therefore, no further analysis is necessary.

FIGURE G-2

LA HERMOSA REZONING

VIEW 1 - 5TH AVE AND 108TH STREET

No-Action Condition (looking north from the intersection of 5th Avenue and 108th Street)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking north from the intersection of 5th Avenue and 108th Street)

Proposed Project

NEW YORK, NY

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FIGURE G-3

LA HERMOSA REZONING

VIEW 2 - 5TH AVE AND 112ND STREET

No-Action Condition (looking south from the intersection of 5th Avenue and 112nd Street)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking south from the intersection of 5th Avenue and 112nd Street)

Proposed Project

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FIGURE G-4

LA HERMOSA REZONING

VIEW 3 - 5TH AVE AND 115TH STREET

No-Action Condition (looking south from the intersection of 5th Avenue and 115th Street)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking south from the intersection of 5th Avenue and 115th Street)

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LA HERMOSA
REZONING

FIGURE G-5

VIEW 4 - 5TH AVE BETWEEN 112TH AND 115TH STREET

No-Action Condition (looking south on 5th Avenue between 112th and 115th Street)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking south on 5th Avenue between 112th and 115th Street)

Proposed Project

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LA HERMOSA REZONING

VIEW 5 - CENTRAL PARK

No-Action Condition (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking northeast from Central Park)

Proposed Project

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LA HERMOSA REZONING

VIEW 6 - CENTRAL PARK

No-Action Condition (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking northeast from Central Park)

Proposed Project

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FIGURE G-8

LA HERMOSA REZONING

VIEW 7 - CENTRAL PARK

No-Action Condition (looking east from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking east from Central Park)

Proposed Project

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FIGURE G-9

VIEW 8 - CENTRAL PARK

No-Action Condition (looking north from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking north from Central Park)

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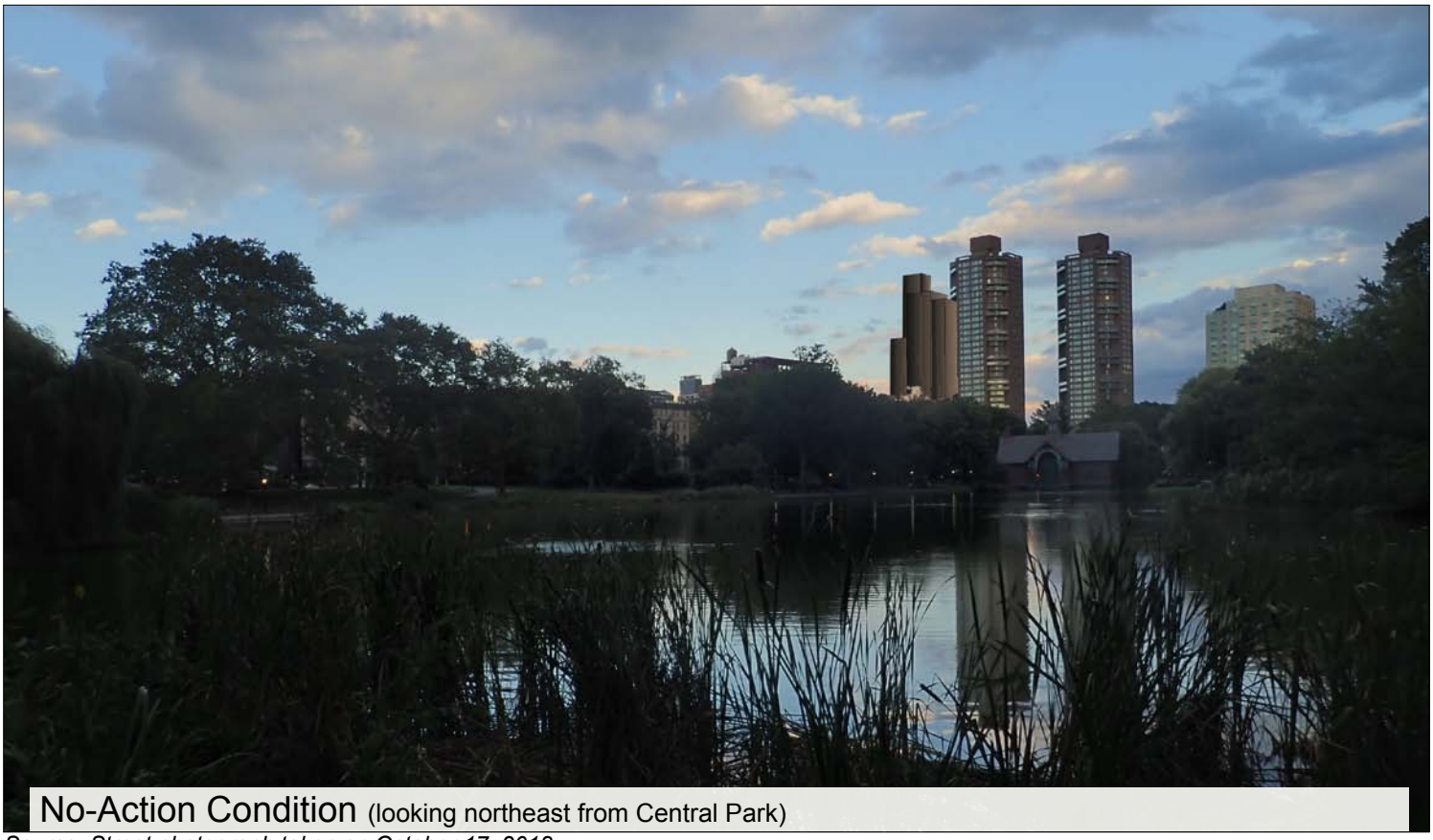
FIGURE G-10

LA HERMOSA REZONING

VIEW 9 - CENTRAL PARK



No-Action Condition (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking northeast from Central Park)

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FIGURE G-11

LA HERMOSA REZONING

VIEW 10 - CENTRAL PARK

No-Action Condition (looking east from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking east from Central Park)

Proposed Project

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FIGURE G-12

LA HERMOSA REZONING

VIEW 11 - CENTRAL PARK

No-Action Condition (looking east from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking east from Central Park)

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FIGURE G-13

LA HERMOSA REZONING

VIEW 12 - CENTRAL PARK

No-Action Condition (looking north from Central Park)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking north from Central Park)

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FIGURE G-14

LA HERMOSA REZONING

VIEW 13 - TITO PUENTE WAY

No-Action Condition (looking west between Frawley Circle and Madison Avenue)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking west between Frawley Circle and Madison Avenue)

Proposed Project

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FIGURE G-15

LA HERMOSA REZONING

VIEW 14 - TITO PUENTE WAY

No-Action Condition (looking west between Madison Avenue and Park Avenue)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking west between Madison Avenue and Park Avenue)

Proposed Project

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FIGURE G-16

LA HERMOSA REZONING

VIEW 15 - WEST 110TH STREET

No-Action Condition (looking east between Malcolm X Boulevard and 5th Avenue, closer to Malcolm X)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking east between Malcolm X Boulevard and 5th Avenue, closer to Malcolm X)

Proposed Project

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FIGURE G-17

LA HERMOSA REZONING

VIEW 16 - WEST 110TH STREET

No-Action Condition (looking northeast between Malcolm X Boulevard and 5th Avenue, center of block)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking northeast between Malcolm X Boulevard and 5th Avenue, center of block)

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FIGURE G-18

LA HERMOSA REZONING

VIEW 17 - WEST 111TH STREET

No-Action Condition (looking southwest between 5th Avenue and Madison Avenue)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking southwest between 5th Avenue and Madison Avenue)

Proposed Project

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ATTACHMENT H: HAZARDOUS MATERIALS

INTRODUCTION

The *CEQR Technical Manual* defines hazardous materials as substances that pose a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi volatile organic compounds (VOCs, including petroleum constituents and chlorinated solvents, and SVOCs), methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically active, ignitable, corrosive, or toxic).

The potential for significant impacts from hazardous materials occurs when hazardous materials exist on a site and an action would increase pathways to their exposure to humans and the environment, or an action would introduce new activities or processes using hazardous materials. Potential routes of exposure to hazardous materials can include: direct contact, *e.g.,* contact between contaminated soil and skin (dermal contact); breathing of VOCs or chemicals associated with suspended soil particles (inhalation), and/or swallowing soil or water (ingestion). Public health may also be threatened when soil vapors migrate through the subsurface and/or along preferential pathways (*e.g.,* building foundations, utility conduits, or duct work) and accumulate beneath a concrete slab or inside a basement, resulting in an explosive, oxygen-deficient, or hazardous atmosphere.[38]

METHODOLOGY

In accordance with *CEQR Technical Manual* guidelines, the first step in evaluating potential presence of hazardous materials on the Project Site (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) is to conduct a Phase I Environmental Site Assessment (ESA). Typically, a Phase I ESA is conducted to provide a qualitative evaluation of environmental conditions within a particular project area.

In March 2018, a Phase I ESA Report was prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C. for the Project Site (Block 1594, Lot 41) to identify recognized hazardous substances or petroleum products that indicate an existing release, a past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface water of the property. The findings and recommendations contained in the Phase I ESA report is summarized below.

PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)

The Phase I ESA for Project Site was conducted in accordance with the ASTM Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process) and the U.S. Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) Rule.

[38] *CEQR Technical Manual (2014).*

The objective of the Phase I ESA reports was to identify the presence or likely presence, use, or release of hazardous substances or petroleum products, as defined in ASTM E1527-13 as a Recognized Environmental Condition (REC), on the Project Site (Lot 41). A controlled REC (CREC) is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (ASTM E 1527-13, §3.2.18). The Phase I ESA report is included in Appendix C, "Hazardous Materials."

PHASE I ESA FINDINGS

The Following RECs were identified at the Development Site:

REC 1: Aboveground Storage Tank (AST) at Project Site

A 1,080-gallon AST was observed in the basement of the Project Site. Petroleum Bulk Storage regulations do not require registration for storage tanks with capacity less than 1,100 gallons. There was no evidence of leaks or staining, but due to the concrete encasement surrounding the AST, the condition could not be assessed. While there is no record or evidence of a spill, undocumented releases of petroleum products associated with this tank may have impacted soil, groundwater, and/or soil vapor quality.

REC 2: Historical Use of Adjoining Properties

Historical uses of adjoining properties include a suspected auto repair facility (1927) and three dry cleaning facilities (1947-1956 and 2003-2013). While there is no evidence or documentation of a release of hazardous substances at these adjoining properties; inadvertent releases may have affected groundwater and/or soil vapor at the Project Site.

Aside from the two identified RECs, the Phase I ESA identified four Business Environmental Risks (BERs); (i) sump pump in close proximity to the boiler, (ii) historic fill material, (iii) potential for asbestos containing materials (ACM), lead-based paint (LBP), or polychlorinated biphenyls (PCBs), and (iv) mold.

CONCLUSION

The Phase I ESA identified two (2) RECs: (i) the presence of an AST and (ii) the historical use of adjoining properties. An (E) designation (E-538) for hazardous materials has been incorporated into the Proposed Actions.

The requirements of **(E) Designation (E-538)** would be as follows:

Task 1:

The applicant submits to OER, for review and approval, a Phase 1A of the site along with a soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2:

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

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

An OER-approved construction-related health and safety plan would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

With the proposed (E) Designation (E-538) in place, the Proposed Actions would not result in any potentially significant adverse impacts related to hazardous materials; therefore, no further analysis is necessary.

ATTACHMENT I: TRANSPORTATION

INTRODUCTION

The objective of a transportation analysis is to determine whether a proposed action may have a potentially significant adverse impact on traffic operations and mobility, public transportation facilities and services; pedestrian elements and flow; safety of roadway users (pedestrians, bicyclists, and vehicles); and on- and off-street parking or goods movement. The *2014 CEQR Technical Manual* identifies minimum development densities that potentially require a transportation analysis. Development at less than the development densities shown in Table 16-1 of the *CEQR Technical Manual* generally result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, or 200 peak-hour pedestrian trips, where significant adverse impacts are considered unlikely. Though the development facilitated by the Proposed Actions may exceed the individual thresholds, since it is mixed-use project, the *CEQR Technical Manual* guidelines state that a Transportation Screening Assessment should be conducted.

METHODOLOGY

For transportation analysis purposes, the incremental difference in trip generation between the No-Action and With-Action conditions provides the basis for assessing transportation conditions in the Study Area. As shown in Table I-1, the development in the With-Action Condition would result in a net increase of approximately 197 dwelling units (approximately 130,490 gsf of residential area), a net increase of approximately 23,154 gsf of community facility (La Hermosa Christian Church) area, and a net *decrease* of approximately 46 required accessory off-street parking spaces.

Table I-1: Incremental Difference Between the No-Action and With-Action Conditions

Development Program	Church (gsf)	Residential (DU)	Parking (spaces)
No-Action Condition	16,540	103	46
With-Action Condition	39,694	300	0
Increment	**23,154**	**197**	**-46**

TRANSPORTATION SCREENING ASSESSMENT

The *CEQR Technical Manual* describes a two-tier screening process to determine if quantified analyses of transportation conditions are warranted. The preliminary assessment starts with a trip generation analysis (Level 1) to estimate person and vehicle trips attributable to the project. According to the *2014 CEQR Technical Manual*, if the project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the Proposed Actions would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess transportation conditions in the study area.

Level 1 (Project Trip Generation) Screening Assessment

A Level 1 screening assessment was conducted in accordance with *CEQR Technical Manual* guidelines to determine if the incremental development between the No-Action Condition and With-Action Condition would exceed CEQR thresholds for conducting quantified transportation analyses. To undertake this assessment, a trip generation analysis was conducted for the weekday AM, midday, PM, and Saturday midday peak hours. Trip estimates were developed for the community facility and residential uses for the No-Action and With-Action conditions.

Trip Generation

The assumptions for community facility and residential uses employed in the trip generation analysis are summarized in Table I-2. These assumptions are based on the *CEQR Technical Manual* guidelines, the 2013-2017 U.S. Census Bureau's American Community Survey (ACS) database, and other recently approved transportation studies with similar characteristics, such as the *Hudson Yards Rezoning FGEIS 2004* (CEQR No. 03DCP031M) and the *East Harlem Rezoning FEIS 2017* (CEQR No. 17DCP048M).

Table I-2: Transportation Planning Assumptions and Demand Estimates

Use	Church 23,154 gsf				Residential 197 DU			
	(2)				(1)			
Total Daily Person Trip	**Weekday** 13.4 Trips/KSF			**SAT** 54.0	**Weekday** 8.075 Trips/DU			**SAT** 9.6
Trip Linkage	0%				0%			
Net Daily Person Trip	**Weekday** 13.4 Trips/KSF			**SAT** 54.0	**Weekday** 8.075 Trips/KSF			**SAT** 9.6
	(2)				(1)			
Temporal	**AM**	**MD**	**PM**	**SAT**	**AM**	**MD**	**PM**	**SAT**
	7.9%	14.1%	7.2%	5.2%	10%	5%	11%	8%
Direction	(2)				(3)			
In	54%	54%	54%	100%	16%	50%	67%	53%
Out	46%	46%	46%	0%	84%	50%	33%	47%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(2)				(4)			
	AM	**MD**	**PM**	**SAT**	**AM**	**MD**	**PM**	**SAT**
Auto	4.0%	4.0%	4.0%	4.0%	7.4%	7.4%	7.4%	7.4%
Taxi	9.0%	9.0%	9.0%	9.0%	0.4%	0.4%	0.4%	0.4%
Subway	12.0%	12.0%	12.0%	12.0%	73.5%	73.5%	73.5%	73.5%
Bus	5.0%	5.0%	5.0%	5.0%	8.5%	8.5%	8.5%	8.5%
Railroad	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%	1.3%	1.3%
Bicycle	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	0.9%	0.9%
Walk	70.0%	70.0%	70.0%	70.0%	8.0%	8.0%	8.0%	8.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2)				(3)(4)			
	AM	**MD**	**PM**	**SAT**	**AM**	**MD**	**PM**	**SAT**
Auto	1.40	1.40	1.40	1.40	1.07	1.61	1.07	1.61
Taxi	1.40	1.40	1.40	1.40	1.40	1.96	1.40	1.96
	(2)				(1)			
Daily Delivery Trip Generation Rate	Weekday 0.15 Delivery Trips/ KSF			SAT 0.01	Weekday 0.06 Delivery Trips/ DU			SAT 0.02
	(2)				(1)			
Delivery Temporal	**AM**	**MD**	**PM**	**SAT**	**AM**	**MD**	**PM**	**SAT**
	9.6%	11.0%	1.0%	1.0%	12%	9%	2%	9%
Delivery Direction	(2)				(1)			
In	50%	50%	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Notes

(1) 2014 CEQR Technical Manual

(2) Hudson Yards Rezoning FGEIS 2004 (CEQR No. 03DCP031M)

(3) East Harlem Rezoning FEIS 2017 (CEQR No. 17DCP048M)

(4) U.S. Census Bureau 2013-2017 American Community Survey 5-Year Journey to Work Data (weighted Average of Census Tracts 174.02, 184, 186, 216 and 218 of New York County, NY)

Net Incremental Trips

Trip generation for the No-Action Condition, With-Action Condition, and the resulting Net Incremental trips is shown in Tables I-3, I-4, and I-5, respectively. As summarized in Table I-5, the With-Action Condition is expected to generate approximately 184, 123, 197 and 216 net incremental person trips, and 18, 12, 17 and 18 net incremental vehicle trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

Table I-3: Transportation Demand Forecast, No-Action Condition

Use	Peak Hour	In/Out	Person Trips								Vehicle Trips			
			Auto	Taxi	Subway	Bus	Railroad	Bicycle	Walk	Total	Auto	Taxi	Trucks	Total
Church	Weekday AM	In	0	1	1	0	0	0	7	9	0	1	0	2
		Out	0	1	1	0	0	0	6	8	0	1	0	1
		Total	1	2	2	1	0	0	12	18	1	2	0	3
	Weekday Midday	In	1	2	2	1	0	0	12	17	0	2	0	3
		Out	1	1	2	1	0	0	10	14	0	2	0	3
		Total	1	3	4	2	0	0	22	31	1	4	0	5
	Weekday PM	In	0	1	1	0	0	0	6	9	0	1	0	1
		Out	0	1	1	0	0	0	5	7	0	1	0	1
		Total	1	1	2	1	0	0	11	16	0	2	0	3
	Saturday Midday	In	2	4	6	2	0	0	33	46	1	3	0	4
		Out	0	0	0	0	0	0	0	0	0	3	0	3
		Total	2	4	6	2	0	0	33	46	1	6	0	7
Residential	Weekday AM	In	1	0	9	1	0	0	1	12	1	0	0	1
		Out	5	0	52	6	1	1	6	71	5	0	0	6
		Total	6	0	61	7	1	1	7	83	6	1	1	7
	Weekday Midday	In	2	0	15	2	0	0	2	21	1	0	0	1
		Out	2	0	15	2	0	0	2	21	1	0	0	1
		Total	3	0	31	4	1	0	3	42	2	0	1	3
	Weekday PM	In	5	0	47	5	1	1	5	64	4	0	0	5
		Out	2	0	20	2	0	0	2	27	2	0	0	2
		Total	7	0	67	8	1	1	7	91	6	1	0	7
	Saturday Midday	In	3	0	29	3	0	0	3	40	2	0	0	2
		Out	3	0	29	3	0	0	3	40	2	0	0	2
		Total	6	0	58	7	1	1	6	79	4	0	0	4
Total	Weekday AM	In	1	1	10	2	0	0	8	22	1	1	0	3
		Out	6	1	53	6	1	1	11	79	5	1	0	7
		Total	7	2	63	8	1	1	19	101	6	3	1	10
	Weekday Midday	In	2	2	17	3	0	0	13	38	1	2	0	4
		Out	2	1	17	2	0	0	12	35	1	2	0	4
		Total	4	3	34	5	1	0	25	73	3	4	1	8
	Weekday PM	In	5	1	48	6	1	1	11	73	5	1	0	6
		Out	2	1	21	3	0	0	7	35	2	1	0	3
		Total	7	2	69	9	1	1	18	107	7	3	0	10
	Saturday Midday	In	5	4	35	6	0	0	36	86	3	3	0	6
		Out	3	0	29	3	0	0	3	40	2	3	0	5
		Total	8	5	64	9	1	1	39	126	5	6	0	11

Note: In and Out volumes may not sum to Total volumes due to rounding.

Table I-4: Transportation Demand Forecast, With-Action Condition

Use	Peak Hour	In/Out	Person Trips								Vehicle Trips			
			Auto	Taxi	Subway	Bus	Railroad	Bicycle	Walk	Total	Auto	Taxi	Trucks	Total
Church	Weekday AM	In	1	2	3	1	0	0	16	23	1	3	0	4
		Out	1	2	2	1	0	0	14	19	1	3	0	4
		Total	2	4	5	2	0	0	29	42	1	5	1	7
	Weekday Midday	In	2	4	5	2	0	0	28	40	1	5	0	6
		Out	1	3	4	2	0	0	24	34	1	5	0	6
		Total	3	7	9	4	0	0	52	75	2	10	1	12
	Weekday PM	In	1	2	2	1	0	0	14	21	1	2	0	3
		Out	1	2	2	1	0	0	12	18	1	2	0	3
		Total	2	3	5	2	0	0	27	38	1	5	0	6
	Saturday Midday	In	4	10	13	6	0	0	78	111	3	7	0	10
		Out	0	0	0	0	0	0	0	0	0	7	0	7
		Total	4	10	13	6	0	0	78	111	3	14	0	18
Residential	Weekday AM	In	3	0	27	3	0	0	3	36	3	1	1	4
		Out	15	1	151	18	3	2	16	206	14	1	1	16
		Total	18	1	178	21	3	2	19	242	17	2	2	20
	Weekday Midday	In	4	0	45	5	1	1	5	61	3	0	1	4
		Out	4	0	45	5	1	1	5	61	3	0	1	4
		Total	9	1	89	10	2	1	10	121	6	1	2	8
	Weekday PM	In	14	1	137	16	2	2	15	187	13	1	0	14
		Out	6	0	59	7	1	1	6	80	6	1	0	7
		Total	20	1	196	23	3	2	21	266	18	2	0	20
	Saturday Midday	In	9	1	85	10	1	1	9	115	5	1	0	6
		Out	9	1	85	10	1	1	9	115	5	1	0	6
		Total	17	1	169	20	3	2	18	230	11	1	1	12
Total	Weekday AM	In	4	2	29	4	0	0	19	59	3	3	1	8
		Out	16	3	154	19	3	2	30	225	15	3	1	20
		Total	20	5	183	23	3	2	49	284	18	7	3	28
	Weekday Midday	In	6	4	49	7	1	1	33	101	4	5	1	10
		Out	6	3	49	7	1	1	29	95	4	5	1	10
		Total	12	7	98	14	2	1	62	196	8	10	2	20
	Weekday PM	In	15	3	140	17	2	2	29	207	14	3	0	17
		Out	7	2	61	8	1	1	19	98	6	3	0	10
		Total	21	5	200	25	3	2	48	305	20	7	0	27
	Saturday Midday	In	13	11	98	15	1	1	87	227	8	8	0	16
		Out	9	1	85	10	1	1	9	115	5	8	0	13
		Total	22	11	183	25	3	2	96	342	14	15	1	30

Note: In and Out volumes may not sum to Total volumes due to rounding.

Table I-5: Transportation Demand Forecast, Net Incremental (With-Action minus No-Action)

Use	Peak Hour	In/Out	Person Trips								Vehicle Trips			
			Auto	Taxi	Subway	Bus	Railroad	Bicycle	Walk	Total	Auto	Taxi	Trucks	Total
Church	Weekday AM	In	1	1	2	1	0	0	9	13	0	2	0	2
		Out	0	1	1	1	0	0	8	11	0	2	0	2
		Total	1	2	3	1	0	0	17	25	1	3	0	4
	Weekday Midday	In	1	2	3	1	0	0	17	24	1	3	0	4
		Out	1	2	2	1	0	0	14	20	1	3	0	4
		Total	2	4	5	2	0	0	31	44	1	6	0	7
	Weekday PM	In	0	1	1	1	0	0	8	12	0	1	0	2
		Out	0	1	1	1	0	0	7	10	0	1	0	2
		Total	1	2	3	1	0	0	16	22	1	3	0	4
	Saturday Midday	In	3	6	8	3	0	0	46	65	2	4	0	6
		Out	0	0	0	0	0	0	0	0	0	4	0	4
		Total	3	6	8	3	0	0	46	65	2	8	0	10
Residential	Weekday AM	In	2	0	19	2	0	0	2	25	2	0	1	3
		Out	10	1	98	11	2	1	11	134	9	0	1	10
		Total	12	1	117	14	2	1	13	159	11	1	1	13
	Weekday Midday	In	3	0	29	3	0	0	3	40	2	0	1	3
		Out	3	0	29	3	0	0	3	40	2	0	1	3
		Total	6	0	58	7	1	1	6	80	4	0	1	5
	Weekday PM	In	9	1	86	10	1	1	9	117	8	1	0	9
		Out	4	0	42	5	1	1	5	58	4	1	0	5
		Total	13	1	129	15	2	2	14	175	12	1	0	13
	Saturday Midday	In	6	0	59	7	1	1	6	80	4	0	0	4
		Out	5	0	52	6	1	1	6	71	3	0	0	4
		Total	11	1	111	13	2	1	12	151	7	1	0	8
Total	Weekday AM	In	2	1	20	3	0	0	11	39	2	2	1	5
		Out	10	2	100	12	2	1	19	145	10	2	1	13
		Total	13	3	120	15	2	1	30	184	12	4	2	18
	Weekday Midday	In	4	2	32	5	0	0	20	63	3	3	1	6
		Out	4	2	32	4	0	0	17	60	2	3	1	6
		Total	8	4	64	9	1	1	37	123	5	6	1	12
	Weekday PM	In	9	2	88	11	1	1	18	129	8	2	0	11
		Out	5	1	44	5	1	1	12	68	4	2	0	6
		Total	14	3	131	16	2	2	30	197	13	4	0	17
	Saturday Midday	In	9	6	67	10	1	1	52	145	6	5	0	10
		Out	5	0	52	6	1	1	6	71	3	5	0	8
		Total	14	7	119	16	2	1	58	216	9	9	0	18

Note: In and Out volumes may not sum to Total volumes due to rounding.

Traffic

As shown in Table I-5, the With-Action Condition would result in approximately 18, 12, 17 and 18 incremental vehicle trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. This level of vehicle trip activity is below the CEQR Level 1 trip generation threshold (50 peak hour vehicle trip-ends) during the four analysis peak hours. Therefore, no further traffic analyses are warranted, and the Proposed Actions are not anticipated to result in potentially significant adverse traffic impacts.

Transit

The Directly Affected Area is well-served by New York City Transit (NYCT) bus and subway, as shown in Figure I-1. The subway site access includes the No. 2 and 3 subway lines (Central Park North-110 St Station) approximately 0.2 miles to the west; the No. 6 subway line (110 St Station) approximately 0.3 miles to the east; and the B and C subway lines (Cathedral Pkwy Station-110 St) approximately 0.5 miles to the west.

As shown in Table I-5, the With-Action Condition would result in approximately 120, 64, 131 and 119 incremental subway trips, 15, 9, 16 and 16 incremental bus trips, and 2, 1, 2 and 2 incremental railroad trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Combining the subway, bus and railroad trips would result in total incremental transit trips of 137, 74, 149 and 137 during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. This level of transit trip activity is below the CEQR Level 1 trip generation threshold (200 peak hour transit trip-ends) during the four analysis peak hours. Therefore, no further transit analyses are warranted, and the Proposed Actions are not anticipated to result in potentially significant adverse transit impacts.

Pedestrians

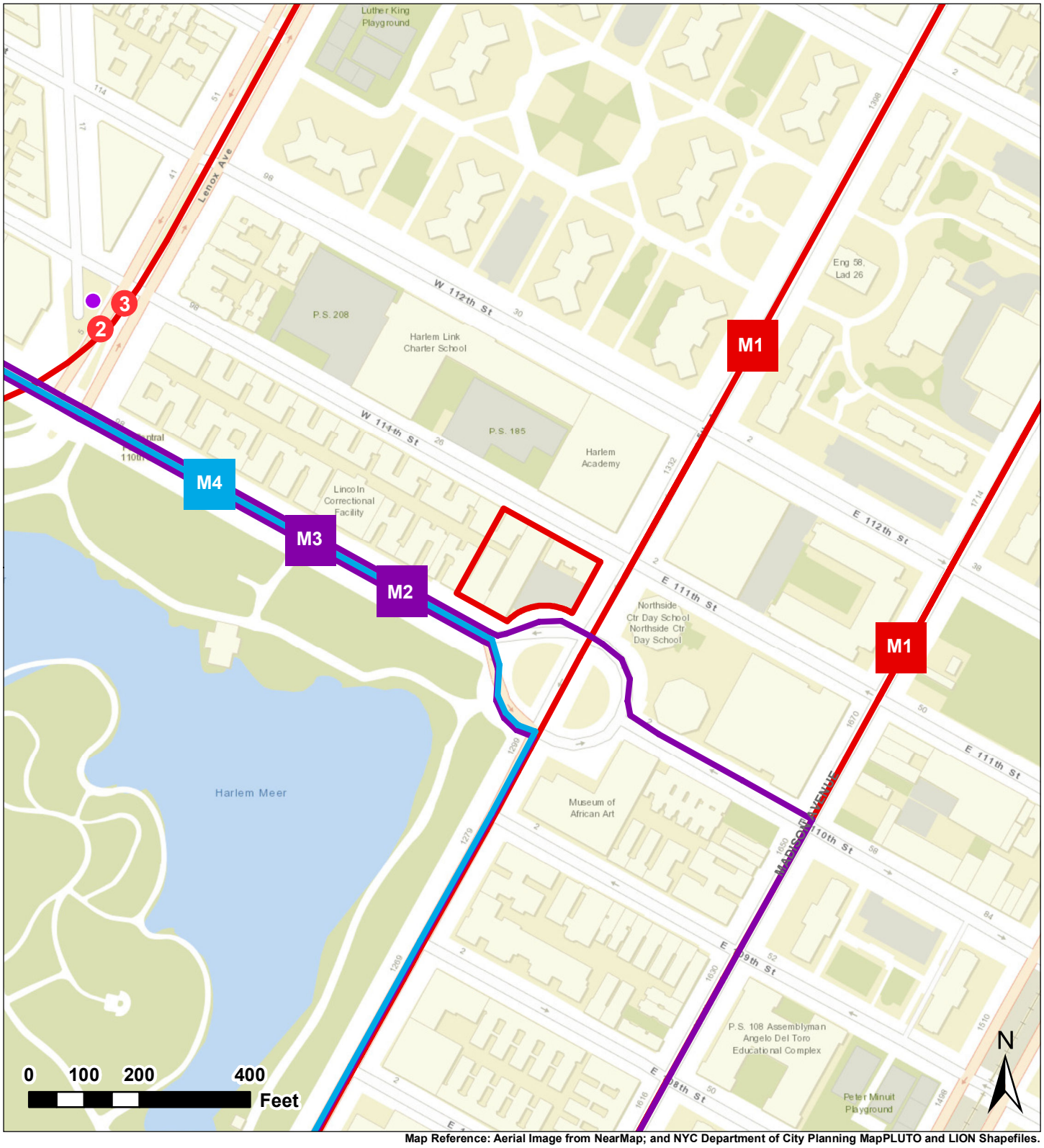
As shown in Table I-5, the With-Action Condition would result in approximately 184, 123, 197 and 216 net incremental person trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The net incremental pedestrian trips exceed the CEQR Level 1 trip generation threshold (200 peak hour pedestrian trip-ends) during the Saturday midday peak hour. Therefore, a qualitative Level 2 screening assessment for potential project-generated pedestrian trips was conducted for the Saturday midday peak hour.

<u>Level 2 (Project-Generated Trip Assignment) Screening Assessment</u>

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, pedestrian elements and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds. If these thresholds are exceeded, quantitative analyses would be required to identify any adverse impacts that result from the Proposed Actions.

LA HERMOSA REZONING

FIGURE I-1
TRANSIT MAP



Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Subway Station

NYCT Subway Lines

2 and 3 Subway Lines

NYCT Bus Routes

M1
M2
M3
M4

CENTRAL HARLEM, MANHATTAN, NY

LANGAN

Pedestrians

As shown in Table I-5, the With-Action Condition would result in approximately 184, 123, 197 and 216 net incremental person trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The projected peak hour pedestrian trips would exceed the CEQR analysis threshold of 200 incremental pedestrians during the Saturday midday peak hour. Therefore, a qualitative Level 2 pedestrian screening assessment was conducted for this peak hour. In the With-Action Condition, the Bethel Church and La Hermosa Church would have two separate main entrances along West 110th Street and the residential component would have a main entrance along Fifth Avenue. Given that transit facilities are located to the east and west of the Proposed Project, no pedestrian element is expected to experience 200 or more incremental pedestrian trips during the Saturday midday peak hour. Therefore, no further pedestrian analyses are warranted, and the Proposed Actions are not anticipated to result in potentially significant adverse pedestrian impacts.

PARKING

As identified in "Attachment A: Project Description," the proposed CPC Special Permit pursuant to ZR §73-533 would waive all required parking, resulting in a net decrease of 46 on-site required parking spaces in the development in the With-Action Condition. It is expected that peak parking demand would occur during the weekday overnight period resulting from the residential component of the development in the With-Action Condition. Although the level of incremental vehicle trip activity is below the CEQR Level 1 trip generation threshold (50 peak hour vehicle trip-ends), a parking conditions assessment was conducted to determine whether the decrease in on-site required parking spaces could have the potential to result in a parking shortfall in the future With-Action Condition.

Existing Conditions

To assess the parking utilization in the study area, an off-street parking survey was conducted within a ¼-mile radius of the Project Site in April 2019. Based on this survey, there are five off-street parking facilities within a ¼-mile radius of the Project Site (see Figure I-2 and Table I-6). These parking facilities operate 24 hours a day, 7 days a week with a combined licensed capacity of 484 spaces. In terms of utilization, the parking facilities operate at approximately 79 percent utilization during the overnight hours with 101 available spaces.

FIGURE I-2

LA HERMOSA REZONING

EXISTING OFF-STREET PARKING FACILITIES

Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

0.25-Mile Study Area

(1) Parking Facility

CENTRAL HARLEM, MANHATTAN, NY

LANGAN

Table I-6: Existing Off-Street Public Parking Facilities

Facility/ Map Number	License Number	Business Name	Address	Licensed Capacity	Weekday Overnight	
					Utilization	Capacity
1	1377213-DCA	5th Avenue Car Park LLC	1330 5th Ave	58	40%	35
2	1305583-DCA	5th Avenue Car Park LLC	1325 5th Ave	80	100%	0
3	1306114-DCA	MP Uptown LLC	1295 5th Ave	180	80%	36
4	0760802-CAP	Merit Parking LLC	12-14 E 107th St	100	70%	30
5	1292805-DCA	QP W 116th Street LLC	40 W 116th St	66	100%[1]	0
Total				**484**	**79%**	**101**

Notes:
1. Parking Utilization information not available. Assumed 100% occupied.
2. Off-Street Parking Survey conducted on April 30, 2019.

No-Action Condition

In the future No-Action Condition, a total of 46 on-site required accessory parking spaces (allocated to the residential use) would be provided. Under the future No-Action Condition, there would be residential development on the Project Site. As per the 2013-2017 American Community Survey (ACS), the average vehicle ownership rate per household for the Study Area is approximately 0.19 per household renter occupied units. The development in the No-Action Condition would provide 103 dwelling units, generating a peak parking demand of approximately 20 parking spaces based on the ACS vehicle ownership rate. Therefore, in the future No-Action Condition, all of the project-generated parking demand would be accommodated in the on-site parking facility.

For the Study Area off-street public parking facilities, existing occupancies in the Study Area were increased in order to reflect future parking conditions. As recommended by the *2014 CEQR Technical Manual*, a compounded annual background growth rate of 0.25 percent was applied to the existing occupied parking spaces for three years (2019 to 2022). Since there are no other major development projects anticipated for completion in the Study Area by the 2022 Build Year, no further adjustments were made to the No-Action Condition parking occupancies.

As shown in Table I-7, there are approximately 484 off-street parking spaces within a ¼-mile of the Project Site, 80 percent of which are anticipated to be occupied in the weekday overnight hours. Therefore, there would be approximately 98 parking spaces available during the overnight hours within a ¼-mile radius of the Project Site in the future No-Action Condition.

Table I-7: No-Action Condition Public Off-Street Parking Utilization

Study Area	Existing Capacity	No-Action Demand	No-Action Utilization	No-Action Parking Surplus
1/4-Mile Radius	484	386	80%	98

With-Action Condition

In the development in the With-Action Condition, no required accessory parking spaces would be provided. As per the 2013-2017 American Community Survey (ACS), the average vehicle ownership rate per household for the Study Area is approximately 0.19 per household for renter occupied units. The development in the With-Action Condition would result in approximately 300 dwelling units, generating a peak parking demand of 57 parking spaces, based on the ACS vehicle ownership rate. Given that the Proposed Actions would not provide any on-site required accessory parking, all of the project-generated required parking demand would be accommodated in off-street public parking facilities within a ¼-mile of the Project Site.

The development in the With-Action Condition parking demand was estimated by overlaying the parking demand generated by the Proposed Actions on the future No-Action Condition demand. As shown in Table I-8, there are approximately 484 off-street parking spaces within a ¼-mile of the Project Site, 92 percent of which are anticipated to be occupied in the weekday overnight hours in the future With-Action Condition. Therefore, there would be approximately 41 parking spaces available during the overnight hours within a ¼-mile radius of the Project Site, and the Proposed Actions are not anticipated to result in a parking shortfall in the Study Area

Table I-8: With-Action Condition Public Off-Street Parking Utilization

Study Area	Existing Capacity	With-Action Demand	With-Action Utilization	With-Action Parking Surplus
1/4-Mile Radius	484	443	92%	41

ATTACHMENT J: AIR QUALITY

According to the guidelines provided in the *CEQR Technical Manual*, an air quality analysis is conducted in order to assess the effect of a proposed action on ambient air quality (*i.e.,* the quality of the surrounding air), or effects on a proposed project because of ambient air quality. Air quality can be affected by mobile sources (pollutants produced by motor vehicles), and by stationary sources (pollutants produced by fixed facilities). According to the *CEQR Technical Manual*, an air quality assessment should be conducted for actions that have the potential to result in either significant adverse mobile source or stationary source air quality impacts.

The Directly Affected Area is located at 6 West 111 Street in the Central Harlem neighborhood of Manhattan, Community District 10. The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) and is bounded by East 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; Central Park North to the south, and two, five-story, multi-family walk-up residential buildings to the west. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings. The Proposed Actions would facilitate the development of a mixed-use building containing both residential and community facility uses. The development in the With-Action Condition would comprise (i) approximately 204,415 gsf of mixed-income residential area, including approximately 300 dwelling units, of which approximately 20 percent (60 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent AMI, and (ii) approximately 39,694 sf of community facility floor area.[39]

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

METHODOLOGY

Mobile Source Analysis

Traffic data for intersections for the Study Area were used for the screening of the Proposed Actions. This includes the incremental peak hour traffic volumes of autos and trucks. For a conservative analysis, trucks were considered as heavy-duty diesel vehicles. Auto traffic volumes were considered to include all vehicular movements except for heavy-duty diesel vehicles. As concluded in the Attachment I, "Transportation," the level of project-generated vehicular trips is below the CEQR Level 1 trip generation threshold (50 peak-hour vehicle trip-ends).

[39] The community facility space would be occupied by La Hermosa Christian Church.

Based on the peak number of incremental light-duty gasoline vehicles (passenger cars) described in "Attachment I: Transportation," and the Air Quality Equivalent Truck Calculation spreadsheet provided in Chapter 17 of the *CEQR Technical Manual,* the development facilitated by the Proposed Actions would not be anticipated to exceed any of the Particulate Matter 2.5 (PM 2.5) thresholds identified. Accordingly, based on the net incremental auto and truck traffic identified, a mobile source air quality assessment is not warranted.

Stationary Source Analysis

The stationary source screening assessment is based on guidelines in the *CEQR Technical Manual*. The first step is to determine the appropriate Study Area. Study areas for the analysis of stationary source impacts depend on the magnitude of the pollutant emission rates from the new source(s), the relative harmfulness of the compounds emitted, the characteristics of the systems that would discharge such pollutants (*e.g*., stack heights, stack exhaust velocities), and the surrounding topography relative to these sources (*e.g.,* tall residential buildings near shorter stacks). Pursuant to guidance provided in section 322.1 of the *CEQR Technical Manual*, Figure 17-7 from the Air Quality Appendix of the *CEQR Technical Manual* was referenced for the initial stationary source screening assessment, which is appropriate for a proposed project that is a single building. Figure 17-7 was selected because the development in the With-Action Condition involves residential development and, based on coordination with the applicant, has been designed to utilize natural gas as the fuel source for all on-site heat and hot-water systems.

ASSESSMENT

A stationary source screening assessment was conducted to evaluate potential effects from the building's heat and hot water systems and heating, ventilating, and air conditioning (HVAC) systems. A survey was conducted to determine if any industrial or large/major emission sources exist within 400 feet, or 1,000 feet, of the Directly Affected Area, respectively.

The nearest building of similar or greater height compared to the development in the With-Action Condition is more than 400 feet away from the Directly Affected Area. The development in the With-Action Condition would have a minimum stack height of approximately 413 feet; therefore, the stack height curve of 165 feet would be utilized for the screening assessment. The development in the With-Action Condition is anticipated to be an approximately 259,125-gsf building; therefore, following the steps defined in Chapter 17, section 322.1 of the *CEQR Technical Manual*, the plotted point on Figure 17-7 would fall below the stack height curve of 165 feet.

Based on this information, no potential significant adverse impacts due to boiler stack emissions are anticipated; therefore no further analysis is required.

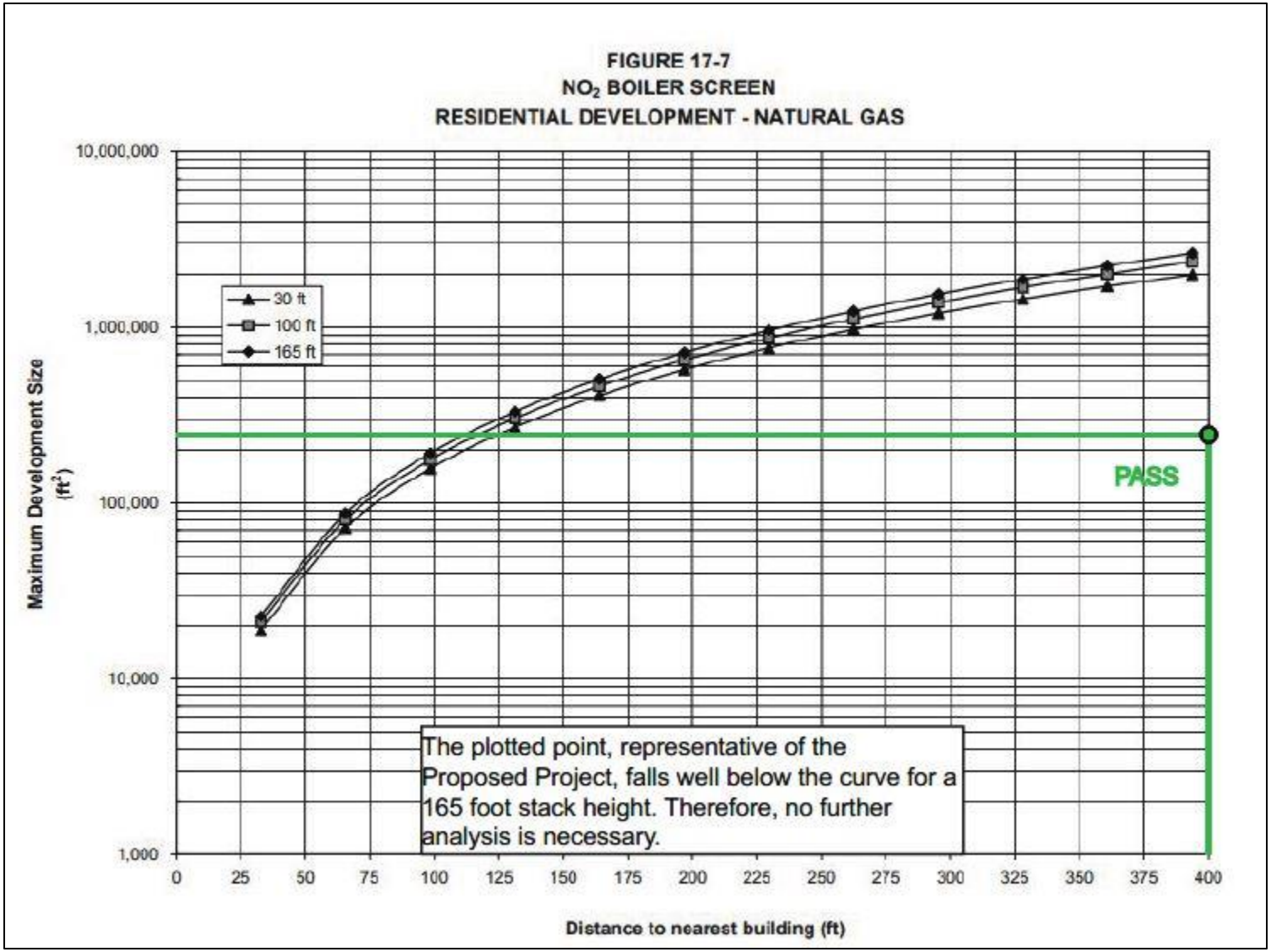


FIGURE 17-7
NO2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS
Maximum Development Size (ft²)
10,000,000
1,000,000
100,000
10,000
1,000
30 ft
100 ft
165 ft
PASS
The plotted point, representative of the Proposed Project, falls well below the curve for a 165 foot stack height. Therefore, no further analysis is necessary.
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
400
Distance to nearest building (ft)

Industrial Manufacturing Source Analysis (Air Toxics)

A survey was conducted to determine if there are any existing industrial facilities within 400 feet of the Directly Affected Area. Through this survey, it was confirmed that there are no industrial and/or manufacturing uses within 400 feet of the Directly Affected Area.

As part of this survey, a review of the New York City DEP Clean Air Tracking System (CATS) database indicated that 12 permits have been issued across 10 properties within 400 feet of the Directly Affected Area, none of which are for industrial or manufacturing uses. The locations of the identified properties are shown in Table K-1 below.

Table J-1: DEP CATS Issued Active Permits

Block	Lot	Address	Existing Land Use	Permit Type
1616	1	1660 Madison Avenue	Mixed Residential & Commercial	Boiler
1616	1	1295 5 Avenue	Mixed Residential & Commercial	Boiler
1616	1	1309 5 Avenue	Mixed Residential & Commercial	Boiler
1617	7	1680 Madison Avenue	Multi-Family Elevator	Boiler
1617	7	1680 Madison Avenue	Multi-Family Elevator	Boiler
1594	30	7 West 110 Street	Public Facilities & Institutions	Boiler
1594	26	15-19 West 110 Street	Multi-Family Walk-Up	Boiler
1594	22	21 Central Park North	Multi-Family Walk-Up	Boiler
1594	12	24 West 110 Street	Multi-Family Elevator	Boiler
1594	50	24 West 111 Street	Multi-Family Elevator	Boiler
1111	1	Shaft 13B 79 Street & 5 Ave	Parkland	Generator
1111	1	79th Street Transverse Road	Parkland	Generator

Source:
DEP CATS: https://a826-web01.nyc.gov/dep.boilerinformationext/ (Date Accessed: 7/11/18)

Large or Major Sources

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

CONCLUSION

To ensure the development in the With-Action Condition would utilize natural gas, an (E) Designation (E-538) for air quality would be assigned to Block 1594, Lot 41. By placing an (E) designation on a site where there is a known or potential environmental concern, the potential for a significant adverse impact to human health and the environment resulting from the Proposed Actions would be avoided.

The requirements of (E) Designation (E-538) would be as follows:

Block 1594, Lot 41: Any new residential and/or community facility development on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning systems (HVAC) and ensure that the HVAC stack is located at the highest tier to avoid any potential significant adverse air quality impacts.

The development in the With-Action Condition is not anticipated to generate sufficient traffic to require a mobile source air quality analysis. Additionally, the development in the With-Action Condition would be constructed in accordance with the proposed (E) Designation requirements for Lot 41. Accordingly, with these measures in place, no potentially significant adverse air quality impacts are anticipated and, therefore, no further analysis is required.

INTRODUCTION

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

As described in Attachment I, "Transportation," the Proposed Actions would not generate sufficient traffic to have the potential to cause a significant noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [PCEs] which would be necessary to cause a 3 dB increase in noise levels).

The noise analysis was conducted to determine the level of building attenuation necessary to ensure that interior noise levels within the Proposed Project would satisfy applicable interior noise criteria.

Noise Standards and Criteria

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

Table K-1: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

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

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

METHODOLOGY

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

Based on the *CEQR Technical Manual*, an initial noise assessment on vehicular traffic noise is necessary if a proposed project would (i) generate or reroute traffic or (ii) introduce a new receptor near a heavily trafficked thoroughfare. Because the Proposed Project would introduce a new receptor near a potentially heavily trafficked thoroughfare, a noise assessment is warranted.

Based on correspondence with the NYC Department of City Planning (DCP), measurements taken as part of the East Harlem Rezoning (*CEQR No.: 17DCP048M*) would accurately represent the existing ambient noise levels at the Project Site. Accordingly, for the purposes of this assessment, existing ambient noise levels recorded as part of the East Harlem Rezoning will be used to represent existing conditions.

The East Harlem Rezoning monitored ambient noise levels from 19 receptor locations for either 20-minute or 1-hour intervals. The receptor on the southwest corner of East 116th Street and Lexington Avenue was selected to represent existing ambient noise levels at the Project Site.[40] Monitoring on the southwest corner of the East 116th Street and Lexington Avenue consisted of 20-minute intervals during the weekday AM, midday (MD), and PM peak hours.

EXISTING CONDITIONS

The maximum hourly L_{10} measurement recorded on the southwest corner of East 116th Street and Lexington Avenue, was 76.5 dBA, which would be categorized as "marginally unacceptable" according to the *CEQR Technical Manual.*

Table K-2: Existing Noise Levels (in dBA)

Receptor	Measurement Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}	L_{dn}
11	Southwest corner of East 116th Street and Lexington Avenue	AM	73.0	81.3	76.5	70.7	66.1	73.5
		MD	72.7	81.0	75.3	69.8	65.2	
		PM	71.5	79.1	74.2	69.9	67.0	
Source: East Harlem Rezoning (*CEQR No.: 17DCP048M)* Chapter 17: Noise, Table 17-6								

[40] The receptor on the southwest corner of East 116th Street and Lexington Avenue is identified as Site 11 in the East Harlem Rezoning.

ASSESSMENT

Playground Noise Analysis

Pursuant to *CEQR Technical Manual* guidelines, noise generated by children in playgrounds or people using parks is considered stationary source noise. For locations adjacent to playgrounds or parks, absent data for comparable facilities, based upon noise measurements made at ten school playground sites in 1987, it may be assumed that $L_{eq(1)}$ noise levels at the boundary would be 75 dB(A), 15 feet from the boundary would be 73 dB(A), 30 feet from the boundary would be 70 dB(A), and the noise level would decrease by 4.5 dB(A) per doubling of distance beyond 30 feet. In some situations, these values may overestimate playground noise levels. It is prudent to consult with New York City Department of Environmental Protection (DEP) to see if updated information is available prior to using these screening values.

Due to the Project Site's proximity to the P.S. 185 Playground, attenuation requirements would account for the potential noise that could be generated by children utilizing the space. Accordingly, a portion of the northern and western façade, across from the southeast corner of the P.S. 185 Playground would be required to be rated for a minimum 28 dB(A) because it exists within approximately 30 feet of the school playground boundary.

Passenger Car Equivalent (PCE)

An assessment of traffic with regard to PCE was performed at the request of the DCP. The assessment concluded the development facilitated by the Proposed Actions would represent a maximum PCE increase of approximately 11 percent. Accordingly, for areas where vehicular traffic is the primary noise source, the traffic increase as a result of the Proposed Actions would not warrant enhanced façade attenuation.

Attenuation Requirements

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade consists of a wall, glazing, and any vents or louvers associated with the building mechanical systems in various ratios of area. The Proposed Project's design will include acoustically rated windows and an alternate means of ventilation (*i.e.*, air conditioning) that does not degrade the acoustical performance of the façade. The Proposed Project's facades, including these elements, would be designed to provide a composite Outdoor-Indoor Transmission Class1 (OITC) rating greater than or equal to the attenuation requirements listed in Table K-3. By designing the Proposed Project to provide a composite OITC rating greater than or equal to the attenuation requirements listed in Table K-3 the proposed building would be expected to provide sufficient attenuation to achieve the CEQR interior noise level guideline of 45 dB(A) or lower for residential uses and 50 dB(A) or lower for community facility uses.

Table K-3: Building Attenuation Requirements

Façade	Maximum L_{10} (in dBA)	Attenuation Requirement
North (West 111th Street)	76.5	33 dB(A)
West	76.5	33 dB(A)
South (West 110th Street)	76.5	33 dB(A)
East (Fifth Avenue)	76.5	33 dB(A)

To preclude the potential for significant adverse impacts related to noise, an (E) designation **(E-538)** would be incorporated into the Proposed Actions.

The requirements of **(E) Designation (E-538)** would be as follows:

Block 1594, Lot 41: To ensure an acceptable interior noise environment, future residential/commercial/community facility uses must provide a closed-window condition with a minimum of 33 dB(A) window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dB(A) for residential and community facility uses or not greater than 50 dB(A) for commercial uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Mechanical Systems

The design of and specification for building mechanical systems, such as heating, ventilation, and air conditioning (HVAC), would meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Mechanical Code) to ensure that the equipment does not result in any significant increase in ambient noise levels.

CONCLUSION

Based on the analyses presented above, the Proposed Actions would not result in any anticipated exceedances of *CEQR Technical Manual* defined incremental thresholds at noise receptor locations. Therefore, the Proposed Actions are not anticipated to result in any potentially significant adverse noise impacts and no further analysis is necessary.

ATTACHMENT L: NEIGHBORHOOD CHARACTER

INTRODUCTION

This section assesses the Proposed Actions' potential effects on neighborhood character. As defined in the *CEQR Technical Manual*, neighborhood character is an amalgam of various elements that give a neighborhood its distinct "personality." These elements may include a neighborhood's land use, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, and noise conditions; however, not all of these elements contribute to neighborhood character in all cases. For a proposed project or action, a neighborhood character assessment pursuant to CEQR should first identify the defining features of the neighborhood and then evaluate whether the project or action has the potential to adversely affect one or more of these defining features. A project has the potential to affect a neighborhoods' character by a combination of moderate effects or significant adverse impacts to any of the defining features of the neighborhood. Therefore, to determine the effects of a proposed action on neighborhood character, the relevant features of neighborhood character are considered cumulatively. In addition, a significant impact identified in one of the technical areas that may contribute to a neighborhood's character is not automatically equivalent to a significant impact on neighborhood character, but rather serves as an indication that neighborhood character should be examined.

METHODOLOGY

According to the *CEQR Technical Manual*, an assessment of neighborhood character is generally needed when a proposed action has the potential to result in significant adverse impacts to any of the following technical areas: land use, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, or noise. The *CEQR Technical Manual* states, even if a proposed action does not have the potential to result in a significant adverse impact in any specific technical area(s), that an assessment of neighborhood character may be required if the project would result in a combination of moderate effects to several elements that may cumulatively affect neighborhood character. A "moderate" effect is generally defined as an effect considered reasonably close to the significant adverse impact threshold for a particular technical analysis area.

A preliminary assessment of neighborhood character determines whether anticipated impacts in identified technical areas may adversely impact a defining feature of the neighborhood. The preliminary assessment first identifies the defining features that contribute to the neighborhood's character and then evaluates whether the proposed project or action has the potential to adversely impact those defining features, either through the potential for a significant adverse impact in a single relevant technical area or a combination of moderate effects in the relevant technical areas. The key elements that define neighborhood character, and their relationships to one another, form the basis of determining impact significance. In general, the more uniform and consistent the existing neighborhood character, the more sensitive it is to change. A neighborhood that has a varied context typically is able to tolerate greater change without experiencing significant impacts.

If there is no potential for the proposed project or action to affect the defining features of neighborhood character, a detailed assessment is not warranted.

Study Area

According to the *CEQR Technical Manual*, the study area for a preliminary assessment of neighborhood character is typically consistent with the study areas in the relevant technical areas assessed pursuant to CEQR that contribute to the defining features of the neighborhood. In the context of a rezoning, the study area boundaries of the preliminary assessment of neighborhood character are generally coterminous with those used in the analyses of land use and urban design (400-foot radius).

EXISTING CONDITIONS

The Directly Affected Area comprises Block 1594, Lots 30, 40, 41, and portions of (p/o) Lots 29 and 42 (the "Directly Affected Area") in the Borough of Manhattan, Community District 10. The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) and is bounded by West 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; West 110 Street (Central Park North) to the south, and two, five-story, multi-family walk-up residential buildings to the west.

The Study Area is characterized by a mix of residential, community facility/institutional uses and parkland. The area to the north, west, and east is predominantly residential, comprised of multi-family walk-up and multi-family elevator residences. Institutional uses are dispersed intermittently throughout the Study Area and commercial uses are located along Fifth Avenue and Madison Avenue. Central Park is located to the southeast of the Directly Affected Area and comprises about a quarter of the Study Area. Public School (P.S.) 185 Early Childhood Discovery and Design Magnet School, occupies the majority of Block 1595, located to the north of the Directly Affected Area.

According to the New York City Zoning and Land Use (ZoLa) database and State Historic Preservation Office (SHPO) Cultural Resource Information System (CRIS), the Study Area contains one LPC scenic landmark with one contributing resource, one S/NR historic district with three contributing structures, and two S/NR eligible buildings. The built environment within the Study Area includes medium density, five-story residential and mixed-use buildings, medium to high density multi-story residential buildings along Frawley Circle, and a number of one- and two-story public facility buildings. The Directly Affected Area is well served with pedestrian infrastructure, providing wide sidewalks along 110th Street and a bike lane in the east bound direction.

ASSESSMENT

The sections below discuss the potential for adverse impacts resulting from the Proposed Actions in the following technical areas that are considered in the neighborhood character assessment pursuant to the *CEQR Technical Manual*: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. The neighborhood character assessment uses information and conclusions from the relevant technical analyses chapters to identify whether the Proposed Actions would result in any

significant adverse impacts or moderate adverse effects in these technical areas and whether any such changes would have the potential to affect the defining features of the neighborhood.

Land Use, Zoning, and Public Policy

The area surrounding the Development Site is characterized by a mix of primarily residential and community facility/institutional uses. The Proposed Actions would facilitate the construction of a 33-story (410 feet), approximately 259,125 gsf building containing residential and community facility uses. Accordingly, the development facilitated by the Proposed Actions would be similar to these surrounding land uses.

The Proposed Actions include rezoning the Directly Affected Area from an R7-2 and an R8 zoning district with a C1-4 commercial overlay to a C1-9 zoning district. As discussed in Attachment C, "Land Use, Zoning, and Public Policy," the proposed C1-9 zoning district would be an extension of the existing zoning district located immediately east of the Directly Affected Area. Additionally, the Proposed Actions would facilitate the development of mixed-income affordable housing in the Central Harlem neighborhood in Manhattan, which would promote the initiatives and goals of OneNYC and *Housing New York*.

Based on this information, the Proposed Actions would not result in any significant adverse impacts on neighborhood character in the area of land use, zoning, and public policy.

Open Space

The Proposed Actions would facilitate the development in the With-Action Condition, which would result in a net increase of 197 new dwelling units, 60 of which would be allocated as permanently affordable housing. The 197 dwelling unit increment would result in an increase of approximately 688 residents within the 0.5-mile Study Area. There is a total of 140.90 acres of open space within the Study Area. The existing residential population is approximately 58,110, which results in an open space ratio of approximately 2.425 acres per 1,000 residents.

According to the City of New York Department of Parks and Recreation (DPR) Parkland Division, the Directly Affected Area falls within the boundaries of a well-served area within Manhattan Community District 10. The development in the With-Action Condition would result in a residential population of approximately 59,157; therefore, the OSR in the With-Action Condition would be approximately 2.382 acres per 1,000 residents, which represents a decrease of approximately 1.16 percent compared to the OSR in the No-Action Condition.

Based on this information, the Proposed Actions would not result in a significant adverse impact on neighborhood character as a result of availability and utilization of open space resources.

Shadows

The Proposed Actions would facilitate the development of a 33-story (410-foot) mixed residential/community facility building on the Project Site. As shown in Figure E-1, the building in the With-Action Condition at a maximum height of 410 feet would cast a shadow extending over a maximum radius of 1,935 feet (Shadow Study Area). The shadow study area includes nine potentially sunlight-sensitive resources that may be affected by incremental shadows from the development in the With-Action Condition.

A detailed shadows assessment was required to determine if the incremental shadows resulting from the development in the With-Action Condition would have the potential to adversely affect any of the 12 identified resources during the representative analysis days. Based on the detailed shadow analysis, the Proposed Actions would result in incremental shadow coverage on six potentially sunlight-sensitive resources: Central Park, Lasker Pool and Rink, the Harlem Meer, P.S. 185 Playground, P.S. 208 Playground, and Martin Luther King Jr. Playground. Although incremental shadows would reach these resources, due to the short duration of incremental shadows, reduced number of visitors to the parks during early morning hours, hours of operation and availability to the public, the incremental shadows would not affect a significant number of users or substantially reduce the amount of sunlight these resources would receive.

Based on this information, the Proposed Action would not result in a significant adverse impact on neighborhood character as a result of changes to the area's sunlight sensitive resources.

Historic and Cultural resources

As part of the historic and cultural resources assessment, a request was sent to the Landmarks Preservation Commission (LPC) for comment on the architectural and archaeological significance of the Directly Affected Area. LPC confirmed that there are no architectural or archaeological resources within the Directly Affected Area and, as discussed in Attachment F, "Historic and Cultural Resources," the Proposed Actions would not result in any significant adverse impacts to archaeological resources or eligible and/or designated architectural resources. Therefore, the neighborhood's character would not be adversely affected by potential effects of the Proposed Action on historic and cultural resources either alone or in combination with potential impacts in other relevant technical areas.

Based on this information, the Proposed Action would not result in a significant adverse impact on neighborhood character as a result of changes to the area's historic and cultural resources.

Urban Design and Visual Resources

Although the Proposed Actions would result in a building that is larger in height and bulk (scale), because of the separate three-floor community facility form, from a pedestrian's perspective, the development in the With-Action Condition would be consistent with the street wall within the surrounding area. Accordingly, the Proposed Actions are not anticipated to result in any significant adverse effects on pedestrians' experience of the neighborhood at street level, or the existing built environment characterizing the Study Area. Although the development in the With-Action Condition would be larger and taller than the development in the No-Action Condition, the development in the

With-Action Condition would not obstruct any views to visual resources within the Study Area. The development in the With-Action Condition would conform to the unique shape and contours of the Project Site and the intersection of Frawley Circle and Fifth Avenue. The building would be massed away from Central Park placing the bulk of the building towards the taller buildings along Fifth Avenue and Frawley Circle where it would be more contextual. Additionally, the development in the With-Action Condition would reinforce the prominence of the entrance to Central Park along Frawley Circle by improving the underbuilt Project Site that reflects developments at other corner entrances to Central Park such as the Time Warner Center on Columbus Circle.

Based on this information, the Proposed Action would not result in any potentially significant adverse impacts on neighborhood character in relation to urban design and visual resources.

Transportation

A Level 1 screening assessment was conducted in accordance with *CEQR Technical Manual* guidelines to determine if the incremental development between the No-Action Condition and With-Action Condition would exceed CEQR thresholds for conducting quantified transportation analyses. To undertake this assessment, a trip generation analysis was conducted for the weekday AM, midday, PM, and Saturday midday peak hours. Trip estimates were developed for the community facility and residential uses for the No-Action and With-Action conditions.

As discussed in Attachment I: "Transportation," the With-Action Condition would result in approximately 18, 12, 17 and 18 incremental vehicle trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. This level of vehicle trip activity is below the CEQR Level 1 trip generation threshold (50 peak hour vehicle trip-ends) during the four analysis peak hours. Therefore, no further traffic analyses are warranted, and the Proposed Actions are not anticipated to result in potentially significant adverse traffic impacts.

As discussed in Attachment I: "Transportation," the With-Action Condition would result in approximately 120, 64, 131 and 119 incremental subway trips, 15, 9, 16 and 16 incremental bus trips, and 2, 1, 2 and 2 incremental railroad trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Combining the subway, bus and railroad trips would result in total incremental transit trips of 137, 74, 149 and 137 during the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

As discussed in Attachment I: "Transportation," the With-Action Condition would result in approximately 184, 123, 197 and 216 net incremental person trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The net incremental pedestrian trips exceed the CEQR Level 1 trip generation threshold (200 peak hour pedestrian trip-ends) during the Saturday midday peak hour. Given that 14 of the 216 incremental person trips are expected to be auto-person trips that would access the site via the on-site parking garage, 202 incremental pedestrian trips were assigned to the study area pedestrian elements for the Saturday midday peak hour. In the With-Action Condition, the Bethel Church and La Hermosa Church would have two separate main entrances along West 110th Street and the residential component would have a main entrance along Fifth Avenue. Given that transit facilities are located to the east and west of the Proposed Project, no pedestrian element is expected to experience 200 or more incremental pedestrian trips during the Saturday midday peak hour.

As discussed in Attachment I: "Transportation," the development in the With-Action Condition would result in a required accessory parking demand of approximately 57 spaces. However, the development in the With-Action Condition would not provide any required accessory parking. As shown in Table I-8, based on the utilization of parking facilities within a 0.25-mile radius of the Project Site, off-street parking facilities would be anticipated to absorb the required accessory parking demand generated by the development in the With-Action Condition with an additional surplus of approximately 41 spaces.

CONCLUSION

Of the relevant technical areas specified in the *CEQR Technical Manual*, the Proposed Actions would not cause significant adverse impacts regarding land use, zoning, and public policy, open space, shadows, historic and cultural resources, urban design and visual resources, or transportation. In addition, the technical areas that contribute to a neighborhood's character would not, either individually or in combination, result in moderate adverse impact on neighborhood character.

Therefore, based on the results of the preliminary assessments, there is no potential for the Proposed Actions to result in significant adverse impacts to neighborhood character, and further analysis is not warranted.

ATTACHMENT M: CONSTRUCTION

INTRODUCTION

According to the CEQR Technical Manual, construction activities, although temporary, may sometimes result in significant impacts. Construction duration, which is a critical measure to determine a project's potential for adverse impacts during construction, is categorized as short-term (less than 24 months) and long-term (24 months or more). For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. However, consideration of several factors, including the location and setting of the project in relation to other uses and the intensity of construction activities, may indicate that a project's construction activities, even if short-term, warrant analysis in additional areas such as traffic, hazardous materials, historic and cultural resources, noise, and air quality.

As discussed in Attachment A, "Project Description," the Proposed Actions would facilitate the development of a mixed-use building containing both residential and community facility uses. The development in the With-Action Condition would comprise (i) approximately 204,415 gsf of mixed-income residential area, including approximately 300 dwelling units, of which approximately 20 percent (60 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent AMI, and (ii) approximately 39,694 sf of community facility floor area. La Hermosa Christian Church currently occupies Block 1594, Lot 41 and would occupy the community facility floor area that would be developed in the With-Action Condition.

Construction of the development in the With-Action Condition would occur in a single phase. Demolition of the existing building on the Project Site is anticipated to begin after the Proposed Actions have been approved and construction is anticipated to begin in 2020, upon the granting of building permits. The development in the With-Action Condition is anticipated to be complete and operational by 2022. It is anticipated that construction activities would last approximately 22 months.

REGULATORY AGENCIES AND OVERSIGHT

Regardless of the length of the construction period, New York City has defined a number of regulations that must be adhered to. In addition to the regulatory requirements, applicants must coordinate with New York City, New York State, and occasionally federal agencies to ensure that construction is facilitated appropriately.

<u>New York City Air Pollution Control Code</u>

All projects, whether or not subject to the requirements of CEQR, are required to comply with the New York City Air Pollution Control Code, which regulates fugitive dust under

Section 1402.2-9.11, "Preventing Particulate Matter from Becoming Air-Borne; Spraying of Asbestos Prohibited; Spraying of Insulating Material and Demolition Regulated" (Title 24 of the Administrative Code of the City of New York, Chapter 1, Subchapter 6, Section 24-146).

New York City Asbestos Control Program

The regulations of the New York City Asbestos Control Program include specific procedures that must be followed for the control of asbestos during construction. In instances where demolition of an existing building could result in release of asbestos, the qualitative analysis should document a commitment to the adherence of these measures and requirements during construction.

Required Permits from DOT's Office of Construction Mitigation and Coordination

Before receiving construction permits from the DOT (such as street opening, sidewalk construction, construction activity, or canopy permits), traffic, bicycle detour, and pedestrian access plans must be approved by the Office of Construction Mitigation and Coordination (OCMC). Pedestrian access plans should identify the extent to which any sidewalks and/or crosswalks would be closed or narrowed to allow for construction-related activity and describe how pedestrian access to adjacent land uses and uses through the area/intersections would be maintained.

New York City Noise Control Code

The New York City Noise Control Code, as amended by Local Law 113 of 2005, defines "unreasonable and prohibited noise standards and decibel levels" for the City of New York. The New York City Noise Control Code, Section 24-219, contains rules that prescribe "noise mitigation strategies, methods, procedures, and technology that shall be used at construction sites" when certain construction devices or activities occur. Additionally, the New York City Noise Control Code requires construction activities to occur between 7 AM and 6 PM Monday through Friday. Construction activities occurring outside the permitted days/hours would require prior authorization.

New York City Procedure for the Avoidance of Damage to Historic Structures

Regulations for the protection of historic structures are found in "Technical Policy and Procedure Notice (TPPN) #10/88, Procedures for the Avoidance of Damage to Historic Structures Resulting from Adjacent Construction When Subject to Controlled Inspection by Section 27-724 and for Any Existing Structure Designated by the Commissioner," issued by the New York City Department of Buildings (DOB).

ASSESSMENT

According to CEQR Technical Manual guidelines, a preliminary construction assessment evaluates the potential effects of construction activities facilitated by the Proposed Actions with regard to transportation, air quality, noise, historic and cultural resources, and hazardous materials. The cumulative construction period for the development in the With-Action Condition is less than 24 months; therefore, pursuant to CEQR Technical Manual guidelines, the effects of such short-term construction generally do not require a detailed assessment. However, a preliminary assessment of construction effects on transportation has been prepared. Additionally, because the Directly Affected Area is adjacent to the Central Park, a preliminary assessment of historic and cultural resources as they relate to construction has been prepared.

Historic and Cultural Resources

As described in Attachment F: Historic and Cultural Resources, the Directly Affected Area contains no architecturally significant resources. Therefore, the Proposed Actions would not result in new construction, demolition, or significant physical alteration to any landmarked or landmark eligible historic building, structure, or object.

All construction activities in the Directly Affected Area would follow the guidelines and procedures of the DOB's TPPN#10/88 to avoid any damage to any historic structures within 90 feet. In addition, an LPC-approved Construction Protection Plan (CPP) would be developed to ensure the protection of nearby historic structures during construction, including: 21 West 111 Street (P.S. 208 Alain L. Locke School) and 20 West 111 Street (P.S. 185 John Mercer Langston School) both of which are S/NR eligible historic resources (See Attachment E, "Historic and Cultural Resources").

Based on this information, the Proposed Actions are not anticipated to result in any potentially significant adverse impacts to historic and cultural resources resulting from construction activities; therefore, no further assessment is necessary.

Transportation

Construction activities would generate trips by workers traveling to and from construction sites as well as trips by the delivery of construction related materials and equipment. The New York City Noise Control Code requires construction activities to occur between 7 AM and 6 PM Monday through Friday; therefore, worker trips would be concentrated in off-peak hours and would not generate 50 or more vehicle trips (presented in Passenger Car Equivalents (PCEs)) during peak travel periods. In addition, any closures to pedestrian sidewalks or partial lane closures would occur for less than two years and would be reviewed by the New York City Department of Transportation (DOT).

Because the construction period would not exceed 24 months, and because the total construction activity-related vehicle trips are less than 50 PCEs, the construction-generated traffic is not anticipated to result in any significant adverse impacts related to traffic conditions during the peak construction phase, and no further assessment is necessary.

PART III: APPENDICES

APPENDIX A: PHOTOGRAPHS

(Development Site and Study Area Photographs taken on October 17, 2018)

FIGURE 1

PHOTOGRAPH LOCATION MAP

LA HERMOSA REZONING

Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Study Area (400-foot radius)

1 Photograph Location/Direction

CENTRAL HARLEM, MANHATTAN, NY

LANGAN

Photograph 1: Intersection of Fifth Avenue and East 108 Street, looking north.

Photograph 2: West 110 Street between Malcolm X Boulevard and Fifth Avenue, looking east.

Photograph 3: Central Park – Harlem Meer, looking north.

Photograph 4: Tito Puente Way between Madison Avenue and Park Avenue, looking west.

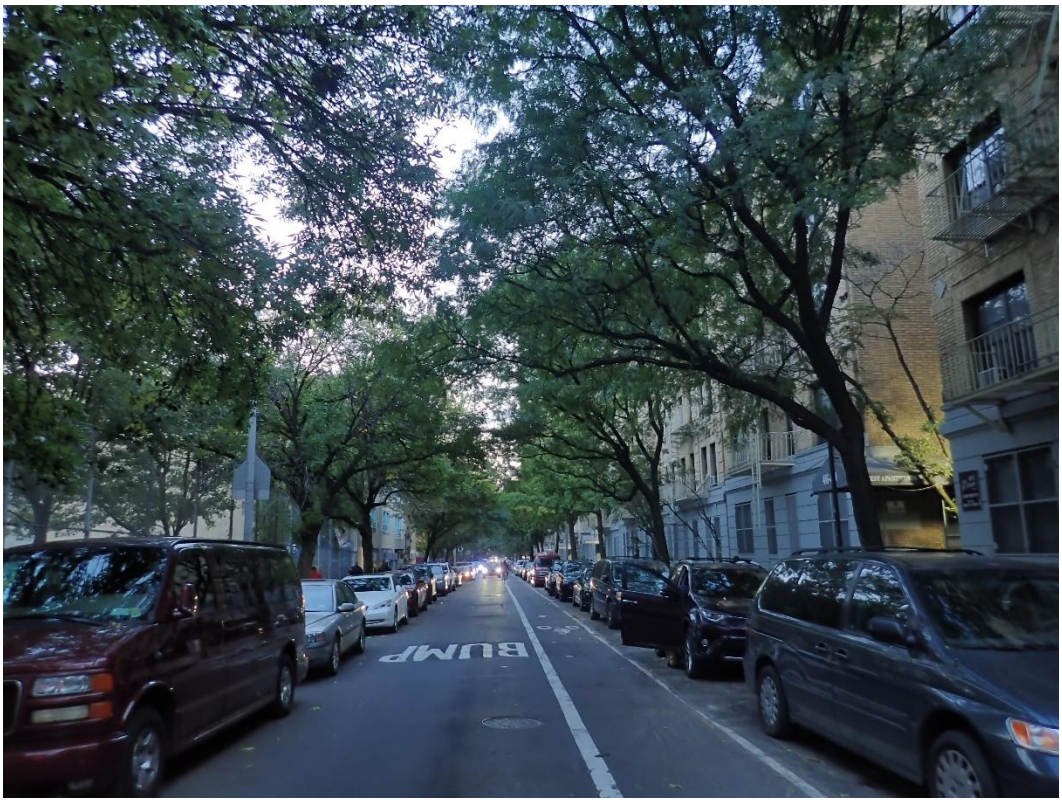
Photograph 5: Intersection of West 110 Street and Frawley Circle, looking south from Project Site.

Photograph 6: Intersection of West 110 Street and Frawley Circle, looking north at Project Site.

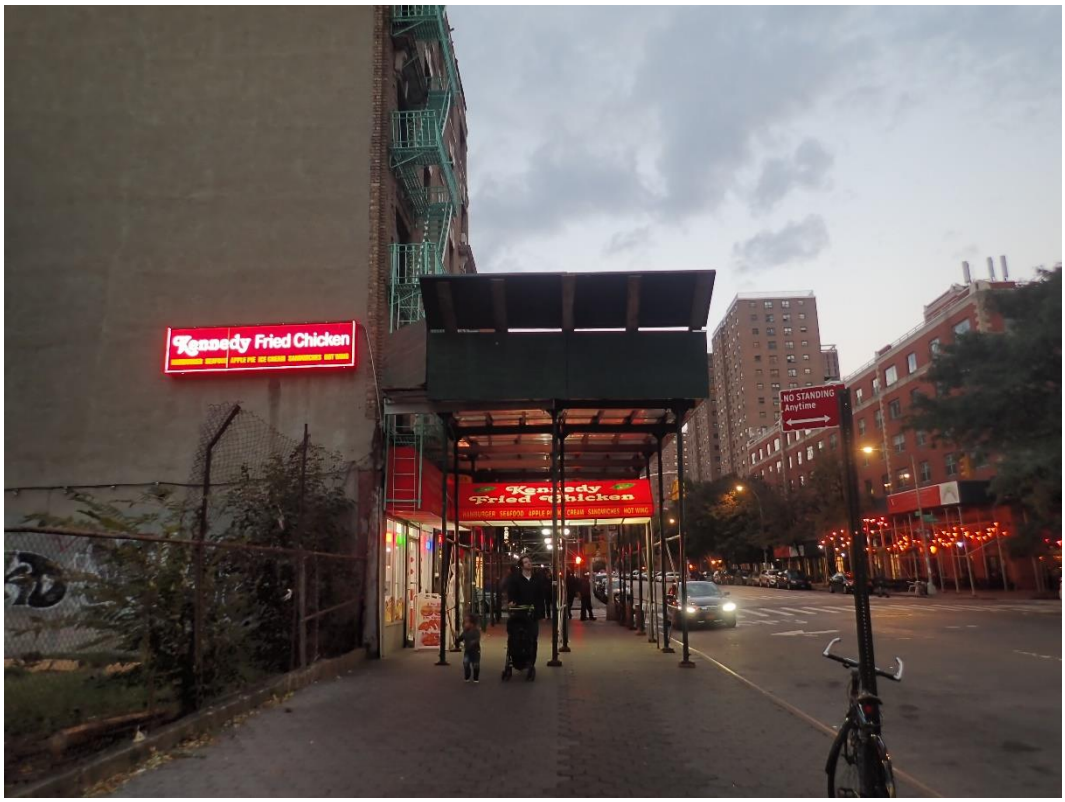
Photograph 7: Intersection of Fifth Avenue and West 112 Street, looking south.

Photograph 8: Tito Puente Way between Frawley Circle and Madison Avenue, looking west.

Photograph 9: Intersection of Tito Puente Way and Frawley Circle, looking west at the Project Site.



Photograph 10: West 111 Street between Malcolm X Boulevard and Fifth Avenue, looking east.



Photograph 11: Frawley Circle between West 110 Street and West 111 Street, looking north.

Photograph 12: Intersection of West 110 Street and Frawley Circle, looking west.

Photograph 13: Central Park – entrance at Frawley Circle and 110 Street, looking northeast.

Photograph 14: East 111 Street between Madison Avenue and Park Avenue, looking west.

APPENDIX B: AGENCY CORRESPONDENCE

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 19DCP116M
Project: LA HERMOSA REZONING
Date received: 2/6/2019

The LPC is in receipt of the EAS dated 12/21/18.

The Historic Resource Chapter and Shadows Chapter appear acceptable for historic and cultural resources.

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 1316 5 AVENUE, BBL: 1015940040
2) ADDRESS: 6 WEST 111 STREET, BBL: 1015940041
3) ADDRESS: 7 CENTRAL PARK NORTH, BBL: 1015940030
4) ADDRESS: 9 CENTRAL PARK NORTH, BBL: 1015940029
5) ADDRESS: 8 WEST 111 STREET, BBL: 1015940042

Gina Santucci 3/9/19

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33970_FSO_DNP_02122019.doc

APPENDIX C: HAZARDOUS MATERIALS
(PHASE 1 ENVIRONMENTAL SITE ASSESSMENT)

PHASE I ENVIRONMENTAL SITE ASSESSMENT

For

La Hermosa Christian Church Site
Duke Ellington Circle, 5 West 110th Street
New York, New York

Prepared For:
La Hermosa Christian Church
Duke Ellington Circle
New York, NY 10026

Prepared By:

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York

Michael D. Burke
Principal/Vice President

March 16, 2018
Langan Project No. 170514101

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EXECUTIVE SUMMARY

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) was retained by La Hermosa Christian Church (the User), to prepare a Phase I Environmental Site Assessment (ESA) for the property at 5 West 110th Street in the Central Harlem neighborhood of New York, New York (the Subject Property). The Subject Property is identified on the New York City Tax Map as Block 1594, Lot 41. The property is bound by West 111th Street to the north, Fifth Avenue to the east, Duke Ellington Circle to the southeast, West 110th Street (Central Park North) to the south, and residential and institutional buildings followed by Malcolm X Boulevard to the west. The 14,482-square foot parcel contains a three-story building with a cellar level and a partially paved vacant lot used for parking.

This Phase I ESA was conducted in accordance with ASTM International (ASTM) Standard Practice for Environmental Site Assessments E1527-13 and the United States Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) Rule, for the purpose of identifying recognized environmental conditions (RECs), historical RECs (HRECs), controlled RECs (CRECs) and business environmental risks (BERs). There were no HRECs or CRECs identified at the Subject Property.

RECs

A REC is defined by ASTM E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The Phase I ESA identified the following RECs:

<u>REC 1 –AST at Subject Property</u>

A 1,080-gallon aboveground storage tank (AST) was observed in the basement of the Subject Property. Petroleum Bulk Storage regulations do not require registration for storage tanks with capacity less than 1,100 gallons. There was no evidence of leaks or staining, but due to the concrete encasement surrounding the AST, its condition could not be assessed. While there is no record or evidence of a spill, undocumented releases of petroleum products associated with this tank may have impacted soil, groundwater, and/or soil vapor quality.

<u>REC 2 – Historical Use of Adjoining Properties</u>

Historical uses of adjoining properties include a suspected auto repair facility (1927) and three dry cleaning facilities (1947-1956 and 2003-2013). While there is no evidence or documentation

of a release of hazardous substances at these adjoining properties; inadvertent releases may have affected groundwater and/or soil vapor at the Subject Property.

Non-Scope Considerations and BERs

The following non-scope considerations were identified:

- A sump pump located in the cellar boiler room discharges directly to the subsurface via a pit/dry well in the cellar floor. Staining was not observed around the sump, which is located about 6 feet from the boiler. In the event of a boiler malfunction, heating oil could be drained into soil beneath the Subject Property.
- The Subject Property was brought to development grade in the late 1800s by filling in the confluence of the former Harlem Creek and Montayne's Rivulet with material of unknown origin. Demolition debris was used to fill in the eastern part of the site in the 1960s. Historic fill material can contain contaminant concentrations above applicable regulatory levels and at potentially hazardous concentrations. The presence of this material does not trigger a regulatory reporting requirement, but may be associated with customary cost premiums for soil handling and management procedures during site redevelopment to address excavation, re-use, handling, and off-site disposal of historical non-native fill;
- The building was constructed around 1912, potentially with materials that contain asbestos containing materials (ACM), lead-based paint (LBP), or polychlorinated biphenyls (PCBs); and
- Mold was observed on basement walls and ceilings.

These non-scope considerations may be, but are not necessarily, associated with cost premiums; therefore, they are also considered BERs.

1.0 INTRODUCTION

Langan was retained by La Hermosa Christian Church (the User), to prepare a Phase I Environmental Site Assessment (ESA) for the property at 5 West 110th Street in the Central Harlem neighborhood of New York, New York (the Subject Property). This Phase I ESA was performed in accordance with ASTM International (ASTM) Standard E1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) and the United States Environmental Protection Agency (USEPA) All Appropriate Inquires (AAI) Rule. The purpose of this Phase I ESA is to accomplish the following:

(1) Identify Recognized Environmental Conditions (RECs) in connection with the Subject Property, as defined in The Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, which states: The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

(2) Provide services consistent with the USEPA 40 Code of Federal Regulations (CFR) Part 312 Subpart C Standards and Practices §312.20 AAI Rule.

1.1 Scope of the ESA

This ESA was conducted utilizing a standard of good commercial and customary practice that is consistent with ASTM E1527-13. No significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 were made in connection with this report, as described in Section 8.0. In general, the scope of this assessment consisted of obtaining information from the User; reviewing reasonably ascertainable information and environmental data relating to the Subject Property; reviewing maps and records maintained by federal, state, and local regulatory agencies; interviewing persons knowledgeable about the Subject Property; and conducting a site inspection. The specific scope of this assessment included the following:

1. A site reconnaissance to characterize conditions and assess the Subject Property's location with respect to adjoining and surrounding property uses and natural surface features. The reconnaissance included the surrounding roads and observations of surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties. The site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Subject Property and then progressing to adjoining and surrounding properties. Photographs taken as part of the site reconnaissance are provided in Appendix A.

2. A review of the responses to the User/Client Questionnaire. The completed questionnaire is provided in Appendix B.

3. A review of environmental databases maintained by the USEPA, state, and local agencies within the approximate minimum search distance. The environmental database report was provided by Environmental Data Resources, Inc. (EDR), and is included in Appendix C.

4. Filing of Freedom of Information Act (FOIA) requests with federal, state, and local agencies. Copies of the FOIA requests are included in Appendix D.

5. A review of New York City Department of Buildings (NYCDOB) records and a Planning Commission Zoning Map. Available NYCDOB records and the Zoning Map are included in Appendices E and F, respectively.

6. A review of physical characteristics of the Subject Property through a review of referenced sources for topographic, geologic, soils, and hydrologic data.

7. A review and interpretation of aerial photographs, Sanborn Fire Insurance Maps (Sanborn Maps), historical topographic maps, and city directories to identify previous activities on and in the vicinity of the Subject Property. Copies are included in Appendices G, H, I, and J respectively.

8. A review of an Environmental Lien search for the Subject Property. Copies of the environmental lien search reports are included as Appendix K.

9. A review of published radon occurrence maps to evaluate whether the Subject Property is located in an area with a propensity for elevated radon levels.

1.2 Assumptions, Limitations, and Exceptions

This Phase I ESA report was prepared for La Hermosa Christian Church for the Subject Property at 5 West 110th Street in New York, New York. The report is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings. Langan cannot assume responsibility for use of this report for any property other than the Subject Property addressed herein, or by any other third party without a written authorization from Langan.

Langan's scope of services, which is described in Section 1.1, was limited to that agreed to with the User and no other services beyond those explicitly stated are implied. The services performed and agreed upon for this effort comports to those prescribed in the ASTM Standard E1527-13. Intrusive sampling (i.e., soil borings and groundwater sampling) was not performed as part of this Phase I ESA.

This Phase I ESA was not intended to be a definitive investigation of possible environmental impacts at the Subject Property. The purpose of this investigation was limited to determining if there are any RECs at the Subject Property. It should be understood that even the most comprehensive Phase I ESA might fail to detect environmental liabilities at particular Subject Property. Therefore, Langan cannot "insure" or "certify" that the Subject Property is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

The conclusions, opinions, and recommendations provided in this report are based solely on the specific activities as required for the performance of ASTM E1527-13 and are intended exclusively for the purpose stated herein, at the specified Subject Property, as it existed at the time of our site visit.

2.0 SITE DESCRIPTION

2.1 Location and Description

The Subject Property is located at 5 West 110th Street in the Central Harlem neighborhood of New York, New York, and is identified on the New York City Tax Map as Block 1594, Lot 41. The property bounded by West 111th Street to the north, Fifth Avenue to the east, Duke Ellington Circle to the southeast, West 110th Street (Central Park North) to the south, and residential and institutional buildings followed by Malcolm X Boulevard to the west. The 14,482-square foot parcel contains a three-story building with a cellar level and a partially paved vacant lot used for parking.

A Subject Property Location Map is included as Figure 1. According to the United States Geological Survey (USGS) Central Park Quadrangle 7.5-minute Series Topographic Map, the elevation of the Subject Property is about 20 feet in reference to the North American Vertical Datum of 1988 (NAVD88). Based on visual observations of the surrounding area during the site reconnaissance, the Subject Property is located within a commercial and residential urban area characterized by multiple-story residential and mixed-use (commercial/residential) buildings, institutional buildings, and parks. The surrounding area slopes east towards the Harlem River. Site reconnaissance photographs are presented in Appendix A.

Surrounding Property usage is summarized in the following table:

Direction	Adjoining Properties	Surrounding Properties
North	A six-story mixed-use building and West 111th Street followed by PS 208M/185 school	Residential buildings and outdoor recreational space
East	Fifth Avenue followed by two 34-story mixed-use buildings	Residential buildings, mixed-use buildings, and outdoor recreational space
South	West 110th Street followed by Central Park	Central Park
West	A multi-family residential building and a religious institution	Residential buildings, mixed-use buildings, and institutional buildings

2.2 Description of Site Improvements

Improvements at the Subject Property are summarized in the following table:

SITE IMPROVEMENTS	
Size of the Subject Property	14,482 square feet
Buildings/Spaces/Structures	A three-story church building with full cellar level and a partially paved vacant lot used for parking
Surface Water	None
Potable Water Source	Municipal
Sanitary and Storm Sewer Utilities	Municipal
Electrical Utilities	Con Edison
Construction Completion Date	Circa 1912
General Construction Type	Brick, steel, wood, and concrete
Cooling and Ventilation System Type	Wall-mount and window air conditioning units and ceiling fans
Heating System Type	No. 2 fuel oil-fired boiler with baseboard radiators
Emergency Power	None

2.3 Title Records

Langan researched ownership records for the Subject Property on the Automated City Register Information System (ACRIS) website (https://a836-acris.nyc.gov/DS/DocumentSearch/Index). According to ACRIS, the Subject Property is owned by La Hermosa Christian Church. Available title information is summarized below.

Lot	Date	Document Type	First Party	Second Party
41	1/16/1978	DEED	American Christian Missionary Society of New York	La Hermosa Christian Church

Langan's review of ownership/occupant records did not reveal RECs associated with the Subject Property.

3.0 USER PROVIDED INFORMATION

3.1 User and Owner/Operator Questionnaires

Per ASTM E1527-13, User and Owner/Operator questionnaires were provided to inquire about specialized information related to the Subject Property. Mr. James C. Cella, authorized representative of La Hermosa Christian Church, completed the questionnaires. Mr. Cella stated he is unaware of environmental liens, land use limitations, or chemical releases related to the Subject Property. The completed User questionnaire is included in Appendix B.

3.2 Previous Environmental Reports

No previous environmental reports were provided for review.

4.0 ENVIRONMENTAL RECORDS

A regulatory database search was provided by EDR and is included in Appendix C. The EDR report provides a listing of sites identified on select federal and state standard source environmental databases within the approximate search radius specified by ASTM E1527-13. Langan reviewed each environmental database on a record-by-record basis to evaluate whether the identified sites represent a potential for environmental impact to the Subject Property. Langan also reviewed "Orphan Sites" listed within the report. Orphan Sites are those sites that could not be mapped due to inadequate address information. Orphan Sites that were identified by Langan within the ASTM search radii, either during the site reconnaissance or by cross-referencing to mapped listings, are addressed in the discussion below.

The following table lists the number of sites identified in standard and additional environmental record databases, within the prescribed search radius and appearing in the EDR Report.

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
USEPA DATABASES			
National Priorities List (NPL) (12/11/2017)	1 Mile Radius	No	0
Delisted NPL (12/11/2017)	1 Mile Radius	No	0
Superfund Enterprise Management System (SEMS, formerly CERCLIS) and SEMS-Archive (formerly known as CERCLIS-NFRAP) (12/11/2017)	1/2 Mile Radius	No	0
Resource Conservation and Recovery Act (RCRA) Corrective Reports (CORRACTS) (12/11/2017)	1 Mile Radius	No	0
RCRA Treatment, Storage, and Disposal Facilities (TSDF) (12/11/2017)	1/2 Mile Radius	No	0
Resource Conservation and Recovery Act (RCRA) Generators (Large Quantity Generator [LQG], Small Quantity Generator [SQG], Conditionally Exempt Small Quantity Generator [CESQG], NonGen) (12/11/2017)	Subject Property and Adjoining Properties	No	4
Facility Index System (FINDS) (7/23/2017)	Subject Property	No	0

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
Environmental Response Notification System (ERNS) (9/18/2017)	Subject Property	No	0
Engineering Controls (EC) Sites Lists (11/13/2017)	Subject Property	No	0
Institutional Controls (IC) Sites Lists (11/13/2017)	Subject Property	No	0
NYSDEC DATABASES			
Hazardous Waste Disposal Sites (SHWS) (8/15/2017)	1 Mile Radius	No	0
Solid Waste or Landfill Facilities (SWF/LF) (12/8/2017)	1/2 Mile Radius	No	0
Leaking Storage Tanks (LTANKS) (10/31/2017)	1/2 Mile Radius	No	57
SPILLS Information Database (NY SPILLS) (10/31/2017)	1/8 Mile Radius	No	15
EC Sites Lists (8/15/2017)	Subject Property	No	0
IC Sites Lists (8/15/2017)	Subject Property	No	0
NY Voluntary Cleanup Program (VCP) (10/4/2017)	1/2 Mile Radius	No	1
Brownfields (8/15/2017)	1/2 Mile Radius	No	1
Chemical Bulk Storage (CBS) Underground Storage Tank (UST) and Aboveground Storage Tanks (AST) Databases (12/22/2017)	Subject Property and Adjoining Properties	No	0
Major Oil Storage Facilities (MOSF) UST and AST Databases (12/22/2017)	Subject Property and Adjoining Properties	No	0
Registered Drycleaners and EDR Historical Cleaners (DRYCLEANERS) (11/22/2017)	1/4 Mile Radius	No	8
Petroleum Bulk Storage Facilities (PBS) UST and AST Databases (12/22/2017)	Subject Property and Adjoining Properties	No	3

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
EDR (PROPRIETARY) DATABASES			
EDR Former Manufactured Gas Plant (MGP) Sites (N/A)	1 Mile Radius	No	4
EDR Historical Auto Stations (N/A)	1/8 Mile Radius	No	1

USEPA – United States Environmental Protection Agency
NYSDEC – New York State Department of Environmental Conservation
N/A – Not Applicable; databases are reviewed as part of the Phase I ESA but not required as per ASTM International E1527-13.

A description of the reviewed databases is provided in the EDR Report (Appendix C). A summary of sites identified within the prescribed search area is presented below.

4.1 Federal Agency Database Findings

The Subject Property and/or sites within the respective minimum search distances as specified by ASTM E1527-13 were not listed in the following Federal Agency databases: NPL, delisted NPL, SEMS and SEMS archive, RCRA CORRACTS and TSDF, FINDS, ERNS, EC, and IC sites. The following summary describes the sites that were identified within the designated search radii.

RCRA Generators

The RCRA Generators database is USEPA's comprehensive information system, providing access to data supporting the RCRA of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA. LQGs generate over 1,000 kilograms of hazardous waste or over 1 kilogram of acutely hazardous waste per month; SQGs generate between 100 and 1,000 kilograms of hazardous waste per month; CESQGs generate less than 100 kilograms of hazardous waste or less than 1 kilogram of acutely hazardous waste per month; and RCRA Non-Gen are former hazardous waste generators.

The Subject Property was not listed in the RCRA Generators database; however, four adjoining sites were listed on the database. Three of the listings are associated with Con Edison

subsurface utility infrastructure. Because of the lack of violations reported for the listings and Con Edison's strict waste handling policies, these sites are not considered RECs. The remaining identified site is located north-adjacent to the Subject Property and is discussed below:

Site Name: Public School 208M & 185
Site Address: 20 West 112th Street
Location: Northern (cross-gradient) adjoining property across West 111th Street
Description: Public School 208M & 185 (USEPA ID No. NYD986882405) was listed as a CESQG of lead in 1997, an SQG of polychlorinated biphenyls (PCBs) in 2013, and a LQG of PCBs in 2016. PCBs and lead are generally insoluble and are not expected to migrate in groundwater toward the Subject Property; as such, this RCRA generator is not indicative of a REC.

4.2 State Agency Database Findings

The Subject Property and/or sites within the respective minimum search distances as specified by ASTM E1527-13 were not listed in the following state agency databases: SHWS, SWF/LF, EC, IC, CBS, and MOSF. The following summary describes the sites that were identified within the designated search radii.

Leaking Storage Tanks Database

The LTANKS database contains an inventory of reported leaking storage tank incidents, including leaking USTs and ASTs. The primary causes of the LTANK incidents include tank test failures, tank failures, and tank overfills. As per ASTM E1527-13, the approximate minimum search distance required for LTANK incidents is within one-half mile of the Subject Property.

No LTANKS incidents were reported at the Subject Property or adjacent properties. All 57 LTANKS incidents that have been reported within the search radius are located more than 250 feet away from the Subject Property, have been granted closed status by NYSDEC, and are not considered RECs.

NY SPILLS Database

The NY SPILLS database, maintained and updated by NYSDEC, is an inventory of sites where spills have been identified and reported to the NYSDEC.

The Subject Property is not listed in the NY SPILLS database. Fifteen NY SPILLS incidents were identified on surrounding properties within the minimum search distance, all of which have been granted closed status by NYSDEC. Because of their closed status, distance from the Subject Property, and nature of the spills, the closed spills are not considered RECs.

Voluntary Cleanup Program Database

The VCP uses private funds to remediate contaminated sites to levels allowing for the sites' productive use. The program covers virtually any kind of site and contamination. The Subject Property was not listed in the VCP database; however, one VCP site was identified within minimum search radius. The identified VCP site is located more than 1,400 feet northeast (cross-gradient) of the Subject Property is not considered a REC.

Brownfields Database

The Brownfields database contains a list of properties that may present environmental issues with redevelopment of the area. Potential hazards include petroleum, hazardous waste, pollutants, and contamination. The Subject Property was not listed in the Brownfields database; however, one Brownfield site was identified within ½ mile of the Subject Property. The Brownfield site (cross-listed in EC and IC databases), Former 110th Street Service Station, is located about 2,500 feet west, northwest of the Subject Property. Based on distance from the Subject Property and BCP Site Management, this site does not represent a REC.

Drycleaners

The DRYCLEANERS database is a listing of registered dry cleaning facilities. Dry cleaning facilities are associated with the use of tetrachloroethylene (PCE), a solvent that has the potential to infiltrate groundwater and can readily migrate to surrounding properties. The Subject Property was not listed in the DRYCLEANERS or EDR historical drycleaners databases; however, eight DRYCLEANER or EDR historical dry cleaner sites were identified within the minimum search distance. Five of the drycleaner/historical cleaner sites are located more than 500 feet from the Subject Property at cross- or down-gradient locations, or more than 800 feet west/up-gradient, but on the west side of underground subway lines, and are not likely to impact the Subject Property. The remaining sites are discussed below:

Site Name: Parkwest Cleaners
Site Address: 2 West 111th Street
Location: Northern adjoining property

Description: Parkwest Cleaners, described as a "drycleaning plant" in the EDR historical drycleaners database, was in operation between 2003 and 2008. It is unclear from the database whether this facility performed dry cleaning operations on site, or acted as a "drop off" agent for an off-site dry cleaning plant, during the periods in question. The site does not have an associated RCRA generator listing and was not identified on the Sanborn Maps as a dry cleaner. Although there are no documented releases associated with this facility, based on close proximity to the Subject Property, this historical cleaner is considered a REC, as unreported spills of solvents may have impacted groundwater and/or soil vapor at the Subject Property.

Site Name: Eastmore Cleaners
Site Address: 1330 Fifth Avenue
Location: Adjoins the Subject Property to the north across West 111th Street
Description: Eastmore Cleaners, described as "laundry and drycleaner agents" in the EDR historical drycleaners database, was in operation from 2007 to 2013. It is unclear from the database whether this facility performed dry cleaning operations on site, or acted as a "drop off" agent for an off-site dry cleaning plant, during the periods in question. A corresponding RCRA listing was not identified. Although there are no documented releases associated with this facility, based on close proximity to the Subject Property, this historical cleaner is considered a REC, as unreported spills of solvents may gave impacted groundwater and/or soil vapor at the Subject Property.

Site Name: Woojin Eastmore Cleaners Inc.

Site Address: 1325 Fifth Avenue
Location: About 250 feet northeast (across Fifth Avenue)
Description: Woojin Eastmore Cleaners, Inc., described as a "garment pressing and cleaners' agents" in the EDR historical drycleaners database, was in operation between 2011 and 2014. It is unclear from the database whether this facility performed dry cleaning operations on site, or acted as a "drop off" agent for an off-site dry cleaning plant, during the periods in question. The site does not have an associated RCRA generator listing and was not identified on the Sanborn Maps as a dry cleaner. Soil vapors potentially contaminated by inadvertent releases of halogenated solvents at this facility would likely follow preferential pathways along infrastructure and other obstructions located beneath Fifth Avenue and would not likely impact the Subject Property. As such, this former dry cleaning facility is not indicative of a REC.

New York Petroleum Bulk Storage Facilities

The PBS Facilities UST and AST databases contain records of registered USTs and/or ASTs. A registered PBS UST and/or AST does not constitute a REC in and of itself; however, properties listed on the UST and/or AST databases with a reported leak, spill, or release could constitute a REC with respect to the Subject Property. As per ASTM E1527-13, the minimum search distance for USTs and ASTs is the Subject Property and adjoining properties.

The Subject Property is not listed in the PBS database; however, there are three adjoining properties listed as PBS facilities, which are discussed below:

Site Name: Public School 185
Site Address: 20 West 112th Street
Location: Northern adjoining across West 111th Street
Description: Public School 185 is listed in the PBS database an active facility (PBS No. 2-354147) containing one 10,000-gallon No. 4 fuel oil AST and one 10,000-gallon No. 6 fuel oil AST, both of which were installed in 1968 and are positioned on saddles, legs, stilts, rack, or cradle. Two spill incidents associated with the site (No. 9814724 and No. 9814544) each involved less than 40 gallons of No. 6 fuel oil contained to the sidewalk, and both incidents were closed in 1999. Based on the lack of open spills associated with these ASTs, they are not considered a REC.

Site Name: Frawley Plaza Association
Site Address: 1295 Fifth Avenue
Location: Eastern adjoining across Fifth Avenue
Description: 1295 Fifth Avenue is listed in the PBS database as an unregulated/closed facility (PBS No. 2-091766). The property contains two closed-in-place 3,000-gallon No. 2 fuel oil ASTs in subterranean vaults with access for inspections. There is no spill history or LTANKS listings associated with these ASTs; as such, this PBS listing is not indicative of a REC.

Site Name: New West Apartments
Site Address: 16-22 West 111th Street
Location: Northwestern adjoining
Description: 16-22 West 111th Street is listed in the PBS database as an active facility (PBS No. 2-611670. The property contains one 3,000-gallon No. 2 fuel oil AST on saddles, lets, stilts, rack, or cradle. There is no spill history or LTANKS listings associated with this AST; as such, this PBS listing is not indicative of a REC.

4.3 Other Database Findings

Manufactured Gas Plant Sites

The MGP site database is a proprietary database that includes records of manufactured coal gas plants compiled by EDR. The Subject Property was not listed in the MGP database; however, four MGP sites were listed within the search area. The identified MGP sites are all located more than 3,300 feet away from the Subject Property and are not considered RECs.

Historical Auto Stations

The Historical Auto Stations database is a proprietary database that includes records of potential historical gas station, filling station and service station sites. The Subject Property was not listed in the database; however, one historical auto repair facility was identified within the search radius. This facility is located about 500 feet southeast and cross- to down-gradient of the Subject Property and is not considered a REC.

4.4 Local Regulatory Agency Findings

FOIA Requests

FOIA requests were submitted on February 22, 2018, to the following federal, state, and local agencies via written correspondence:

- New York City Department of Environmental Protection (NYCDEP)
- New York City Department of Health (NYCDOH)
- New York City Fire Department (FDNY)
- New York State Department of Health (NYSDOH)
- NYSDEC
- USEPA Region 2

Complete responses have not yet been received. Should future responses alter the conclusions of this Phase I ESA, an addendum will be issued. Copies of the FOIA requests and any responses received are included in Appendix D.

New York City Department of Buildings

Langan conducted a records search through the NYCDOB online query system on February 22, 2018. The Subject Property is identified as Block 1594, Lot 41, with Building Identification

Number (BIN) 1051400. The Subject Property has the Department of Finance classification of M1-Church, Synagogue. There is an active Stop Work Order on the Subject Property pertaining to plumbing work conducted without proper plumbing licenses.

Certificates of Occupancy (CO) records indicated that the Subject Property was formerly comprised of a Tax Lot 41 and a Lot 36. Two (COs) were available and are summarized below:

- 1962: boiler room, coat room, and toilet in the cellar ("on ground"); restaurant fellowship hall for Church purposes and store on the first floor; and a Church on the second floor and balcony
- 1965: church parking lot at grade surface ("on ground")

A copy of the NYCDOB records is included in Appendix E.

Zoning Department

According to the New York City Planning Commission Zoning Map 6b, the Subject Property is partially zoned R8 and R7-2 residential districts with a C1-4 commercial overlay on the eastern portion of the site. The C1-4 commercial overlay is characterized by small retail and service shops to serve needs of the surrounding community. The R8 residential district is characterized by high-density buildings of various heights. The R7-2 residential district is characterized by medium-density apartment housing with height factors encouraging lower apartment buildings, or taller buildings with less lot coverage. A copy of the zoning map is provided in Appendix F.

4.5 Physical Setting Sources

4.5.1 Topography

According to the USGS Central Park Quadrangle 7.5-minute Series Topographic Map, the elevation of the Subject Property is about 20 feet NAVD88. The immediate area surrounding the Subject Property slopes towards the east, with the general topographic gradient of the surrounding area sloping east towards the Harlem River.

4.5.2 Geology

Manhattan soil stratigraphy is generally characterized by layers of fill and native soil above metamorphic bedrock. A review of the 1865 Viele Sanitary & Topographical Map of the City and Island of New York indicates that the Subject Property is located at the historical confluence of the Harlem Creek with Montayne's Rivulet, indicating that the area was brought to development grade with material of unknown origin in the late 1980s. An interview

conducted during site reconnaissance indicated that the former structure in the east portion of the property was demolished around 1960 and used to fill the area to sidewalk grade. Historic fill material can contain contaminant concentrations above applicable regulatory levels and at potentially hazardous concentrations. The presence of this material does not trigger a regulatory reporting requirement, but may be associated with customary cost premiums for soil handling and management procedures during site redevelopment to address excavation, re-use, handling, and off-site disposal of historical non-native fill. The presence of historic fill material beneath the Subject Property is considered a Business Environmental Risk (BER).

Based on the USGS "Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey" dated 1994, the bedrock formation underlying the Subject Property is comprised of gray sillimanite-muscovite-tourmaline schist, also known as Manhattan Schist. The map indicates that bedrock is expected to be at about elevation -40 NAVD88, corresponding to about 60 feet below grade. Geological surface features (e.g., rock outcroppings) were not observed at the Subject Property.

4.5.3 Hydrology

Groundwater flow is typically topographically influenced, as shallow groundwater tends to originate in areas of topographic highs and flows toward areas of topographic lows, such as rivers, stream valleys, ponds, and wetlands. A broader, interconnected hydrogeologic network often governs groundwater flow at depth or in the bedrock aquifer. Groundwater depth and flow direction are also subject to hydrogeologic and anthropogenic variables such as precipitation, evaporation, extent of vegetation cover, and coverage by impervious surfaces. Other factors influencing groundwater include depth to bedrock, the presence of artificial fill, and variability in local geology and groundwater sources or sinks. Based on the topography surrounding the Subject Property, groundwater is inferred to flow east towards the Harlem River.

Based on the location of the filled in Harlem Creek and Montayne's Rivulet, groundwater is expected to be shallow (within 5 - 10 feet of the basement slab). Groundwater in Manhattan is not used as a potable (drinking) water source. The potable water supply is provided to the Subject Property by the City of New York and is derived from surface impoundments in the Croton, Catskill, and Delaware watersheds.

The current Federal Emergency Management Agency (FEMA) Advisory Base Flood Elevation Maps, dated September 5, 2007, includes advisory flood zone boundaries and advisory base

flood elevations. Map No. 3604970087F indicates that the Subject Property falls within a Zone X area, which is determined to be outside the 0.2% annual chance floodplain.

4.6 Historical Use Information

Langan reviewed available historical resources (including aerial photographs, Sanborn and topographic maps, and city directories) dated 1896 to 2014. Findings of the review are presented below.

4.6.1 Aerial Photographs

Langan reviewed aerial photographs of the Subject Property and surrounding areas for the years 1924, 1941, 1945, 1951, 1954, 1961, 1966, 1975, 1978, 1984, 1991, 1995, 2008, 2011, and 2015. The photographs indicate that the Subject Property was located in a developed urban area as early as 1941. The Subject Property was occupied by its present-day church building structure from the 1924 photo onwards. The current partially paved vacant lot was shown on aerial photographs from the 1961 photo onwards. Review of the aerial photographs did not identify RECs. Copies of aerial photographs are included in Appendix G.

4.6.2 Sanborn Fire Insurance Maps

A search for historical fire insurance maps for the Subject Property and surrounding properties was conducted by EDR and reviewed by Langan. Sanborn Maps constitute a database of prior site uses of real property for many cities and towns in the United States. Langan reviewed Sanborn Maps for the Subject Property for the years 1896, 1902, 1911, 1912, 1939, 1951, 1968, 1969, 1976, 1978 - 1980, 1982, 1985, 1986, 1988, 1991 - 1996, and 2001 - 2005.

Langan's review of available Sanborn maps identified that the Subject Property has been located within a densely developed urban area since at least 1896. The Subject Property was identified in its present-day configuration beginning on the 1976 map. Former uses of the Subject Property include general purpose use by subway contractors and a dance and banquet hall and a theater. The eastern portion of present-day Lot 41 was vacant since at least 1976 and specifically designated as an area for parking since at least 1994.

Former uses of adjoining and surrounding properties were generally characterized by Central Park, residential, religious, institutional, parking garage, and commercial uses, including single and multi-family dwellings (1896-present), a correctional facility (1951-present), and churches, (1968-present). The historical Sanborn maps did not reveal evidence of RECs. Copies of the Sanborn Maps are included in Appendix H.

4.6.3 Historical USGS Topographic Quadrangles

Langan reviewed historical USGS Topographic Quadrangles obtained from EDR for information regarding past uses of the Subject Property. Quadrangle maps were available for the Subject Property for the years 1897, 1898, 1900, 1947, 1956, 1966, 1979, 1997, and 2013. The Subject Property has been located within a densely developed urban area since at least 1897. The historical topographic quadrangles did not reveal evidence of RECs. Copies of the topographic maps are provided in Appendix I.

4.6.4 City Directory

The City Directory Abstract, obtained from EDR, is a review of available business directories, including city, cross-reference, and telephone directories, at approximately five-year intervals for the years spanning 1920 through 2014. The directory was obtained for the Subject Property and surrounding area. The Subject Property has been occupied by various retail stores, offices, and recreational spaces for the entire span of the records, including a dance hall (1920-1956), a perfumery (1927), a laundry facility (1923-1927), a theater (1923-1942), and La Hermosa Christian Church (1963-present).

Former uses of adjoining and surrounding properties were generally characterized by residential, religious, institutional, parking garage, and commercial uses. The following uses represent RECs:

- The northern adjoining property was listed as an apparent auto repair facility (batteries and ignition) in 1927.
- 9 West 110th Street (about 50 feet west/up-gradient) was listed as a tailor/dry cleaning service from at least 1947 to 1956.

While there is no evidence or documentation of a release of hazardous substances at these adjoining properties, inadvertent releases may have affected groundwater and/or soil vapor at the Subject Property. A copy of the City Directory Abstract report is provided in Appendix J.

4.6.5 Environmental Lien Search

Langan contracted EDR to conduct an Environmental Lien search for the Subject Property. The result of the search, which included a compilation of available data and verification of the findings with the appropriate regulatory authorities, revealed that there are no Environmental Liens or other Activity and Use Limitations (AUL) associated with the Subject Property. Copies of the Environmental Lien Searches are provided in Appendix K.

5.0 SITE RECONNAISSANCE

The site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Subject Property and progressing to the adjoining and surrounding properties. The assessment of the adjoining and surrounding properties was limited to identifying, if possible, indications of past or current use that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products; noting the general type of current use; the general topography of the surrounding area; and providing a general description of adjacent or adjoining structures.

The site reconnaissance was performed at 9:00 AM on February 27, 2018, by Taylor Morgan of Langan. Ms. Morgan was accompanied during the site reconnaissance by Jose Castro, a facilities maintenance supervisor who has worked at the Subject Property for the past sixty years. The weather at the time of the inspection was sunny and approximately 55 degrees Fahrenheit (°F).

5.1 General Site Setting and Reconnaissance Observations

The 14,482-square-foot Subject Property contains a three-story church building with a full cellar and a partially paved vacant lot used for parking. The cellar of the building was observed to be comprised of two separate sections (north and south) accessed via stairwells on the first floor of the building. The cellar level contained general storage areas, two decommissioned water heaters, one functioning water heater, a concrete-encased No. 2 fuel oil AST, a boiler room, various paint cans and grout compounds, cleaning supplies, and two functional sump pumps. Two subterranean vault systems beneath the West 110th Street sidewalk were accessed via the cellar and were observed to be empty. Mold was observed on wall and ceiling areas throughout the cellar level, and Mr. Castro explained of a flooding event that had occurred at the Subject Property around 1960 that may have contributed to the mold and general disrepair of the building's structural components.

The first floor is occupied by a kitchen area with decommissioned oven and refrigerator appliances, a church gathering area, children's classrooms, various office spaces, an entrance lobby, and several closets for storage of miscellaneous church equipment and cleaning supplies. The second floor contains the main sanctuary space, a chapel gathering area, small offices, and bathrooms. The mezzanine/third floor contains storage rooms for miscellaneous church materials and cleaning supplies. Mr. Castro stated that the mezzanine/third floor tiles were suspected to contain asbestos. The roof, accessed via a staircase from the mezzanine on the west side of the building, was observed to be intact with a few patched areas throughout

the span of the roof. Several downspouts and chimneys for kitchen, bathroom, and boiler room areas were observed across the span of the roof.

Pits, Ponds, Lagoons

Langan did not observe pits, ponds, or lagoons.

Pools of Liquid

Langan did not observe pools of liquid.

Storm Drains, Wells, and Cisterns

Langan did not observe storm drains, wells, or cisterns.

Transformers and Other Suspect Equipment

Transformers and other suspect equipment was not observed.

Storage Containers, Drums, and Chemical Storage Areas

Storage of typical household cleaning supplies was observed throughout the building. In addition, 1-gallon containers of paint, cans of spray paint, and various small containers of wood stain, lubricants, adhesives, wallpaper remover, and tile grout were observed in the basement and in various closets on the first floor.

Sewage Ejector Pits and Sumps

Langan observed two functional sump pumps in the basement. Mr. Castro stated that the sump pump in the southern portion of the basement discharges via a pipe directly to the sewer. The second sump, located in the boiler room in the northern portion of the cellar, was observed to discharge into an opening in the basement slab. Mr. Castro stated that the sump pump has always drained into that opening, which leads to a historical river beneath the building. A review of the 1865 Viele Sanitary & Topographical Map of the City and Island of New York confirmed that the Subject Property is located at the historical confluence of the Harlem Creek and Montayne's Rivulet. Staining was not observed around the sumps.

Waste Generation, Storage, and Disposal

No evidence of waste storage, generation, or disposal was observed.

Air Emissions or Wastewater Discharges

No evidence of air emissions or wastewater discharges was observed.

USTs or ASTs

A 1,080-gallon No. 2 fuel oil AST, encased in concrete, was observed in the southern portion of the building's cellar. The fill port and vent pipe were observed on the southern exterior of the Subject Property building on West 110th Street. No odors or staining were observed in the tank room and the cellar floor slab appeared competent. Mr. Castro did not recall any spill events associated with the AST. The tank is less than 1,100 gallons and is not required to be registered, but because it is unregistered, it is not subject to testing requirements, and previous spill events may have gone unreported. In addition, the condition of the tank could not be assessed because of the concrete encasement. For these reasons, this AST is considered a REC.

Monitoring Wells or Remedial Activities

No monitoring wells or evidence of remedial activities was observed.

Stained or Discolored Soil

No staining and/or discolored soil was observed.

Leachate or Seeps

Evidence of leachate or seeps was not observed.

Adjoining and Surrounding Property Uses

Surrounding property use is primarily office/commercial retail, institutional, and residential. The Subject Property is bordered by West 111th Street to the north, a three-story mixed-use building to the northeast, Fifth Avenue to the east, Duke Ellington Circle to the southeast, West 110th Street (Central Park North) to the south, and an existing church building to the west. No RECs were identified in connection to the current adjoining and surrounding properties.

6.0 INTERVIEWS

6.1 Site Owner/Occupant

Jose Castro, who has worked at the Subject Property for the past sixty years, escorted Langan during the inspection. He was unaware of any environmental investigations, spills, or environmental liens against the property. Mr. Castro did indicate that the former structure in the east part of the property was demolished around 1960 and debris was used to fill the area to sidewalk grade. As stated in Section 4.5.2, historic fill material is considered a Business Environmental Risk (BER).

6.2 Owners/Tenants of Adjoining Properties

Owners/tenants of adjoining properties were not interviewed as part of this Phase I ESA.

7.0 ADDITIONAL SERVICES

7.1 Radon

Radon is a colorless, odorless radioactive gas that results from the natural breakdown of uranium minerals in soil, rock, and water, which subsequently enters the atmosphere. It can concentrate in buildings, entering through cracks and other penetrations of a building foundation. Some areas are more likely to have elevated concentrations of radon than others, reflecting subsurface lithological conditions.

The USEPA has established a recommended radon action level of 4.0 pico Curies per liter (pCi/L). According to the United States Environmental Protection Agency (USEPA) Radon Zone Map, the Subject Property is located in Zone 3, which indicates a predicted average indoor radon screening level less than 2 pCi/L. The NYSDOH maintains a database of radon test results on a local and county level. According to the NYSDOH, 1,408 radon tests have been conducted in basements in New York County with results indicating that about 7 percent of basements have radon concentrations above the USEPA action level of 4 pCi/L. Based on this information, it is unlikely that elevated levels of radon gas are present at the Subject Property.

7.2 ACM, LBP, PCBs, and Mold

The building was constructed between around 1912, potentially with asbestos-containing material (ACM), lead-based paints (LBP), or materials containing PCBs. According to information provided by the Mr. Castro, floor tiles located in the sanctuary space on the third floor are suspected to contain asbestos. Mold was observed on wall and ceiling areas within the Subject Property cellar. A hazardous materials survey to identify ACM, LBP, PCB-containing material was not conducted as part of this Phase I ESA.

8.0 DEVIATIONS AND DATA GAPS

8.1 Deviations

Langan performed a Phase I ESA of the Subject Property utilizing a standard of good commercial and customary practice that is consistent with the ASTM E1527-13 and the 40 CFR Part 312 Standards and Practices for AAI. Significant deviations were not made to the above referenced standards.

8.2 Data Gaps

In order to address data gaps, additional sources of information may be consulted. According to AAI, Section 312.20 (g), "to the extent there are data gaps (as defined in section 312.10) in the information developed… that affect the ability of persons (including the environmental professional) conducting the all appropriate inquiries to identify conditions indicative of releases or threatened releases...such persons should identify such data gaps, identify the sources of information consulted to address such data gaps, and comment upon the significance of such data gaps." According to ASTM E 1527-13, Section 8.3.2.3, "historical research is complete when either: (1) the objectives in 8.3.1 through 8.3.2.2 are achieved; or (2) data failure is encountered. Data failure occurs when all standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. If data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, give the reasons for the exclusion."

This Phase I was completed without significant data gaps except that responses to FOIA letters have not been received from all agencies. Sufficient information was provided from other sources to enable conclusions regarding RECs at the Subject Property. As such, these data gaps are not expected to alter the results of the Phase I ESA. If information becomes available that alters the conclusions of this report, an addendum will be issued.

9.0 FINDINGS, OPINIONS, AND CONCLUSIONS

This Phase I ESA was conducted in accordance with ASTM Standard Practice for Environmental Site Assessments E1527-13 and the USEPA AAI Rule, for the purpose of identifying RECs, historical RECs (HRECs), controlled RECs (CRECs), and BERs. There were no HRECs or CRECs identified at the Subject Property.

RECs

A REC is defined by ASTM E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The Phase I ESA identified the following RECs:

REC 1 –AST at Subject Property

A 1,080-gallon AST was observed in the basement of the Subject Property. Petroleum Bulk Storage regulations do not require registration for storage tanks with capacity less than 1,100 gallons. There was no evidence of leaks or staining, but due to the concrete encasement surrounding the AST, its condition could not be assessed. While there is no record or evidence of a spill, undocumented releases of petroleum products associated with this tank may have impacted soil, groundwater, and/or soil vapor quality.

REC 2 – Historical Use of Adjoining Properties

Historical uses of adjoining properties include a suspected auto repair facility (1927) and three dry cleaning facilities (1947-1956 and 2003-2013). While there is no evidence or documentation of a release of hazardous substances at these adjoining properties; inadvertent releases may have affected groundwater and/or soil vapor at the Subject Property.

REC locations are shown on Figure 2.

Non-Scope Considerations and BERs

The following non-scope considerations were identified:

- A sump pump located in the cellar boiler room discharges directly to the subsurface via a pit/dry well in the cellar floor. Staining was not observed around the sump, which is located about 6 feet from the boiler. In the event of a boiler malfunction, heating oil could be drained into soil beneath the Subject Property.

- The Subject Property was brought to development grade in the late 1800s by filling in the confluence of the former Harlem Creek and Montayne's Rivulet with material of unknown origin. Demolition debris was used to fill in the eastern part of the site in the 1960s. Historic fill material can contain contaminant concentrations above applicable regulatory levels and at potentially hazardous concentrations. The presence of this material does not trigger a regulatory reporting requirement, but may be associated with customary cost premiums for soil handling and management procedures during site redevelopment to address excavation, re-use, handling, and off-site disposal of historical non-native fill;
- The building was constructed around 1912, potentially with materials that contain ACM, LBP, or PCBs; and
- Mold was observed on basement walls and ceilings.

These non-scope considerations may be, but not necessarily, associated with cost premiums; therefore, they are also considered BERs.

10.0 REFERENCES

The following references were reviewed as part of this Phase I ESA:

1. Environmental Data Resources, Inc. February 22, 2018. Aerial Photo Decade Package.
2. Environmental Data Resources, Inc. February 22, 2018.City Directory Abstract.
3. Environmental Data Resources, Inc. February 22, 2018.Environmental Lien Search.
4. Environmental Data Resources, Inc. February 22, 2018.Historical Topographic Map Report.
5. Environmental Data Resources, Inc. February 22, 2018. Radius Map with GeoCheck.
6. Environmental Data Resources, Inc. February 22, 2018.Sanborn Map Report.
7. Environmental Data Resources, Inc. February 22, 2018.Building Permit Report.
8. Environmental Data Resources, Inc. February 22, 2018.Property Tax Map Report.
9. Environmental Protection Agency, USEPA Map of Radon Zones, dated September 2014.
10. New York City Planning Commission. Zoning Map 6b.
11. New York City Department of Buildings, Building Information System, http://www.nyc.gov/html/dob/html/bis/bis.shtml, retrieved February 22, 2018.
12. City Online Register, https://a836-acris.nyc.gov/DS/DocumentSearch/Index, retrieved February 22, 2018.
13. Department of Environmental Conservation Bulk Storage Database Search, http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4, retrieved February 22, 2018.
14. Department of Environmental Conservation Spills Incidents Database Search, http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=2, retrieved February 22, 2018.
15. NYC Oasis Map http://www.oasisnyc.net/map.aspx
16. United States Geological Survey "Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey."
17. Viele, 1865. "Sanitary & Topographical Map of the City and Island of New York."
18. Federal Emergency Management Agency Flood Insurance Rate Map.

11.0 STATEMENT OF QUALIFICATIONS AND SIGNATURES

Langan declares that, to the best of its professional knowledge and belief, the personnel who performed this Phase I ESA meet the definition of Environmental Professional as defined in Subsection 312 10 of 40 CFR 312 and that they have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. They have developed and performed the AAIs in conformance with the standards and practices set forth in 40 CFR Part 312. Resumes outlining the qualifications of the Environmental Professionals who performed this Phase I ESA are provided in Appendix L.

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Michael D. Burke
Principal/Vice President

APPENDIX D: TECHNICAL MEMORANDUM

1) BACKGROUND

The Applicant, La Hermosa Christian Church, is requesting approval of four (4) discretionary actions: (i) a zoning map amendment to rezone Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42, from a R7-2/R8 district with a partial C1-4 commercial overlay to a C1-9 district; (ii) City Planning Commission (CPC) Special Permit pursuant to the City of New York Zoning Resolution (ZR) §74-851 to modify height and setback regulations; (iii) CPC Special Permit pursuant to ZR §73-533 to waive all required parking; and (iii) a zoning text amendment to modify ZR Appendix F to designate a Mandatory Inclusionary Housing (MIH) area. The requested discretionary actions (collectively, the "Proposed Actions") would affect Block 1594, Lots 30, 40, and 41 in their entirety, and p/o Lots 29 and 42 (the "Directly Affected Area").

In addition to the Proposed Actions, but not subject to environmental review, the Applicant intends to pursue a zoning lot merger to combine Block 1594, Lot 41 (the "Project Site") with the adjacent property (Lot 30) through a zoning lot development agreement (ZLDA). The ZLDA would result in the acquisition of approximately 42,320 zsf from Lot 30.

Approval of the Proposed Actions, in conjunction with the ZLDA, would facilitate the development of a 33-story (approximately 410 feet) mixed residential and community facility building containing approximately 231,856-gross square feet (gsf) (the "Proposed Project") on Block 1594, Lot 41. The Proposed Project would comprise approximately 194,182 gsf of mixed-income residential area, including approximately 160 dwelling units, of which approximately 30 percent (48 dwelling units) would be allocated as permanently affordable for households with incomes averaging at or below 80 percent Area Median Income (AMI);[1] and approximately 37,674 gsf of community facility floor area.

The Department of City Planning (DCP) on behalf of the City Planning Commission (CPC) determined the development as described above, and contemplated in an Environmental Assessment Statement (EAS) dated May 3, 2019, would not have the potential to result in a significant adverse impact on the environment and issued a Negative Declaration on May 6, 2019.

During the Uniform Land Use Review Procedure (ULURP) process, the City Planning Commission proposed modifications that would reduce the building height. While the development footprint would remain the same, the building mass along Frawley Circle was *increased* by approximately 25 feet while the total building height was *reduced* from a 33-story (410-foot) building to a 30-story (385-foot) building. No additional discretionary actions are requested as a result of these modifications to the building height and bulk.

Taking into account this modification, the Proposed Actions would facilitate the development of a 30-story (385 foot) building containing approximately 231,856 gsf of mixed residential, commercial, and community facility uses, and parking. The Proposed Project presented in this Technical Memorandum would not differ from the Proposed Project as it was presented in the EAS, with the exception of 25 foot building height reduction and increased bulk along the Frawley Circle street frontage.

[1] The average dwelling unit size of the Proposed Project is approximately 1,214 gsf.

The revised With-Action Condition contemplates the most intensive development scenario that could be reasonably anticipated to occur on the Project Site as a result of the approval of the Proposed Actions. Therefore, for the purpose of presenting a conservative assessment, the revised With-Action Condition contemplates a development that would maximize the modified building envelope (385 feet) and floor area pursuant to the proposed C1-9 zoning district and zoning special permits. However, the actual Proposed Project would have less floor area density and be built to a height of only approximately 340 feet.

2) ANALYSIS FRAMEWORK

As described in the May 3 EAS, the actual Proposed Project would be less intensive than the development in the With-Action Condition, specifically with regard to the proposed building envelope and floor area. However, for the purpose of presenting a conservative assessment, the With-Action Condition contemplates a development that would maximize the permitted building envelope. There is no change to the Proposed Actions as a result of the modifications; therefore, there is also no change to the maximum achievable floor area that was contemplated in the May 3 EAS.

As stated in the EAS, development in the No-Action Condition would consist of a 20-story (232 feet), approximately 105,481 gsf mixed residential and community facility building. Development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required parking spaces.

In the revised With-Action Condition, the Project Site would be developed to maximize the allowable floor area provided by the proposed C1-9 zoning district regulations and MIH area. The Project Site would be improved with a 30-story (385 feet), approximately 259,125 gsf mixed residential and community facility building. Development in the revised With-Action Condition would comprise approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space. Pursuant to MIH Option 2, the development in the revised With-Action Condition would include approximately 60 permanently affordable dwelling units for households with incomes averaging at or below 80 percent AMI.

As shown in Table 1, development in the revised With-Action Condition would result in a total increment of approximately 130,490 gsf of residential floor area (197 total dwelling units), a net *increase* of approximately 23,154 gsf of community facility floor area, and a net *decrease* of approximately 46 required accessory off-street parking spaces. The maximum building height of development in the revised With-Action Condition would be 385 feet, which represents an *increase* of approximately 153 feet as compared to the development in the No-Action Condition.

Table 1: No-Action and Revised With-Action Conditions

Land Use (Use Group)	No-Action Condition (gsf)	Revised With-Action Condition (gsf)	Increment (gsf)[2]
Residential (UG 2)	73,925	**204,415**	**130,490**
Total Residential Units	*103*	*300*	***197***
Affordable Residential Units	*0*	*60*	***60***
Commercial	0	0	**0**
Community Facility	16,540	39,694	**23,154**
Required Accessory Parking	46 spaces	0 spaces	**-46 spaces**
Building Height	232 feet	385 feet	**153 feet**
TOTAL[1]	**105,481**	**259,125**	**153,644**

Notes:
[1] The development in both the No-Action and the revised With-Action Condition contain a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[2] The development in the revised With-Action Condition contemplates the same programming as the With-Action Condition in the May 3, 2019 EAS. The maximum achievable floor area does not change in the revised With-Action Condition, only the maximum building envelope.

While the programming of the development in the revised With-Action Condition would remain consistent with the programming of the development in the With-Action Condition, it would vary in bulk and height. The development in the revised With-Action Condition would be approximately 385 feet in height, representing a reduction of 25 feet. However, more of the building would be massed on the street wall fronting Frawley Circle, resulting in a wider base. The modifications resulted in a building that was shorter, but slightly wider than the With-Action Condition in the May 3 EAS.

This Technical Memorandum analyzes development in the revised With-Action Condition as described above to determine if the changes to the building bulk and height would result in any potential adverse environmental effects.

3) DESCRIPTION OF THE SURROUNDING AREA

The area within 400 feet of the Directly Affected Area (the "Study Area") includes primarily residential and community facility/ institutional uses (Figure 3-1). The area to the north, west, and east is predominantly residential, comprised of multi-family walk-up and multi-family elevator residences. Institutional uses are dispersed intermittently throughout the Study Area and commercial uses are located along Fifth Avenue and Madison Avenue. Central Park is located to the southeast of the Directly Affected Area and comprises about a quarter of the Study Area. Public School (P.S.) 185 Early Childhood Discovery and Design Magnet School, occupies the majority of Block 1595, located to the north of the Directly Affected Area. The King Towers New York City Housing Authority (NYCHA) residential development, located at 90 Lenox Avenue, contains ten buildings, between 13 and 14-stories tall, across approximately 13.75 acres.

As shown in Figure 3-2, zoning districts within the Study Area include residential districts (R7-2, R8A, R8, and R9) to the west, north, and east, a C1-9 zoning district is located immediately east of the Directly Affected Area, and a C4-6 zoning district located southeast of the Directly Affected Area. There is a C1-4 commercial overlay mapped along the west side of Fifth Avenue to a depth of approximately 100 feet and parkland to the south and southwest of the Directly Affected Area.

The Special Park Improvement District is immediately east of the Directly Affected Area extending south along Fifth Avenue. The Directly Affected Area is served by public transportation with access to the 2 and 3 lines of the New York City Transit (NYCT) subway at the Central Park North (110 Street) Station, west of the Directly Affected Area on Malcolm X Boulevard. Additionally, the NYCT M2, M3, and M4 busses are accessible at Frawley Circle, adjacent to the Directly Affected Area. The NYCT M1 bus is accessible at the intersection of West 111 Street and Fifth Avenue.

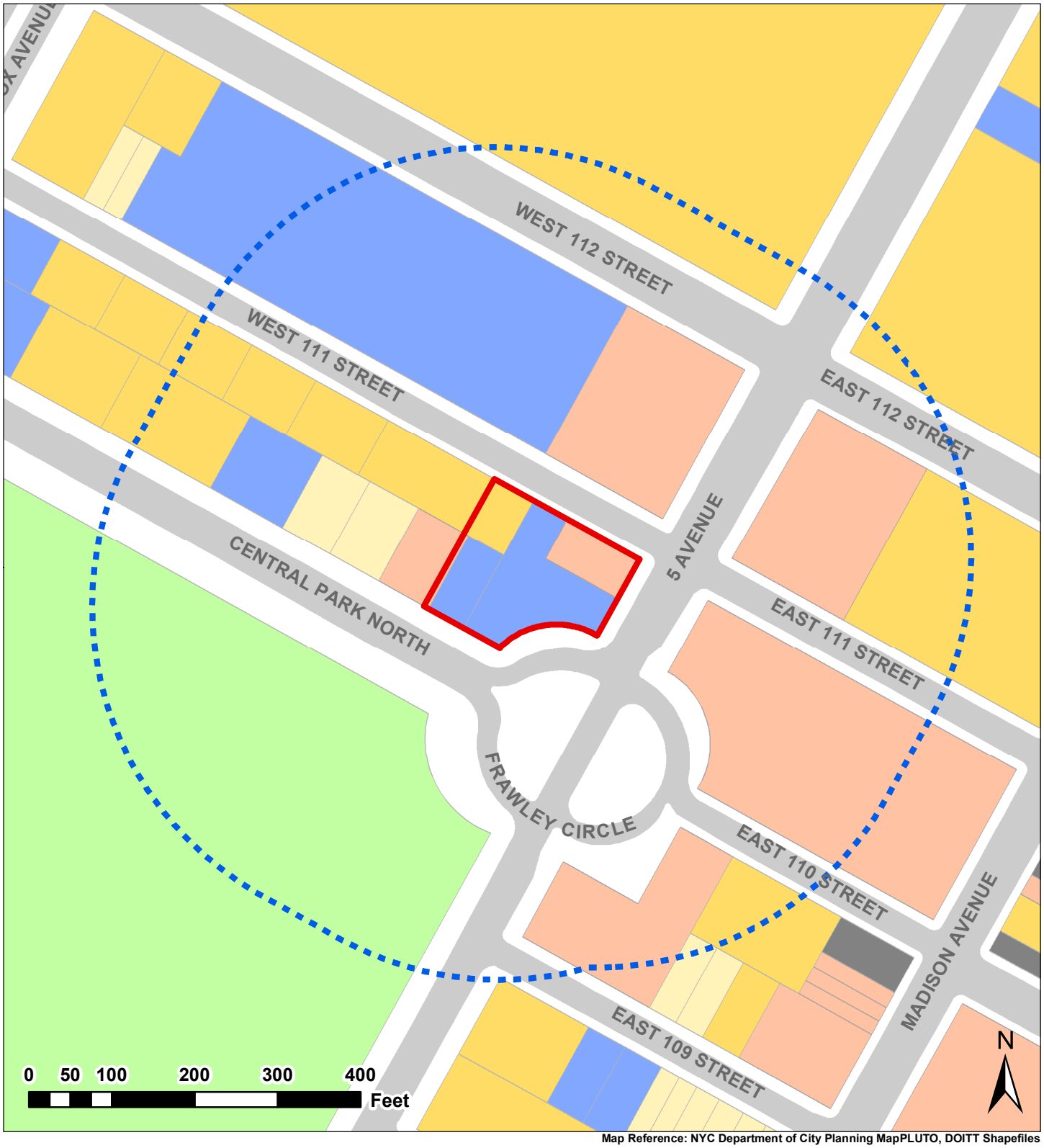
4) DESCRIPTION OF THE PROJECT SITE

The Project Site consists of Block 1594, Lot 41, in the Central Harlem neighborhood of Manhattan, Community District 10. The approximately 15,016 square-foot (sf) irregularly shaped Project Site is generally bound by East 111th Street to the north; a six story multi-family walk-up building containing a ground floor commercial use to the northeast; Fifth Avenue to the east; Frawley Circle to the southeast; Central Park North to the south; and a three (3)-story church and a five (5)-story multi-family residential building to the west. Lot 41 has been partially improved with La Hermosa Church, a three story building constructed in 1940 that occupies approximately half of the Project Site with a parking lot on the remainder. The northern portion of the Project Site (p/o Lot 41), is zoned R7-2; and the southern portion (p/o Lot 41), is zoned R8. The C1-4 commercial overlay extends westward from Fifth Avenue to a depth of approximately 100 feet on the Project Site.

FIGURE 3-1

LA HERMOSA REZONING

EXISTING LAND USE MAP



Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Directly Affected Area

Study Area (400-foot radius)

Land Use

- One & Two Family Residences
- Multifamily Walkup Residences
- Multifamily Elevator Residences
- Mixed Residential/ Commercial
- Commercial Uses
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities/Institutions
- Open Space
- Parking
- Vacant Land

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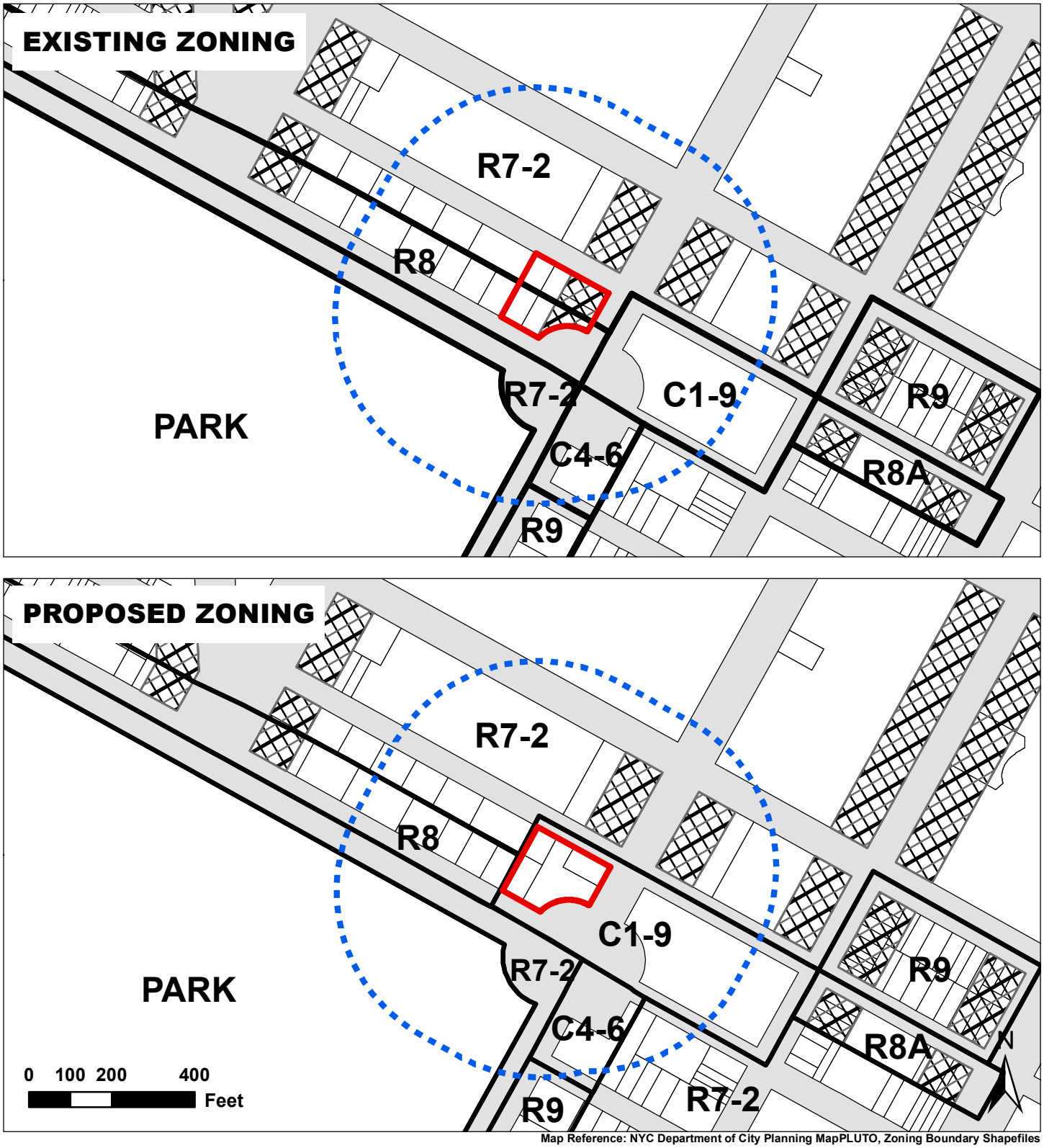
FIGURE 3-2

LA HERMOSA REZONING

EXISTING & PROPOSED ZONING MAP



Map Reference: NYC Department of City Planning MapPLUTO, Zoning Boundary Shapefiles

Directly Affected Area

Study Area (400-foot radius)

R8 Zoning District

Commercial Overlay

C1-4

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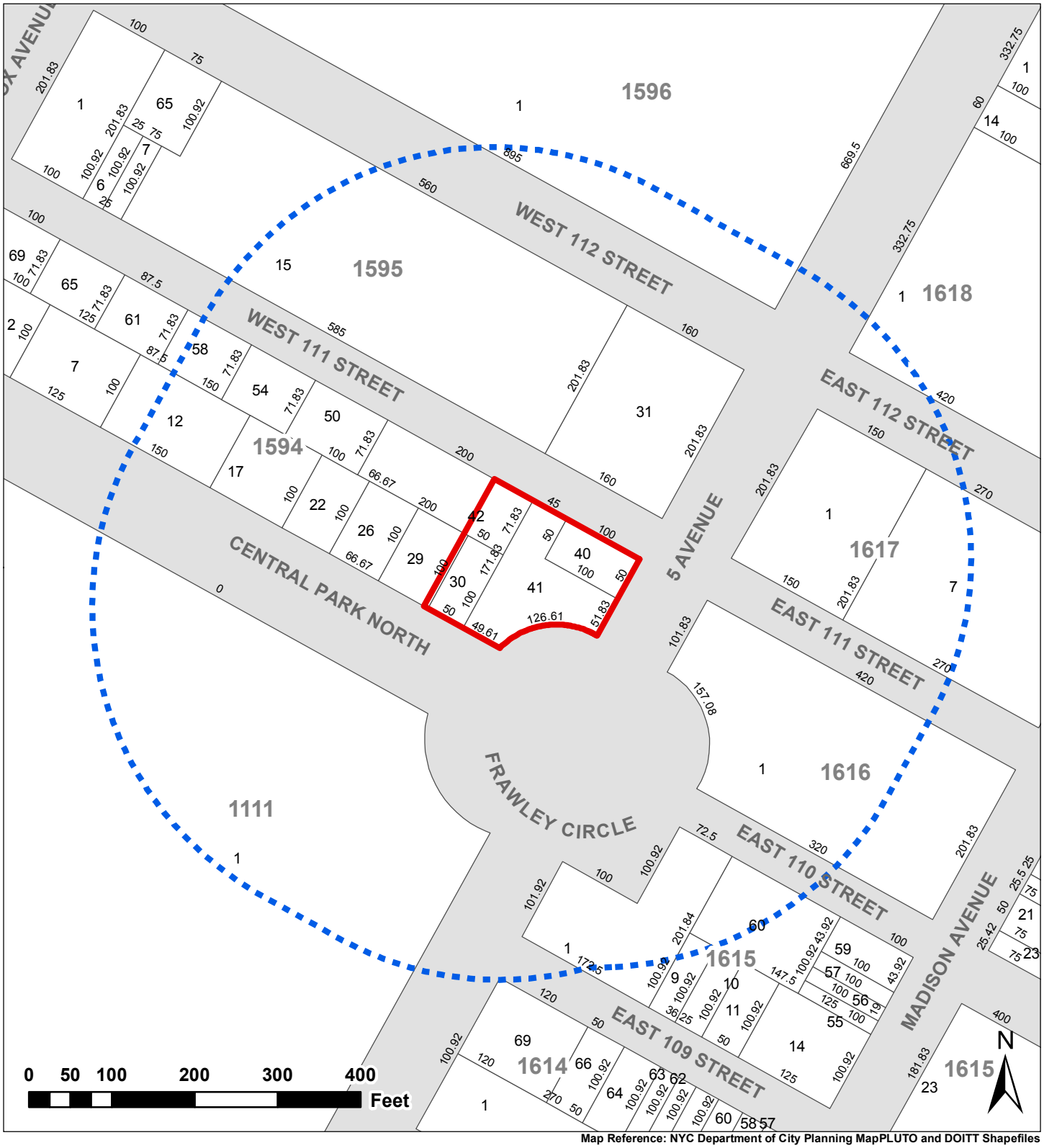
LA HERMOSA REZONING

FIGURE 3-3
TAX MAP



Map Reference: NYC Department of City Planning MapPLUTO and DOITT Shapefiles

Directly Affected Area

Study Area (400-foot radius)

41 Tax Lot

1594 Tax Block

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5) ASSESSMENT OF PROPOSED MODIFICATIONS

Development in the revised With-Action Condition would result in a *decrease* in building height compared to development in the With-Action Condition contemplated in the May 3 EAS. Specifically, development in the revised With-Action Condition would have a roof height of 385 feet, which represents a reduction of 25 feet from what was contemplated in the EAS. Aside from the reduced building height, the building mass in the development in the revised With-Action Condition along Frawley Circle was increased by approximately 25 feet compared to the development contemplated in the May 3 EAS. Ultimately, the modifications resulted in a building that was shorter, but slightly wider than the With-Action Condition in the May 3 EAS.

As shown in Table 2, development in the revised With-Action Condition would maximize the allowable floor area and would therefore contain the same total floor area as the With-Action Condition in the May 3 EAS. Accordingly, because the difference between development in the revised With-Action Condition and the With-Action Condition contemplated in the May 3 EAS relates only to building height and bulk and not to floor area density, additional assessment in the following technical areas is warranted: Shadows, Urban Design, and Air Quality.

No additional discretionary actions are necessary to facilitate the development of the Proposed Project.

Table 2: Initial and revised With-Action Condition Comparison

Land Use (Use Group)	No-Action Condition (gsf)	May 3 EAS With-Action Condition (gsf)	Revised With-Action Condition (gsf)	Difference between *EAS and revised With-Action*[2]
Residential (UG 2)	73,925	**204,415**	**204,415**	**0**
Residential Units	*103*	*300*	*300*	***0***
Affordable Residential Units	*0*	*60*	*60*	***0***
Commercial	0	0	0	**0**
Community Facility	16,540	39,694	39,694	**0**
Required Accessory Parking	46 spaces	0 spaces	0 spaces	**0**
Building Height	232 feet	410 feet	385 feet	**-25 feet**
TOTAL[1]	**105,481**	**259,125**	**259,125**	**0**

Notes:

[1] The development in the No-Action Condition, the With-Action Condition, and the revised With-Action Condition contain a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

[2] The revised With-Action Condition contemplates the same programming as the With-Action Condition in the May 3, 2019 EAS. The maximum achievable floor area does not change in the revised With-Action Condition, the modifications only affect the building envelope.

6) SHADOWS

INTRODUCTION

According to the *CEQR Technical Manual*, a shadow assessment is necessary when a proposed action would result in a new structure(s) or additions to an existing structure(s) that are greater than 50 feet in height and/or are adjacent to an existing sunlight-sensitive resource. The *CEQR Technical Manual* defines a shadow as a condition that results when a building or other built structure blocks sunlight that would otherwise directly reach a certain area, space, or feature. An adverse shadow impact could occur when a shadow from a proposed project falls on a publicly accessible open space, historic landscape, or other historic resource that requires sunlight for its enjoyment by the public, or its architectural and historic integrity (*e.g.*, stained glass windows), or if the shadow falls on an important natural feature and adversely affects its use or landscaping and vegetation. Shadows occurring on non-significant features (city streets, sidewalks, buildings, and privately-owned open space), or within 1.5 hours of sunrise or sunset, generally are not considered significant under CEQR.

In the No-Action Condition, Lot 41 would be improved with a 20-story (232 feet), approximately 105,481[2] gsf mixed residential and community facility building. Development in the No-Action Condition would comprise approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required accessory off-street parking spaces.

In the revised With-Action Condition, Lot 41 would be improved with a 30-story (385 feet), approximately 259,125 gsf mixed residential and community facility building.[3], comprised of approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space. Accordingly, development in the revised With-Action Condition would represent an approximately 153 foot incremental building height increase over the No Action Condition.

While the programming of the development in the revised With-Action Condition would remain consistent with the programming of the With-Action Condition in the May 3 EAS, it would vary in bulk and height. The development in the revised With-Action Condition would be approximately 385 feet in height, representing a reduction of 25 feet. However, more of the building would be massed on the street wall fronting Frawley Circle, resulting in a wider base. The modifications resulted in a building that was shorter, but slightly wider than the With-Action Condition in the May 3 EAS; therefore, a revised shadows assessment is warranted.

For the purpose of this revised shadows assessment, the term incremental shadow is defined as the shadow cast in the revised With-Action Condition compared to the shadow cast in the No-Action Condition.

[2] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[3] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

PRINCIPAL CONCLUSIONS

Based on a preliminary assessment, the shadow study area includes nine potentially sunlight-sensitive resources that may be affected by incremental shadows from the development in the With-Action Condition. These sunlight-sensitive resources include open space resources and natural resources. Therefore, a detailed shadow analysis was conducted.

Based on the detailed shadow analysis, the Proposed Actions would result in incremental shadow coverage on five potentially sunlight-sensitive resources: Central Park, Lasker Pool, the Harlem Meer, P.S. 185 Playground, and P.S. 208 Alain L. Locke Playground. The incremental project-generated shadows would not substantially reduce or eliminate direct sunlight on any of the sunlight-sensitive resources, and thus would not result in significant adverse impacts.

Compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would *increase* shadow coverage on two resources (the P.S. 185 and P.S. 208 Playgrounds) on one analysis day (December 21) but *reduce* shadow coverage on all resources on the remaining analysis days.

METHODOLOGY

The analysis methodology is based on the guidelines of the *CEQR Technical Manual*, which includes conducting a preliminary assessment to determine whether shadows resulting from a proposed project could reach any sunlight-sensitive resource at any time of year. The Tier 1 screening assessment identifies a shadow study area based on the height of structure(s) in the future with the proposed action and the longest shadow a proposed structure(s) could cast, which in New York City is 4.3 times the height of the structure. If there are sunlight-sensitive resources within the shadow study area, a Tier 2 screening assessment is warranted. As stated in the *CEQR Technical Manual*, because of the path 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, the area is between -108 and +108 degrees from true north. If the area outside this triangular area contains a sunlight-sensitive resource(s), further analysis is necessary. The Tier 3 screening assessment is a detailed assessment that further refines the analysis once sunlight-sensitive resources have been identified by analyzing specific representative days of the year and determining the maximum extent of shadows over the course of each representative day on these sunlight-sensitive resources.

Based on the guidelines of the *CEQR Technical Manual*, if the three-tiered screening analysis described above does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources, a detailed shadow analysis is warranted.

The 1,656 foot buffer surrounding the structure is defined as the shadow study area and is used to determine if a sunlight-sensitive open space and historic resources could be shaded by the incremental shadows cast as a result of the development in the With-Action Condition. According to the *CEQR Technical Manual*, public open spaces and certain publicly-accessible designated historic landmarks – such as landmarks that have sunlight sensitive components including stained glass or ornate carving on the façade (the enjoyment of which relies on sunlight)- are considered sunlight-sensitive resources.

The development in the revised With-Action Condition would result in an approximately 153 foot increase in building height compared to the development in the No-Action Condition. Therefore, a three-tiered shadow screening assessment was performed, in accordance with *CEQR Technical Manual* guidelines using the maximum building height of 385 feet to determine the longest shadow study area and the sunlight-sensitive open space and historic resources within a study area that could be shaded by the incremental shadows cast as a result of the development in the With-Action Condition.

Tier 1 Screening Assessment

As shown in Figure 6-1, a building with a maximum height of 385 feet could cast a shadow extending over a maximum radius of 1,656 feet—the "Shadow Study Area" occurring on December 21, the winter solstice (385 feet x 4.3 = 1,656 feet). This Shadow Study Area contains multiple sunlight-sensitive open space resources and a scenic landmark. Accordingly, a Tier 2 screening assessment is necessary to determine which of these sunlight-sensitive resources are within the portion of the Shadow Study Area that could potentially be shaded as a result of the development in the revised With-Action Condition.

Tier 2 Screening Assessment

According to the *CEQR Technical Manual,* shadows cast by a proposed building generally fall to the north, east, and west depending on the day and time. In New York City, the shadow area is between –108 degrees and +108 degrees from true north (Figure 6-2). Accordingly, any area lying to the south of a site in the triangular area between these angles cannot be shaded by a proposed project.

As shown in Figure 6-2, the portion of the Shadow Study Area that has the potential to be shaded contains multiple sunlight-sensitive open space resources and a designated scenic landmark. As listed in Table 3, the sunlight-sensitive open space resources include Martin Luther King Jr. Playground, Central Park, Lasker Pool, La Cuevita Garden, Pueble Unido Garden, Family Community Garden, the Harlem Meer, P.S. 185 Playground, and P.S. 208 Alain L. Locke Playground. Therefore, a Tier 3 screening assessment is required to determine whether the incremental shadow resulting from the development in the With-Action Condition could affect any of these resources during the representative analysis days.

Table 3: Sunlight-Sensitive Resources – Tier 2 Shadow Screening Assessment

Sunlight-sensitive Resource	Type of Resource
Martin Luther King Jr. Playground	Public Open Space
Central Park	Public Open Space and Scenic Landmark
Lasker Pool	Public Open Space (within Central Park)
La Cuevita Garden	Public Open Space
Pueble Unido Garden	Public Open Space
Family Community Garden	Public Open Space
Harlem Meer	Surface Water Body (within Central Park)
P.S. 185 Playground	Public Open Space
P.S. 208 Alain L. Locke Playground	Public Open Space

FIGURE 6-1

TIER 1 SCREENING ASSESSMENT

5 WEST 110TH STREET

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
S/NR Resource
Individual Landmark
Waterbodies
Open Space
Historic District

CENTRAL HARLEM, MANHATTAN, NY

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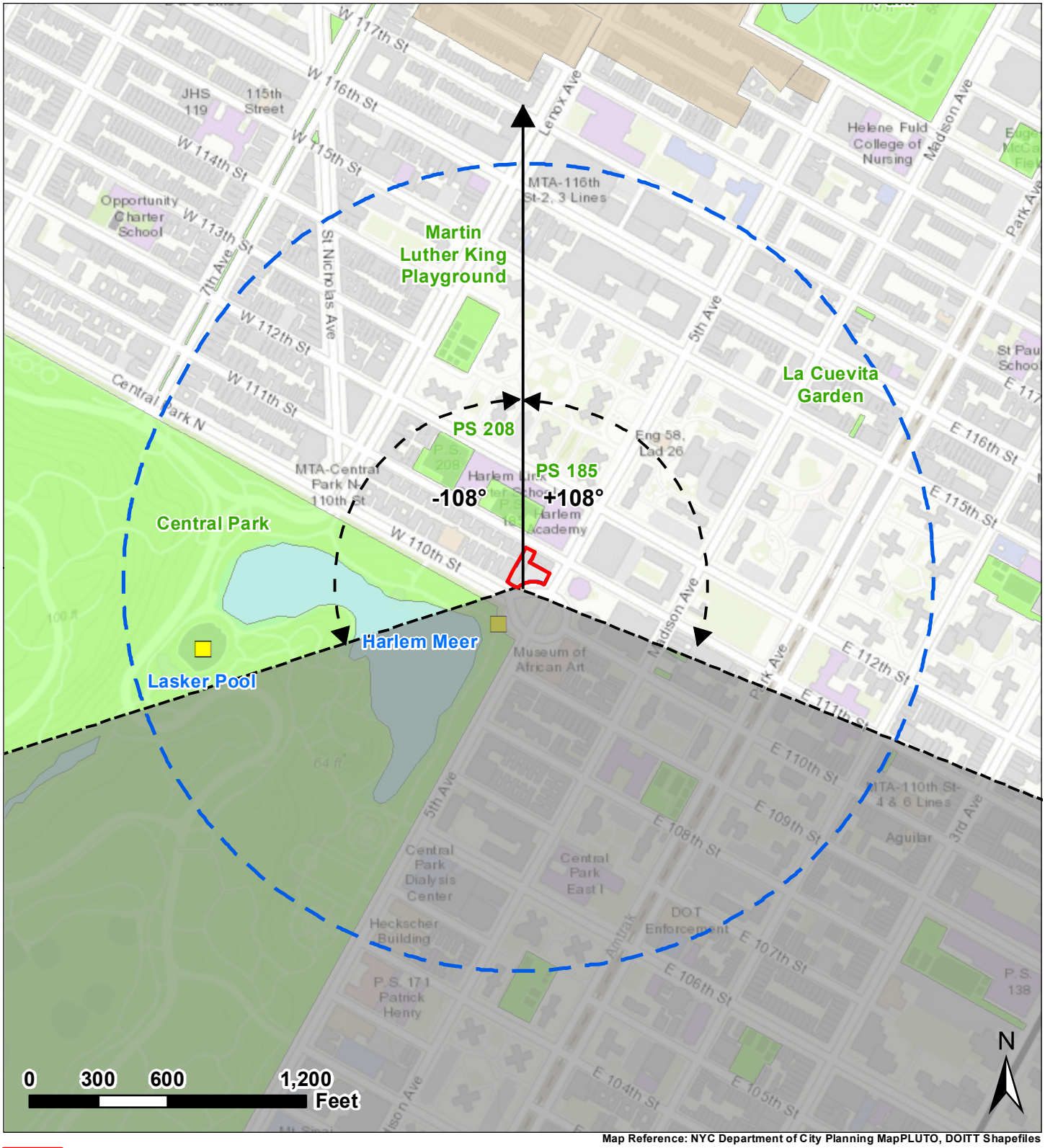
FIGURE 6-2
TIER 2 SCREENING ASSESSMENT



Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
Area that cannot be shaded
S/NR Resource
Waterbodies
Open Space
Historic District

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Tier 3 Screening Assessment

In accordance with the guidelines in the *CEQR Technical Manual*, a Tier 3 screening assessment was performed for four representative days of the year: March 21, the vernal equinox (which is equivalent to September 21, the autumnal equinox); May 6, the midpoint between the vernal equinox and summer solstice (which is equivalent to August 6, the midpoint between the summer solstice and autumnal equinox); June 21, the summer solstice and longest day of the year, and December 21, the winter solstice and shortest day of the year.[4]

The Tier 3 shadow assessment indicates the difference in the shadows cast between development in the No-Action and the revised With-Action condition, and the times when the development in the revised With-Action Condition would increase shadows cast on the sunlight sensitive resources in the absence of intervening buildings. As the earth rotates around the sun, shadows fall in an ellipse on the ground, opposite the movement of the sun. When the sun rises, shadows fall to the west. As the sun travels across the southern part of the sky throughout the day, shadows move in a clockwise direction until they stretch east as the sun sets in the west. Midday shadows are always shorter than those at other times because the sun is highest in the sky at that time. Because of the tilt of the earth's axis, the angle at which the sun's rays strike the earth varies throughout the year, so that during the summer, the sun is higher in the sky and shadows are shorter than during the winter. Because the sun is low in the sky, winter shadows, although longest, move the most quickly along their paths and do not affect the growing season of outdoor trees and plants. The development in the revised With-Action Condition represents the worst-case development scenario for environmental assessment and was used for all modeling of shadows.

The Tier 3 screening assessment used the maximum building height of 385 feet to determine the shadows on the four representative days of the year. Shadows in the With-Action Condition were then compared to the shadows from the No-Action Condition to determine the incremental shadow. Incremental shadows resulting from development in the revised With-Action Condition are shown in dark gray on Figures 6-3 through 6-6. The sunlight-sensitive resources identified in the Tier 3 screening assessment are listed in Table 4. The results of the shadow assessment are discussed below.

[4] Pursuant to CEQR Technical Manual guidelines, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight savings time that is in effect from mid-March to early November.

Table 4: Tier 3 Shadow Screening Assessment Results

Resource Name	March 21/Sept 21 (7:36AM- 4:29PM)	May 6/August 6 (6:27AM- 5:18PM)	June 21 (5:57AM- 6:01PM)	December 21 (8:51AM – 2:53PM)	Analysis Days
P.S. 185 Playground	Shaded	Shaded	Shaded	Shaded	**4**
Central Park	Shaded	Shaded	Shaded	Not Shaded	**3**
Harlem Meer	Not Shaded	Shaded	Shaded	Not Shaded	**2**
P.S. 208 Playground	Shaded	Not Shaded	Not Shaded	Shaded	**2**
Martin Luther King Jr. Playground	Not Shaded	Not Shaded	Not Shaded	Shaded	**1**
Lasker Pool	Not Shaded	Not Shaded	Shaded	Not Shaded	**1**
La Cuevita Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
Pueble Unido Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**
Family Community Garden	Not Shaded	Not Shaded	Not Shaded	Not Shaded	**0**

According to the *CEQR Technical Manual*, uses associated with open space that rely on sunlight include passive recreation, such as sitting or sunning, and active recreation, such as using playfields or paved courts, gardening, or playing in children's wading pools and sprinklers. Vegetation requiring direct sunlight includes tree canopies, flowering plants, and plots in community gardens. Four to six hours a day of sunlight, particularly in the growing season (defined in the *CEQR Technical Manual* as March to October), is a general minimum requirement. Shade created by trees and other natural features is not considered to be a shadow of concern for the assessment; however, incremental shadows on a tree-shaded environment may create an adverse impact because the incremental shadow is not redundant with tree shade, and the tree canopy may be considered a sunlight-sensitive resource.

Table 4 summarizes the results of the Tier 3 screening assessment. Based on the Tier 3 screening assessment, La Cuevita Garden, Pueble Unido Garden, and Family Community Garden *would not* receive project-generated shadows on any of the four analysis days; therefore, these resources would not require further analysis.

As shown in Table 4, four open space resources (Lasker Pool, P.S. 185 Playground, P.S. 208 Playground, and Martin Luther King Jr. Playground), one open space resource that is also a scenic landmark (Central Park), and one surface water body (Harlem Meer) could, in the absence of intervening buildings, receive project-generated shadows on one or more analysis days. Accordingly, a detailed shadows assessment was performed for these six sunlight-sensitive resources.

March 21/ September 21

As shown on Figure 6-3, on March 21, which is equivalent to September 21, the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. The incremental shadow generated by the development in the With-Action Condition on the March 21/September 21 analysis day would have the potential to reach one open space resource/scenic landmark (Central Park), and two open space resources (P.S. 185 Playground and P.S. 208 Playground).

May 6/ August 6

As shown in Figure 6-4, on May 6, which is equivalent to August 6, the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. The incremental shadow generated by the development in the With-Action Condition on the May 6/August 6 analysis day would have the potential to reach one open space resource/ scenic landmark (Central Park), one surface water body (Harlem Meer), and one open space resource (P.S. 185 Playground).

June 21

As shown in Figure 6-5, on June 21, the time period for shadows analysis begins at 5:57 AM and continues until 6:01 PM. The incremental shadow generated by the development in the With-Action Condition on the June 21 analysis day would have the potential to reach one open space resource/ scenic landmark (Central Park), one surface water body (Harlem Meer), and two open space resources (Lasker Pool and P.S. 185 Playground).

December 21

As shown in Figure 6-6, on December 21, the time period for shadows analysis begins at 8:51 AM and continues until 2:53 PM. The incremental shadow generated by the development in the With-Action Condition on the December 21 analysis day would have the potential to reach three open space resources (Martin Luther King Jr. Playground, P.S. 185 Playground, and P.S. 208 Playground).

FIGURE 6-3

5 WEST 110TH STREET

TIER 3 MARCH 21 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site
Shadow Study Area
No-Action Condition Shadow
With-Action Condition Shadow
S/NR Resource
Waterbodies
Open Space
Historic District

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FIGURE 6-4

5 WEST 110TH STREET

TIER 3 MAY 6 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

Development Site

Shadow Study Area

No-Action Condition Shadow

With-Action Condition Shadow

S/NR Resource

Waterbodies

Open Space

Historic District

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FIGURE 6-5

TIER 3 JUNE 21 SCREENING ASSESSMENT

5 WEST 110TH STREET

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- With-Action Condition Shadow
- S/NR Resource
- Waterbodies
- Open Space
- Historic District

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FIGURE 6-6

5 WEST 110TH STREET

TIER 3 DECEMBER 21 SCREENING ASSESSMENT

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- With-Action Condition Shadow
- S/NR Resource
- Waterbodies
- Open Space
- Historic District

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Detailed Shadow Analysis

To evaluate the duration and extent of a shadow that could potentially be cast on a sunlight-sensitive resource, existing intervening buildings within the Shadow Study Area must be accounted for. Intervening buildings could either intercept the shadow cast by the development in the revised With-Action Condition, or would cast shadows of their own, with or without the development of the Proposed Project. Accordingly, the breadth of such shadows must be accounted for in the detailed shadow analysis. If modeling indicates the incremental shadow cast as result of the development in the revised With-Action Condition would fall partially or entirely within the boundary of the shadow cast by an existing intervening building, that portion of overlapping shadow would not be considered incremental for the purposes of the detailed shadow analysis.

Pursuant to the *CEQR Technical Manual*, detailed shadow analyses were then performed for the six identified sunlight-sensitive resources on the four representative days of the year. The CEQR guidelines define the shadow analysis day as 1.5 hours after sunrise to 1.5 hours before sunset and shadows before or after these times are not considered significant for CEQR purposes. As discussed above, the results of the shadows assessment indicate the incremental shadows between the development in the No-Action and the revised With-Action condition.

As shown in Table 5, accounting for intervening buildings, incremental shadows would have the potential to reach all six of sun-sensitive resources identified in the Tier 3 assessment (Table 4). An increase in shadow coverage would occur at one resource on four analysis days, one resource on three analysis days, at two resources on two analysis days, and at two resources on one analysis day. Figures 6-7 through 6-10 illustrate incremental shadow coverage for the six sunlight-sensitive resources on each day.

Table 5: Incremental Shadow Duration on Sunlight-Sensitive Resources (Revised With-Action Condition)

Sunlight-sensitive Resource	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
		March 21/Sept. 21	May 6/ August 6	June 21	December 21
		7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
Central Park	Shadow enter-exit time	7:36 – 7:55 AM	6:27 – 8:05 AM	5:57 – 8:25 AM	-
	Incremental shadow duration	19 minutes	1 hour and 38 minutes	2 hours and 28 minutes	-
Lasker Pool	Shadow enter-exit time	-	-	5:57-6:03 AM	-
	Incremental shadow duration	-	-	4 Minutes	-
Harlem Meer	Shadow enter-exit time	-	6:27 – 7:22 AM	5:57 – 7:25 AM	-
	Incremental shadow duration	-	55 minutes	1 hour and 25 minutes	-
P.S. 185 Playground	Shadow enter-exit time	9:47 AM – 1:10 PM	10:45 AM – 12:30 PM	11:40 AM – 12:20 PM	8:51 AM – 1:40 PM
	Incremental shadow duration	3 hours and 23 Minutes	1 hour and 45 minutes	40 minutes	4 hours and 49 minutes
P.S. 208 Playground	Shadow enter-exit time	9:25 – 9:55 AM	-	-	8:51 – 10:40 AM
	Incremental shadow duration	30 minutes	-	-	1 hour and 49 minutes
Martin Luther King Jr. Playground	Shadow enter-exit time	-	-	-	10:12 – 10:45 AM
	Incremental shadow duration	-	-	-	33 minutes

***Notes**: All times are Eastern Standard Time (EST); Daylight Savings Time was not accounted for per CEQR Technical Manual guidelines. Table 5 indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.*

Table 6: Shadow Duration on Sunlight-Sensitive Resources (With-Action Condition May 3, 2019 EAS)

Sunlight-sensitive Resource	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
		March 21/Sept. 21	May 6/ August 6	June 21	December 21
		7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
Central Park	Shadow enter-exit time	7:36 – 8:05 AM	6:27 – 8:24 AM	5:57 – 8:44 AM	-
	Incremental shadow duration	29 minutes	1 hour and 57 minutes	2 hours and 47 minutes	-
Lasker Pool	Shadow enter-exit time	-	-	5:57-6:22 AM	-
	Incremental shadow duration	-	-	25 Minutes	-
Harlem Meer	Shadow enter-exit time	-	6:27 – 7:37 AM	5:57 – 7:44 AM	-
	Incremental shadow duration	-	1 hour and 10 minutes	1 hour and 47 minutes	-
P.S. 185 Playground	Shadow enter-exit time	9:46 AM – 1:13 PM	10:34 AM – 12:36 PM	11:25 AM – 12:29 PM	8:51 AM – 12:26 PM
	Incremental shadow duration	3 hours and 27 Minutes	2 hours and 2 minutes	1 hour and 4 minutes	3 hours and 35 minutes
P.S. 208 Playground	Shadow enter-exit time	9:20 – 10:23 AM	-	-	8:51 – 10:19 AM
	Incremental shadow duration	1 hour and 3 minutes	-	-	1 hour and 28 minutes
Martin Luther King Jr. Playground	Shadow enter-exit time	-	-	-	10:09 – 11:16 AM
	Incremental shadow duration	-	-	-	1 hour and 7 minutes

***Notes**: All times are Eastern Standard Time (EST); Daylight Savings Time was not accounted for per CEQR Technical Manual guidelines. Table 5 indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.*

Central Park

Central Park is an 840.01-acre flagship park bounded by Fifth Avenue to the east, Central Park West to the west, 59 Street to the south, and Central Park North to the north. The park contains a number of amenities including numerous athletic fields and courts, bicycling paths and greenways, fishing areas, fitness equipment, historic houses, nature centers, paddleboat rentals, playgrounds, and zoos and aquariums.[5] Lasker Pool and Rink is located within Central Park, west of the Harlem Meer, and operates as a free community pool during the summer (from the end of June to Labor Day Weekend) and as an ice skating rink in the winter.

March 21/September 21

As shown in Figure 6-7 and Table 5, on March 21/September 21, incremental shadows would enter a small portion of Central Park beginning at approximately 7:36 AM, the beginning of the analysis day, traversing only lawn and paths before exiting the park at 7:55 AM.

May 6/ August 6

As shown in Figure 6-8 and Table 5, on May 6/August 6, incremental shadows would enter a portion of Central Park beginning at approximately 6:27 AM, the beginning of the analysis day, traversing a portion of the Harlem Meer for approximately one hour in a diminishing shadow pattern before exiting the Meer at 7:22 AM, and fully exiting the park by 8:05 AM.

June 21

As shown in Figure 6-9 and Table 5, on June 21, incremental shadows would traverse Central Park beginning at 5:57 AM before exiting the park at 8:25 AM.

ASSESSMENT

While there would be coverage of Central Park due to incremental shadows generated by the development in the revised With-Action Condition, the maximum duration would be approximately 2 hours and 28 minutes on the June 21 analysis day early in the morning. Incremental shadows would not be present on Central Park for the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the day. The park would continue to receive adequate sunlight during the growing season and vegetation would not be affected because the incremental shadows would shift across the landscape and no one specific area would shaded for the entirety of the incremental shadow duration. In addition, in relation to the size of the park, the largest generated incremental shadow would represent less than one percent of the total park acreage. Therefore, the project-generated shadows are not anticipated to adversely impact Central Park. Additionally, compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would result in *decreased* shadow coverage on Central Park on the March 21, May 6, and June 21 analysis days.

[5] https://www.nycgovparks.org/parks/central-park (Date Accessed: October 11, 2019)

Lasker Pool

As stated previously, Lasker Pool and Rink is S/NR listed, located within Central Park (an LPC scenic landmark), west of the Harlem Meer, operates as a free community pool during the summer (from the end of June to Labor Day Weekend) and as an ice skating rink in the winter. Lasker Pool is open daily in the summer between 11:00AM and 7:00PM, with early bird and night owl lap swimming available daily from 7:00 – 8:30AM and 7:00- 8:30PM, respectively. The development in the revised With-Action Condition would result in an incremental shadow only on the June 21 analysis day; and would not experience shadows on any of the other analysis days.

June 21

As shown in Figure 6-9 and Table 5, on June 21, incremental shadows would cover a portion of Lasker Pool beginning at 5:57 AM before exiting at 6:03 AM.

ASSESSMENT

While there would be coverage of only the southeastern portion of Lasker Pool due to incremental shadows generated by the development in the revised With-Action Condition, the maximum duration would be approximately four minutes. Additionally, the shadows anticipated to be generated by the development in the With-Action Condition would shade a small portion of Lasker Pool beginning at 5:57AM and exit the pool at 6:03 AM, prior to the opening of the pool to the public for the early bird lap swim at 7:00 AM and the general opening at 11:00 AM. Throughout the remaining morning, afternoon, and evening hours when the pool would be in use, there would be no incremental shadow on the pool. Therefore, project-generated incremental shadow coverage would not adversely impact Lasker Pool. Additionally, compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would result in *decreased* shadow coverage on Lasker Pool on the June 21 analysis day.

Harlem Meer

In the City, surface water bodies are important natural resources that serve as: (1) habitat for a wide variety of aquatic life, including finfish and bottom organisms ("benthic organisms"); (2) resources for shipping and boating; (3) recreational resources; and (4) in limited cases, water supply.[6] The Harlem Meer is located on the northeast corner of Central Park and is considered a surface water body, pursuant to the *CEQR Technical Manual*.

Development in the With-Action Condition would result in incremental shadows of varying duration and coverage on the May 6 and June 21 analysis days.

May 6/ August 6

As shown in Figure 6-8 and Table 5, on May 6, which is equivalent to August 6, incremental shadow coverage would begin on the Meer at approximately 6:27 AM, the beginning of the analysis day. Between 6:27 AM and 7:22 AM, incremental shadows would traverse the Meer with a decreasing

[6] *CEQR Technical Manual, 2014*

footprint, before exiting the Meer at approximately 7:22 AM. There would be no incremental shadow on the Meer for the remainder of the May 6/August 6 analysis day.

June 21

As shown in Figure 6-9 and Table 5, on June 21, incremental shadows would begin casting on a portion of the Meer at approximately 5:57 AM, the beginning of the analysis day. Between 5:57 AM and 7:25 AM, incremental shadows would traverse the Meer in a decreasing footprint before exiting the Meer at approximately 7:25 AM. There would be no incremental shadow on the Meer for the remainder of the June 21 analysis day.

ASSESSMENT

While there would be partial coverage of the Harlem Meer due to incremental shadows generated by the development in the revised With-Action Condition, the maximum duration would be approximately 1 hour and 25 minutes on the June 21 analysis day. Accordingly, because these durations occur at the beginning of the analysis day and are not anticipated to result in a reduction in sunlight to less than four to six hours, the habitat and ecology of the Meer would not be anticipated to be affected by the incremental shadows. Additionally, the Meer would continue to receive adequate sunlight during the growing season and vegetation would not be affected because the incremental shadows would shift across the Meer and no one specific area would be shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact the Harlem Meer. Additionally, compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would result in *decreased* shadow coverage on the Harlem Meer on the May 6 and June 21 analysis days.

<u>P.S. 185 Playground</u>

P.S. 185 Playground is a 0.60-acre playground located along West 111 Street between Malcolm X Boulevard and Fifth Avenue. The park contains basketball courts and a playground that is only available to the public during non-school hours. The development in the revised With-Action Condition would result in an incremental shadow on all four analysis days.

March 21/September 21

As shown in Figure 6-7 and Table 5, on March 21/September 21, incremental shadows would cover a portion of P.S. 185 Playground beginning at approximately 9:47 AM. Between 9:47 AM and 1:10 PM, the incremental shadow would proceed east across the playground.

May 6/ August 6

As shown in Figure 6-8 and Table 5, on May 6/August 6, incremental shadows would cover a portion of P.S. 185 Playground beginning at approximately 10:45 AM traversing a portion of the playground at the southeast corner before exiting the playground by 12:30 PM.

June 21

As shown in Figure 6-9 and Table 5, on June 21, incremental shadows would cover a small portion of the P.S. 185 Playground beginning at 11:40 AM and traversing the southeast corner before exiting by12:20 PM.

December 21

As shown in Figure 6-10 and Table 5, on December 21, incremental shadows would cover a portion of P.S. 185 Playground beginning at 8:51 AM. Between 8:51 AM and 1:40 PM, the incremental shadows would proceed east.

ASSESSMENT

The maximum shadow duration on P.S. 185 Playground would be approximately 4 hours and 49 minutes on the December 21 analysis day. Shadows anticipated to be generated by the development in the revised With-Action Condition would affect the playground primarily during school hours, when the playground is not accessible to the public. When New York City public schools are closed (the end of June to the beginning of September) and the playground is generally accessible to the public, the longest incremental shadow duration would be approximately 40 minutes and would cover only a small portion of the park.

Incremental shadows would not be present on the P.S. 185 playground for the majority of the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the time in which it is typically accessed (i.e. when school is not in session). Additionally, the playground is mostly comprised of paved area, and vegetation would not be affected because the incremental shadows would shift across the playground with no one specific area being shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact P.S. 185 Playground.

Compared to the With-Action Condition in the May3 EAS, the development in the revised With-Action Condition would result in *an additional* 1 hour and 14 minutes of shadow coverage on P.S. 185 Playground on the December 21 analysis day. The development in the revised With-Action Condition would be wider at the base than the development in the With-Action Condition and it is this increase in bulk combined with the trajectory of the sun on the December 21 analysis day that would cause additional incremental shadows to be cast on P.S. 185 Playground. While shadow coverage would increase on the December 21 analysis day, shadow coverage would *decrease* on the March 21, May 6, and June 21 analysis days.

<u>P.S. 208 Playground</u>

P.S. 208 Playground is a 0.87-acre playground located along West 111 Street between Malcolm X Boulevard and Fifth Avenue. The park contains basketball courts and a playground that is only available to the public during non-school hours. The development in the revised With-Action Condition would result in an incremental shadow on two analysis days.

March 21/ September 21

As shown in Figure 6-7 and Table 5, on March 21/September 21, incremental shadows would cover a portion of P.S. 208 Playground beginning at approximately 9:25 AM traversing a portion of the playground at the southeast corner before exiting the playground at 9:55 AM.

December 21

As shown in Figure 6-10 and Table 5, on December 21, incremental shadows would cover a portion of P.S. 208 Playground beginning at 8:51 AM, the beginning of the analysis day. Between 8:51 AM and 10:40 AM, the incremental shadows would proceed east.

ASSESSMENT

The maximum shadow duration on P.S. 208 Playground would be approximately 1 hour and 49 minutes on the December 21 analysis day. Shadows anticipated to be generated by the development in the revised With-Action Condition would affect the playground primarily during school hours, when the playground is not accessible to the public. Incremental shadows would not be present on P.S. 208 playground in the afternoon or evening hours on any of the analysis days and, therefore, would not adversely impact the enjoyment or utilization of the park for the majority of the time in which it could be accessed (i.e. when school is not in session). When New York City public schools are closed (the end of June to the beginning of September) and the playground is more accessible to the public, the playground is not anticipated to receive any incremental shadows. Additionally, the playground is mostly comprised of paved area, and vegetation would not be affected because the incremental shadows would shift across the playground with no one specific area being shaded for the entirety of the incremental shadow duration. Therefore, project-generated incremental shadow coverage is not expected to adversely impact P.S. 208 Playground.

Compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would result in *an additional* 21 minutes of shadow coverage on P.S. 208 Playground on the December 21 analysis day. The development in the revised With-Action Condition would be wider at the base than the development in the With-Action Condition and it is this increase in bulk combined with the trajectory of the sun on the December 21 analysis day that would cause additional incremental shadows to be cast on P.S. 208 Playground. While shadow coverage would increase on the December 21 analysis day, shadow coverage would *decrease* on the March 21 analysis day.

<u>Martin Luther King Jr. Playground</u>

Martin Luther King, Jr. Playground is a 1.0-acre neighborhood park located along Lenox Ave between West 113 Street and West 114 Street. The park contains basketball courts, handball courts, a playground, and spray showers.[7] Development in the revised With-Action Condition would result in an incremental shadow only on the December 21 analysis day.

[7] https://www.nycgovparks.org/parks/martin-luther-king-playground_manhattan (Date Accessed: October 1, 2019)

December 21

As shown in Figure 6-10 and Table 5, on the December 21 analysis day, incremental shadow coverage would begin at approximately 10:12 AM at the southeastern portion of the playground and traversing the playground in a northeasterly direction before exiting the playground at approximately 10:45 AM for a duration of 33 minutes. There would be no incremental shadow coverage for the remainder of the December 21 analysis day.

Assessment

The portion of the playground anticipated to be shaded contains both active and passive uses. While there would be coverage of the playground due to incremental shadows generated by the revised With-Action Condition, the maximum duration would be approximately 33 minutes in mid-morning. During the remaining morning, afternoon, and evening hours, there would be no incremental shadow on the playground. The playground is anticipated to continue to receive at least four to six hours of sunlight a day. Additionally, passive uses within Martin Luther King Jr. Playground would likely be less utilized during the December 21 analysis day due to cold weather. There are no incremental shadows on the playground on any of the other analysis days. Therefore, project-generated incremental shadow coverage is not expected to adversely impact the Martin Luther King Jr. Playground. Additionally, compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would result in *decreased* shadow coverage on Martin Luther King Jr. Playground on the December 21 analysis day.

FIGURE 6-7

5 WEST 110TH STREET

MARCH 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

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FIGURE 6-8

MAY 6 DETAILED SHADOW ANALYSIS

5 WEST 110TH STREET

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

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FIGURE 6-9

5 WEST 110TH STREET

JUNE 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Intervening Building Shadow
- Waterbodies
- Open Space
- Historic District

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FIGURE 6-10

5 WEST 110TH STREET

DECEMBER 21 DETAILED SHADOW ANALYSIS

Map Reference: NYC Department of City Planning MapPLUTO, DOITT Shapefiles

- Development Site
- Shadow Study Area
- No-Action Condition Shadow
- Incremental Shadow
- With-Action Condition Shadow
- Waterbodies
- Open Space
- Historic District

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CONCLUSION

The Proposed Actions would have the potential to generate incremental shadows on six potentially sunlight-sensitive resources. The open space resources under consideration include Central Park, Lasker Pool and Rink, P.S. 185 Playground, P.S. 208 Playground, and Martin Luther King Jr. Playground. Incremental shadows would be cast on Central Park; however, due to the short duration of the shadow and the large size of the park, incremental shadows would not adversely affect the enjoyment of the park. Incremental shadows would be cast on Lasker Pool and Rink; however, shadows are cast for only a short duration in the hour before the facility opens for business, thus the incremental shadows would not adversely affect the enjoyment of the pool during swimming season. Incremental shadows would be cast on both P.S. 185 Playground and P.S. 208 Playground; however, due to the time of day, restricted hours of accessibility, and prevalence of pavement, the incremental shadows would not adversely affect the enjoyment of either playground. Incremental shadows would also be cast on Martin Luther King Jr. Playground; however, due to the short duration and low passive open space utilization in winter, the incremental shadows would not adversely affect the enjoyment of the playground. Incremental shadows would be cast on the Harlem Meer; however, due to the short duration, the shadows are not anticipated to adversely affect the habitat and ecology of the Meer.

While the programming of the development in the revised With-Action Condition would remain consistent with the With-Action Condition in the May 3 EAS, the development would vary in bulk and in height. As a result of these modifications, compared to the With-Action Condition in the May 3 EAS, the development in the revised With-Action Condition would *increase* shadow coverage on two resources (the P.S. 185 and P.S. 208 Playgrounds) on one analysis day (December 21) but would *reduce* shadow coverage on all resources on the remaining analysis periods.

Based on this information, the Proposed Actions are not anticipated to result in any adverse environmental effects from shadows generated by the development in the revised With-Action Condition and no further analysis is necessary.

7) URBAN DESIGN

INTRODUCTION

This section assesses the potential effects on urban design and visual resources that could occur as a result of the Proposed Actions. According to 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 street level, a physical alteration beyond that allowed by the existing zoning, including (i) projects that permit the modification of yard, height, and setback requirements; and (ii) projects that result in an increase in built floor area beyond what would be allowed as-of-right or in the No-Action Condition. City Environmental Quality Review (CEQR) requires a detailed analysis for projects that would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings.

In the No-Action Condition, the Project Site would be improved with a 20-story (232 feet), approximately 105,481[8] gsf mixed residential and community facility building, comprised of approximately 73,925 gsf of residential floor area, including approximately 103 dwelling units, approximately 16,540 gsf of community facility floor area, and 46 required accessory off-street parking spaces. In the revised With-Action Condition, the Project Site would be improved with a 30-story (385 feet), approximately 259,125 gsf mixed residential and community facility building.[9] Development in the revised With-Action Condition would comprise approximately 204,415 gsf of mixed-income residential floor (approximately 300 dwelling units) and approximately 39,694 gsf of community facility space.

Development in the revised With-Action Condition would result in a building height increment of approximately 153 feet over the No Action Condition. Development in the revised With-Action Condition has the potential to alter the arrangement, appearance, and functionality of the built environment and, consequently, change the experience of a pedestrian in the project study area; therefore, an urban design and visual resources assessment is required.

While the programming of the development in the revised With-Action Condition would remain consistent with the programming of the With-Action Condition in the May 3 EAS, it would vary in bulk and height. The development in the revised With-Action Condition would be approximately 385 feet in height, representing a reduction of 25 feet. However, more of the building would be massed on the street wall fronting Frawley Circle, resulting in a wider base. The modifications resulted in a building that was shorter, but slightly wider than the With-Action Condition in the May 3 EAS; therefore, a revised urban design assessment is warranted.

[8] Maximum achievable zsf is 86,157. However, total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.
[9] Total gsf includes a five percent increase in floor area to account for mechanical space and a 15,016 sf cellar.

METHODOLOGY

Based on the guidelines and definitions in the *CEQR Technical Manual*, this assessment of urban design and visual resources considers the Proposed Actions' potential effect on the following elements:

1. Streetscape: This urban design component refers to the arrangement and orientation of streets (the "street grid") that defines the location and flow of activity in an area, sets street views, and creates the blocks on which buildings and open spaces are organized. Streetscape elements are physical features that make up a streetscape, such as building street walls, building entrances, building fenestrations, sidewalks, street trees, street furniture, and other permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands that are critical to making a successful streetscape.

2. Buildings: Buildings support the street grid and the streetscape by conveying a sense of the overall form and design of a block or a larger area. A building's street wall forms the most common backdrop for public space and includes a building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block. Active uses and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape.

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

STUDY AREA

According to the *CEQR Technical Manual*, the study area for an urban design analysis is defined as the area where the project may influence land use patterns and the built environment, and is generally consistent with that used for the land use analysis (400-foot study area). Therefore, this urban design and visual resources assessment focuses on a 400-foot study area around the Directly Affected Area ("Study Area") (Figure 7-1), and considers views within the Study Area that could potentially be altered because of the development on the Project Site in the With-Action Condition.

EXISTING CONDITIONS

Project Site

The Project Site consists of Block 1594, Lot 41, in the Central Harlem neighborhood of Manhattan, Community District 10. The approximately 15,016 square-foot (sf) irregularly shaped Project Site is generally bound by East 111th Street to the north; a six story multi-family walk-up building containing ground floor commercial use to the northeast; Fifth Avenue to the east; Frawley Circle to the southeast; Central Park North to the south; and a three (3)-story church and a five (5)-story multi-family residential building to the west. Lot 41 has been partially improved with La Hermosa Christian Church, a three story building constructed in 1940 that occupies approximately half of the Project Site. The remaining unimproved portion of the Project Site fronts Frawley circle and contains a partially paved surface parking area.

Existing Streetscape

The Directly Affected Area comprises the eastern portion of the block bounded by (i) West 111 Street to the north, a one-lane, approximately 30-foot-wide, one-way local street with 12 to 14-foot sidewalks on either side; (ii) Fifth Avenue to the east, a three-lane, approximately 60-foot-wide, one-way local street with 15 to 20-foot sidewalks on either side; (iii) West 110 Street to the south, a two-lane, approximately 45-foot-wide, two-way local street with 25 to 30-foot sidewalks; and (iv) Malcolm X Boulevard to the west, a four-lane, approximately 70-foot-wide, two-way local street with 30 to 45-foot sidewalks on either side. The Project Site has one curb cut along Frawley Circle. The street grid in the Study Area is a traditional north-south, east-west grid pattern with the exception of one traffic circle adjacent to the Project Site to the south east.

Existing Buildings

The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) in the Central Harlem neighborhood of Manhattan. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings. The area to the north, west, and east is predominantly residential, comprised of low-to-mid-rise multi-family walk-up and multi-family elevator residences. The development surrounding Frawley Circle, however, is characterized by increased density and height. Directly east of the Project Site, Block 1616, Lot 1 contains a pair of 34-story (approximately 330 feet) multi-family elevator buildings. Additionally, the southeast corner of Frawley Circle is improved with a 19-story (approximately 213 feet) mixed residential and commercial building.

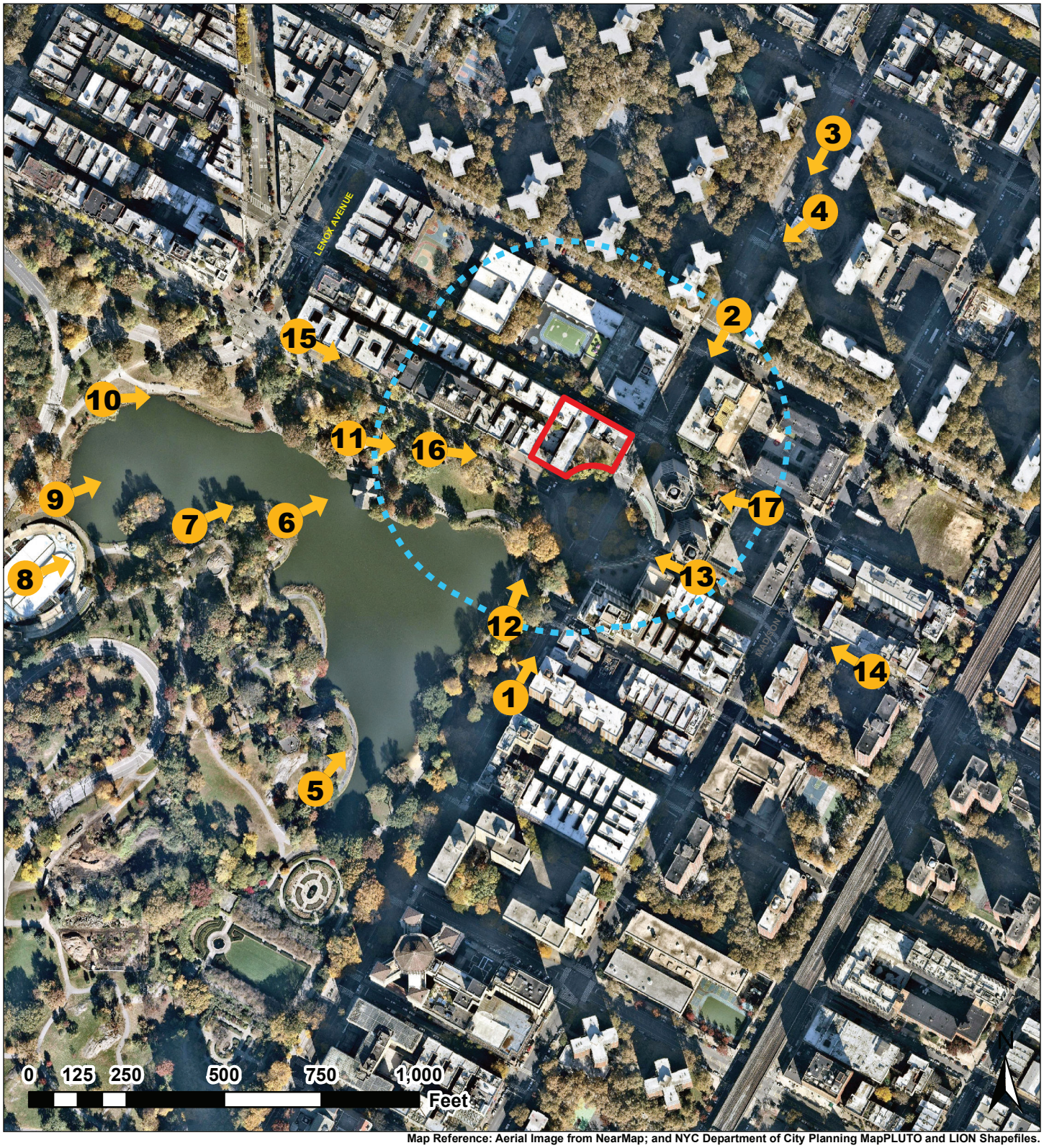
Visual Resources

As discussed previously in Attachment F, "Historic and Cultural Resources," the study area contains one LPC scenic landmark (Central Park), one S/NR historic district (Central Park) with two contributing structures (Pioneer's Gate and the W110 Street Boat House), and two S/NR eligible buildings at 21 West 111th Street and 20 West 111th Street. Accordingly, an assessment of the potential impact of development in the With-Action Condition on the identified visual resources is warranted.

FIGURE 7-1

LA HERMOSA REZONING

URBAN DESIGN VIEWSHED LOCATION MAP



Map Reference: Aerial Image from NearMap; and NYC Department of City Planning MapPLUTO and LION Shapefiles.

Directly Affected Area

Study Area (400-foot radius)

1 Viewshed Location/Direction

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ASSESSMENT

Streetscape

Development in the revised With-Action Condition would be built to the lot line along West 111 Street, Fifth Avenue, Frawley Circle, and West 110 Street. This configuration would create a continuous approximately 40 foot street wall along Fifth Avenue, West 110 Street and Frawley Circle, and an approximately 60 foot street wall along West 111 Street. The development in the revised With-Action Condition would include streetscape improvements, such as the planting of eight new street trees. It is the Applicant's intention to enhance the overall pedestrian experience and public realm within the Study Area with the proposed building configuration and streetscape improvements. Development in the revised With-Action Condition would not alter the existing streets, street grid, streetscape, or sidewalks in the Study Area. Additionally, the development in the revised With-Action Condition would have a larger street wall fronting Frawley Circle compared to the With-Action Condition in the May 3 EAS, which would further increase the prominence of the circle.

Buildings

Development in the revised With-Action Condition would be designed to create a distinguishable form within a single building accentuating the prominence of Frawley Circle. The community facility component of the development in the With-Action Condition would be built to the lot line and occupy the first three floors of the building. With a street wall height of approximately 60 feet along West 111 Street and Fifth Avenue, and 85 feet along Frawley Circle and West 110 Street, development in the revised With-Action Condition would be consistent with the buildings adjacent to the Project Site. The residential component of the development in the With-Action Condition would then setback approximately 60 feet from West 110 Street and step back from west to east and from south to north as it gains in height. As a result, the residential component would become less imposing as it steps up and away from Central Park towards Fifth Avenue. By locating the tallest portion of the development in the revised With-Action Condition along Fifth Avenue, the development would be consistent with and a complement to the taller, denser buildings surrounding Frawley Circle. Additionally, the development in the revised With-Action Condition was modified to a 30-story (385-foot) building, which is more reflective of the size and scale of the other buildings within the surrounding area.

Visual Resources

As stated previously, Central Park is the primary visual resource of significance within the Study Area. Central Park is located south across West 110 Street from the Directly Affected Area.As such, for visual resource assessment, view corridors include: (1) viewsheds along the neighborhood street grid from which Central Park is publicly viewable – the Fifth Avenue Viewshed, (Figures 7-2 through 7-5), (2) the northern viewshed from Central Park towards the Directly Affected Area (Figures 7-6 through 7-13), and (3) views towards Central Park and the Directly Affected Area from adjacent streets, and various neighborhood street intersections (Figures 7-14 through 7-18).[10]

[10] *CEQR* only contemplates views from public and publicly-accessible locations. As such, views from private residences or places of business are not considered as part of this analysis.

Views of Central Park

Fifth Avenue Corridor

Fifth Avenue is a one-way, southbound wide street located to the east of the Directly Affected Area, running adjacent to Central Park for the entire length of the park.

As shown in Figures 7-2 through 7-5, the development in the revised With-Action Condition would setback modestly from west to east and south to north as it gains in height, placing the bulk of the building away from Central Park and towards the taller buildings along Fifth Avenue and Frawley Circle. South of the intersection of Fifth Avenue and West 110 Street, Central Park is visible to the west from the street level and the development in the revised With-Action Condition would not interfere with these views (Figure 7-2). North of the intersection of Fifth Avenue and West 110 Street, existing six-story buildings on the west side of Fifth Avenue and the 13-story buildings within the New York City Housing Authority (NYCHA) Kings Towers development obstruct any potential views of Central Park from Fifth Avenue (7-2 through 7-5). Accordingly, and as evidenced in the referenced figures, the development in the revised With-Action Condition would not have the potential to obstruct views of Central Park from the Fifth Avenue Corridor. Additionally, as shown in Figures 7-2 and 7-3, from a built environment perspective, the development in the revised With-Action Condition would be consistent with the taller developments fronting Frawley Circle (bisected by Fifth Avenue) and reinforce the prominence of Frawley Circle and the entrance to Central Park.

No other visual resources are visible from the Fifth Avenue Corridor.

Adjacent Streets and Major Intersections

Tito Puente Way is an eastern continuation of West 110 Street beyond the Directly Affected Area and Frawley Circle. As shown in Figure 7-14, due to the existing 19-story building on the south side of Tito Puente Way between Madison Avenue and Frawley Circle, Central Park is not visible from the pedestrian perspective. Moving further east along Tito Puente Way (Figure 7-15), additional existing five-story buildings and the 20-story buildings within the NYCHA Lehman Houses development obstruct any potential views of Central Park from Tito Puente Way.

West 110 Street runs adjacent to Central Park along its northern boundary and provides a buffer between the Directly Affected Area and Central Park. Due to existing six-story buildings along the north side of West 110 Street, the development in the revised With-Action Condition would not be visible until approximately the middle of the block between Malcolm X Boulevard and Fifth Avenue. Because Central Park is south of West 110 Street and the development in the revised With-Action Condition would be built on the north side of West 110 Street, there is no potential for the development in the revised With-Action Condition to obstruct views of Central Park along West 110 Street, Additionally, as shown in Figure 7-17, the development in the revised With-Action Condition would modestly step up and away from Central Park so as to not encroach on the pedestrian perspective.

Fifth Avenue divides 111 Street east and west and runs parallel to 110 Street, to the north of the Directly Affected Area. Views of Central Park from the portion of East 111 Street to the east of the Directly Affected Area are entirely obstructed by two 34-story octagonal buildings fronting Frawley

Circle. Crossing Fifth Avenue along 111 Street, due to the existing six-story buildings on the south side of West 111 Street, views of Central Park from the portion of West 111 to the west of the Directly Affected Area are entirely obstructed as the entire block between Malcolm X Boulevard and Fifth Avenue is built out. Additionally, as shown in Figure 7-18, views of the development in the revised With-Action Condition would also be obstructed by the existing 34-story buildings on the north east corner of Frawley Circle.

Due to the density and size of existing buildings within the Study Area, the development in the revised With-Action Condition would not have the potential to obstruct views of Central Park from Tito Puente Way, East 110 Street, or West 111 Street.

Views from Central Park

Northern Views

The development in the revised With-Action Condition would be visible when looking to the northeast from within Central Park, particularly in the areas surrounding the Harlem Meer as the body of water creates an absence of tree canopy and foliage that would otherwise partially obstruct views from within the park. As shown in Figures 7-6 through 7-13, the building in the revised With-Action Condition would modestly set back from west to east and from south to north as it gains in height, placing the bulk of the building away from Central Park and towards the taller buildings along Fifth Avenue and Frawley Circle. Additionally, as shown in Figure 7-6, development in the revised With-Action Condition would reinforce the prominence of the entrance to Central Park along Frawley Circle by improving the underbuilt Project Site that reflects developments at other corner entrances to Central Park such as the Time Warner Center on Columbus Circle. Moving closer to the northern boundary of Central Park, views of the development in the revised With-Action Condition begin to be obstructed by the existing tree canopy and foliage within Central Park, revealing only the portions of the development that setback away from the park. While the development in the revised With-Action Condition would extend above the tree line surrounding Central Park, as shown in Figure 7-9, multiple buildings can be seen breaking the tree line across the northern boundary of the park. Furthermore, development in the revised With-Action Condition would emulate a similar height progression as observed on the northwestern portion of the Central Park, creating a consistent visual setting above Central Park's tree line.

CONCLUSION

Although the Proposed Actions would result in a building that is larger in height and bulk (scale), from a pedestrian's perspective, development in the revised With-Action Condition would reinforce the street wall and accentuate the prominence of Frawley Circle and the entrance to Central Park. The Proposed Actions are not anticipated to result in any significant adverse effects on pedestrians' experience of the neighborhood at street level, or the existing built environment characterizing the Study Area. Although development in the revised With-Action Condition would be larger and taller than the development in the No-Action Condition, development in the revised With-Action Condition would not obstruct any views to visual resources within the Study Area. Development in the revised With-Action Condition would accentuate the unique shape and contours of the Project Site and the prominence of the intersection of Frawley Circle and Fifth Avenue. The building would modestly step away from Central Park placing the bulk of the building towards the taller buildings along Fifth Avenue and Frawley Circle where it would be more contextual. Additionally, development in the revised With-Action Condition would reinforce the prominence of the entrance to Central Park along Frawley Circle by replacing an underbuilt site with a new building that reflects developments at other corner entrances to Central Park such as the Time Warner Center on Columbus Circle.

With the exception of winter months, views to the north from within Central Park are partially obstructed by tree canopy and foliage for most of the year. Additionally, development in the revised With-Action Condition would ultimately create a more consistent visual environment above the Central Park tree line, and would reinforce the entrance to the park along Frawley Circle, creating a gateway to the Central Harlem neighborhood.

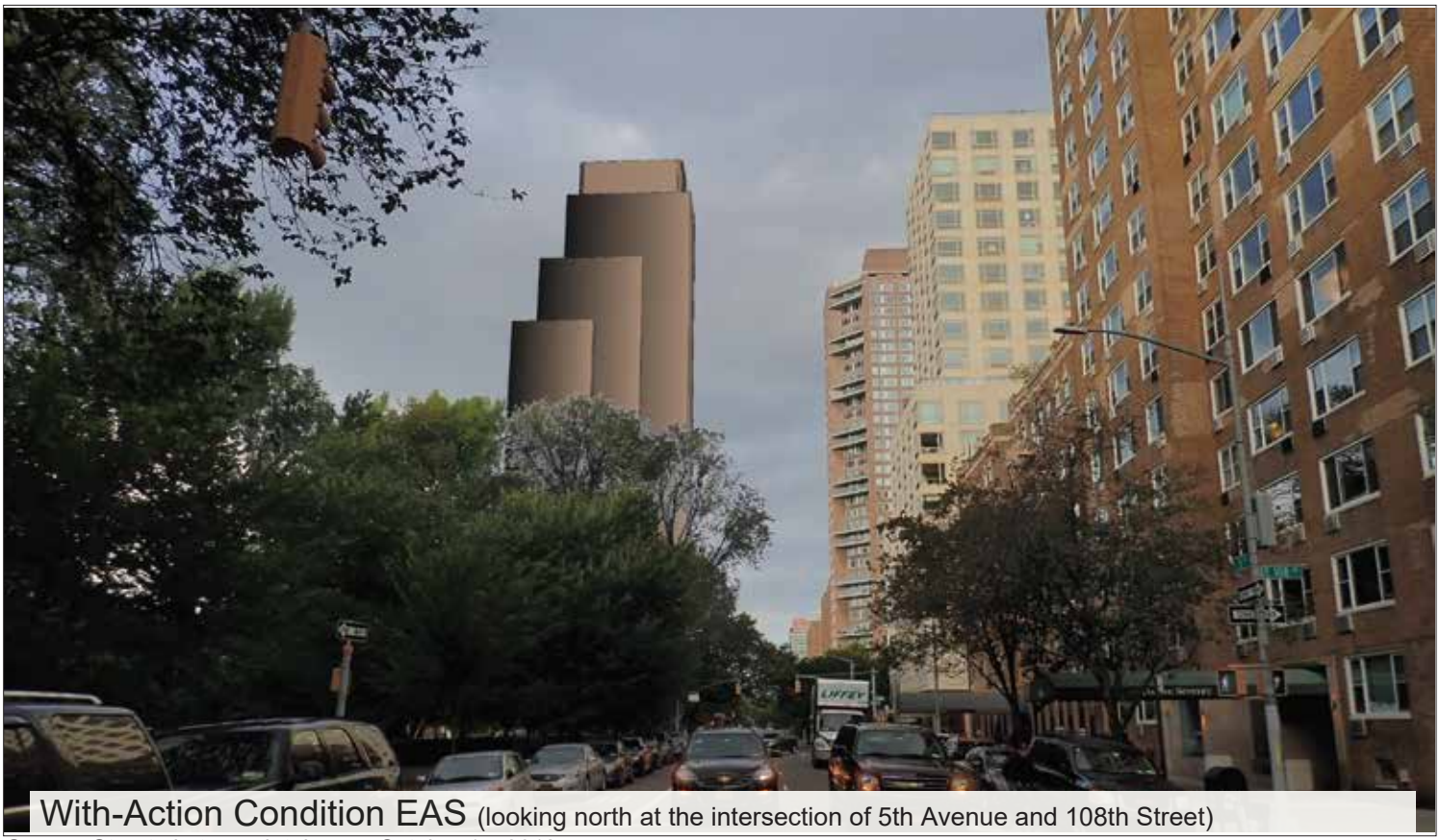
While the programming of the development in the revised With-Action Condition would remain consistent with the programming of the With-Action Condition in the May 3 EAS, it would vary in bulk and height. The development in the revised With-Action Condition would be approximately 385 feet in height, representing a reduction of 25 feet. However, more of the building would be massed on the street wall fronting Frawley Circle, resulting in a wider base. The modifications do not result in the obstruction of any visual resources and the reduced building height is more complementary to the buildings in the surrounding area. Additionally, the larger street wall along Frawley Circle further contributes to the prominence of the circle and reinforces the corner entrance to Central Park.

Based on this information, the Proposed Actions are not anticipated to result in any potentially significant adverse effects on urban design and visual resources; therefore, no further analysis is necessary.

FIGURE 7-2

LA HERMOSA

VIEW 1 - 5TH AVE AND 108TH STREET



With-Action Condition EAS (looking north at the intersection of 5th Avenue and 108th Street)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking north at the intersection of 5th Avenue and 108th Street)

With-Action Condition EAS Revised With-Action Condition

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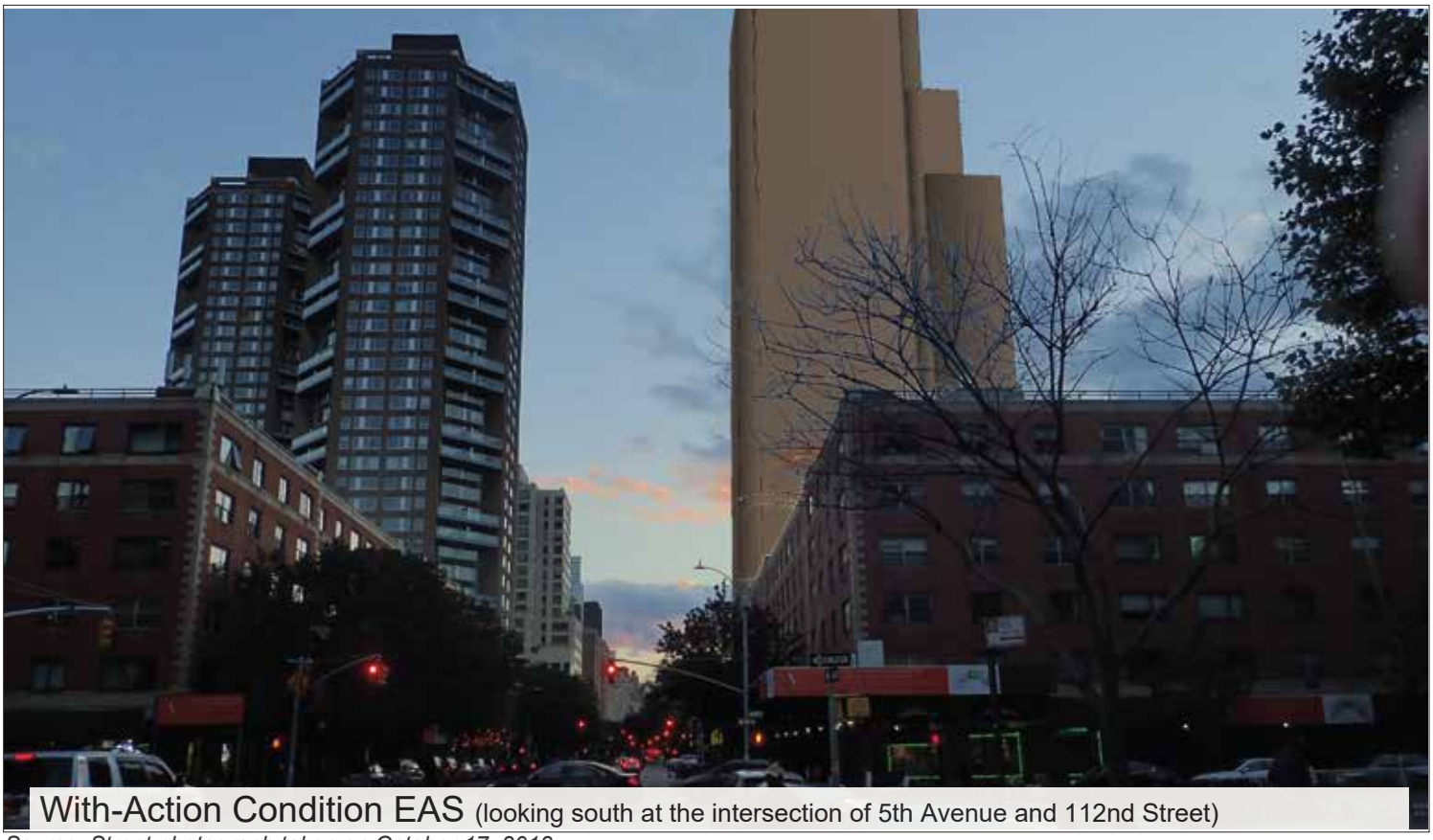
FIGURE 7-3

LA HERMOSA

VIEW 2 - 5TH AVE AND 112ND STREET



With-Action Condition EAS (looking south at the intersection of 5th Avenue and 112nd Street)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking south at the intersection of 5th Avenue and 112nd Street)

With-Action Condition EAS Revised With-Action Condition

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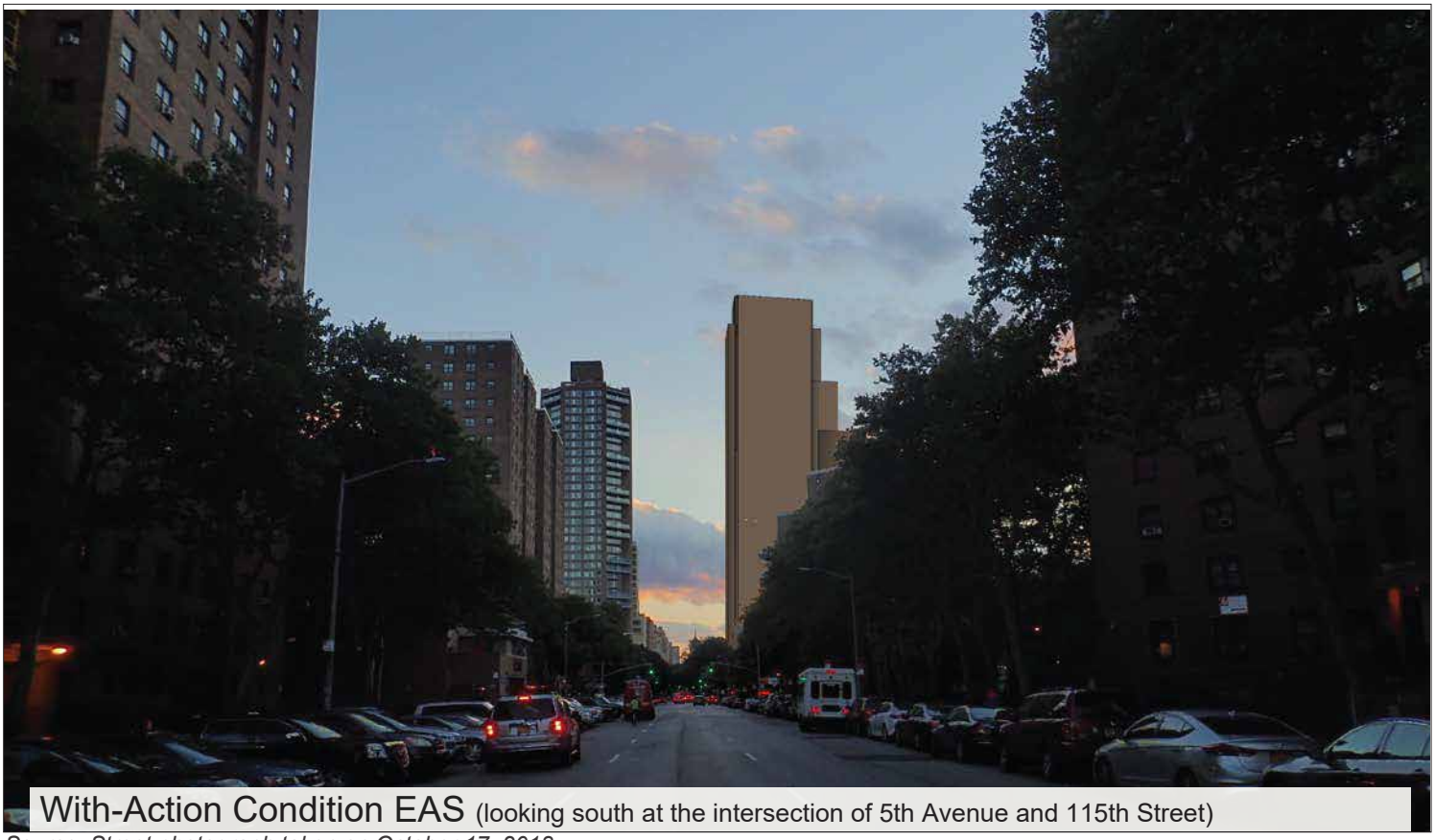
FIGURE 7-4

LA HERMOSA

VIEW 3 - 5TH AVE AND 115TH STREET



With-Action Condition EAS (looking south at the intersection of 5th Avenue and 115th Street)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking south at the intersection of 5th Avenue and 115th Street)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-5

LA HERMOSA

VIEW 4 - 5TH AVE BETWEEN 112TH AND 115TH STREET

With-Action Condition EAS (looking south on 5th Avenue between 112th and 115th Street)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking south on 5th Avenue between 112th and 115th Street)

With-Action Condition EAS

Revised With-Action Condition

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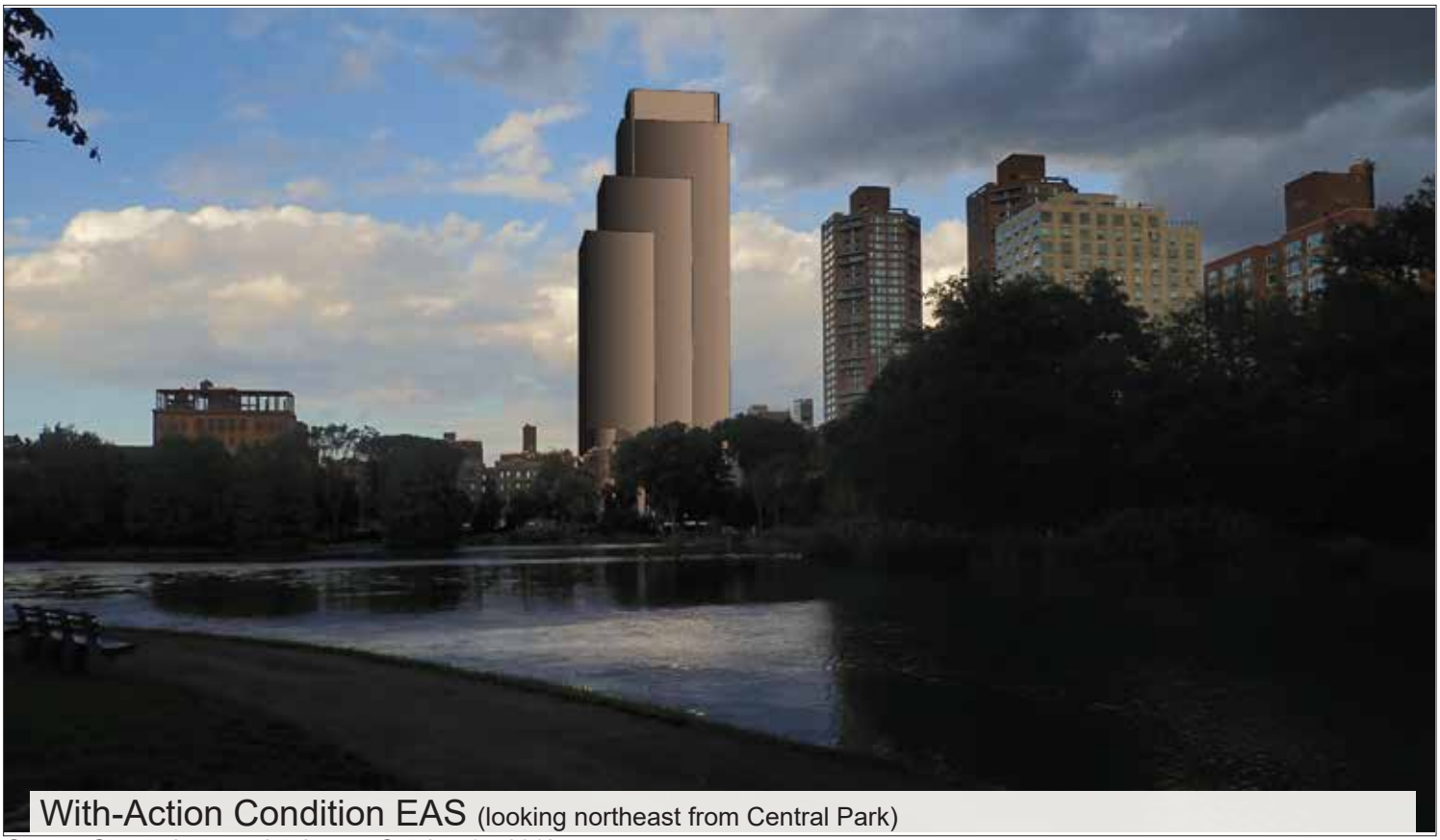
FIGURE 7-6

LA HERMOSA

VIEW 5 - CENTRAL PARK



With-Action Condition EAS (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking northeast from Central Park)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-7

LA HERMOSA

VIEW 6 - CENTRAL PARK

With-Action Condition EAS (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking northeast from Central Park)

With-Action Condition EAS Revised With-Action Condition

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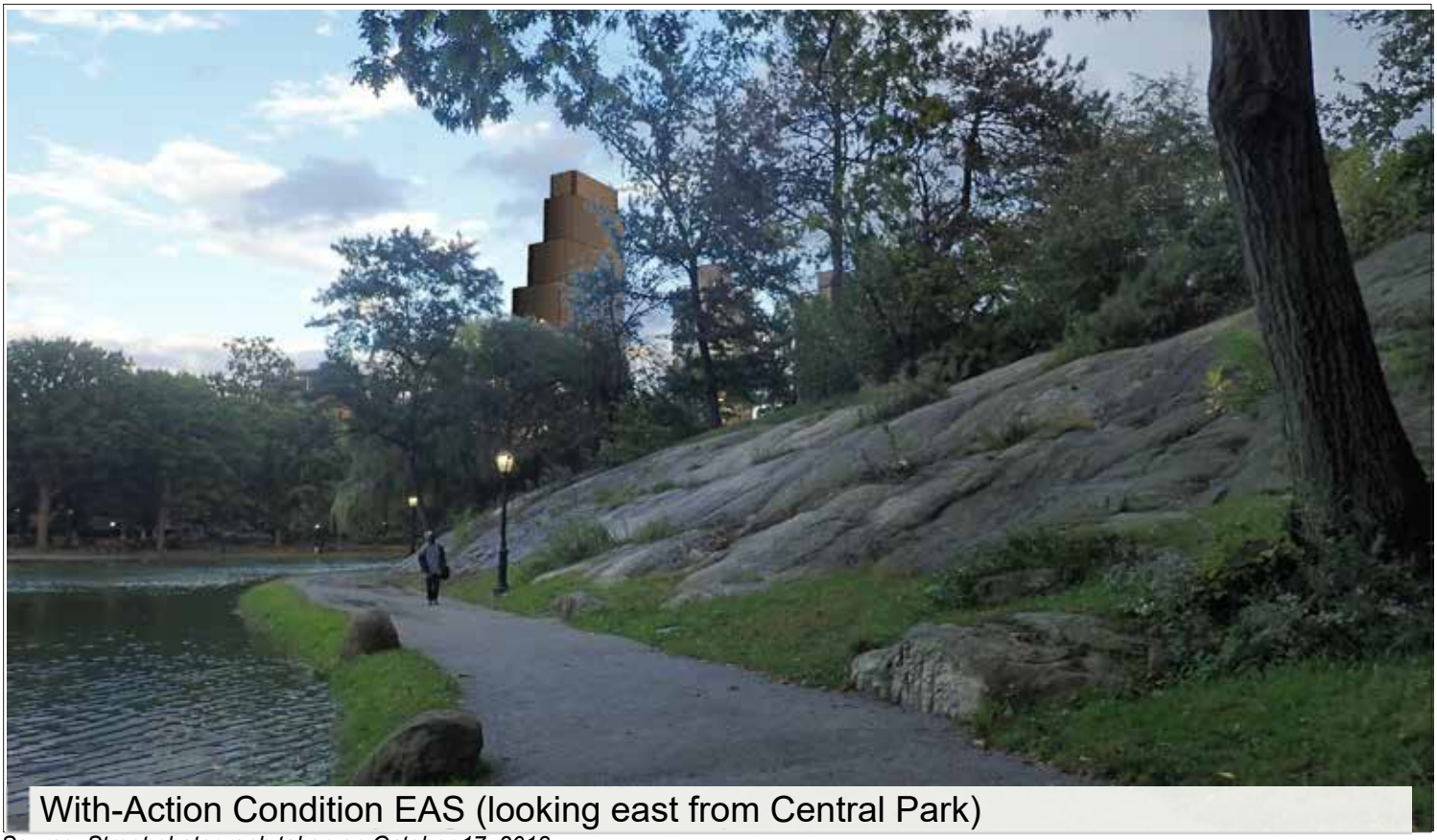
FIGURE 7-8

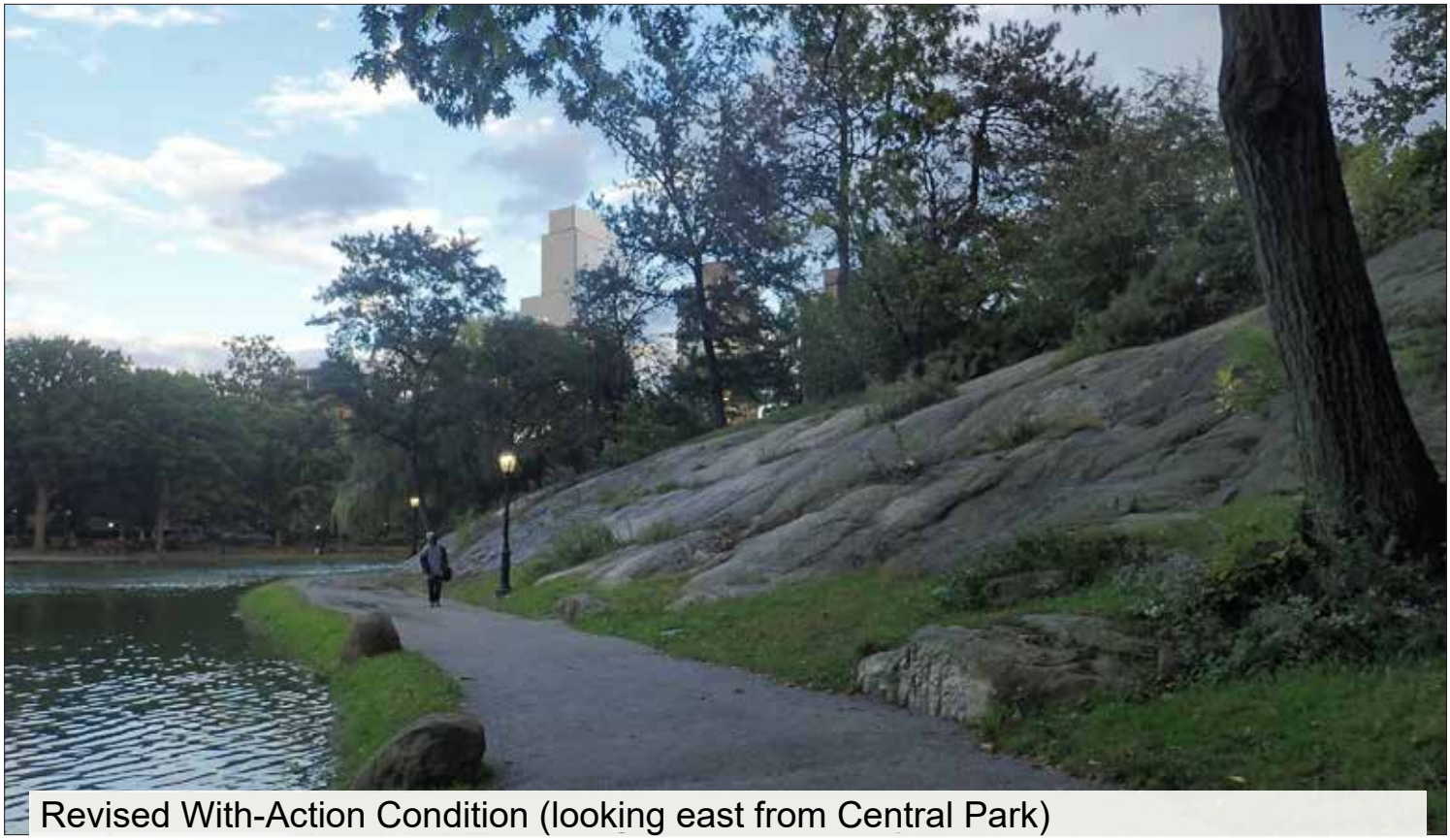
LA HERMOSA

VIEW 7 - CENTRAL PARK



With-Action Condition EAS (looking east from Central Park)

Source: Street photograph taken on October 17, 2018



Revised With-Action Condition (looking east from Central Park)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-9

LA HERMOSA

VIEW 8 - CENTRAL PARK

With-Action Condition EAS (looking north from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking north from Central Park)

With-Action Condition EAS Revised With-Action Condition

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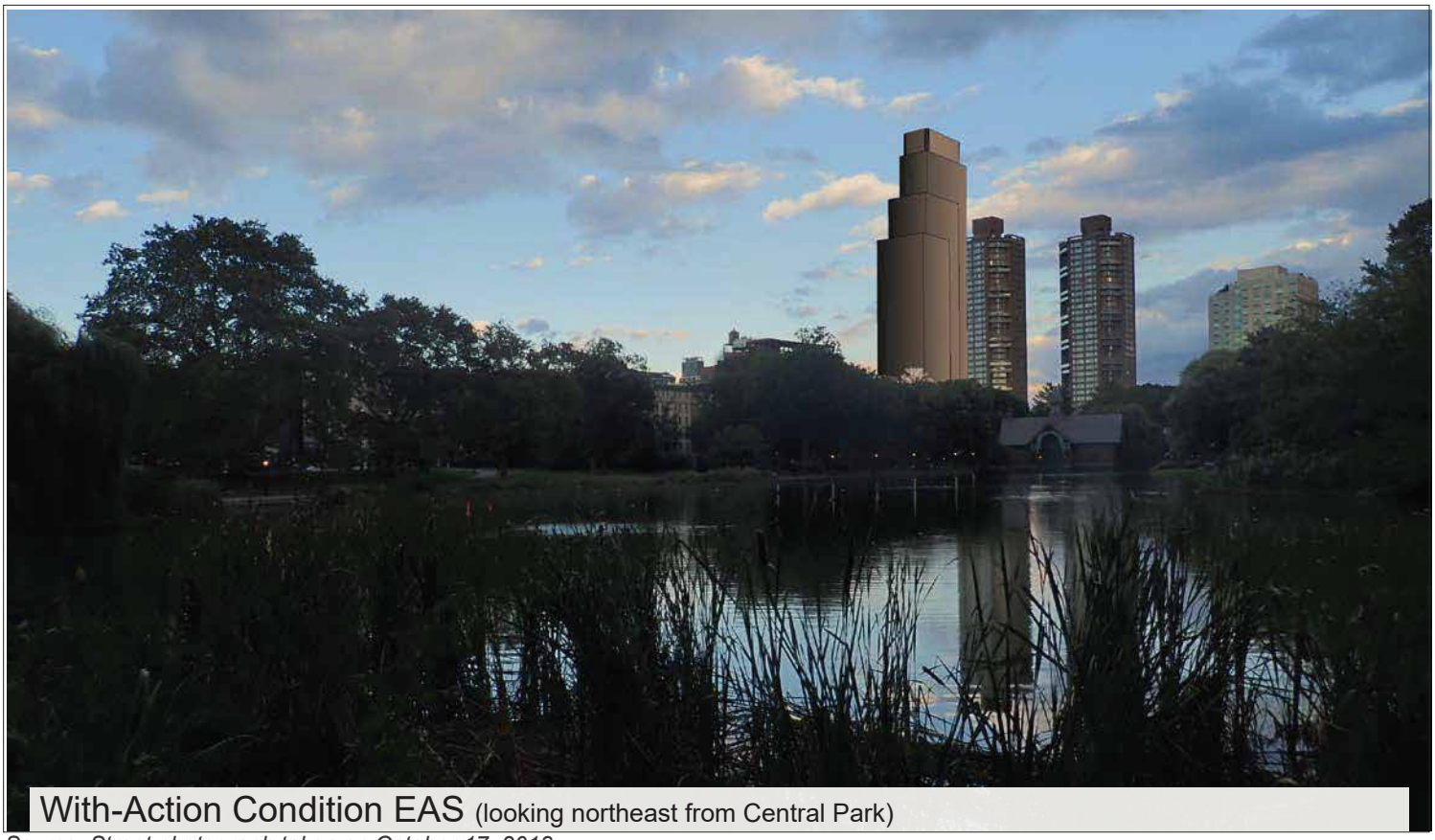
FIGURE 7-10

LA HERMOSA

VIEW 9 - CENTRAL PARK



With-Action Condition EAS (looking northeast from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking northeast from Central Park)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-11

LA HERMOSA

VIEW 10 - CENTRAL PARK

With-Action Condition EAS (looking east from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking east from Central Park)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-12

LA HERMOSA

VIEW 11 - CENTRAL PARK

With-Action Condition EAS (looking east from Central Park)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking east from Central Park)

With-Action Condition EAS Revised With-Action Condition

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LA HERMOSA

VIEW 12 - CENTRAL PARK

Source: Street photograph taken on October 17, 2018

With-Action Condition EAS Revised With-Action Condition

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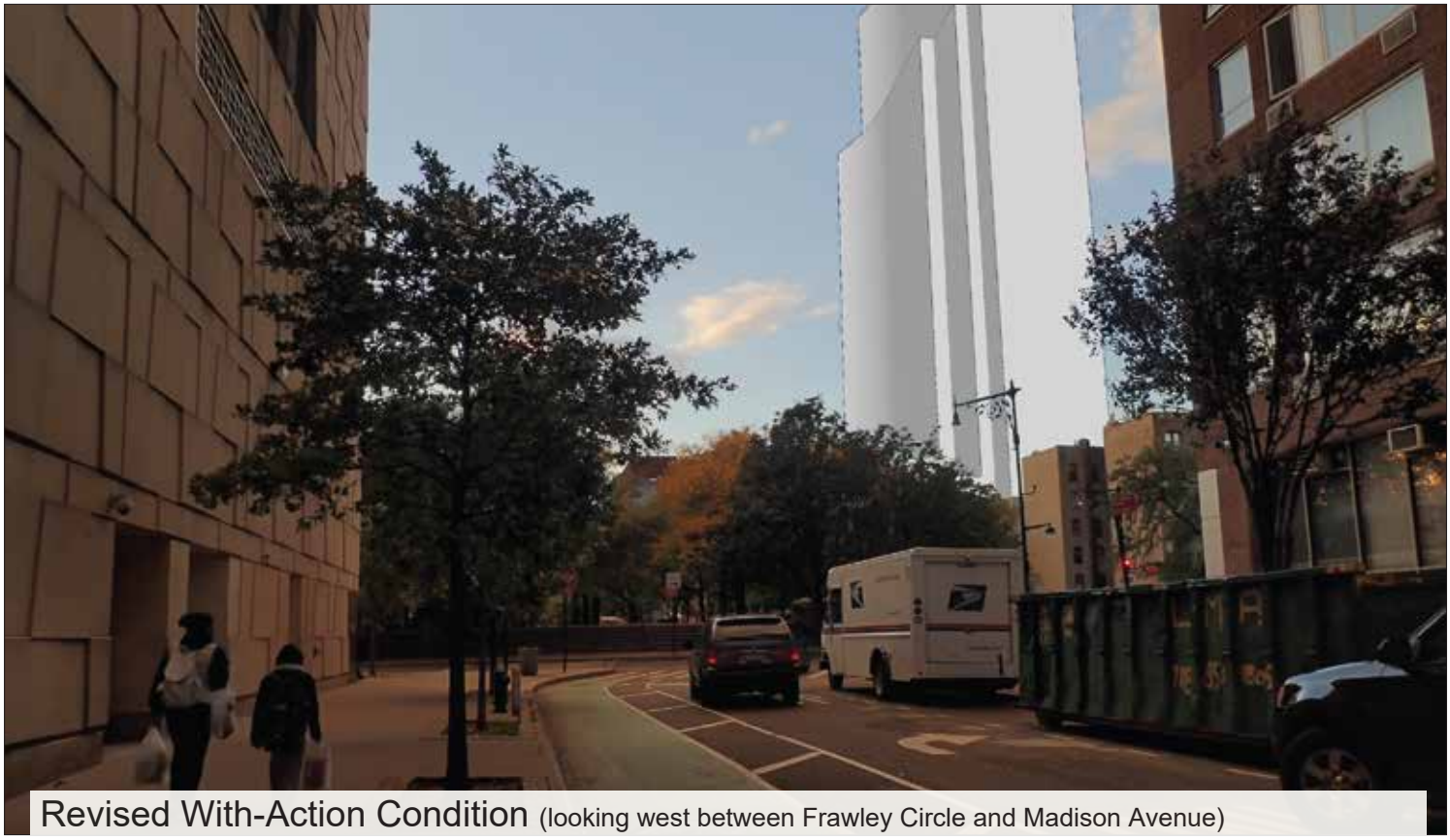
FIGURE 7-14

LA HERMOSA

VIEW 13 - TITO PUENTE WAY

With-Action Condition EAS (looking west between Frawley Circle and Madison Avenue)

Source: Street photograph taken on October 17, 2018



Revised With-Action Condition (looking west between Frawley Circle and Madison Avenue)

With-Action Condition EAS Revised With-Action Condition

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LA HERMOSA

VIEW 14 - TITO PUENTE WAY

With-Action Condition EAS (looking west between Madison Avenue and Park Avenue)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition EAS (looking west between Madison Avenue and Park Avenue)

With-Action Condition EAS Revised With-Action Condition

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LA HERMOSA

VIEW 15 - WEST 110TH STREET

With-Action Condition EAS (looking east between Malcolm X Boulevard and 5th Avenue, closer to Malcolm X)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking east between Malcolm X Boulevard and 5th Avenue, near Malcolm X)

With-Action Condition EAS Revised With-Action Condition

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LA HERMOSA

VIEW 16 - WEST 110TH STREET

With-Action Condition EAS (looking northeast between Malcolm X Boulevard and 5th Avenue, center of block)

Source: Street photograph taken on October 17, 2018

With-Action Condition (looking northeast between Malcolm X Boulevard and 5th Avenue, center of block)

With-Action Condition EAS Revised With-Action Condition

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FIGURE 7-18

LA HERMOSA

VIEW 17 - WEST 111TH STREET

With-Action Condition EAS (looking southwest between 5th Avenue and Madison Avenue)

Source: Street photograph taken on October 17, 2018

Revised With-Action Condition (looking southwest between 5th Avenue and Madison Avenue)

With-Action Condition EAS Revised With-Action Condition

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9) AIR QUALITY

According to the guidelines provided in the *CEQR Technical Manual*, an air quality analysis is conducted in order to assess the effect of a proposed action on ambient air quality (*i.e.,* the quality of the surrounding air), or effects on a proposed project because of ambient air quality. Air quality can be affected by mobile sources (pollutants produced by motor vehicles), and by stationary sources (pollutants produced by fixed facilities). According to the *CEQR Technical Manual*, an air quality assessment should be conducted for actions that have the potential to result in either significant adverse mobile source or stationary source air quality impacts.

The Project Site is located at 6 West 111 Street in the Central Harlem neighborhood of Manhattan, Community District 10. The Directly Affected Area comprises five tax lots (Block 1594, Lots 30, 40, 41, and p/o Lots 29 and 42) and is bounded by East 111 Street to the north, Fifth Avenue to the east, Frawley Circle to the southeast; Central Park North to the south, and two, five-story, multi-family walk-up residential buildings to the west. Lot 41 is improved with a three-story community facility (La Hermosa Christian Church); Lot 29 is improved with a five-story, multi-family walk-up building containing ground floor commercial use; Lot 30 is improved with a three-story community facility (Bethel Christian Church); Lot 40 is improved with a six-story, multi-family walk-up building containing ground floor commercial use; and Lot 42 is improved with two five-story multi-family elevator buildings. The Proposed Actions would facilitate the development of a mixed-use building containing both residential and community facility uses.

While the programming of the development in the revised With-Action Condition would remain consistent with the programming of the With-Action Condition in the May 3 EAS, the building would vary in bulk and height. The development in the revised With-Action Condition would be approximately 385 feet in height, representing a reduction of 25 feet. Accordingly, a revised air quality assessment is warranted to ensure there is no potential for the development in the revised With-Action Condition to result in a stationary source air quality impact on existing surrounding receptors.

METHODOLOGY

Mobile Source Analysis

Traffic data for intersections in the Study Area were used for the screening of the Proposed Actions. This includes the incremental peak hour traffic volumes of autos and trucks. For a conservative analysis, trucks were considered as heavy-duty diesel vehicles. Auto traffic volumes were considered to include all vehicular movements except for heavy-duty diesel vehicles. The development in the revised With-Action Condition would remain consistent with the programming the With-Action Condition in the May 3 EAS; therefore, as concluded previously in Attachment I, "Transportation" of the EAS, the level of project-generated vehicular trips is below the CEQR Level 1 trip generation threshold (50 peak-hour vehicle trip-ends).

Based on the peak number of incremental light-duty gasoline vehicles (passenger cars) described in "Attachment I: Transportation," and the Air Quality Equivalent Truck Calculation spreadsheet provided in Chapter 17 of the *CEQR Technical Manual,* the development facilitated by the Proposed Actions would not be anticipated to exceed any of the Particulate Matter 2.5 (PM 2.5) thresholds identified. Accordingly, based on the net incremental auto and truck traffic identified, a mobile source air quality assessment is not warranted.

Stationary Source Analysis

The stationary source screening assessment is based on guidelines in the *CEQR Technical Manual*. The first step is to determine the appropriate Study Area. Study areas for the analysis of stationary source impacts depend on the magnitude of the pollutant emission rates from the new source(s), the relative harmfulness of the compounds emitted, the characteristics of the systems that would discharge such pollutants (*e.g*., stack heights, stack exhaust velocities), and the surrounding topography relative to these sources (*e.g.,* tall residential buildings near shorter stacks). Pursuant to guidance provided in section 322.1 of the *CEQR Technical Manual*, Figure 17-7 from the Air Quality Appendix of the *CEQR Technical Manual* was referenced for the initial stationary source screening assessment, which is appropriate for a proposed project that is a single building. Figure 17-7 was selected because development in the revised With-Action Condition involves residential development and, based on information from the Applicant, has been designed to utilize natural gas as the fuel source for all on-site heat and hot-water systems.

ASSESSMENT

A stationary source screening assessment was conducted to evaluate potential effects from the building's heat and hot water systems and heating, ventilating, and air conditioning (HVAC) systems. A survey was conducted to determine if any industrial or large/major emission sources exist within 400 feet, or 1,000 feet, of the Directly Affected Area, respectively.

The development in the revised With-Action Condition would be 25 feet shorter than the With-Action Condition in the May 3 EAS. The nearest building of similar or greater height compared to the development in the revised With-Action Condition (385 feet) is more than 400 feet away from the Directly Affected Area. Development in the revised With-Action Condition would have a minimum stack height of approximately 385 feet; therefore, the stack height curve of 165 feet would be utilized for the screening assessment. Development in the revised With-Action Condition is anticipated to be an approximately 259,125-gsf building; therefore, following the steps defined in Chapter 17, section 322.1 of the *CEQR Technical Manual*, the plotted point on Figure 17-7 would fall below the stack height curve of 165 feet.

Based on this information, and as concluded in the May 3 EAS, no potential significant adverse impacts due to boiler stack emissions are anticipated; therefore no further analysis is required.

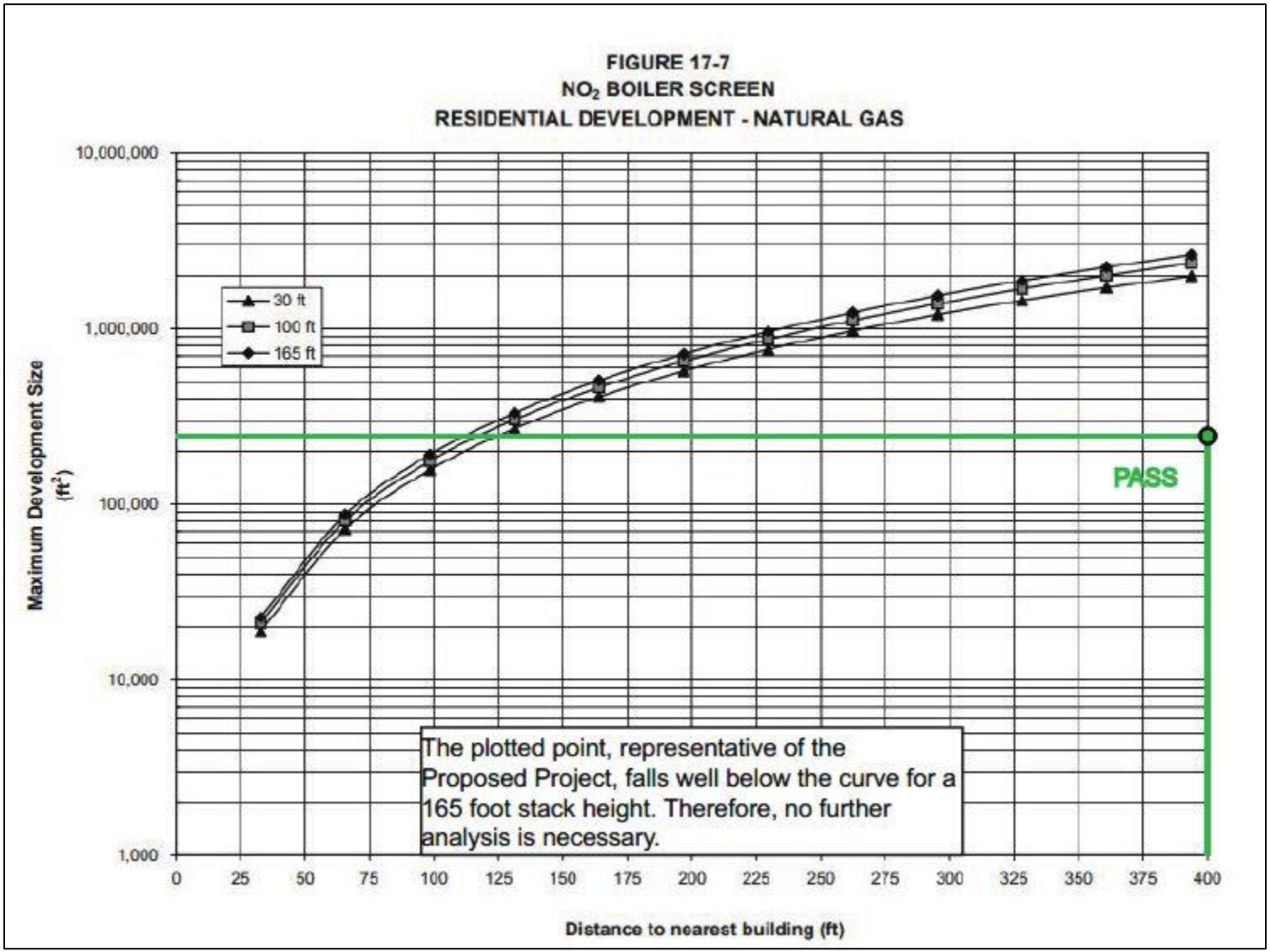
FIGURE 17-7
NO2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS
Maximum Development Size (ft2)
10,000,000
1,000,000
100,000
10,000
1,000
30 ft
100 ft
165 ft
PASS
The plotted point, representative of the Proposed Project, falls well below the curve for a 165 foot stack height. Therefore, no further analysis is necessary.
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
400
Distance to nearest building (ft)

Industrial Manufacturing Source Analysis (Air Toxics)

A survey was conducted to determine if there are any existing industrial facilities within 400 feet of the Directly Affected Area. Through this survey, it was confirmed that there are no industrial and/or manufacturing uses within 400 feet of the Directly Affected Area.

As part of this survey, a review of the New York City DEP Clean Air Tracking System (CATS) database indicated that 12 permits have been issued across 10 properties within 400 feet of the Directly Affected Area, none of which are for industrial or manufacturing uses. The locations of the identified properties are shown in Table 7 below.

Table 7: DEP CATS Issued Active Permits

Block	Lot	Address	Existing Land Use	Permit Type
1616	1	1660 Madison Avenue	Mixed Residential & Commercial	Boiler
1616	1	1295 5 Avenue	Mixed Residential & Commercial	Boiler
1616	1	1309 5 Avenue	Mixed Residential & Commercial	Boiler
1617	7	1680 Madison Avenue	Multi-Family Elevator	Boiler
1617	7	1680 Madison Avenue	Multi-Family Elevator	Boiler
1594	30	7 West 110 Street	Public Facilities & Institutions	Boiler
1594	26	15-19 West 110 Street	Multi-Family Walk-Up	Boiler
1594	22	21 Central Park North	Multi-Family Walk-Up	Boiler
1594	12	24 West 110 Street	Multi-Family Elevator	Boiler
1594	50	24 West 111 Street	Multi-Family Elevator	Boiler
1111	1	Shaft 13B 79 Street & 5 Ave	Parkland	Generator
1111	1	79th Street Transverse Road	Parkland	Generator

Source:
DEP CATS: https://a826-web01.nyc.gov/dep.boilerinformationext/ (Date Accessed: 10/01/19)

Large or Major Sources

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

CONCLUSION

To ensure the development in the revised With-Action Condition would utilize natural gas, it is expected that an (E) Designation (E-538) for air quality would be assigned to Block 1594, Lot 41. By placing an (E) designation on a site where there is a known or potential environmental concern, the potential for a significant adverse impact to human health and the environment resulting from the Proposed Actions would be avoided.

The requirements of (E) Designation (E-538) would be as follows:

Block 1594, Lot 41: Any new residential and/or community facility development on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning systems (HVAC) and ensure that the HVAC stack is located at the highest tier to avoid any potential significant adverse air quality impacts.

While the development in the revised With-Action Condition would be shorter than the With-Action Condition in the May 3 EAS, there are no buildings of equal or greater height within 400 of the Directly Affected Area. The development in the revised With-Action Condition would generate the same number of vehicular trips as the With-Action Condition in the May 3 EAS. Therefore, development in the revised With-Action Condition is not anticipated to generate sufficient traffic to require a mobile source air quality analysis.

Based on this information, with the measures of the (E) Designation in place, no potentially significant adverse air quality impacts are anticipated and therefore, no further analysis is required.

10) CONCLUSION

The purpose of this technical memorandum is to determine whether the development in the revised With-Action Condition would result in any new adverse environmental effects compared to With-Action Condition contemplated in the May 3 EAS. The development in the revised With-Action Condition would result in a *decrease* in building height compared to the With-Action Condition contemplated in the May 3 EAS. Specifically, the revised With-Action Condition would have a roof height of 385 feet, which represents a reduction of 25 feet. Additionally, while the development footprint would remain the same, the building mass along Frawley Circle would be increased by approximately 25 feet, creating a building that would be slightly wider at the base than the With-Action Condition in the May 3 EAS.

As discussed previously, compared to the With-Action Condition in the May 3 EAS, the reduced building height and varied bulk of the development of the revised With-Action Condition would not have the potential to result in adverse environmental effects to Shadows or Urban Design. Additionally, the modifications would not have implications on the (E) designation language proposed to preclude the potential for adverse environmental effects on Air Quality.

Therefore, as demonstrated herein, the development in the revised With-Action Condition would not result in any new environmental effects that had not been previously disclosed in the May 3, 2019 EAS. .