

# 110 East 16th Street



PREPARED FOR

**TISHMAN**

Tishman Realty  
100 Park Avenue, 18th Floor  
New York, NY, 10017

PREPARED BY

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May 2018



## 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** 110 East 16th Street

#### 1. Reference Numbers

CEQR REFERENCE NUMBER (to be assigned by lead agency)

18DCP159M

BSA REFERENCE NUMBER (if applicable)

ULURP REFERENCE NUMBER (if applicable)

180263 ZSM & 180264 ZSM

OTHER REFERENCE NUMBER(S) (if applicable)

(e.g., legislative intro, CAPA)

#### 2a. Lead Agency Information

NAME OF LEAD AGENCY

NYC Department of City Planning

NAME OF LEAD AGENCY CONTACT PERSON

Olga Abinader

ADDRESS 120 Broadway

CITY New York

STATE NY

ZIP 10271

TELEPHONE

(212) 720-3493

EMAIL

oabinad@planning.nyc.gov

#### 2b. Applicant Information

NAME OF APPLICANT

East 16th Street Owner LLC

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

Will Tims

ADDRESS 100 Park Avenue

CITY New York

STATE NY

ZIP 10017

TELEPHONE

(212) 376 7885

EMAIL wtims@tishman.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, East 16th Street Owner LLC, seeks approval of a series of land use actions to facilitate an up to 110,000 gross square foot (GSF) mixed-use development comprising up to 55 dwelling units (DUs), up to 4,700 GSF of commercial and/or community facility space with a minimum of 690 GSF of community facility space, and up to 23 accessory parking spaces. To facilitate the proposal, the applicant seeks a CPC special permit to permit pursuant to ZR 74-711 to modify the applicable height, setback, and side yard requirements in conjunction with the establishment of a program for the restoration and continuing maintenance of the (former) Century Association Building and a CPC Special Permit pursuant to 13-451 to facilitate up to 23 accessory parking spaces within the Manhattan Core.

#### Project Location

BOROUGH Manhattan

COMMUNITY DISTRICT(S) 05

STREET ADDRESS 110 East 16th Street

TAX BLOCK(S) AND LOT(S) Bl: 871, Lot: 74 (and 10 & 12)

ZIP CODE 10003

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Union Sq E and Irving Place

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C6-2A

ZONING SECTIONAL MAP NUMBER 12c

#### 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 ZR 13-451, ZR 74-711

**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

<b>Department of Environmental Protection:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "yes," specify:		
<b>Other City Approvals Subject to CEQR</b> (check all that apply)		
<input type="checkbox"/> LEGISLATION	<input type="checkbox"/> FUNDING OF CONSTRUCTION, specify:	
<input type="checkbox"/> RULEMAKING	<input type="checkbox"/> POLICY OR PLAN, specify:	
<input type="checkbox"/> CONSTRUCTION OF PUBLIC FACILITIES	<input type="checkbox"/> FUNDING OF PROGRAMS, specify:	
<input type="checkbox"/> 384(b)(4) APPROVAL	<input type="checkbox"/> PERMITS, specify:	
<input type="checkbox"/> OTHER, explain:		
<b>Other City Approvals Not Subject to CEQR</b> (check all that apply)		
<input type="checkbox"/> PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	<input checked="" type="checkbox"/> LANDMARKS PRESERVATION COMMISSION APPROVAL	
	<input type="checkbox"/> OTHER, explain:	
<b>State or Federal Actions/Approvals/Funding:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "yes," specify:		
<b>6. Site Description:</b> <i>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.</i>		
<b>Graphics:</b> <i>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.</i>		
<input checked="" type="checkbox"/> SITE LOCATION MAP	<input checked="" type="checkbox"/> ZONING MAP	<input checked="" type="checkbox"/> SANBORN OR OTHER LAND USE MAP
<input checked="" type="checkbox"/> TAX MAP	<input type="checkbox"/> FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)	
<input checked="" type="checkbox"/> PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP		
<b>Physical Setting</b> (both developed and undeveloped areas)		
Total directly affected area (sq. ft.): 6,660	Waterbody area (sq. ft.) and type: 0	
Roads, buildings, and other paved surfaces (sq. ft.): 6,660	Other, describe (sq. ft.): 0	
<b>7. Physical Dimensions and Scale of Project</b> (if the project affects multiple sites, provide the total development facilitated by the action)		
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): Up to 110,000 GSF		
NUMBER OF BUILDINGS: 1	GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Up to 110,000	
HEIGHT OF EACH BUILDING (ft.): 283, including bulkhead	NUMBER OF STORIES OF EACH BUILDING: 21	
Does the proposed project involve changes in zoning on one or more sites? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
If "yes," specify: The total square feet owned or controlled by the applicant:		
The total square feet not owned or controlled by the applicant:		
Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):		
AREA OF TEMPORARY DISTURBANCE: 6,660 sq. ft. (width x length)	VOLUME OF DISTURBANCE: 153,180 cubic ft. (width x length x depth)	
AREA OF PERMANENT DISTURBANCE: 6,660 sq. ft. (width x length)		
<b>8. Analysis Year</b> <a href="#">CEQR Technical Manual Chapter 2</a>		
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2021		
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 29		
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF MULTIPLE PHASES, HOW MANY?		
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Demolition of existing parking structure, excavation, construction of proposed 110,000 GSF mixed-use development, and improvements to existing landmarked building in accordance with the proposed maintenance program.		
<b>9. Predominant Land Use in the Vicinity of the Project</b> (check all that apply)		
<input checked="" type="checkbox"/> RESIDENTIAL	<input type="checkbox"/> MANUFACTURING	<input checked="" type="checkbox"/> COMMERCIAL
<input checked="" type="checkbox"/> PARK/FOREST/OPEN SPACE	<input type="checkbox"/> OTHER, specify:	

**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
<b>LAND USE</b>							
<b>Residential</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
If "yes," specify the following:							
Describe type of residential structures			1		1		1
No. of dwelling units			46		55		+9
No. of low- to moderate-income units			0		0		0
Gross floor area (sq. ft.)			55,460		106,950		+51,490
<b>Commercial</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
If "yes," specify the following:							
Describe type (retail, office, other)	Public Parking Garage		Local Retail		Local Retail		
Gross floor area (sq. ft.)	56,760		2,360		4,010		+1,650
<b>Manufacturing/Industrial</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," specify the following:							
Type of use							
Gross floor area (sq. ft.)							
Open storage area (sq. ft.)							
If any unenclosed activities, specify:							
<b>Community Facility</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
If "yes," specify the following:							
Type			Medical Office (assumed), or library/museum		Medical Office (assumed), or library/museum		
Gross floor area (sq. ft.)			690		690		+0
<b>Vacant Land</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," describe:							
<b>Publicly Accessible Open Space</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):							
<b>Other Land Uses</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," describe:							
<b>PARKING</b>							
<b>Garages</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
If "yes," specify the following:							
No. of public spaces	196		0		0		0
No. of accessory spaces	0		9		23		+14
Operating hours	24h/day		24h/day		24h/day		
Attended or non-attended	Attended		Automated		Automated		
<b>Lots</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," specify the following:							
No. of public spaces							
No. of accessory spaces							
Operating hours							
<b>Other</b> (includes street parking)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
If "yes," describe:							

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
<b>POPULATION</b>				
<b>Residents</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify number:		78	94	+16
Briefly explain how the number of residents was calculated:	Assumed 1 DU per 1,200 GSF in No-Action, 1.7 persons per household (as per 2010-2014 ACS Community District Profile)			
<b>Businesses</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
No. and type	One 56,760 GSF public parking garage	One local retail establishment up to 2,360 GSF; One 690 GSF community facility (assumed medical office for analysis purposes, but could be library/museum).	One local retail establishment up to 4,010 GSF; One 690 GSF community facility (assumed medical office for analysis purposes, but could be library/museum).	
No. and type of workers by business	Parking garage: 4	Local retail: 7; Community Facility: 3	Local retail: 12; Community Facility: 3	+5 local retail workers
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	Assumptions: 1 worker per 50 parking spaces; 3 workers per 1,000 local retail space; 1 worker per 250 medical office space.			
<b>Other</b> (students, visitors, concert-goers, etc.)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If any, specify type and number:	Varied number of parking garage users			
Briefly explain how the number was calculated:				
<b>ZONING</b>				
Zoning classification	C6-2A	C6-2A	C6-2A	
Maximum amount of floor area that can be developed	110,409 ZFA, or 6.50 FAR across Affected Area	110,409 ZFA, or 6.50 FAR across Affected Area	110,409 ZFA, or 6.50 FAR across Affected Area	+0
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Commercial, residential, mixed-use, and open space	Commercial, residential, mixed-use, and open space	Commercial, residential, mixed-use, and open space	
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
<b>1. LAND USE, ZONING, AND PUBLIC POLICY:</b> <a href="#">CEQR Technical Manual Chapter 4</a>		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Is there the potential to affect an applicable public policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) If “yes,” to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” complete the <a href="#">Consistency Assessment Form</a> .		
<b>2. SOCIOECONOMIC CONDITIONS:</b> <a href="#">CEQR Technical Manual Chapter 5</a>		
(a) Would the proposed project:		
o 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.		
o Directly displace 500 or more residents?		
▪ If “yes,” answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?		
▪ If “yes,” answer questions under 2(b)(iii) and 2(b)(iv) below.		
o 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.		
<b>i. Direct Residential Displacement</b>		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?		
o 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?		
<b>ii. Indirect Residential Displacement</b>		
o Would expected average incomes of the new population exceed the average incomes of study area populations?		
o 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?		
o If “yes” to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?		
<b>iii. Direct Business Displacement</b>		
o 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?		
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve,		


	YES	NO
enhance, or otherwise protect it?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iv. Indirect Business Displacement</b>		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	<input type="checkbox"/>	<input type="checkbox"/>
o 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?	<input type="checkbox"/>	<input type="checkbox"/>
<b>v. Effects on Industry</b>		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	<input type="checkbox"/>	<input type="checkbox"/>
o Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. COMMUNITY FACILITIES:</b> <a href="#">CEQR Technical Manual Chapter 6</a>		
<b>(a) Direct Effects</b>		
o 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(b) Indirect Effects</b>		
<b>i. Child Care Centers</b>		
o 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o 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?	<input type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	<input type="checkbox"/>	<input type="checkbox"/>
<b>ii. Libraries</b>		
o 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	<input type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the additional population impair the delivery of library services in the study area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iii. Public Schools</b>		
o 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o 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?	<input type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iv. Health Care Facilities</b>		
o Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project affect the operation of health care facilities in the area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>v. Fire and Police Protection</b>		
o Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project affect the operation of fire or police protection in the area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. OPEN SPACE:</b> <a href="#">CEQR Technical Manual Chapter 7</a>		
<b>(a)</b> Would the project change or eliminate existing open space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(b)</b> Is the project located within an under-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(c)</b> If "yes," would the project generate more than 50 additional residents or 125 additional employees?	<input type="checkbox"/>	<input type="checkbox"/>
<b>(d)</b> Is the project located within a well-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>(e)</b> If "yes," would the project generate more than 350 additional residents or 750 additional employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(f)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>
<b>(g)</b> If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	<input type="checkbox"/>	<input type="checkbox"/>
o 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	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO
percent?		
<ul style="list-style-type: none"> <li>o If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered?</li> </ul> Please specify:	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. SHADOWS:</b> <a href="#">CEQR Technical Manual Chapter 8</a>		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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.		
<b>6. HISTORIC AND CULTURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 9</a>		
(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 <a href="#">GIS System for Archaeology and National Register</a> to confirm)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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. (Former) Century Association Building (LP-1763). LPC correspondence in Appendix 2.1 indicates the affected area has no archeological significance.		
<b>7. URBAN DESIGN AND VISUAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 10</a>		
(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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to either of the above, please provide the information requested in <a href="#">Chapter 10</a> .		
<b>8. NATURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 11</a>		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of <a href="#">Chapter 11</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o 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 <a href="#">Jamaica Bay Watershed</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," complete the <a href="#">Jamaica Bay Watershed Form</a> and submit according to its <a href="#">instructions</a> .		
<b>9. HAZARDOUS MATERIALS:</b> <a href="#">CEQR Technical Manual Chapter 12</a>		
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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 <a href="#">Appendix 1</a> (including nonconforming uses)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Has a Phase I Environmental Site Assessment been performed for the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>10. WATER AND SEWER INFRASTRUCTURE:</b> <a href="#">CEQR Technical Manual Chapter 13</a>		
(a) Would the project result in water demand of more than one million gallons per day?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	YES	NO
commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	<input type="checkbox"/>	<input type="checkbox"/>
(c) If the proposed project located in a <a href="#">separately sewered area</a> , would it result in the same or greater development than that listed in Table 13-1 in <a href="#">Chapter 13</a> ?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If the project is located within the <a href="#">Jamaica Bay Watershed</a> or in certain <a href="#">specific drainage areas</a> , 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?	<input type="checkbox"/>	<input type="checkbox"/>
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
<b>11. SOLID WASTE AND SANITATION SERVICES:</b> <a href="#">CEQR Technical Manual Chapter 14</a>		
(a) Using Table 14-1 in <a href="#">Chapter 14</a> , the project's projected operational solid waste generation is estimated to be (pounds per week): 3,361		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>
<b>12. ENERGY:</b> <a href="#">CEQR Technical Manual Chapter 15</a>		
(a) Using energy modeling or Table 15-1 in <a href="#">Chapter 15</a> , the project's projected energy use is estimated to be (annual BTUs): 14,590,911		
(b) Would the proposed project affect the transmission or generation of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13. TRANSPORTATION:</b> <a href="#">CEQR Technical Manual Chapter 16</a>		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in <a href="#">Chapter 16</a> ? * See footnote below.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	<input type="checkbox"/>	<input type="checkbox"/>
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 <a href="#">Chapter 16</a> for more information.	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>
<b>14. AIR QUALITY:</b> <a href="#">CEQR Technical Manual Chapter 17</a>		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in <a href="#">Chapter 17</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in <a href="#">Chapter 17</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <a href="#">Chapter 17</a> ? (Attach graph as needed) See Figure 2.6-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Does the proposed project involve multiple buildings on the project site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
<b>15. GREENHOUSE GAS EMISSIONS:</b> <a href="#">CEQR Technical Manual Chapter 18</a>		
(a) Is the proposed project a city capital project or a power generation plant?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project fundamentally change the City's solid waste management system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the proposed project result in the development of 350,000 square feet or more?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in <a href="#">Chapter 18</a> ?	<input type="checkbox"/>	<input type="checkbox"/>

\* The net increment (weighted average for all the proposed uses and the uses to be eliminated) falls below the preliminary screening thresholds summarized in Table 16-1 of the CEQR TM.

	YES	NO
o If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See <a href="#">Local Law 22 of 2008</a> ; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	<input type="checkbox"/>	<input type="checkbox"/>
<b>16. NOISE:</b> <a href="#">CEQR Technical Manual Chapter 19</a>		
(a) Would the proposed project generate or reroute vehicular traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project introduce new or additional receptors (see Section 124 in <a href="#">Chapter 19</a> ) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
<b>17. PUBLIC HEALTH:</b> <a href="#">CEQR Technical Manual Chapter 20</a>		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in <a href="#">Chapter 20</a> , "Public Health." Attach a preliminary analysis, if necessary.		
<b>18. NEIGHBORHOOD CHARACTER:</b> <a href="#">CEQR Technical Manual Chapter 21</a>		
(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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <a href="#">Chapter 21</a> , "Neighborhood Character." Attach a preliminary analysis, if necessary. Only shadows requires detailed analysis; the incremental shadows would not result in adverse shadows impacts, nor would they affect neighborhood character.		
<b>19. CONSTRUCTION:</b> <a href="#">CEQR Technical Manual Chapter 22</a>		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o The operation of several pieces of diesel equipment in a single location at peak construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Closure of a community facility or disruption in its services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Activities within 400 feet of a historic or cultural resource?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Disturbance of a site containing or adjacent to a site containing natural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in <a href="#">Chapter 22</a> , "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 Section 2.9, "Construction".		
<b>20. APPLICANT'S CERTIFICATION</b>		
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 Allison Ruddock	SIGNATURE 	DATE 18 May 2018
<b>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.</b>		

**NEGATIVE DECLARATION (Use of this form is optional)**

**Statement of No Significant Effect**

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

**Reasons Supporting this Determination**

The above determination is based on information contained in this EAS, which 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.

**Hazardous Materials**

An (E) designation (E-481) for hazardous materials has been incorporated into the site affected by the proposed actions. Refer to "Determination of Significance Appendix 1: (E) Designation" for the applicable (E) designation requirements. With these (E) designation measures in place, the proposed actions would not result in significant adverse impacts related to hazardous materials.

**Shadows**

A detailed analysis of shadows generated by the proposal is included in this EAS. As a result of the proposed actions, three sunlight-sensitive resources, including Union Square Park (State/National Register of Historic Places listed and National Historic Landmark), Park Avenue South Greenstreets and the Broadway Pedestrian Plaza, are anticipated to experience incremental shadows cast from the proposed project. Considering the following factors: the projected duration of the incremental shadows, the percentage of incremental shadow coverage on the affected resources, the availability of other sunlit areas nearby, the effect on peak usage times, and the number of analysis days a shadow is projected to reach affected sunlight-sensitive resources, the analysis finds that the shadows cast by the proposed project would not result in significant adverse impacts.


**Historic and Cultural Resources and Construction**

The proposed project is situated within a zoning lot that contains the former Century Association Building, a Landmarks and Preservation Commission (LPC) designated individual landmark and architectural resource. The design of the proposed project has been developed in coordination with the Landmarks Preservation Commission (LPC); a Construction Protection Plan (CPP) has also been developed to avoid the potential for construction-related effects on the former Century Association Building. A restoration and ongoing maintenance plan for the landmarked property has also been developed in coordination with LPC. The analysis finds that with these measures in place, the proposed project would not significantly alter or affect the setting, visual relationship, or publicly accessible views of the identified historic resources within the study area, and that no significant adverse impacts related to historic and cultural resources or construction would result from the proposed actions.

**Urban Design**

A detailed analysis of Urban Design and Visual resources is included in this EAS. The analysis concludes that the proposed actions would not result in significant adverse impacts related to urban design or visual resources.

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

TITLE Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning, acting on behalf of the City Planning Commission
NAME Olga Abinader	DATE 05/18/2018
SIGNATURE 	

TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE 05/21/2018
SIGNATURE	

## Appendix 1: (E) Designation(s)

To ensure that there would be no significant adverse hazardous materials impacts associated with the proposed project, an E designation (E-481) will be placed on the project site as follows:

The E designation requirements related to hazardous materials would apply to:

Projected Development Site 1:

Block 871, Lot 74

### Hazardous Material

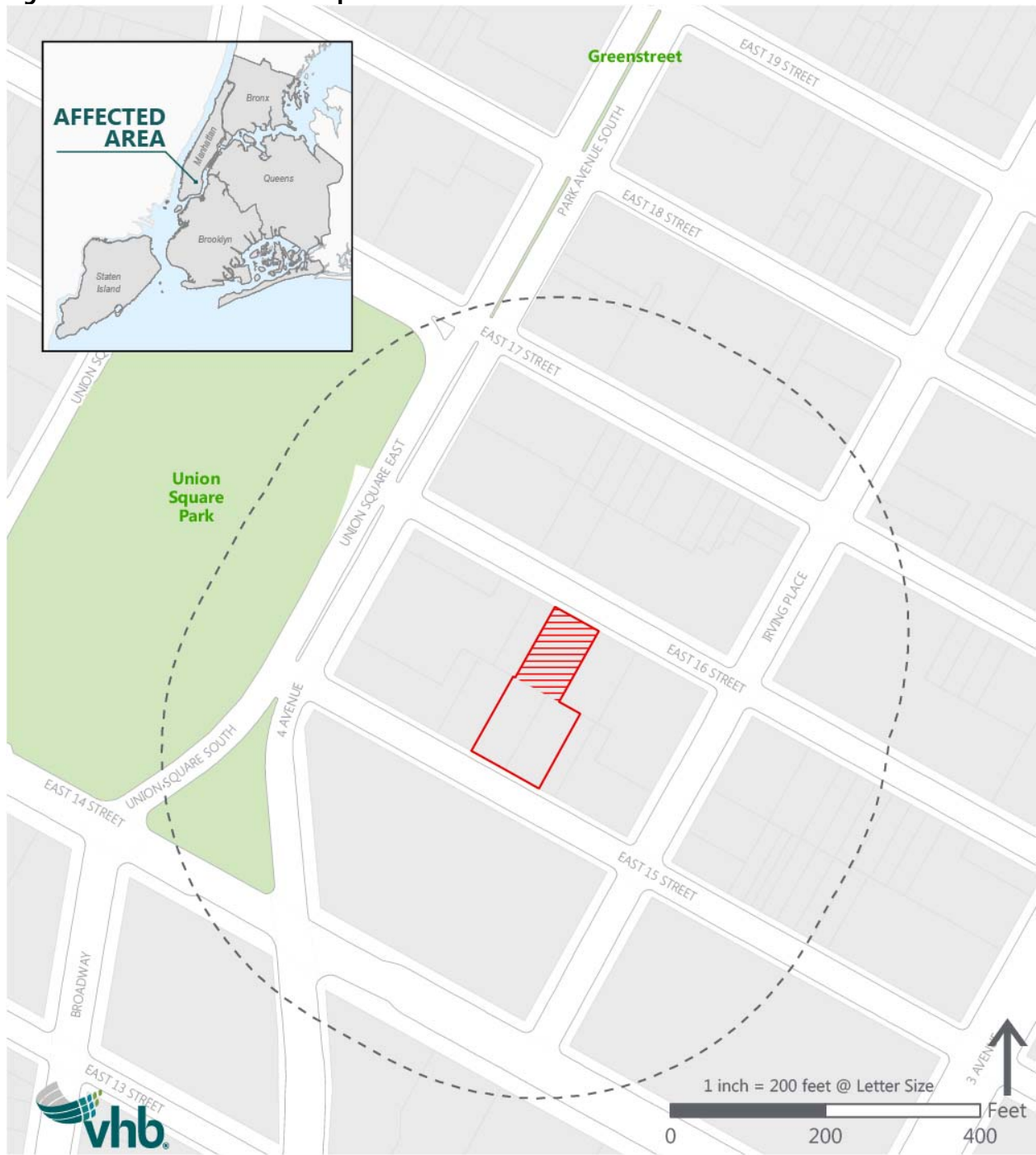
#### *Task 1*

The applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil and groundwater testing protocol (a.k.a. Remedial Investigation Work Plan [RIWP] along with a site-specific Health and Safety Plan (HASp), including a description of methods and a project site map with all sampling locations clearly and precisely represented. If site sampling is required, 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 nonpetroleum 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 Remedial Action Plan (RAP) must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER in accordance with the approved RAWP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed. An OER-approved CHASP would be implemented during excavation and construction 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. All demolition or rehabilitation would be conducted in accordance with applicable requirements for disturbance, handling and disposal of suspect lead paint and asbestos containing materials.

**Figure 1 Site Location Map**



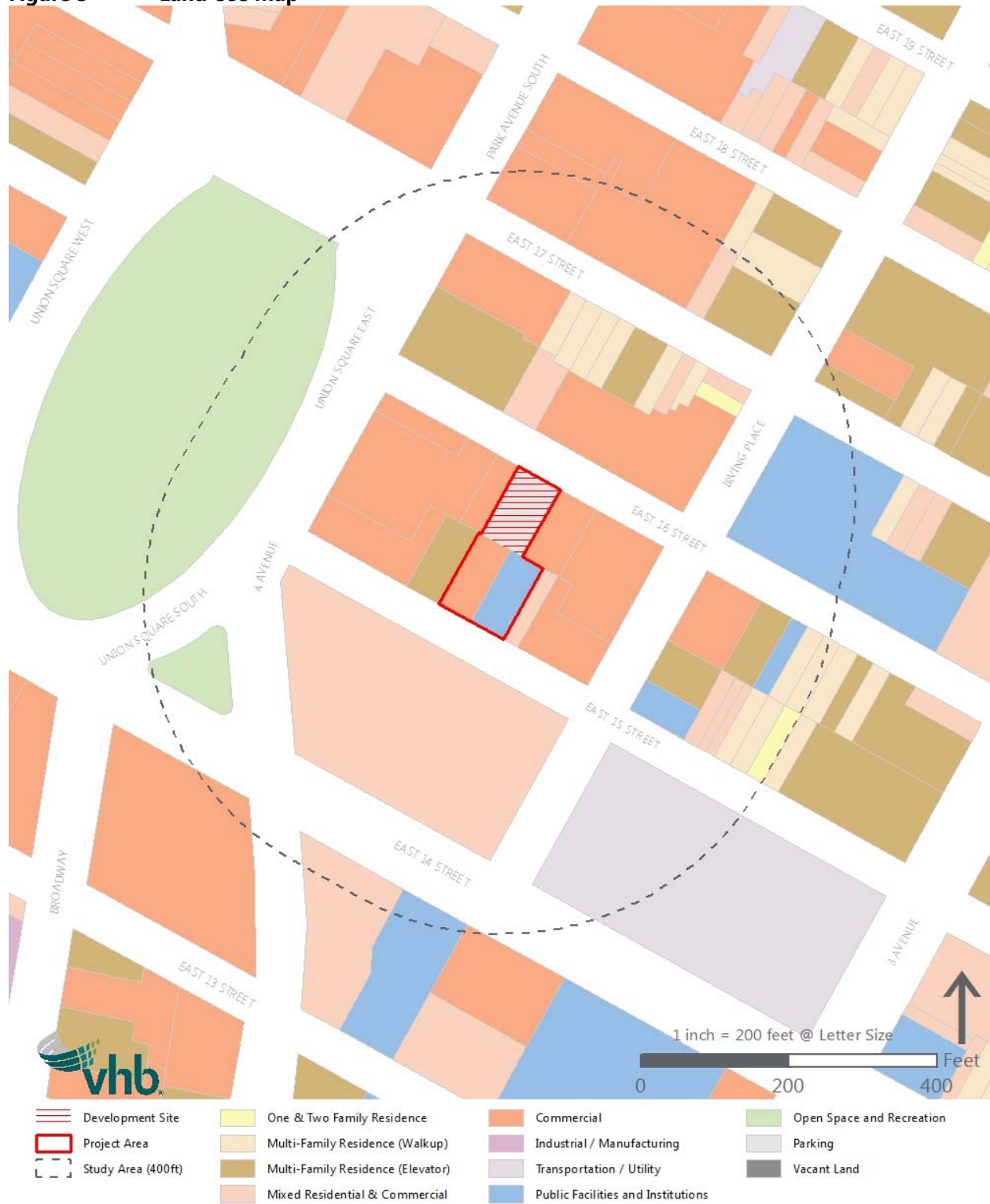
- Development Site
- Affected Area
- 400 Feet Radius
- Tax Lots

**Figure 2 Tax Map**



- Development Site
- Affected Area
- 400 Feet Radius
- Tax Lots

**Figure 3 Land Use Map**





**Figure 4 Zoning Map**



 Development Site

 Affected Area

 400 Feet Radius

 Special Purpose District

Figure 5 Aerial Photograph



- Development Site
- Project Area
- Study Area (400ft)



# 1.0

## Project Description

This chapter provides descriptive information about the requested discretionary land use action and the development project that could be facilitated by the requested actions. The purpose of this chapter is to convey information in written form to the Department of City Planning, the City Planning Commission, local Community Boards, elected officials, and the general public.

This section provides the following information:

1. A description of the affected area;
2. A brief description of the proposed development (the "proposed development"),
3. The purpose and need for the proposed development; and
4. The established framework to analyze the potential for the proposed development to result in significant adverse impacts, as set forth in the *2014 City Environmental Quality Review (CEQR) Technical Manual* (refer to Chapter 2 for analysis).

As described in further detail in the sub-sections below, the applicant (East 16th Street Owner LLC) and co-applicant (Trinity Christian Center of Santa Ana) seek approval of a series of land use actions to facilitate an up to 110,000 gross square

foot (GSF) mixed-use development comprising up to 55 dwelling units (DUs), up to 4,700 GSF of commercial and/or community facility space with a minimum of 690 GSF of community facility space, and up to 23 accessory parking spaces to be developed at 110 East 16th Street in Manhattan (the proposed project).

## 1.1 Affected Area and Development Site

The affected area, as shown in EAS Figures 1 and 2, is in the Union Square neighborhood of Manhattan in Community District 5 and consists of a single zoning lot, including three lots on Block 871: Lots 10, 12, and 74. These three lots total approximately 16,986 square feet (SF) of lot area. The block is bounded by East 16th Street to the north, Irving Place to the east, East 15th Street to the south, and Union Square East to the west. The affected area is an irregularly shaped through lot with approximately 64.5 feet of frontage along East 16th Street and 100 feet along East 15th Street.

The affected area is improved with three structures:

- › Lot 10 is a New York City Landmarks Preservation Commission (LPC)-designated individual landmark (the former Century Association Building) improved with a 14,027 GSF theater/production studio and supportive office space spread out across four stories;
- › Lot 12 is improved with an approximately 20,424 GSF, 4-story commercial building with performance spaces for its acting program; and
- › Lot 74 (the proposed development site) is improved with a 9-story (86-foot), 56,760 GSF public parking facility. A CPC authorization pursuant to ZR 11-411 allows for a capacity of 196 vehicles.

**Table 1.1** below and **Figure 1.0-1** describe the existing conditions of the individual tax lots within the project area.

**Table 1.1 Affected Area – Tax Lots**

<b>Tax Lot</b>	<b>Address</b>	<b>Area (SF)</b>	<b>Commercial GSF</b>	<b>Parking Spaces</b>	<b>Building Height (ft)</b>
10 <sup>†</sup>	111 E 15th St	5,163	14,027	0	57
12	115 E 15th St	5,163	*20,424	0	52
74	110 E 16th St	6,660	56,760	196	86
<b>TOTAL</b>		<b>16,986</b>	<b>91,211</b>	<b>196</b>	
<b>FAR - Existing</b>			<b>≤5.37</b>		
<b>FAR – Permitted</b>		In C6-2A: Residential: 6.02 / Commercial: 6.00 / Community Facility: 6.5			

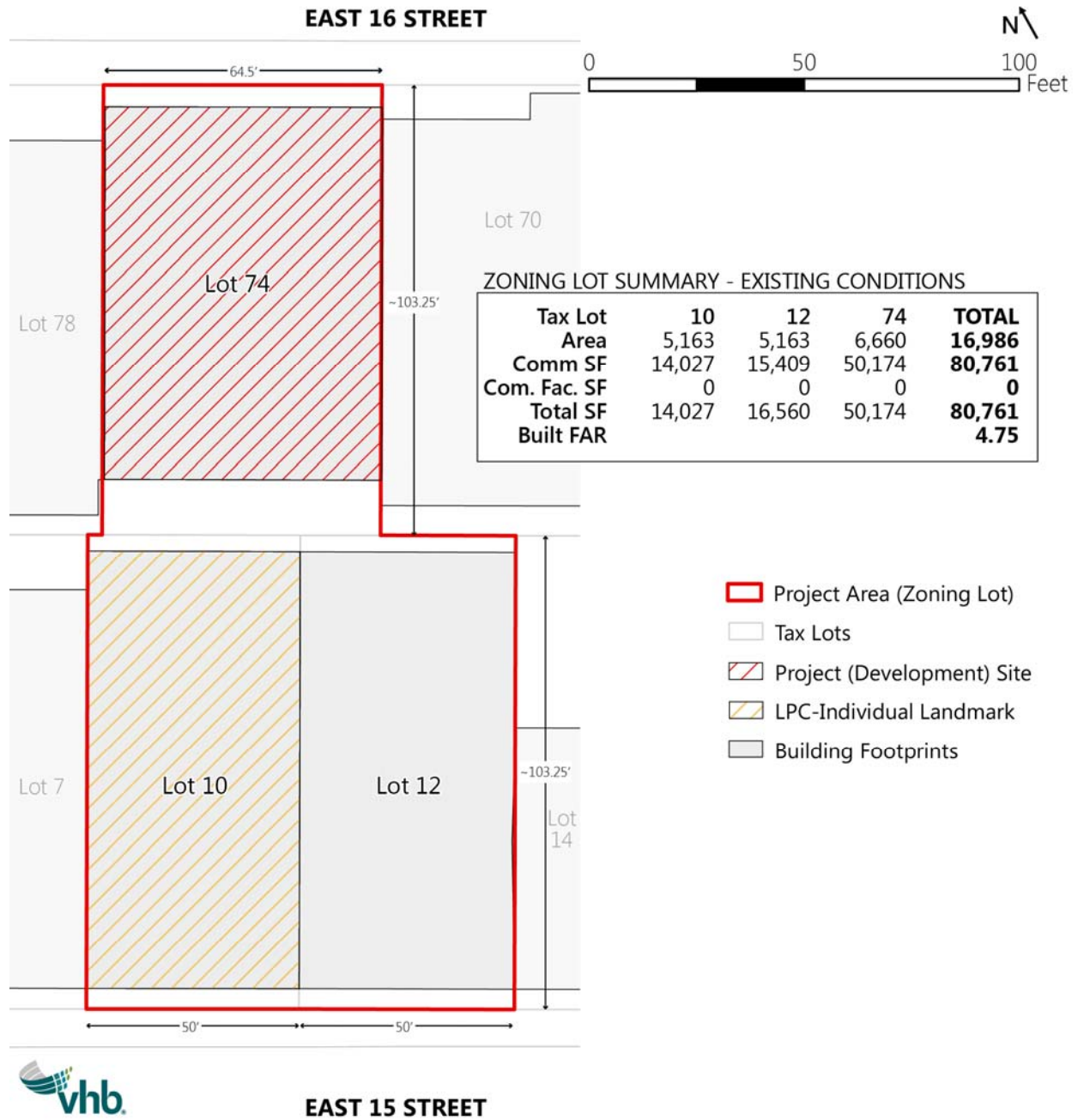
Source: MapPLUTO 16v2

<sup>†</sup> LPC-Designated Landmark

\* Contains Use Group 9 commercial uses as per DOB Certificate of Occupancy

Note: The affected area contains 0 GSF of residential or community facility space

**Figure 1.0-1 Affected Area (Zoning Lot) Summary**



In April 2017, the New York City Planning Commission approved a renewal of a Special Permit that allows for the existing public parking facility on Lot 74 to continue public parking operations (Land Use Application N 160089 ZAM/CEQR No.: 16DCP055M). Existing development and site conditions are shown in **Photo 1.0-1** through **Photo 1.0-4**.

**Photo 1.0-1**



View west along E 16th Street towards Lot 74

**Photo 1.0-2**



View east along E 16th Street towards Lot 74

**Photo 1.0-3**



Façade of Lot 10, the (former) Century Association Building

**Photo 1.0-4**



Façade of Lot 12, as seen from E 15th St

Vehicular and pedestrian access is available to the project area via curb cuts on East 16th Street and sidewalks on each of the surrounding streets.

The entirety of the affected area is located within a C6-2A zoning district, as shown at **EAS Figure 4**. Land uses are generally consistent with those permitted within the C6-2A zoning district (see EAS Figure 3).

Absent the requested actions, the existing parking facility on the development site would be removed and redeveloped as a mixed-use residential building with commercial and/or community facility spaces.

## 1.2 Proposed Development

With the proposed actions (described in detail in **Section 1.4, "Proposed Actions"**), the applicant would redevelop the development site portion of the zoning lot (Lot 74). The existing parking garage would be demolished and replaced with an approximately 110,000 GSF development containing up to 55 dwelling units, up to 4,700 GSF of commercial and/or community facility space (with a minimum of 690 GSF of community facility space), and up to 23 accessory parking spaces.

Architectural drawings of the proposed development prepared by Morris Adjmi Architects, dated February 1, 2018, are provided at **Appendix 2.2**.

The development would have a base height of up to 230 feet before setbacks of approximately 2.5 feet at each floor above a height of 230 feet. The proposed development would have a maximum height of up to 283 feet (including the building bulkhead)

Vehicular access to the proposed accessory parking area would be located at the eastern-most point of the development site, with pedestrian access to the proposed development occurring from the East 16th Street frontage.

No changes are proposed to the building on Lot 12. As part of the project, a restoration and continuing maintenance program would be undertaken for the (former) Century Association Building.

To facilitate the proposal, the applicant seeks CPC Special Permits pursuant to ZR 74-711 (Landmark preservation/waiver of bulk requirements) and ZR 13-451 (additional parking space for residential growth in Manhattan Core), as described in **Section 1.4** below.

## 1.3 Project Purpose and Need

A special permit is being requested pursuant to Zoning Resolution Section 74-711 to facilitate the demolition and replacement of a large 1960s public parking garage with a mixed use, predominately residential building that complements and is consistent with the design aesthetic of the neighborhood and adjacent landmark structure.

Specifically, the special permit would modify height, setback, and side yard regulations and the minimum distance required between buildings (i) to permit a building that provides a transition between the lower rise midblock buildings to the north of the site and the higher rise buildings to the south; and (ii) to allow for a tower design that evokes the mansard style roofs of nearby landmarked structures. At the street level, demolition of the existing public parking garage and its replacement with active ground floor community facility and retail uses would result in a more attractive streetscape and active pedestrian environment.

The proposed actions would also include a special permit pursuant to Zoning Resolution Section 13-451, which would accommodate the modest parking demands of the proposed building. The garage entrance door would be discrete and designed to match other portions of the ground floor design, thereby improving the existing condition. Finally, the special permit pursuant Zoning Resolution Section 74-711 would ensure the restoration of the landmark (former) Century Association Building to approximately its 19th century condition, and would provide for the ongoing inspection and maintenance of the structure. Accordingly, the proposed actions would advance the City's policy goals of fostering residential development and excellent design, improving the streetscape, enlivening the pedestrian realm, and supporting historic preservation.

## **1.4 Proposed Actions**

The applicant proposes the following land use actions from the City Planning Commission (CPC) to facilitate the proposed project:

1. A Special Permit pursuant to ZR 74-711 to modify the applicable height, setback and side yard requirements, as well as the minimum required distance between buildings, in conjunction with the establishment of a program for the restoration and continuing maintenance of the Century Association Building located on Lot 10; and
2. A Special Permit pursuant to ZR 13-451 to facilitate the development of accessory parking spaces beyond the number of spaces permitted in the Manhattan Core by ZR 13-10.

While Lots 10 and 74 are currently one zoning lot, in the With-Action scenario, the applicants would undertake an as-of-right zoning lot merger with Lot 12.

### **CPC Special Permit Pursuant to ZR 74-711**

The applicant seeks a CPC Special Permit pursuant to ZR 74-711 to modify the applicable base height, setback and maximum building height provisions, as well as the side yard requirements and minimum required distance between buildings in conjunction with the establishment of a program for the continuing maintenance of an LPC-designated individual landmark (the former Century Association Building on Lot 10). C6-2A zoning districts have a residential equivalent of the R8A zoning district, which permits quality housing developments with a maximum base height



of 85 feet, a required setback of 15 feet, and a maximum building height of 120 feet. If a side yard is provided, a minimum of 8 feet is required, and for a through lot, a 60-foot rear yard equivalent is required midway (or within 10 feet of being midway) between the two street lines upon which the through lot fronts. In addition, a minimum distance of 50 feet is required between the windows of any building containing dwelling units and the wall of any other building on the same zoning lot. The requested CPC Special Permit pursuant to ZR 74-711 would provide a waiver from these provisions to permit a base height of up to 230 feet, a maximum building height of up to 268 feet (not including the bulkhead), and a varied side setback at approximately 2.5 foot increments at elevations beginning no higher than the 19th floor (to provide for a "mansard roof inspired" design preferred by LPC).

In connection with the requested height, setback and side yard waivers, the applicant proposes to establish a program for the continuing maintenance of the (Former) Century Association Building, which is located wholly within the tax lot 10 portion of the project area. This continuing maintenance program would undertake restoration/preservation improvements to the (former) Century Association Building as described further below.

### **Façade Improvements**

The following would be undertaken on the (former) Century Association Building façade:

- › In-kind repair or replacement of slate on mansard roof;
- › Repair dormers (cracks, chipping, etc.);
- › Replace existing windows with two-over-two wood windows to match historic (1892) condition in terms of operation, profile, and finish;
- › Repair sheet metal cornice / end brackets and replicate any missing pieces;
- › Clean brick masonry;
- › Repoint bricks / mortar at required locations;
- › Strip all painted masonry from base to roof to original exposed limestone;
- › Repair original limestone below paint;
- › Repair or restore the existing decorative metal grilles in front of windows, if needed (keep existing);
- › Repair or restore drainage downspout;
- › Upgrade / replace signage boxes;
- › Recreate original cresting at mansard roof; and
- › Add additional stone quoining up to the string course around the side entrances to reflect the original design intent while maintaining necessary ingress and egress;
- › Remove and replace slate on rear of the mansard roof;
- › Remove paint from stone coping at west end of rear mansard - clean and repoint stone;

- › Replace existing windows at the rear mansard with two-over-two wood windows to match historic condition in terms of operation, profile, and finish; and
- › Provide new sheet metal cladding at the rear dormers to match the original.

### **Entrance Improvements**

The following would be undertaken on the Century Association Building entrance:

- › Replace existing door with wood door to better match historic (1892) condition;
- › Replace door transom with wood-frame transom to better match historic (1892) condition;
- › Replace two exterior lamps with ones more appropriate to the period;
- › Replace existing canopy to align with new doors – replace canopy cladding;
- › Replace existing at-grade side doors with wood paneled doors that are compatible with 1892 central entrance door; and
- › Replace sign boxes adjacent to central entrance doors with brass signage.

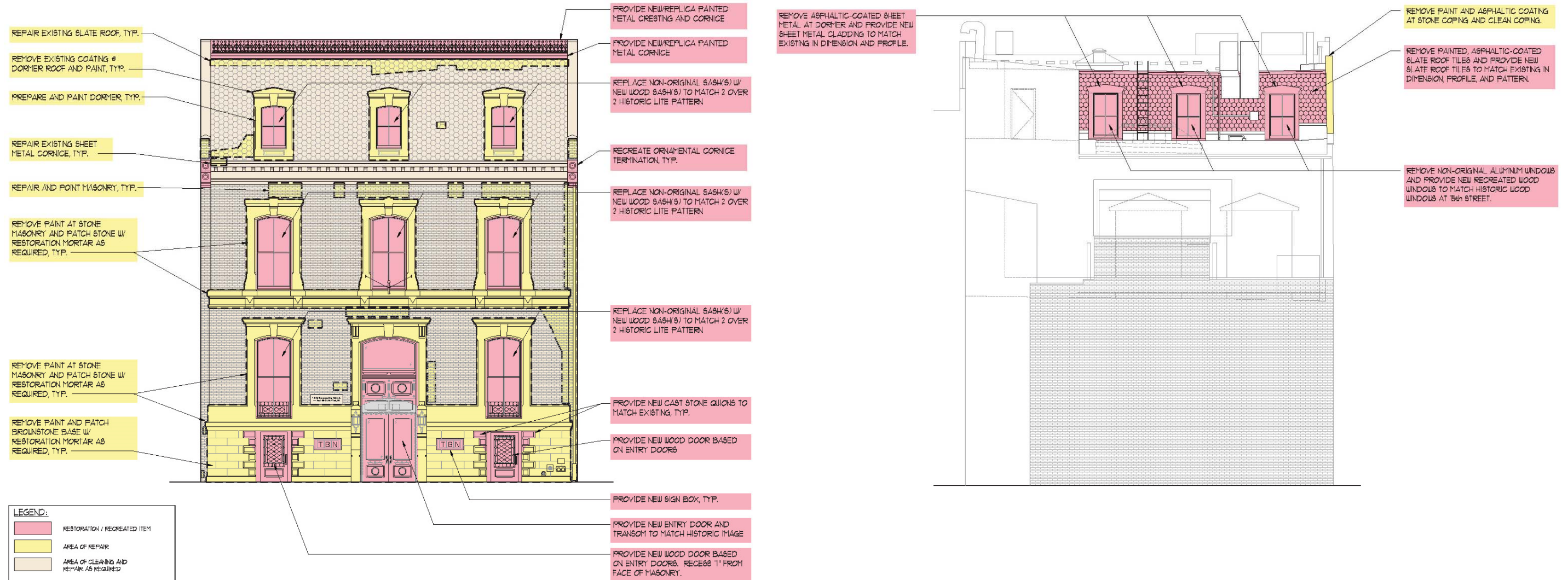
### **Other Improvements**

- › Secure envelope of building from water intrusions

A required continuing maintenance plan would provide for periodic inspection and ensure ongoing maintenance of the landmarked building.

The proposed landmark preservation improvements to the (former) Century Association Building on Lot 10 are shown on **Figure 1.0-2**.

**Figure 1.0-2 Proposed 111 East 15th Street Scope of Landmark Preservation Work (front and rear elevations)**



Source: Morris Adjmi Architects, Higgins Quasebarth & Partners, and CTS Group

## CPC Special Permit Pursuant to ZR 13-45

A CPC Special Permit pursuant to ZR 13-451 is sought to facilitate the construction of up to 23 parking spaces<sup>1</sup>. While the proposed development of 40-55 dwelling units would permit between 8 and 11 accessory parking spaces as-of-right, the requested special permit would facilitate the development of additional accessory residential parking spaces.

## 1.5 Analysis Framework and Reasonable Worst Case Development Scenario

The *CEQR Technical Manual* will serve as guidance on the methodologies and impact criteria for evaluating the potential environmental effects of the proposed development. Consistent with CEQR methodology, the EAS will first describe existing conditions, then forecast these conditions to a future analysis year (the No-Action condition). The future With-Action condition will be compared to the No-Action condition for purposes of determining potential impacts in the future with the proposed actions. Collectively, the Existing Conditions, Future No-Action and Future With-Action Conditions are referred to as the Reasonable Worst Case Development Scenario (RWCDS).

As part of the analysis to understand the potential impacts of the proposed development, the following sub-sections note the assumptions that have been made.

### Future No-Action Condition

Absent the proposed actions (No-Action Scenario), the existing public parking facility on tax lot 74 would be demolished and a 58,510 GSF (51,040 ZFA) mixed-use development would be constructed (see **Figure 1.0-11**). Floor area the applicant has acquired from tax lot 10 through an as of right zoning lot merger would be used in the No-Action development. In the No-Action scenario, tax lot 12 would not be merged with tax lots 10 and 74 and no floor area would be transferred from lot 12. No changes would occur to the existing buildings on Lots 10 or 12. The No-Action development would comprise 46 DUs (55,460 residential GSF)<sup>2</sup>, 690 GSF of community facility space, 2,360 GSF of commercial space, and 9 accessory parking spaces, as described in **Table 1.2** below.

<sup>1</sup> ZR Section 13-11 permits accessory parking spaces for up to 20% of the dwelling units. The requested actions would allow for the construction of up to 23 parking spaces, 14 spaces beyond what would be developed as-of-right in the No-Action scenario (based on an as-of-right development of 46 units). Based on development of 40 DUs, ZR Section 13-11 would permit 8 parking spaces as of right, and based on a development of 55 DUs, ZR 13-11 would permit 11 parking spaces as of right.

<sup>2</sup> Based on an assumption of 1,200 GSF per unit. Given market conditions in the Union Square area and the larger residential unit sizes that would be developed in the With Action condition, the developer would similarly build fewer, larger units in the No Action scenario.

**Table 1.2 Affected Area Tax Lots – No-Action Condition**

Tax Lot	Res. Units	Residential GSF	Commercial GSF	Community Facility GSF	Total GSF	Parking Spaces	Building Height (ft)
10 <sup>1</sup>	0	0	14,027	0	14,027	0	57
12	0	0	20,424 <sup>2</sup>	0	20,424	0	52
74	46	55,460	2,360	690	58,510	9	120
<b>TOTAL</b>	<b>46</b>	<b>55,460</b>	<b>36,811</b>	<b>690</b>	<b>92,961</b>	<b>9</b>	
<b>No-Action FAR<sup>3</sup></b>		<b>2.83</b>	<b>2.17</b>	<b>0.04</b>			
<b>Permitted FAR</b>		<b>6.02</b>	<b>6.00</b>	<b>6.50</b>			

Source: MapPLUTO 16v2

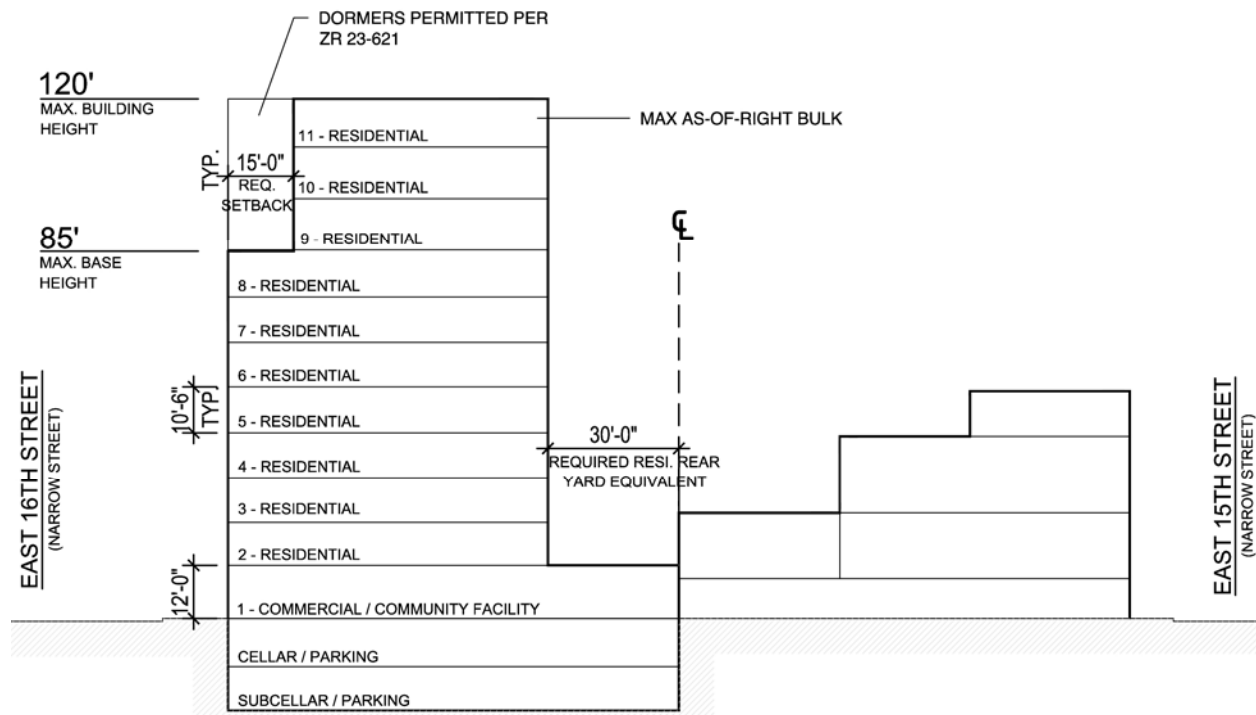
<sup>1</sup> LPC-Designated Landmark

<sup>2</sup> Contains Use Group 9 commercial uses as per DOB Certificate of Occupancy

<sup>3</sup> These FAR calculations are based on gross square footage and are provided for illustrative purposes only

The development that would occur on the development site in the No-Action condition is shown on **Figure 1.0-3** and **Figure 1.0-4**.

**Figure 1.0-3 No-Action Development Sectional Drawing**



**Figure 1.0-4 No-Action Condition**



## Future With-Action Condition

In the With-Action scenario, the development site would be redeveloped with the proposed project described above in **Section 1.2, "Proposed Development,"** and summarized in **Table 1.3.**

**Table 1.3 Affected Area Tax Lots – With-Action Condition**

Tax Lot	Res. Units	Residential GSF	Commercial GSF	Community Facility GSF	Total GSF	Parking Spaces	Building Height (ft)
10 <sup>1</sup>	0	0	14,027	0	14,027	0	57
12	0	0	20,424	0	20,424	0	52
74	55	106,950	4,010	690	110,000 <sup>2</sup>	23	283 <sup>4</sup>
<b>TOTAL</b>	<b>55</b>	<b>106,950</b>	<b>38,461</b>	<b>690</b>	<b>144,451</b>	<b>23</b>	
<b>With-Action FAR<sup>3</sup></b>		<b>4.59</b>	<b>≤2.26</b>	<b>0.04</b>			
<b>Permitted FAR</b>		<b>6.02</b>	<b>6.00</b>	<b>6.50</b>			

<sup>1</sup> LPC-Designated Landmark

<sup>2</sup> Total GSF would be up to 110,000 and up to 79,822 ZFA (or an FAR of 6.5 across the entire Affected Area)

<sup>3</sup> These FAR calculations are based on gross square footage and are provided for illustrative purposes only

<sup>4</sup> Permitted obstructions, including bulkheads, would bring the total height to 283 feet; 268 feet is the maximum dwelling unit height

Note: Reflecting the possibility that the applicant could convert the ground floor residential accessory parking area to commercial and/or community facility space, the above table assumes the more conservative assumption for both residential and commercial/community facility areas; however, total GSF will not exceed 110,000 GSF and total ZFA of 79,822.

## Increment for Analysis

The proposed actions would result in a net increase in up to 9 additional DUs, 1,650 GSF additional commercial and/or community facility space, and up to 14 parking spaces over the No Action condition.

## Analysis (Build) Year

It is anticipated that the proposed actions, if approved, would allow for construction to commence in 2018 full building occupancy expected by 2021.



# 2.1

## Land Use, Zoning, and Public Policy

This chapter considers the potential for the proposed project to result in significant adverse impacts to land use, zoning, and public policy. Under the guidelines of the *2014 City Environmental Quality Review (CEQR) Technical Manual*, this analysis evaluates the uses in the area that may be affected by the proposed project and determines whether the proposed project is compatible with those conditions or may otherwise affect them. The analysis also considers the proposed project's compatibility with zoning regulations and other public policies applicable to the area.

### 2.1-1 Introduction

The applicant seeks approval of a series of land use actions to facilitate an approximately 110,000 gross square foot (GSF) mixed-use development comprising up to 55 dwelling units (DUs), up to 4,700 GSF of commercial and/or community facility space with a minimum of 690 GSF of community facility space, and up to 23 accessory parking spaces (the proposed project). Specifically, the following land use actions would facilitate the proposed project:



1. A City Planning Commission (CPC) Special Permit pursuant to ZR 13-451 to facilitate the development of accessory parking spaces beyond the number of spaces permitted in the Manhattan Core by ZR 13-10; and
2. A CPC Special Permit pursuant to ZR 74-711 to modify height, setback and side yard requirements and the required minimum distance between buildings.

## 2.1-2 Methodology

This preliminary analysis of land use, zoning, and public policy follows the guidelines set forth in the *CEQR Technical Manual* for a preliminary assessment (Section 320). According to the *CEQR Technical Manual*, a preliminary land use and zoning assessment:

- › Describes existing and future land uses and zoning information, and describes any changes in zoning that could cause changes in land use;
- › Characterizes the land use development trends in the area surrounding the project area that might be affected by the proposed action; and
- › Determines whether the proposed project is compatible with those trends or may alter them.

The following assessment method was used to determine the potential for the proposed project to result in significant adverse impacts on Land Use, Zoning, and Public Policy:

1. Establish a "study area", a geographic area surrounding the project area to determine how the proposed project may affect the immediate surrounding area. For this assessment, a study area of 400-feet of the project area was used. This area is generally defined as the area bounded to the north by East 17th Street, to the west by Union Square, on the south by East 14th Street, and on the east by the midblock between Irving Place and Third Avenue (see EAS Figure 2).
2. Identify data sources, including any public policies (formal plans, published reports) to be used to describe the existing and No-Action conditions related to Land Use, Zoning, and/or Public Policy;
3. Conduct a preliminary assessment of the proposed project's potential effects on Land Use, Zoning and Public Policy to determine whether the proposed project is consistent with or conflicts with area land uses, zoning, or the identified policies.
  - If a proposed project could conflict with the identified policies, a detailed assessment would be conducted; or
  - If the proposed project is found to not conflict with the identified policies, no further assessment is needed.

## 2.1-3 Assessment

### Land Use

This section describes land use in the Existing, No-Action, and With-Action conditions. The land use in these conditions are analyzed for both the Affected Area and the Study Area.

### Existing Conditions

#### *Affected Area*

The affected area consists of tax lots 10, 12, and 74 of Manhattan Block 871 and is improved with three structures across the three tax lots:

- › Lot 10 is an LPC-designated individual landmark (the former Century Association Building) improved with a 14,027 GSF theater/production studio and supportive office space spread out across four stories;
- › Lot 12 is improved with an approximately 20,424 GSF commercial building with associated performance spaces for its acting program; and
- › Lot 74 (the proposed development site) is improved with a 9-story public parking facility with a height of 86 feet with approximately 56,760 GSF. A previously-granted CPC Special Permit pursuant to Section 21-F (pre-1961 zoning regulations) and an authorization pursuant to current ZR Section 11-411 permits a capacity of 196 vehicles on this lot.

#### *Study Area*

As shown at **EAS Figure 3**, land uses in the study area are a mix of predominately multi-family residences, mixed residential/commercial, commercial, and open space uses.

The Zeckendorf Towers, occupying the full block south of the proposed project and bounded by Union Square East, East 14th Street, Irving Place, and East 15th Street, is a notable mixed-use building with 670 residential units, ground-floor retail, and medical center use. Other residential uses are located throughout the study area, including the 70 dwelling unit mixed-use building at the northeast of the Union Square East and East 16th Street intersection, and various other elevator and walkup buildings in the mid-blocks and on Irving Place. There are approximately 1,300 dwelling units within 400 feet of the affected area<sup>1</sup>.

Commercial uses include predominately retail uses at the ground floor of buildings along Union Square East as well as commercial buildings that include coffee shops, bread stores, children's clothing and toy stores, a vitamins and supplements retailer, a grocery store, electronics and mobile phone retailers, and eating and drinking establishments.

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<sup>1</sup> Per MapPLUTO16v2 data

A portion of the Consolidated Edison Building (Con Edison's headquarters), a large commercial building located at the northeast corner of the East 14th Street/Irving Place intersection, is within the study area.

The Gramercy Arts High School is located on Irving Place between East 16th Street and East 17th Street. Union Square Park, an open space of approximately 6.5 acres, is a prominent land use within the study area, extending beyond the study area to the west. The park has a mixture of active and passive recreational uses, including a farmers' market, playground, seating areas, monuments, vegetation, walking paths, and paved areas.

Land uses in the study area are supported by the Union Square subway station, which is underground and provides connections to the 4, 5, 6, L, N, Q, R, and W subways, as well as several MTA bus routes.

### **No-Action Condition**

Absent the proposed development, the parking garage on the development site would be demolished and a 58,510 GSF (51,040 ZFA) mixed-use development with 46 residential units (55,460 residential GSF), 690 GSF of community facility space, 2,360 GSF of commercial space, and 9 accessory parking spaces would be constructed. There would be no changes to land use within the affected area or study area other than the conversion of the development site into a mixed-use residential/commercial/community facility use from its existing parking use.

Within the study area, the improvements currently under construction at Tammany Hall (44 Union Square East) would be complete and fully occupied by 2018. When complete, this project will provide an enlarged glass domed rooftop addition to the existing 6-story structure and will contain approximately 27,700 GSF of destination retail space, 16,000 GSF of local retail space, and 26,300 GSF of office space.

### **With-Action Conditions**

In the With-Action condition, the development site would be improved with a 110,000 GSF mixed-use development comprised of up to 55 dwelling units, up to 4,700 GSF of commercial and/or community facility space (with a minimum of 690 GSF of community facility space), and up to 23 accessory parking spaces, representing an increment of 9 units, 1,650 GSF of commercial space, and 14 accessory parking spaces over the No-Action condition. While the proposed development would have more gross floor area than the No-Action scenario, the proposed development would have the same mix of land uses. The proposed development of a high-density residential mixed-use land use would be consistent with the existing land use in the study area, including the Zeckendorf Towers located opposite East 15th Street from the affected area.

Since the requested actions would apply only to the affected area, the proposed development would not affect land uses within the study area and would be consistent with the existing mix of land uses in the area. Therefore, there would be no significant adverse land use impact due to the proposed development.

## Zoning

### Existing Conditions

**Affected Area:** The affected area is currently located wholly within a C6-2A Zoning District, which has a residential equivalent of R8A. EAS Figure 4 shows the existing zoning districts in the area.

C6-2A zoning districts permit a wide range of high-bulk commercial uses requiring a central location. Corporate headquarters, large hotels, department stores and entertainment facilities in high-rise mixed buildings are permitted in C6 districts. C6-2A districts permit a commercial FAR of up to 6.0, a residential FAR of up to 6.02, and a community facility FAR of up to 6.5. In C6-2A, base heights are required with a height between 60 and 85 feet before a 15-foot setback is required from a narrow street (or 10 feet from a wide street). In addition, in C6-2A districts, a minimum distance of 50 feet is required between the windows of any building containing dwelling units and the wall of any other building on the same zoning lot. Within C6-2A districts within the Manhattan Core, accessory parking is permitted as-of-right at a rate of 0.2 spaces per dwelling unit.

**Study Area:** As shown at **EAS Figure 3**, the study area includes C6-2A, C6-3X, C6-4, C6-4A, R8A, and R8B Zoning Districts.

- › A C6-2A district is located 100 feet east from Union Square East and 100 feet west of Irving Place from the centerline of East 15th Street in the south to midblock location between East 16th Street and East 17th Street;
- › A C6-3X district is located to the southeast of the affected area to the east of Irving Place between East 14th Street and East 15th Street. C6-3X districts have a residential district equivalent of the R9X zoning district, which permits an FAR up to 9.0, a base height between 105 and 120 feet within 100 feet of a wide street (or between 60 and 120 feet beyond 100 feet of a wide street), and a maximum building height of 170 feet (or 160 feet in locations beyond 100 feet of a wide street);
- › A C6-4 district is located to the south and west of the affected area. C6-4 districts have a residential equivalent of the R10 zoning district, which permits a maximum FAR of 10.0. Developers may opt for Quality Housing, Tower-on-a-Base, or Standard Tower regulations, however, the Tower-on-a-Base is required for development sites that front or are near of a wide street, as prescribed by ZR 23-65(a). While there is no height limit under the Tower-on-a-Base provisions, Quality Housing developments beyond 100 feet of a wide street permit a base height between 60 and 125 feet, and a maximum building height of 185 feet;
- › A C6-4A is located to the north of the affected area north of East 17th Street and within 100 feet of Park Avenue South. C6-4A districts have a residential equivalent of the R10A district, which requires Quality Housing developments with a maximum FAR of 10.0. Within 100 feet of a wide street requires a base height between 125-150 feet, with a maximum building height of 210 feet;

- › An R8A district is located north of East 15th Street and within 100 feet of Irving Place. R8A districts require Quality Housing developments with an FAR of up to 6.02. Base heights are required to be between 60 and 85 feet, with a maximum building height of 120 feet.

**Study Area – Special Districts:** The Special Union Square District is located beyond approximately 100 feet west of the affected area and opposite East 15th Street. The purpose of the Special Union Square District is to revitalize the area around Union Square by encouraging mixed use development, and enhance the compatibility of new development with existing buildings and Union Square Park. The district’s urban design provisions mandate ground floor retail uses, off-street relocation of subway stairs and continuity of street walls. Special streetscape and signage controls enhance the physical appearance of the district.

### **No-Action Conditions**

Absent the proposed development, there would be no modifications to the existing zoning, which would continue to permit commercial, residential, and community facility spaces as-of-right. The existing zoning would allow the development site to develop as-of-right with a 58,510 GSF (51,040 ZFA) mixed-use development comprised of 46 DUs (55,460 residential GSF)<sup>2</sup>, 690 GSF of community facility space, 2,360 GSF of commercial space, and 9 accessory parking spaces. The 5.04 FAR across the affected area would be 1.46 FAR less than the permissible 6.5 FAR permitted for developments with community facility space.

### **With-Action Conditions**

In the With-Action condition, there would be no modification to the underlying zoning districts or their respective regulations. The proposed CPC Special Permit pursuant to ZR 74-711 would provide relief from the height, setback, minimum required distance between buildings, and side yard requirements of the C6-2A provisions applicable to the site to accommodate the additional permissible zoning floor area of the affected area entirely on the development site. Because the requested actions are limited to one zoning lot, would only provide relief to accommodate existing, unused FAR and provide limited accessory parking beyond what is permitted as-of-right, the proposed development would not result in a significant adverse zoning impact.

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<sup>2</sup> Based on an assumption of 1,200 GSF per unit. Given market conditions in the Union Square area and the larger residential unit sizes that would be developed in the With Action condition, the developer would similarly build fewer, larger units in the No Action scenario.

## **Public Policy**

### **Existing Conditions**

As described in the *CEQR Technical Manual*, officially adopted and promulgated public policies describe the intended use applicable to an area or particular site(s) in the City. The manual provides several examples: Urban Renewal Plans, 197a Plans, Industrial Business Zones, the Criteria for the Location of City Facilities ("Fair Share" criteria), Solid Waste Management Plan, Business Improvement Districts, the New York City Landmarks Law, the Waterfront Revitalization Program (WRP) and Sustainability (as defined by OneNYC).

The affected area contains an LPC-designated individual Landmark, and therefore policies related to landmark preservation apply to the proposed development.

### **No-Action Conditions**

In the future No-Action condition, no changes to public policies are anticipated. The 58,510 GSF (51,040 ZFA) mixed-use development on the development site would be developed as-of-right, and no program for the restoration and continuing maintenance of the (former) Century Association Building would be established.

### **With-Action Conditions**

In the With-Action condition, the proposed development would introduce new residential, community facility, commercial space, and accessory parking. Up to 9 dwelling units, 1,650 GSF of commercial space, and 14 accessory parking spaces could be introduced over the No-Action condition. Further, a program for the restoration and continuing maintenance of the (former) Century Association Building would be established. Therefore, the proposed project would be consistent with the City's policies related to landmark preservation as it would implement a program of restoration improvements to a New York City Landmark.

## **2.1-4 Conclusion**

The proposed development has been reviewed for potential inconsistencies in land use, zoning, and public policy. While the requested actions would provide relief from some bulk provisions of the C6-2A zoning district (base height, maximum height, setback, minimum required distance between buildings, and side yards) in order facilitate the development, the relief will only be provided to the affected area. The proposed uses and FAR are permissible within the C6-2A zoning and are compatible with existing high-density mixed-use developments within the study area. As such, the analysis described above demonstrates the proposed development would not result in a significant adverse impact to land use, zoning, or public policy.



# 2.2

## Shadows

A shadow is defined in the *2014 CEQR Technical Manual* as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. The purpose of this chapter is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

### 2.2-1 Introduction

According to the *CEQR Technical Manual*, the longest shadow a structure will cast in New York City is 4.3 times its height. For land actions that could result in structures less than 50 feet high, a shadows assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important sunlight dependent natural feature.

A sunlight-sensitive resource is defined in the *CEQR Technical Manual* as a resource that depends on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are sunlight-sensitive resources:

- › **Public open space** (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- › **Features of architectural resources that depend on sunlight for their enjoyment by the public.** Such sunlight-sensitive features might include: design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark. Only the sunlight-sensitive features need be considered, as opposed to the entire resource.
- › **Natural resources** where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

In general, shadows on city streets and sidewalks or on other buildings are not considered significant. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are also not considered significant. An adverse shadow impact is considered to occur when the incremental shadow (additional, or new shadow that a building or other built structure resulting from a proposed project would cast on a sunlight-sensitive resource during the year) from a proposed project falls on a sunlight sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatens the viability of vegetation or other resources.

As described in Chapter 1.0 "Project Description", the applicant seeks approval of a series of land use actions to facilitate an approximately 110,000 gross square foot (GSF) mixed-use development that would rise up to a height of 283 feet above existing grade (including the building's bulkhead).

## 2.2-2 Methodology

In accordance with the *CEQR Technical Manual*, a preliminary screening assessment is conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year. This preliminary screening assessment consists of three tiers of analysis:

- › **Tier 1 Screening:** The first tier determines a simple radius around the proposed building representing the longest shadow that could be cast. Based on a base map that identifies public open spaces, landmarks, and natural resources, if there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier;



- › **Tier 2 Screening:** The second tier analysis reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. According to the *CEQR Technical Manual*, shadows cannot be cast within New York City within 108° from True North;
- › **Tier 3 Screening:** If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by new shadows by looking at specific representative days of the year and determining the maximum extent of shadow over the course of each representative day. For the Tier 3 screening, three-dimensional modeling software with the capacity to model shadows is used, and the maximum building envelope that could be achieved as a result of the proposed project is modeled and geo-located within the program. Terrain provided by the modeling software is also incorporated into the model to account for how changes in elevation throughout the study area can influence shadows that could be cast by the proposed project. The representative days are December 21 (winter solstice), June 21 (summer solstice), March 21 (vernal equinox), and May 6 (halfway between the solstice and equinox). The modeling software is also used to approximate times that shadows cast from the proposed project could enter and exit a resource.

**Detailed Assessment:** If the Tier 3 screening indicates that, in the absence of intervening buildings, shadows from the proposed project would reach a sunlight sensitive resource on any of the representative analysis days, a detailed shadow analysis would be warranted. Because existing buildings may already cast shadows on a sun-sensitive resource (or a future building could be expected to cast shadows), the proposed project may not result in additional (incremental) shadows upon that resource. The detailed shadow analysis models a baseline condition (future No-Action) that is compared to the future condition resulting from the proposed project (future With-Action) to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by the project.

For the 110 East 16th Street project, a base map was created to identify all open space and historic resources within the Tier 1 shadow area (see **Appendix 2.2** for a map of all identified resources and a complete list of these resources). Using Sketchup, a preliminary analysis (Tiers 1 through 3) was undertaken. The preliminary analysis indicated the need for a detailed analysis.

## 2.2-3 Assessment

The study method described above is presented in the relevant subsections below.

### Tier 1 and Tier 2 Screening

A base map was created identifying all historic and open space resources within the potential shadow sweep (see **Appendix 2.2**). Sunlight sensitive features of each

resource were identified. All historic resources that did not have sunlight-sensitive elements were not considered further in the analysis.

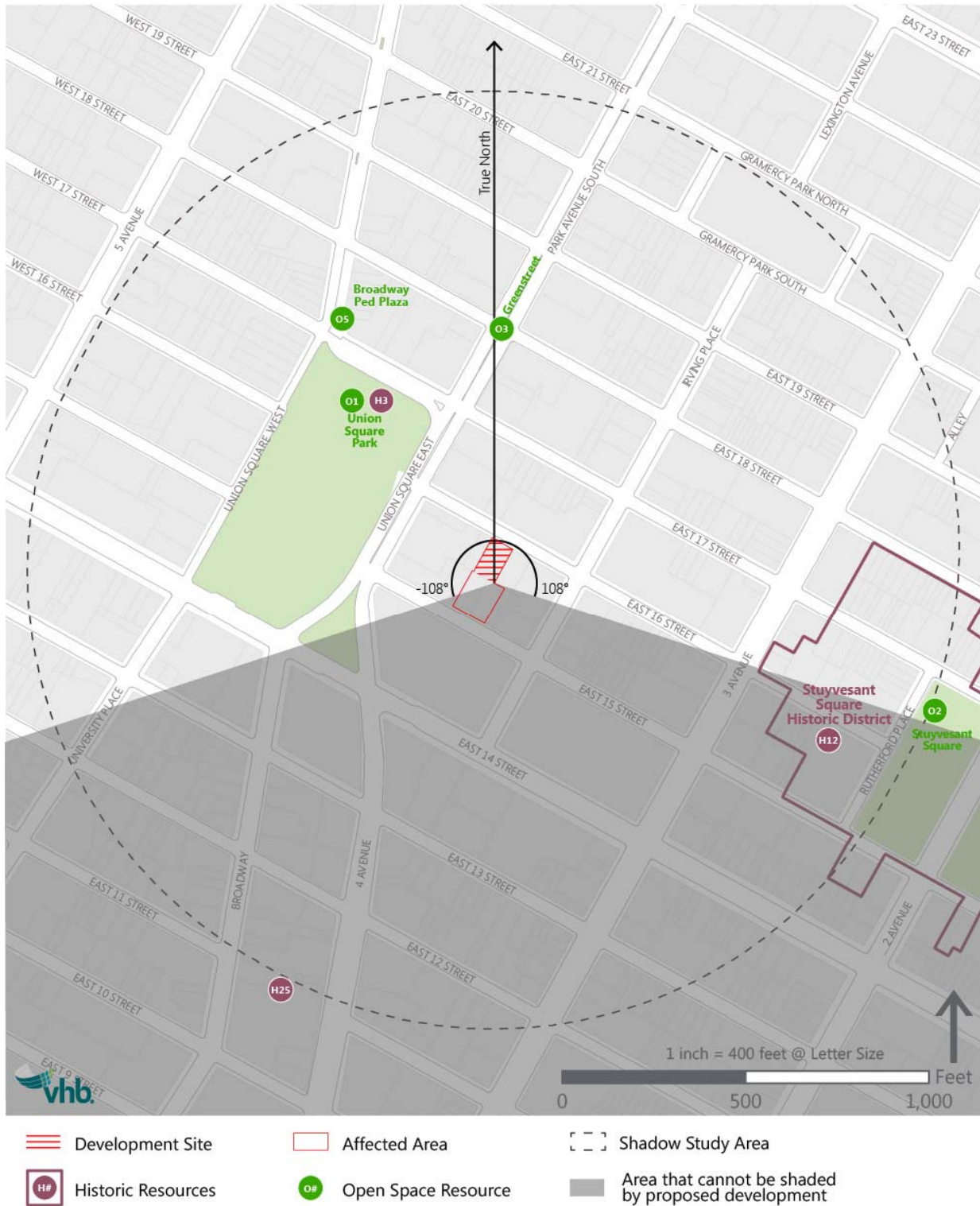
**Figure 2.2-1** shows the Tier 1 and Tier 2 screening assessments. The potential sunlight-sensitive resources identified in the Tier 1 and Tier 2 screening are presented below in **Table 2.2-1**.

**Table 2.2-1 Affected Area – Potentially Sunlight Sensitive Resources**

<b>Map ID</b>	<b>Resource Name</b>	<b>Potential Resource Summary</b>	<b>Sunlight-Sensitive Elements</b>
<b>Open Space Resources</b>			
O1/ H3	Union Square Park	Approximately 6.5-acre National Historic Landmark (Area of Significance: Social History) park that serves as the home for community events and festivals	Passive recreation spaces, vegetation
O2	Stuyvesant Square	Approximately 4-acre park that was formerly the farm of Peter Stuyvesant and his wife Helen Rutherford	Passive recreation spaces, vegetation
O3	Park Avenue Greenstreets	Landscaped median along Park Avenue South north of 15th Street	Vegetation
O5	Broadway Pedestrian Plaza	Pedestrian improvements in the bed of Broadway between 17th Street and 18th Street	Passive recreation spaces, planters
<b>Historic Resources</b>			
H12	Stuyvesant Square Historic District	LPC and State/National Register (S/NR)-listed historic district comprised of almost 50 row houses, a church, seminary, and several apartment and commercial buildings	St. George's Church (stained glass)
H25	Grace Church and Dependencies	LPC-designated, S/NR-listed, and National Heritage Listed Gothic Revival church compound	Stained glass

Sources: MapPLUTO 16v2, NYS Cultural Resources Information System (CRIS), nycparks.org

**Figure 2.2-1 Tier 1 and Tier 2 Screening Results**



As shown in **Figure 2.2-1**, portions of Union Square (O1/H3), Stuyvesant Square (O2), the Park Avenue Greenstreets (O3), Broadway Pedestrian Plaza (O5), and Stuyvesant Square Historic District (H12) are located in areas that could receive shadows cast by the proposed project. A Tier 3 screening was therefore warranted. As Grace Church is in an area that cannot receive shadows cast by the proposed project, no further assessment was warranted for this site.

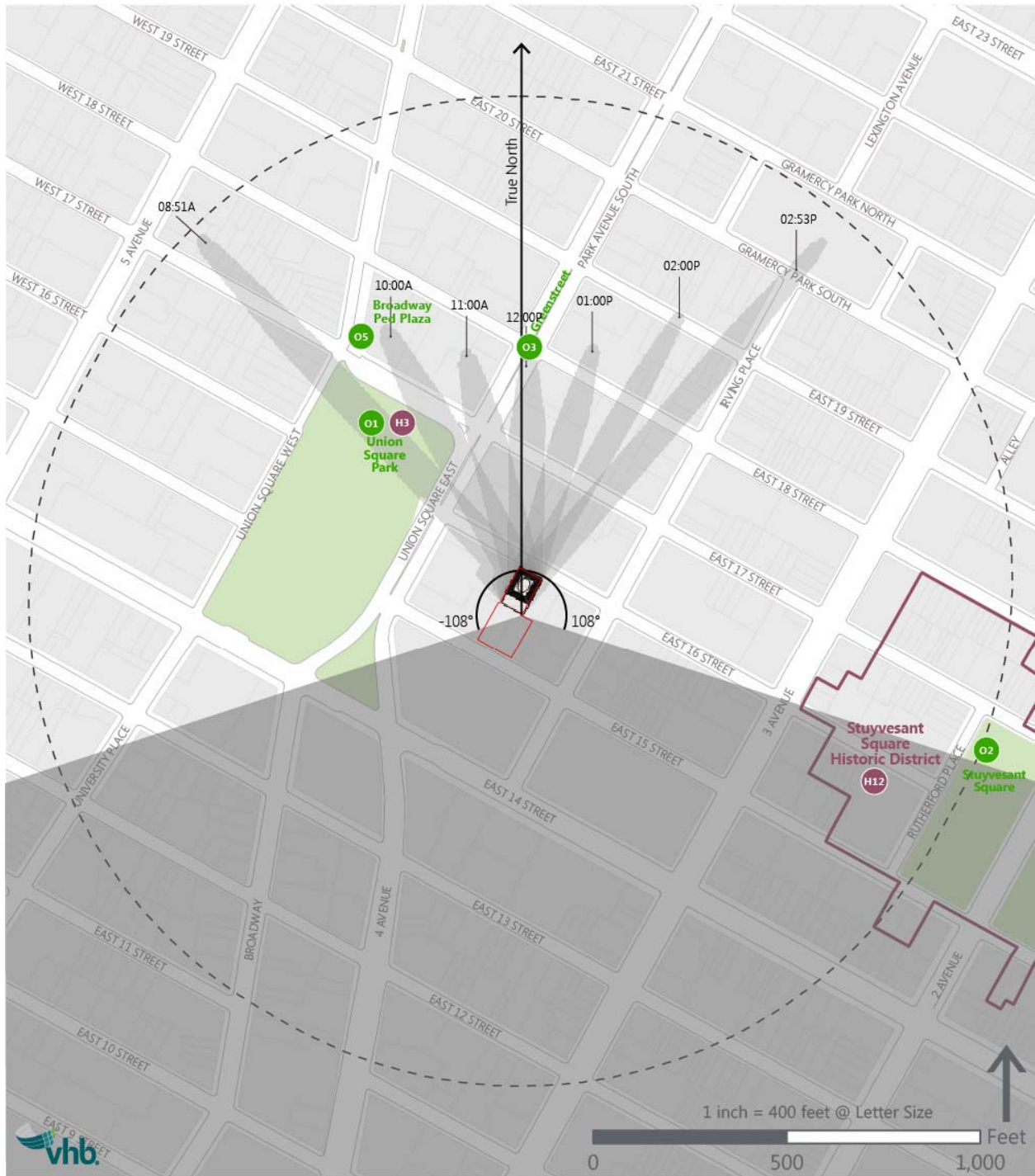
### **Tier 3 Screening Results**

**Figure 2.2-3** through **Figure 2.2-6** respectively show a representative sample of shadows that could be cast by the proposed project on the December 21, March 21, May 6, and June 21 analysis days. The Tier 3 screening indicates that in the absence of intervening structures, the proposed project could cast shadows on Union Square Park (O1/H3) and the Park Avenue Greenstreet (O3) on all four of the representative analysis days and on the Broadway Pedestrian Plaza on the December 21 analysis day. Therefore, a possibility could not be ruled out that project-generated shadows would reach these sunlight-sensitive resources, and detailed shadow analysis was warranted for these resources.

The Tier 3 analysis indicates that, absent intervening buildings, development-generated shadows could be cast on St George's Church within the Stuyvesant Square Historic District (H12) on the June 21st analysis day; however, these shadows (if they would occur) would be at the very end of the analysis period and would only occur in the days surrounding June 21. As such, detailed analysis was not warranted for this sunlight sensitive resource.

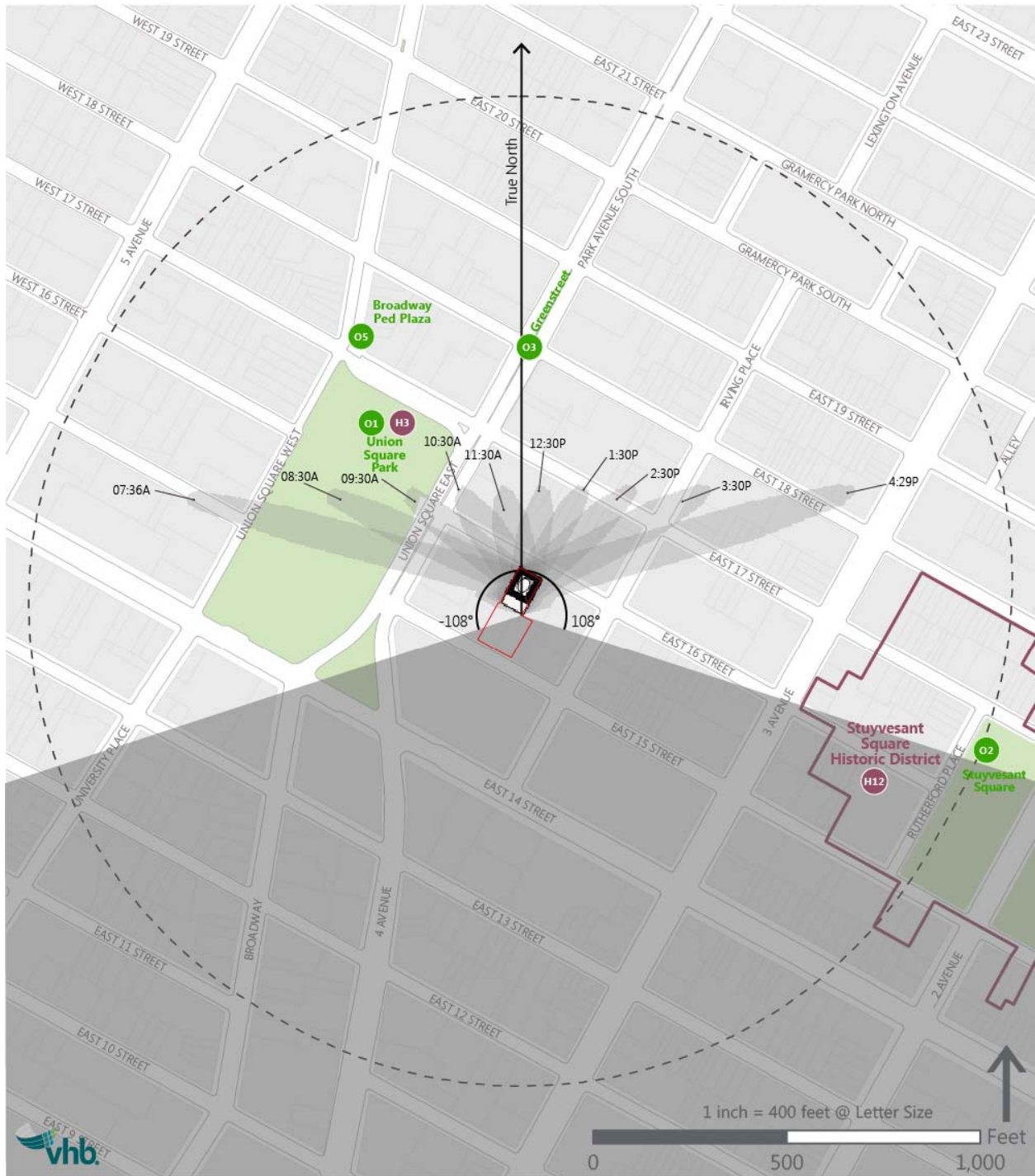
The Tier 3 analysis also demonstrates the development-generated shadows would not reach Stuyvesant Square, and therefore further analysis of this resource is not warranted.

Figure 2.2-3 Tier 3 Screening Results – December 21 Analysis Day



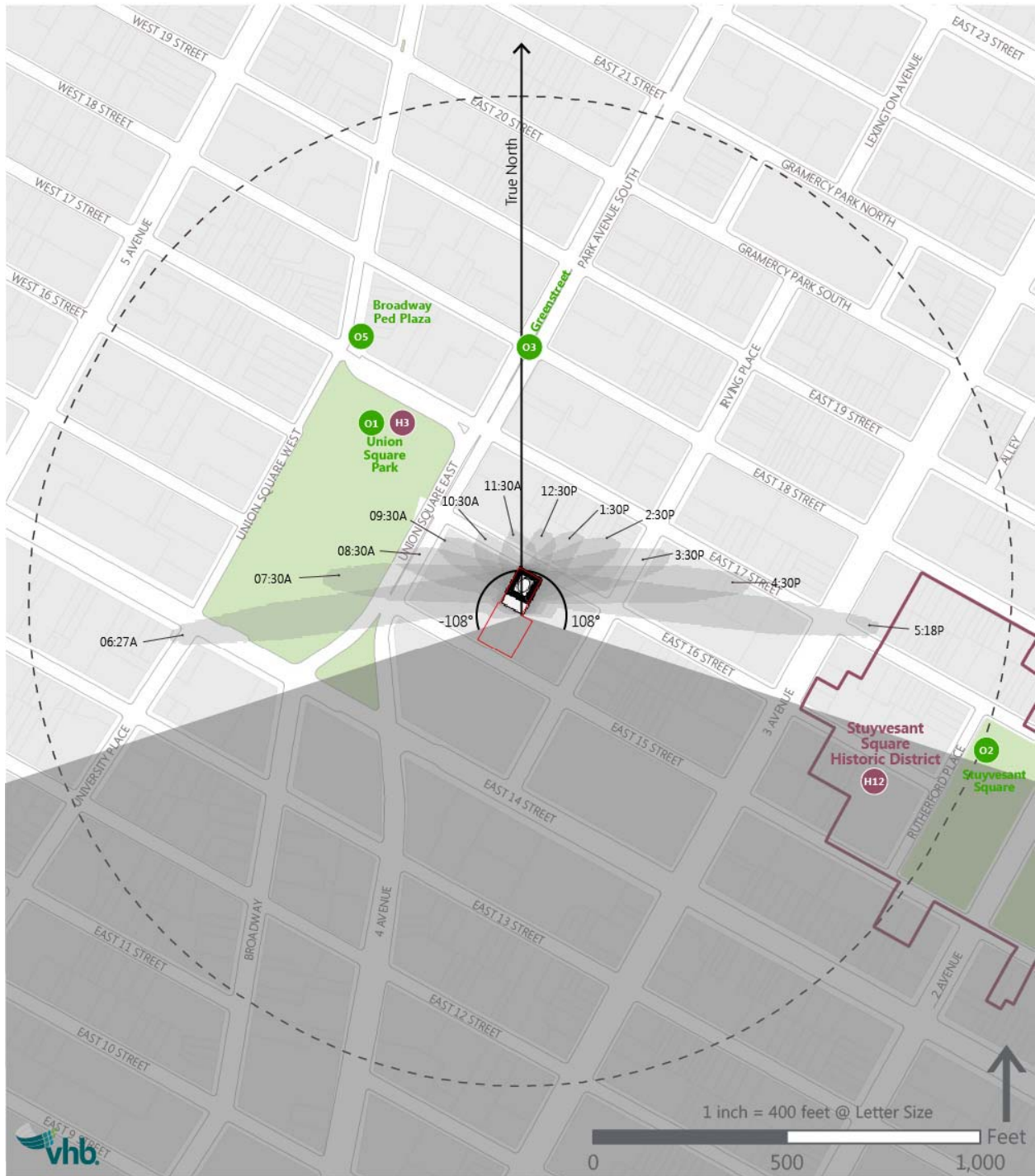
- |  |   |  |
|--|---|--|
|  Development Site   |  Affected Area       |  Shadow Study Area                                  |
|  Historic Resources |  Open Space Resource |  Area that cannot be shaded by proposed development |

Figure 2.2-4 Tier 3 Screening Results – March 21 Analysis Day



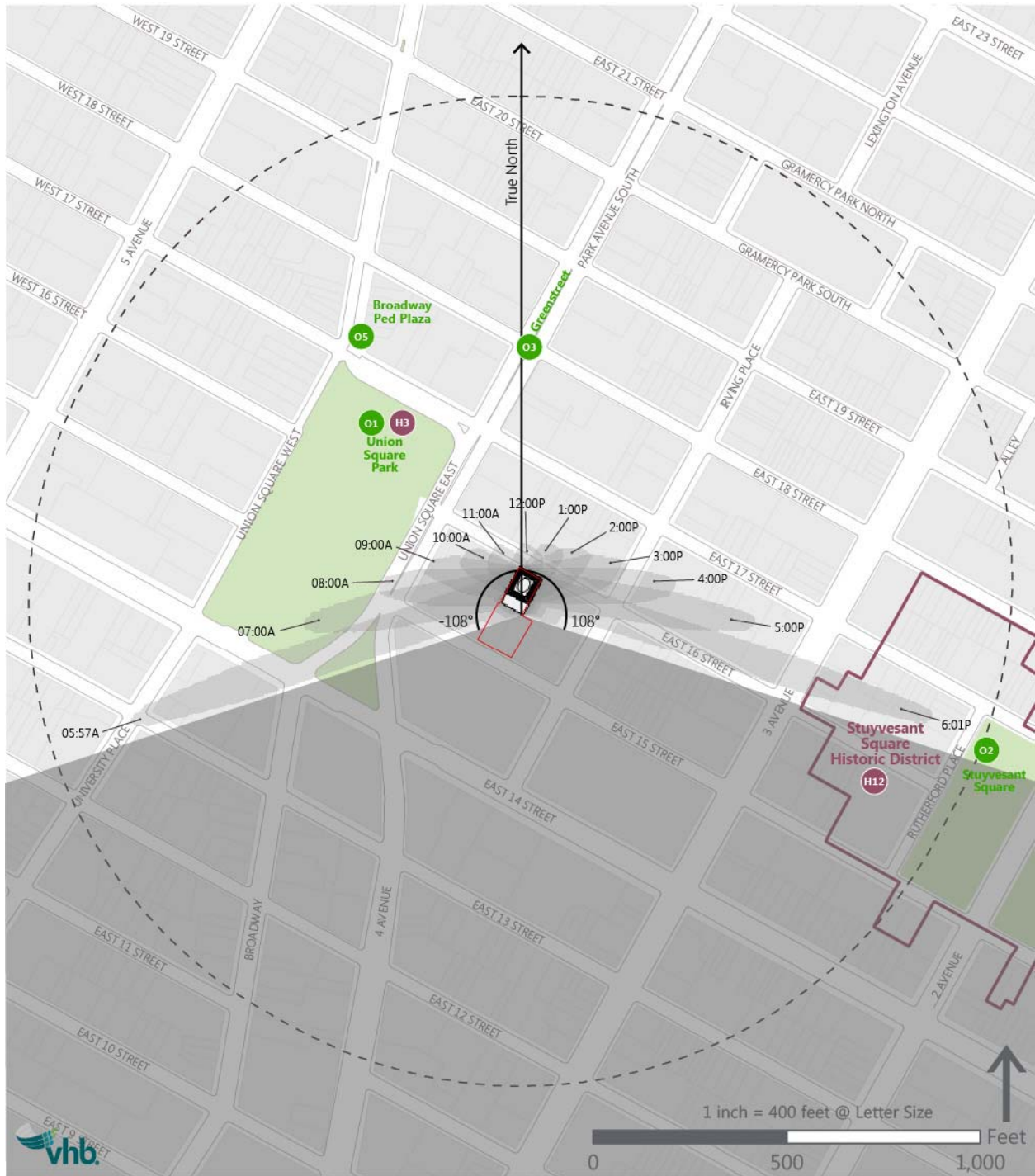
- Development Site
- Affected Area
- Shadow Study Area
- H# Historic Resources
- O# Open Space Resource
- Area that cannot be shaded by proposed development

Figure 2.2-5 Tier 3 Screening Results – May 6 Analysis Day



- |  |   |  |
|--|---|--|
|  Development Site   |  Affected Area       |  Shadow Study Area                                  |
|  Historic Resources |  Open Space Resource |  Area that cannot be shaded by proposed development |

Figure 2.2-6 Tier 3 Screening Results – June 21 Analysis Day





## Detailed Shadow Analysis

The detailed shadow analysis builds on the three-dimensional modeling used in the Tier 3 analysis to identify whether intervening structures (i.e. buildings) in the No-Action condition could cast shadows on the identified resources of concern. Any new shadows projected to be cast onto the identified resources are considered “incremental shadows”.

A detailed shadow analysis was warranted for Union Square Park (O1/H3), Park Avenue Greenstreet (O3), and the Broadway Pedestrian Plaza (O5). **Table 2.2-2** provides the modeled shadow entry/exit times for these three sunlight-sensitive resources, while representative maps of Union Square, Park Avenue Greenstreet, and the Broadway Pedestrian Plaza are shown on **Figure 2.2-7**.

**Table 2.2-2 Detailed Analysis Summary of Shadow Entry/Exit Times**

<b>Analysis Day</b>	<b>December 21</b>	<b>March 21 / September 21</b>	<b>May 6 / August 6</b>	<b>June 21</b>
<b>Timeframe Window</b>	<b>8:51AM – 2:53 PM</b>	<b>7:36 AM – 4:29 PM</b>	<b>6:27 AM – 5:18 PM</b>	<b>5:57 AM – 6:01 PM</b>
<b>Union Square Park (O1/H3)</b>				
Shadow Entry/Exit Times	8:51A – 10:33A	7:36A – 9:55A	6:27A – 8:32A	5:57A – 7:53A
Shadow Duration	1 hour, 42 minutes	2 hours, 19 minutes	2 hours, 5 minutes	1 hour, 56 minutes
<b>Park Ave Greenstreet (O3)</b>				
Shadow Entry/Exit Times	10:54A – 11:46A	9:44A – 10:18A	N/A	N/A
Shadow Duration	52 minutes	34 minutes	0 minutes	0 minutes
<b>Broadway Pedestrian Plaza (O5)</b>				
Shadow Entry/Exit Times	9:10A – 9:46A	N/A	N/A	N/A
Shadow Duration	36 minutes	0 minutes	0 minutes	0 minutes

Note: Daylight savings time was not used during the analysis

**Figure 2.2-7 Locations of Sunlight Sensitive Features around Union Square**



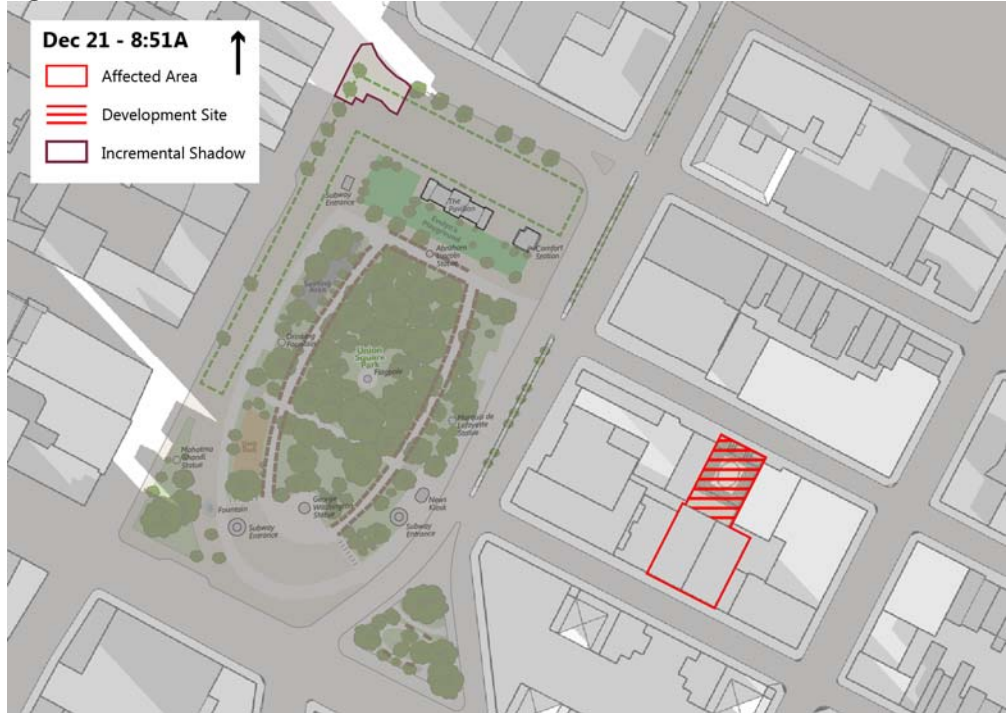
Note: For illustrative purposes only

Detailed shadow analyses are discussed for each analysis day in the relevant subsection below.

**December 21**

**Figure 2.2-8** through **Figure 2.2-13** provide a representation of the projected incremental shadows for the December 21 analysis day in approximately 30 minute intervals between 8:51AM and 11:30AM.

**Figure 2.2-8 Shadow Increment - December 21, 8:51AM**



**Figure 2.2-9 Increment Shadow – December 21, 9:15AM**



**Figure 2.2-10 Increment Shadow – December 21, 9:45AM**



**Figure 2.2-11 Increment Shadow – December 21, 10:15AM**



**Figure 2.2-12 Incremental Shadow – December 21, 11:00AM**



**Figure 2.2-13 Incremental Shadow – December 21, 11:30AM**



**Union Square Park:** The detailed analysis indicates that the December 21st project-generated shadows would be located at the northernmost portions of Union Square Park, an area that is predominately paved with some intermittently planted street

trees. As the sun moves across the December sky, the incremental shadow would be limited to the most northern parts of the park. This area is used occasionally as a Greenmarket, and at other times was observed to be predominately used by pedestrians accessing the park and other nearby destinations. Incremental shadow will fully exit Union Square Park at approximately 10:33AM, a duration of approximately 1 hour, 42 minutes. The areas where incremental shadows would occur are not considered sunlight-sensitive, and therefore the proposed project would not result in a significant adverse impact on Union Square Park on the December 21st analysis day. **Photo 2.2-1** and **Photo 2.2-2** show the northern paved areas of Union Square Park, where a greenmarket takes place on Mondays, Wednesdays, Fridays, and Saturdays throughout the year.

**Photo 2.2-1**

Westward view of the northern paved area of Union Square Park, where a greenmarket occurs 4 days per week

**Photo 2.2-2**

View northwest of northern paved area of Union Square Park, where greenmarket occurs 4 days per week

**Park Avenue Greenstreets (Landscaped Medians):** Project-generated incremental shadows are projected to occur on up to approximately 170 square feet (sf), or approximately 12 percent of the median located between East 17th and East 18th Street of the Park Avenue landscaped medians. The incremental shadow would occur between approximately 10:54AM and 11:46AM on December 21st, a duration of approximately 52 minutes. Because the incremental shadow would be less than 200 sf and occur in a month that would not affect the vegetation growth cycle, the project-generated incremental shadow would not result in a significant adverse shadows impact on the Park Avenue Greenstreet landscaped medians on the December 21st analysis day.

**Broadway Pedestrian Plaza:** Project-generated incremental shadows would occur between 9:10AM and 9:46AM, a duration of approximately 36 minutes. As shown in **Figures 2.2-9** and **Figure 2.2-10**, the project-generated incremental shadows on this pedestrian plaza would be up to approximately 950 sf, or 20% of the plaza. Given a relatively small number of people would be expected to seek outdoor passive recreation spaces in winter mornings when the weather can often deter users and the availability of other passive recreational opportunities available in Union Square Park, the proposed project would not result in a significant adverse impact on the Broadway Pedestrian Plaza.

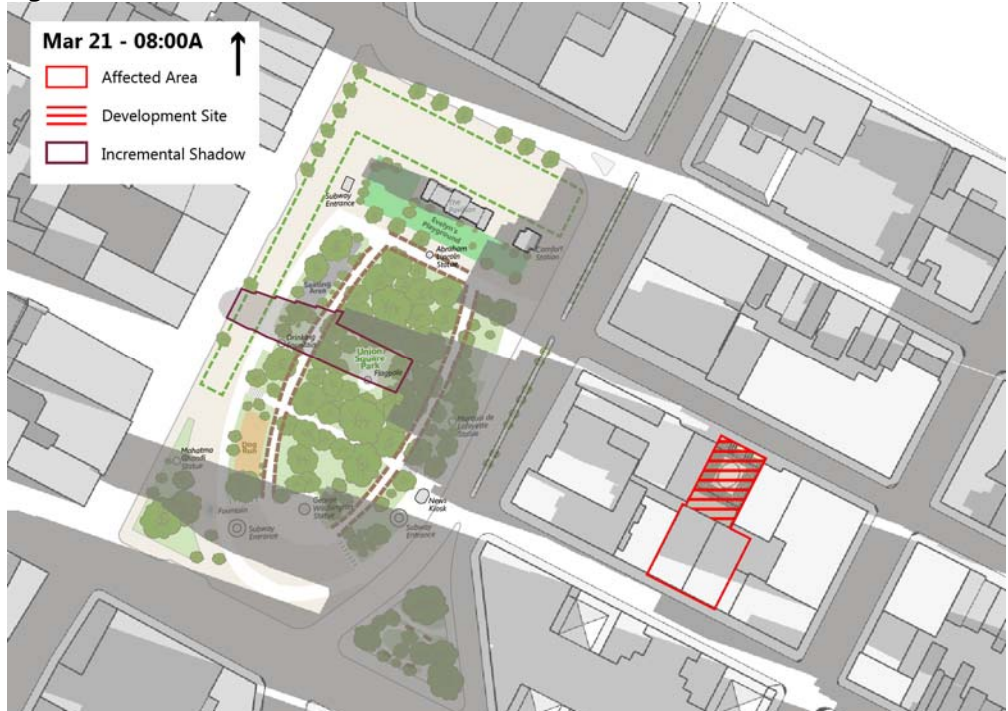
### March 21 Analysis Day

Figure 2.2-14 through Figure 2.2-19 provide a representation of the projected incremental shadows for the March 21st analysis day in approximately 30-minute intervals between 7:36AM and 10:00AM.

**Figure 2.2-14 Incremental Shadow – March 21, 7:36AM**



**Figure 2.2-15 Incremental Shadow – March 21, 8:00AM**



**Figure 2.2-16 Incremental Shadow – March 21, 8:30AM**



**Figure 2.2-17 Incremental Shadow – March 21, 9:00AM**

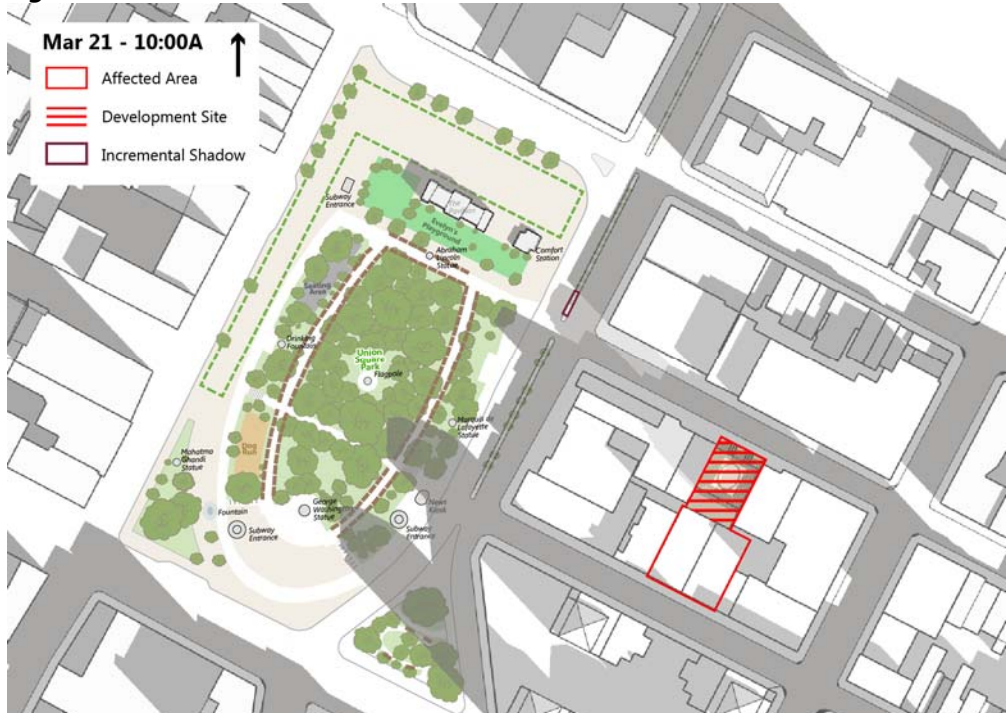




**Figure 2.2-18 Incremental Shadow – March 21, 9:30AM**



**Figure 2.2-19 Incremental Shadow – March 21, 10:00AM**



**Union Square Park:** The detailed analysis indicates that the March 21st project-generated shadows would affect a portion of the central section of Union Square Park. This central area of the park is improved with a paved area adjacent to Union

Square West, planted trees, seating benches, and walking paths. The western paved area is used occasionally for the Union Square Greenmarket, while at other times it is used by pedestrians accessing the park and other nearby destinations. As the sun moves across the March sky, the incremental shadow would be limited to these central portions of the park, covering a smaller area on the eastern portion of the park, before fully exiting the park by approximately 9:55AM, a duration of approximately 2 hours 19 minutes. **Photo 2.2-3** and **Photo 2.2-4** shows the western paved areas that would be in incremental shadow at the commencement of the analysis period and would, in the absence of vegetation, be in direct sunlight before 8:30AM.

**Photo 2.2-3**



The western paved areas are occasionally used for the greenmarket and would receive less than one hour of incremental shadow (in the absence of existing vegetation in the central planted area of Union Square Park)

**Photo 2.2-4**



View westward to the western paved portions of Union Square Park from the central planted area of the park, where existing vegetation within the central areas of the park cast shadows during morning hours.

**Photo 2.2-5** and **Photo 2.2-6** show the central planted area of Union Square Park, which contains vegetation (including mature trees with large canopies that place large portions of the park in shadow during growth seasons) and bench seating along internal pedestrian paths.

**Photo 2.2-5**

View north along western interior pedestrian path within the central planted area, where tree canopies cast shadows on bench seating and ground vegetation.

**Photo 2.2-6**

View from near Evelyn's Playground and the Abraham Lincoln statue east towards E 16th St and the proposed development site. Incremental shadow is projected to occur in the area shown around 9:30AM on the March 21 analysis day.

While seating benches and planted trees are considered sunlight-sensitive resources, the project-generated incremental shadows would be relatively short-lived and diffuse. In addition, large portions of the park would remain in sun, including many other areas within the park that offer bench seating that are located in areas that would receive direct sunlight. The incremental shadows would not affect the growth cycle or sustainability of the park's trees. Therefore, the proposed project would not induce a significant adverse shadows impact on Union Square Park during the March 21st analysis day.

**Park Avenue Greenstreets (Landscaped Medians):** Project-generated incremental shadows are projected to occur on the Park Avenue landscaped medians between approximately 9:44AM and 10:18AM on March 21st, a duration of approximately 34 minutes. Because the incremental shadow would be very small in area and duration in a month that would not be expected to affect the vegetation growth cycle, the project-generated incremental shadow would not result in a significant adverse shadows impact on the Park Avenue Greenstreet landscaped medians during the March 21st analysis day.

**Broadway Pedestrian Plaza:** Based on the three-dimensional model, the proposed project would not cast incremental shadow on this resource on the March 21st analysis day.

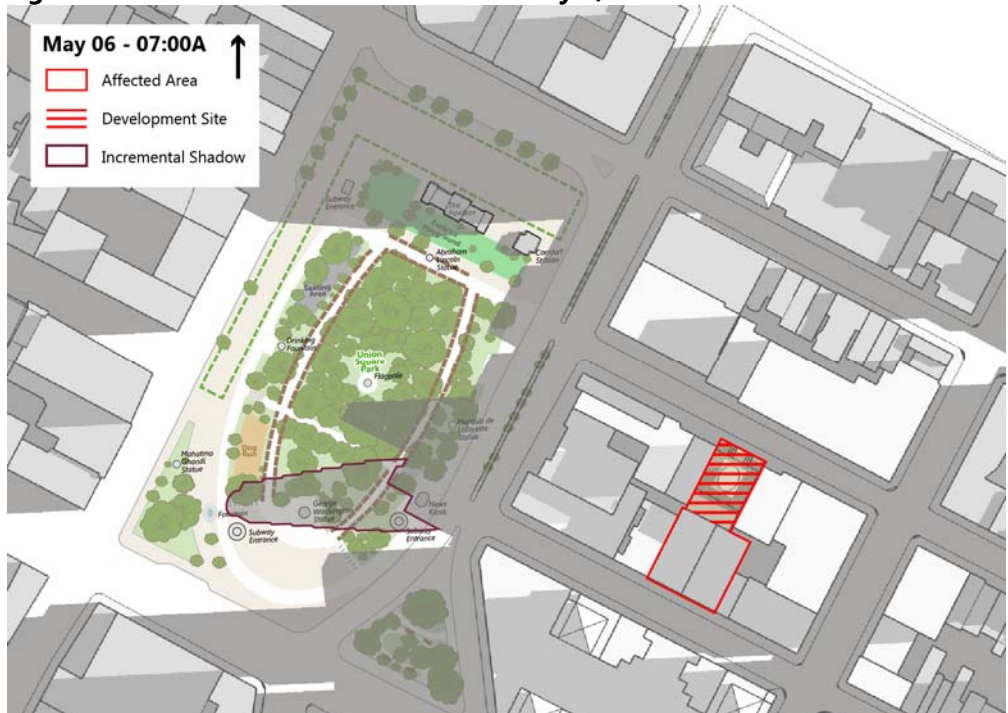
### **May 6 Analysis Day**

**Figures 2.2-20 through 2.2-23** provide a representation of the projected incremental shadows for the May 6th analysis day in approximately 30 minute intervals between 6:27AM and 8:00AM.

**Figure 2.2-20 Incremental Shadow – May 6, 6:27AM**



**Figure 2.2-21 Incremental Shadow – May 6, 7:00AM**



**Figure 2.2-22 Incremental Shadow – May 6, 7:30AM**



**Figure 2.2-23 Incremental Shadow – May 6, 8:00AM**



**Union Square Park:** The detailed analysis indicates that the May 6th project-generated incremental shadows would be located at the southwest and central-east portions of Union Square Park. The southwest area of the park (near the intersection

of East 14th Street and Union Square West) is improved with a planting bed, a dog park, and paved areas. The paved areas are predominately used by pedestrians accessing the park, the subway, and other surrounding destinations. Passive recreational uses observed to occur in this paved area include board games (chess, checkers, and backgammon players were observed to locate to the south and east of the subway entrance on the paved area) and passive seating (on the stairs near the base of the George Washington statue and to the east of the subway entrance).

**Photo 2.2-7** and **Photo 2.2-8** show the passive recreational uses in this area.

**Photo 2.2-7**



View southwest towards the intersection of East 14th St and Union Sq West. The stairs in the foreground are used for seating. Board gamers tend to locate to the east and south of the subway entrance.

**Photo 2.2-8**



View west from Broadway near its intersection with E 14th St. People were observed to sit in both shade and sunlight on the stairs near the base of the George Washington statue.

The peak usage of these passive recreational uses was observed to occur in the late afternoon and evening, outside the early morning period when incremental shadow is projected to occur. Very little passive recreational activity occurs in the early morning period in this paved area, and the space during the early morning period is predominately used by pedestrians accessing nearby destinations.

As noted above, the central portions of the park contain trees and seating benches. As the sun moves across the May sky, the incremental shadow would be limited to the southern and eastern portions parts of the park, covering increasingly smaller portions of the park before fully exiting Union Square Park at approximately 8:32AM, for a total duration of approximately 2 hours, 5 minutes. The project-generated incremental shadows on the seating benches and areas of vegetation would be diffuse. Much of the park would remain in sun, and there are many other areas within the park that offer bench seating that would continue to receive direct sunlight. The incremental shadows would not be expected to affect the growth cycle or sustainability of the park's vegetation. Therefore, the proposed project would not have a significant adverse shadows impact on Union Square Park during the May 6th analysis day.

**Park Avenue Greenstreets (Landscaped Medians):** Project-generated incremental shadows are not projected to occur on the Park Avenue landscaped medians on the

May 6th analysis day due to the angle of the sun and the presence of intervening buildings in the surrounding area.

**Broadway Pedestrian Plaza:** Based on the three-dimensional model, the proposed project would not cast incremental shadow on this resource on the May 6 analysis day.

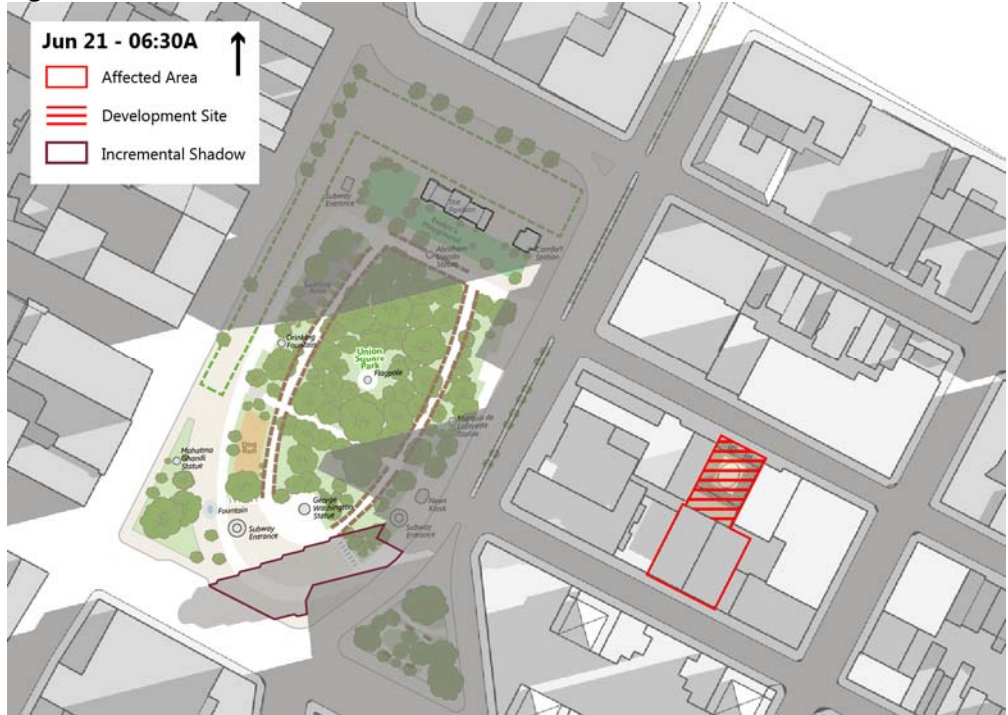
**June 21 Analysis Day**

**Figures 2.2-24 through 2.2-28** provide a representation of the projected incremental shadows for the June 21st analysis day in approximately 30-minute intervals between 5:57AM and 8:00AM.

**Figure 2.2-24 Incremental Shadow – June 21, 5:57AM**



**Figure 2.2-25 Incremental Shadow – June 21, 6:30AM**



**Figure 2.2-26 Incremental Shadow – June 21, 7:00AM**





**Figure 2.2-27 Incremental Shadow – June 21, 7:30AM**



**Figure 2.2-28 Incremental Shadow – June 21, 8:00AM**



**Union Square Park:** The detailed analysis indicates that the June 21st project-generated incremental shadows would be located at the southeast and central east portions of the park. These southeast and central east areas of the park are

predominately improved with paved areas, and as noted above, the central portions of the park contain trees and seating benches. As the sun moves across the June sky, the incremental shadow would be limited to the southern and eastern portions of the park, and fully exit Union Square Park at approximately 7:53AM, a duration of approximately 1 hour 56 minutes. The project-generated incremental shadows on the seating benches and areas of vegetation would be diffuse and occur for less than two hours in the early morning, and most of the park would remain in sunlight throughout the morning after 7:00AM. There are many other areas within the park that offer bench seating that would be expected to continue to receive direct sunlight. The incremental shadows would not be expected to affect the growth cycle or sustainability of the park's vegetation. Therefore, the proposed project would not result in a significant adverse shadows impact on Union Square Park during the June 21st analysis day. **Photo 2.2-9** and **Photo 2.2-10** show the areas of the park that would receive incremental shadow during the June 21st analysis day.

**Photo 2.2-9**

View west from Union Square South towards the southwest corner of the park. The paved southern area consists of hardscaping with steps used as seating. Users seek shaded spaces during warmer days, such as those that typically occur in June, when the proposed project is projected to cast early morning incremental shadow on this area of the park.

**Photo 2.2-10**

View north in Union Square Park near the intersection between Union Square E and E 15th St. Landscaping includes mature trees with large canopies that provide shading and relief from the sun during warmer months. The With-Action shadow condition on the June analysis day is projected to be entirely off this landscaped area between 8:55am and 3:34pm.

**Park Avenue Greenstreets (Landscaped Medians):** Project-generated incremental shadows are not projected to occur on the Park Avenue landscaped medians on the June 21st analysis day due to the angle of the sun and the presence of intervening buildings in the surrounding area.

**Broadway Pedestrian Plaza:** Based on the three-dimensional model, the proposed project would not cast incremental shadow on this resource on the June 21 analysis day.

## 2.2-4 Conclusion

The proposed project at 110 East 16th Street would have a maximum height of up to 268 feet (excluding the building's bulkhead). A preliminary assessment (Tier 1, Tier 2, and Tier 3 assessments) was undertaken and indicated the need for a detailed

shadows analysis of three resources: Union Square Park and the Park Avenue South Greenstreets (landscaped medians), and the Broadway Pedestrian Plaza. Other historic resources in the shadow study area were not identified as having sunlight-sensitive features, as defined by the *CEQR Technical Manual*.

The proposed project would result in incremental shadow on Union Square Park during all four analysis days (December 21, March 21/September 21, May 6/August 6, and June 21). On December 21, the analysis day with the shortest incremental shadows duration, incremental shadow would be cast for 1 hour and 42 minutes, while 2 hours and 19 minutes of incremental shadow would occur on March 21/September 21, the analysis day with the longest duration of incremental shadow. Union Square Park is National Historic Landmark with the area of significance noted as social history. It should be noted that the architectural and landscape architectural qualities of the park have not been identified as an area of significance as part of the National Historic Landmark nomination report. Shadows would be limited to the morning, with the largest shadows increments occurring at the start of the analysis period when the sun is lowest in the sky; the incremental shadow would generally reduce in size throughout the morning before exiting the park. Some of the project-generated incremental shadows would fall on seating benches and trees within Union Square Park, and the northern paved area where the greenmarket is located is projected to be completely overshadowed for the first 7 minutes of the December 21st analysis period.

A significant adverse impact related to incremental shadows cast the Union Square Park is not anticipated to result from the proposed actions. This conclusion was reached considering the following factors: the projected duration of a shadow, the percentage of incremental or new shadow coverage on the entire resource, the availability of other sunlit areas nearby, the effect on peak usage times, and the number of analysis days a shadow is projected to reach affected sunlight-sensitive resources.

In the analysis period with the longest shadow durations, during the early morning, shadows with a maximum coverage of up to approximately 10.4% (at 6:38AM on the May 6/August 6 analysis day) of the park are predicted to move through the park for up to two hours and nineteen minutes on three out of four analysis days. These shadows would not reach a level of impact significance given the nature of the areas affected by shadows in the early morning hours (paved areas used for the Greenmarket and passive recreation) and availability of alternative spaces that remain in sunlight.

Overall, incremental shadows would be diffuse, and large portions of the park would remain in sun, including many other areas within the park that offer bench seating. Because of the limited extent and duration of project-generated shadows, these incremental shadows would not be considered a significant adverse shadow impact on Union Square Park.

The proposed project would result in incremental shadows on the Park Avenue Greenstreet landscaped medians during the December and March/September

analysis days. Incremental shadow on the December 21 analysis day, the analysis day with the largest incremental shadow coverage by square footage on the medians, would be less than 200 sf in area. During both the December 21 and March 21/September 21 analysis day periods, incremental shadow would occur for less than an hour, and the project-generated incremental shadow would not result in a significant adverse shadow impact on this resource.

The Broadway Pedestrian Plaza would receive incremental shadow from the proposed project only on the December 21 analysis day. The duration would be just 36 minutes, and less than 1,000 sf in area at its greatest extent.

Overall, the proposed project would not result in significant adverse shadow impacts.



# 2.3

## Historic and Cultural Resources

This section assesses the potential for a proposed action to result in significant adverse impacts on historic and cultural resources, including both archaeological and architectural resources.

### 2.3-1 Introduction

Historical and cultural resources are defined as improvements or landscape features that could be or have been determined to have a special character, historical, or aesthetic interest or value. Historic and cultural resources comprise districts, buildings, structures, sites and objects of historical, aesthetic, cultural, and archaeological significance. Per the *2014 CEQR Technical Manual*, these resources include: properties that have been designated, are under consideration for being designated as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed in, or determined eligible for listing in, the State and/or National Register of Historic Places; and National Historic Landmarks.

This section assesses the potential for the proposed project to affect architectural and archaeological resources located on the project site and in the surrounding area. The affected area contains the (former) Century Association Building (LP-01763), a NYC individual landmark designated by the Landmarks Preservation Commission (LPC).

## 2.3-2 Methodology

The *CEQR Technical Manual* notes that environmental review for historic and cultural resources includes a survey and planning process that helps protect New York City cultural heritage from the potential impacts of projects undergoing CEQR. Historic and cultural resources include both archaeological and architectural resources. Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Architectural resources generally include historically important buildings, structures, objects, sites, and districts. They may include bridges, canals, piers, wharves, and railroad transfer bridges that may be wholly or partially visible above ground.

For the assessment of archaeological resources, the New York City Landmarks Preservation Commission (LPC) determined that the development site is not archaeologically significant (see letter from LPC dated May 9, 2017 in **Appendix 2.1**). Therefore, no further analysis of archaeological resources is warranted, and this section focuses on architectural resources only.

Consistent with *CEQR Technical Manual* guidance, the assessment of the project's potential to result in impacts on architectural resources begins with the survey and documentation of existing resources in the study area, which is the area within 400-feet of the affected area and is generally defined as the area bounded to the north by East 17th Street, to the west by Union Square, to the south by East 14th Street, and to the east by the midblock between Irving Place and Third Avenue. Following existing conditions, the assessment provides a description of future conditions absent the proposed project (No-Action Scenario), and conditions expected with the proposed project (With-Action Scenario).

**Figure 2.3-1 Historic and Cultural Study Area and Identified Resources**



- |               |                            |  |
|---------------|----------------------------|--|
| Affected Area | Development Site           | Historic and Cultural Resources Study Area (400ft) |
| MN Tax Lots   | Historic/Cultural Resource | Underground Historic/Cultural Resource             |

## 2.3-3 Assessment

### Existing Conditions

Within the study area, there are ten identified resources (see **Figure 2.3-1** and **Table 2.3-1**). These historic resources are described in further detail below.

**Table 2.3-1 Architectural Resources**

Map ID	Resource Name	LPC-listed*	LPC-eligible	S/NR-listed	S/NR-eligible	NHL
<b>Affected Area</b>						
H1	(Former) Century Association Building	X			X	
<b>Study Area</b>						
H2	Union Square Savings Bank	X			X	
H3	Union Square Park			X		X
H4	14th Street - Union Square Subway Station			X		
H5	E. 17th Street/Irving Place Historic District	X			X	
H6	Tammany Hall	X			X	
H7	Germania Life Insurance Building	X		X		
H8	Consolidated Edison Company Building	X		X		
H9	Guardian Life Insurance Company of America Annex	X				
H10	Washington Irving (The Gramercy Arts) High School			X		

Sources: MapPLUTO16v2, NYS Cultural Resources Information System (CRIS), LPC Designation Reports, and LPC correspondence dated May 9, 2017

#### **(Former) Century Association Building (NYCL, S/NR-Eligible)**

The (former) Century Association Building is located on Lot 10 of the affected area, just south of the development site. The building was designed by architects Charles Gambrill and Henry Hobson Richardson as an enlargement and renovation of an existing home to serve as the Century Association's headquarters. Both architects were members of the Century Association, an organization founded in 1847 to promote interest in literature and the arts; it attracted authors, artists, and amateurs of letters and the fine arts, many of whom were national leaders in their fields. The Century Association remained at this location until 1891. The original 1847 house was renovated in 1869 and is the oldest surviving clubhouse structure in Manhattan. The brick building has a Mansard roof and neo-Grec details, such as incised and stylized Classical ornaments.



The only part of the former clubhouse currently visible from the street is its symmetrical, three-bay facade, which is faced in stone (now painted blue-gray), red brick, and gray slate tiles. The raised basement is faced in chiseled ashlar, with glazed metal doorways (formerly windows), framed by stone quoining, in each of the side bays providing legal means of egress.

**Photo 2.3-1** through **Photo 2.3-9** show historical images of the (former) Century Association Building and its existing condition, including deterioration and damage.



**Photo 2.3-1 (2017)**

The (former) Century Association Building existing conditions as of February 2017

**Photo 2.3-2 (1890)**



Source: Century Association Reports, Constitution, By-Laws

**Photo 2.3-3 (1892)**



Source: King's Handbook

**Photo 2.3-4 (1938)**



Source: New York Historical Society

**Photo 2.3-5 (1993)**



Source: LPC Designation Report

**Photo 2.3-6 (2017)**



Stone deterioration is visible through paint

**Photo 2.3-7 (2017)**



Stone damage is present and visible

**Photo 2.3-8 (2017)**



Brick soiling and efflorescence through open mortar joints

**Photo 2.3-9 (2017)**



Sheet metal damage and missing slate tiles at Mansard roof

**Union Square Savings Bank, 20 Union Square (NYCL, S/NR-Eligible)**

This monumental neo-Classical style building shown in **Photo 2.3-10** was designed by Henry Bacon and constructed 1905-1907. It is located on the same block as the affected area, to the west. Influenced by the Chicago 1893 World's Columbian Exposition, the four-story granite building features a full-height entrance portico, with a cornice and carved frieze supported by massive Corinthian columns.

**Photo 2.3-10 (2017): Union Square Savings Bank (2017)**



**Tammany Hall, 44 Union Square East (NYCL, S/NR-Eligible)**

The building at 44 Union Square East (and shown in **Photo 2.3-11**) was the third and last purpose-built headquarters for the famed Tammany Hall, the Manhattan Democratic Party that dominated local, state, and national politics during the 19th and early 20th centuries. It was designed by the firm of Thompson, Holmes, and Converse and the firm of Charles B. Meyers, as one of several institutional collaborations between the firms, and constructed 1928-1929. The Tammany Society started as a social organization that attracted several influential Federalist-era politicians, and during the 19th century its name became synonymous with its headquarters.

The four-story building, currently undergoing renovations to convert the building into a retail and office use, contains a rectangular footprint and a hipped roof (Land Use Application N 140163 HKM, approved December 2012). The building is designed in the neo-Georgian style; the LPC designation report for the building notes New York City's former Federal Hall, Thomas Jefferson's Monticello, and Somerset House in London as inspirations.

**Photo 2.3-11: Tammany Hall (2016)**

The building was designated a New York City Landmark in 2013 and is also S/NR-eligible. As the last remaining headquarters of this important political machine, the property is significant as a part of political history; in addition, its ties to mid-20th century labor unions and Union Square are significant. The property also has significance as a neo-Georgian building on a prominent site, which retains several of its original features, several of which were specifically incorporated to promote the social organization.

**Union Square Park, Union Square East/ East 17th Street/ Union Square West/ East 14th Street (S/NR, NHL)**

This square, featuring a heavily-vegetated park, pavilion, and monuments, was instrumental in the development of the labor union movement in the United States. The first Labor Day parade took place there in 1882, and the square served as a meeting place for labor union organizations for over a decade; it continued to serve as a meeting and demonstration space for social and political movements in the 20th century as well. The square itself is basically egg-shaped with the north end flattened. The park is densely planted with trees as it was at the time of the 1882 parade. At the north end of the park is a bandstand/pavilion and directly south of it is a statue of Abraham Lincoln. At the other three axis points of the park are commemorative sculptures and in the center of the park is a large flagpole. The park, together with the streets that surround it, is counted as one contributing site as the streets are important for their association with the first Labor Day parade on September 5, 1882. Also in the park are a World War I memorial and two subway

kiosks. The park is considered a contributing site as the resource is noted for its significance in social history.

**Photo 2.3-12: Union Square Park (2017)**



**14th Street-Union Square Subway Station, East 14th Street and Union Square, (S/NR)**

Consisting of three stations that provide a number of connections between different lines, this station was constructed between 1905 and 1924. Nearly the entire complex is located underground, but the entrance in Union Square Park is protected by an exterior metal canopy under the trees. Of the eleven exterior entries, only the entry located on the east corner of East 14th Street and Fourth Avenue retains any historic integrity.

The station is an example of late 19th and 20th Century Revivals/Beaux-Arts architectural classifications and has decorative finishes of faience, ceramic, tile, terracotta, wood, bronze, and cast iron.

**East 17th Street/ Irving Place Historic District (NYCHD, S/NR-Eligible)**

This district consists of 10 residential buildings located along East 17th Street between Union Square East and Irving Place, constructed between 1836 and 1902. These Greek Revival and Italianate style rowhouses are linked by similar massing and materials. This well-preserved development was first home to prominent businessmen and politicians, and later became associated with the developing arts community and German-American community. High stoops, ironwork, and carvings are common throughout this district and maintain its integrity. This district is located on the block north of the project site fronting East 17th Street.

**Photo 2.3-13: East 17th Street/Irving Place Historic District (2017)**



**Germania Life Insurance Company Building (NYCL, S/NR-Listed)**

This 20-story tower shown in **Photo 2.3-14** was originally designed for use as an office building by the firm of D’Oench and Yost, and constructed in 1910-1911. It is located in the northern portion of the study area at 201 Park Avenue South. The granite and brick building has a classic tripartite composition, emphasizing its verticality. Its tall columnar form has a visually separate rusticated platform base, shaft, and crown, in this case formed by a four-story Mansard roof. In 1918, anti-German sentiment stemming from World War I resulted in the renaming of the company as Guardian Life Insurance; an annex was constructed in the mid-20th century (the Guardian Life Insurance Company of American Annex, described below). Germania Life Insurance vacated the building in 1999, and in 2000 a team was commissioned to transform the building into a hotel, which remains its current use.

**Photo 2.3-14: Germania Life Insurance Building (2017)**



**Guardian Life Insurance Company of America Annex (NYCL)**

This four-story office building was designed by the firm of Skidmore, Owings, and Merrill in the International Style and built 1959-1963. The building was constructed as an annex to the company's adjacent 1911 neo-Classical building (the Germania Life Insurance Company Building, described above). Its low-rise office design features a curtain wall of bands of tinted glass and anodized aluminum spandrel panels, as shown in **Photo 2.3-15** below.

**Photo 2.3-15: Guardian Life Insurance Company of America Annex (2017)**





### **Consolidated Edison Company Building (NYCL, S/NR-Listed)**

The Consolidated Edison Building constructed in stages between 1910 and 1929 for the Consolidated Gas Company, predecessor to Consolidated Edison, and designed by the leading architectural firms of Henry Hardenbergh and Warren & Wetmore, is a monumental presence and has one of the great towers that define the Manhattan skyline. The earliest sections of the building, on East 15th Street and the northern end of the block front on Irving Place, built in two phases between 1910 and 1914, were among the last major works of the eminent architect Henry Hardenbergh. Hardenbergh's eighteen-story, classically inspired facades feature giant segmental arches and double-story porticos at the base and rusticated limestone piers balanced by strong horizontal moldings at the upper stories and are enlivened by a rich blend of Classical Revival and Renaissance motifs. Between 1926 and 1929, Warren & Wetmore working in association with the engineering firm of Thomas E. Murray built two more additions on Irving Place and East Fourteenth Street, wrapping eighteen-story office wings, which matched the Hardenbergh designed portions of the building, around a signature twenty-six-story corner tower. This monumental limestone-clad tower has a three-story colonnaded base and a setback tower featuring illuminated clocks, a bell chamber treated as a colonnaded temple modeled on the Hellenistic Mausoleum of Halicarnassus, a bell-capped roof framed by corner obelisks, and a gigantic bronze and glass lantern.

**Photo 2.3-16 (2017): Consolidated Edison Building (2017)**

Characterized by the *New Yorker* as “a sturdy shaft, classic in detail and vigorous in silhouette,” the Consolidated Edison tower won critical praise and was among the finest of Warren & Wetmore’s late works. Dubbed the “Tower of Light” in corporate literature, the tower was intended to be both a symbol of one of the nation’s leading producers of power and light and a memorial to the company’s employees who had died in World War I and incorporates numerous devices in its decorative program such as torches and burning urns appropriate for a building associated with lighting and with funereal monuments. These dual purposes were also served by an elaborate program of nighttime illumination, inaugurated in July 1929. Although the lighting has been updated to reflect modern technology, the tower continues to be illuminated at night and remains in the words of the *New York Times* one of the “crowns of light [that] grace the skyline” and a symbol of Consolidated Edison, Inc. Consolidated Edison Inc. is the successor to a long line of power and light companies, beginning with New York Gas Light Company, founded 1823, which have played an integral role in the development of New York City. The Consolidated Edison and its predecessors, the Consolidated Gas Company of New York and New York Edison, have continuously been headquartered here since the building’s construction.

### **Washington Irving (The Gramercy Arts) High School (S/NR-Eligible)**

The Washington Irving High School at Irving Place is eligible for inclusion in the National Register. The building, shown in **Photo 2.3-17**, has beige brick facades with stone and terra cotta elements. The building meets Criterion C for inclusion in the National Register as an outstanding example of Neo-Classical style urban school design. The original eight story block was built in ca. 1910-13 to the design of C.B.J. Snyder. In ca. 1937-38 a twelve-story addition by Walter C. Martin was built to the east facing East 16th Street.

#### **Photo 2.3-17: Washington Irving (The Gramercy Arts) High School**



Source: NYS CRIS Resource Eligibility Evaluation, photograph date unidentified

### **No-Action Condition**

Absent the proposed project, the parking garage located on the development site would be demolished and a 58,510 GSF (51,040 ZFA) mixed-use development comprised of 46 DUs (55,460 residential GSF), 690 GSF of community facility space, 2,360 GSF of commercial space, and 9 accessory parking spaces would be constructed.

Since the No-Action development would not require a CPC special permit for bulk waivers pursuant to ZR 74-711, a maintenance program would not be required to be established for the (former) Century Association Building.

Independent of the proposed project, the approved renovations that are currently under construction at 44 Union Square East (Tammany Hall) would be complete and fully occupied by the end of 2018. There are no other known planned or proposed modifications to identified historic or cultural resources within the affected area or study area.

## **With-Action Condition**

In the With-Action condition, the development site would be improved with a 110,000 GSF mixed-use development comprised of up to 55 dwelling units, up to 4,700 GSF of commercial and/or community facility space (with a minimum of 690 GSF of community facility space), and up to 23 accessory parking spaces.

The design of the proposed project has been developed in coordination with LPC. A canopy projection would be developed above the proposed residential entrance with a brick and limestone façade and metal window framing. The ground floor would be approximately 14.3 feet in height and have 3-foot-tall metal louvres above a height of 10 feet. The proposed garage entrance has been designed as a continuation of the façade at the street frontage, and would provide a continuous streetwall to East 16th Street.

In exchange for the requested base height, maximum building height, setback, and side yard waivers, the applicant would establish a program for the restoration and continuing maintenance of the (former) Century Association Building, which is located wholly within the tax lot 10 portion of the affected area. This continuing maintenance program would undertake restoration/preservation improvements to the Century Association Building. These restoration/preservation improvements described in **Chapter 1.0, "Project Description"** have been developed in coordination with LPC to ensure the proposed maintenance plan and improvements contribute to a preservation purpose.

To avoid the potential for construction-related impacts (such as falling objects, vibration, dewatering, subsidence, or collapse), a Construction Protection Plan would be developed in coordination with LPC and implemented to protect the (former) Century Association Building, as requested by LPC in correspondence dated May 9, 2017.

Given the proposed project's location at a midblock location, visibility to the proposed project site is limited in some locations by existing intervening development in the area. While some views of the proposed project would be available from Union Square Park, the proposed project has been designed with input from LPC in a manner that respects and responds to the on-site LPC-designated resource. The proposed project would complement and would not significantly change the context of the existing historical and cultural resources in the study area. Further, the proposed project would not significantly alter the setting or visual relationship of the existing historic resources in the study area. These resources would continue to be located in an area that contains historic resources of various architectural styles and time periods. While the introduction of the proposed project would alter the streetscape (i.e. by introducing new materials, colors, and increased building height), the publicly accessible views of the study area's resources themselves would not be affected. **Figure 2.3-2** provides a representative example of how the viewing context of the (former) Century Association Building would be changed, while existing views of this resource would be unaltered.

**Figure 2.3-2 With-Action Views of (former) Century Association Building**

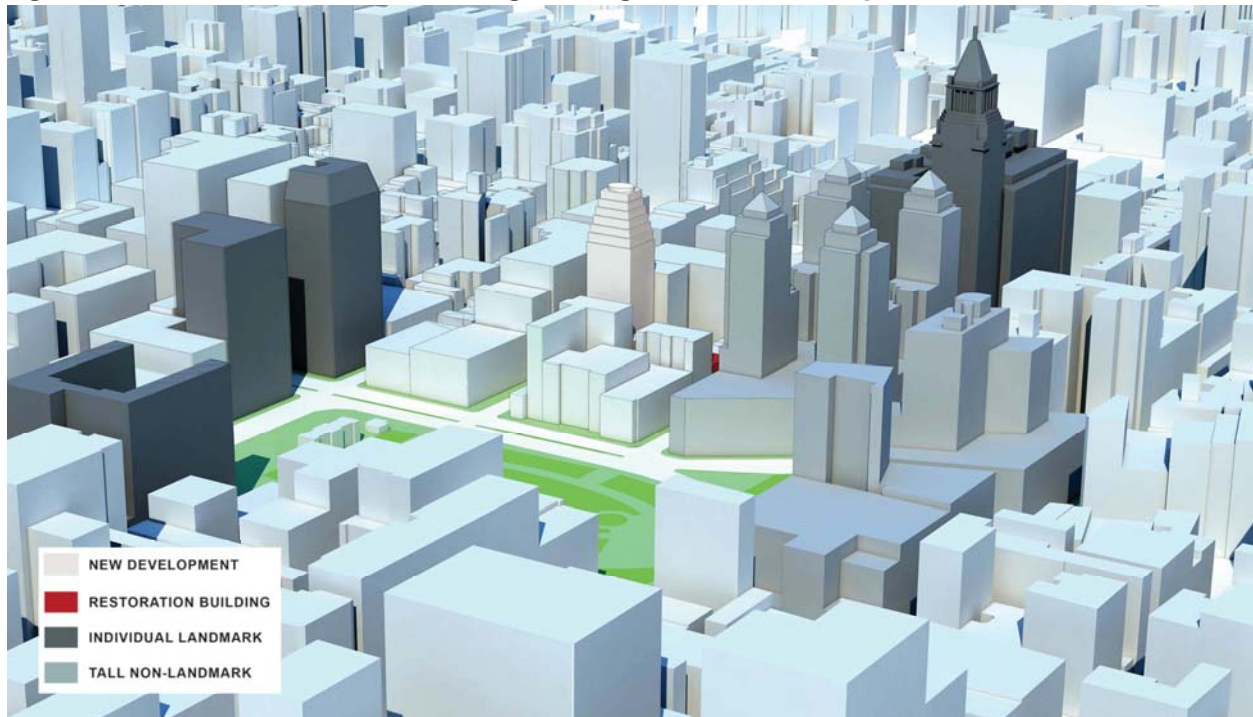


While the proposed development would modify the viewing context of the (former) Century Association Building, existing views of the resource itself would be unaltered (in the right image, the landmarked building is shown at the far left of the image).

Source: Morris Adjmi Architects

The potential for new shadow from the proposed project to affect historic resources was assessed in **Section 2.3, "Shadows."** As detailed in that section, while the proposed project would result in some incremental shadow on Union Square Park, the new shadow would not result in a significant adverse shadows impact as the park is designated historical in the area of social history (and not landscape qualities).

The proposed development has been designed with input from LPC in a manner that respects the landmarked (former) Century Association Building (such as mansard-inspired roof) and the surrounding historical resources. Further, the proposed development has been designed to a high architectural quality that would add visual interest to existing views available from Union Square Park and other surrounding areas, as shown in **Figure 2.3-3**.

**Figure 2.3-3 With-Action Building Massings Around Union Square Park**

In order to avoid the potential for construction-period effects on the landmarked (former) Century Association Building, a Construction Protection Plan would be adopted.

## 2.3-4 Conclusion

The proposed project is located on a zoning lot that contains the (former) Century Association Building, an LPC-designated individual landmark. In exchange for the requested bulk waivers, the applicant proposes to establish a restoration and continuing maintenance plan that includes restoration of the existing landmarked building and provides for its ongoing inspection and maintenance in perpetuity. The restoration and maintenance plan has been developed in coordination with LPC to ensure these proposed improvements contribute to a preservation purpose.

Further, the design of the proposed project has been developed in coordination with LPC to ensure the proposed project respects and responds to the existing LPC-designated historic resource. A Construction Protection Plan would also be developed and implemented to avoid the potential for construction-period effects on the (former) Century Association Building.

The proposed project would not significantly alter or affect the setting, visual relationship, or publicly accessible views of the identified historic resources within the study area, and therefore there would be no potential for a significant adverse impact related to historic and cultural resources.



# 2.4

## Urban Design and Visual Resources

In an urban design assessment under CEQR, one considers whether and how a project may change the experience of a pedestrian in the project area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

### 2.4-1 Introduction

This section considers the potential for the proposed project to result in significant adverse urban design and visual resources impacts. As defined in the *2014 City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. A visual resource 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.

Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include projects that permit the modification of yard, height, and

setback requirements, and projects that result in an increase in built floor area beyond what would be allowed "as-of-right," or in the future No-Action condition.

As described in Section 1.0, the applicant requests a CPC Special Permit to modify underlying bulk requirements pursuant to ZR 74-711 to facilitate the 110,000 GSF proposed development. Because the proposed project would modify the underlying base height, maximum height, side yard, minimum required distance between buildings, and setback requirements, an urban design and visual resources analysis is warranted.

## 2.4-2 Methodology

In accordance with the *CEQR Technical Manual* guidelines, the following preliminary urban design and visual resources assessment considers study area where the proposed action would be most likely to influence the built environment. The preliminary assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the development site, which is collectively formed by the following components:

- › **Street Pattern and Streetscape:** The arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, street lights, curb cuts, and street furniture also contribute to an area's streetscape.
- › **Buildings:** A building's size, shape, setbacks, pedestrian and vehicular entrances, lot coverage, and orientation to the street are important urban design components that define the appearance of the built environment.
- › **Open Space:** Open space includes public and private areas that do not contain structures, including parks and other landscaped areas, cemeteries, and parking lots.
- › **Natural Features:** Natural features include vegetation and geologic and aquatic features that are natural to the area.
- › **View Corridors and Visual Resources:** Visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.

The following information is included in a preliminary assessment:

- › A concise narrative of the existing affected area, and conditions under the future No-Action and With-Action conditions;
- › An aerial photograph of the study area and ground-level photographs of the site area with immediate context;
- › Zoning and floor area calculations of the existing, future No-Action, and future With-Action Conditions;



- › Lot and tower coverage, and building heights; and
- › A three-dimensional representation of the future No-Action (if relevant) and With-Action Condition streetscape.

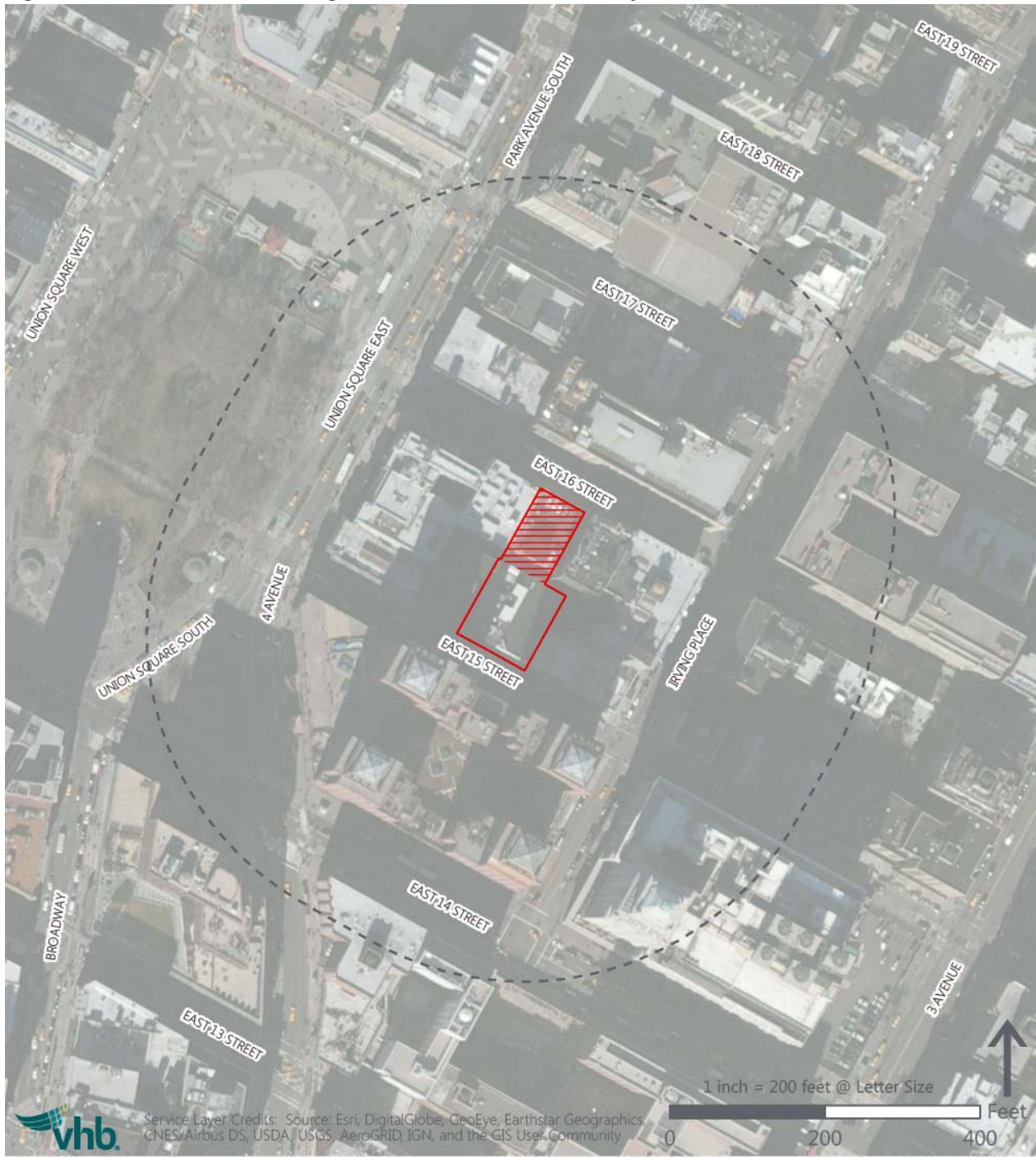
If the preliminary assessment determines that a change to the pedestrian experience is minimal and unlikely to disturb the vitality, walkability or the visual character of the area, then no further assessment is necessary. However, if it shows that changes to the pedestrian environment and/or visual resources are significant enough to require greater explanation and further study, then a detailed analysis may be appropriate.

The following preliminary urban design and visual resources assessment follows these guidelines and provides a characterization of existing conditions followed by a description of urban design and visual resources under the future No-Action and With-Action conditions, and an analysis determining the extent to which physical changes resulting from the proposed development would alter the pedestrian experience.

## **Study Area**

The area within 400 feet of the affected area is defined as the study area for this analysis; this is typically considered an appropriate radius for site-specific actions such as the proposed project. As shown in **Figure 2.4-1**, the study area contains a portion of Union Square Park, a significant open space resource.

**Figure 2.4-1 Urban Design and Visual Resources Study Area**



- Development Site
- Affected Area
- 400-Foot Radius

## 2.4-3 Assessment

### Existing Conditions

This section provides a narrative of the existing development in the affected area and study area.

### Affected Area

The affected area is improved with three existing buildings across three tax lots. The urban design elements of these three buildings are described in **Table 2.4-1**:

**Table 2.4-1 Urban Design Elements in Affected Area – Existing Conditions**

<b>Building Element</b>	<b>Building on Lot 10</b>	<b>Building on Lot 12</b>	<b>Building on Lot 74 (Development Site)</b>
Stories	4	4	10
Approx. Base Height (ft)	44	51	74
Approx. Maximum Height (ft)	57	52	86
Approx. Streetwall Length	65ft on E 16th St	50ft on E 15th St	50ft on E 15th St
Lot Coverage (approx. %)	100%	100%	84%
Zoning Floor Area	14,027	16,560	50,174
Ground Floor Use	Commercial	Commercial	Parking

There are no existing open spaces, natural features, or view corridors through the affected area. The sole visual resource in the affected area is the (former) Century Association Building, located on Lot 12, which is an LPC-designated individual landmark. This building is described in detail in **Section 2.3, “Historic and Cultural Resources”**.

Sidewalks approximately 10 feet in width are developed along both the East 15th Street and East 16th Street frontages of the affected area.

### Study Area

The study area contains two open space resources, 9 visual resources, six streets, and approximately 57 buildings:

**Street Network:** East 14th Street and Park Avenue South/Union Square East are wide streets (approximately 100 feet in width) and respectively serve as the principal east-west and north-south through-streets in the vicinity. Park Avenue South/Union Square East is improved with a central planted median. Smaller streets in the study area include the east-west East 15th Street, East 16th Street, and East 17th Street, and the north-south Irving Place. These surrounding streets are improved with sidewalks, street trees, planters, and lighting elements. As the surrounding streets form part of the Manhattan grid street system, they also serve as visual corridors.

**Buildings:** A summary of the buildings within the study area is provided in **Table 2.4-2** below:

**Table 2.4-2 Urban Design Elements in Study Area – Existing Conditions**

<b>Building Element</b>	
Stories	Range between 1 - 27
Building Height (ft)	22 (121 E 17th St) - 470 (Con-Edison Tower)
Average Building Height (ft):	90.8
Number of tax lots with less than 6 stories	38 (67.8% of tax lots)
Number of tax lots with 6 to 12 stories	12 (21.4% of tax lots)
Number of tax lots with greater than 12 stories	6 (10.7% of tax lots)
Streetwall	Generally continuously built to the street line
Lot Coverage	Predominately high lot coverage buildings (approx. 78% average)

Notes:

Numbers above exclude the tax lot containing Union Square Park

Data based on information provided in MapPLUTO16v2 published by NYC DCP

Building height per the NYC Planimetric Database published by NYC DOITT (2016)

A visual survey and data provided by city information databases indicate that buildings within the study area are predominately built up to or near the street line and have a relatively high lot coverage. Building façades have been constructed with a variety of materials, including brick, metal, stone, and glass. A series of photographs are provided to describe the existing built context within the study area; **Figure 2.4-2** provides a representative key map for the representative viewing locations presented in **Photo 2.4-1** through **Photo 2.4-17** below. These photos show the variety of building heights in the study area, including the taller buildings of the Zeckendorf Towers (326 feet), the Consolidated Edison Building (470 feet), and the W Hotel (281 feet).

**Open Space and Natural Features:** The sole open spaces within the study area are Union Square Park and the Park Avenue South Greenstreets. Union Square Park is an approximately 6.5-acre open space under jurisdiction of the NYC Department of Parks and Recreation (NYC Parks). It consists of a mix of passive recreational spaces, including paved plazas, walking paths, planting beds, grassy areas, trees, statues, and bench seating, as well as a dog park, comfort station, news kiosk, restaurant, playground, and farmer's market. The park is listed on the State/National Register and is a National Historic Landmark. There are no natural features as defined by the *CEQR Technical Manual* within the study area.

Figure 2.4-2 Photo Key Map



- Development Site
- Affected Area
- 400 Feet Radius
- Photo Location



**Photo 2.4-1**  
View from Union Square Park at E 16 St to  
Development Site



**Photo 2.4-2**  
View of Development Site from northwest corner  
of Irving Place and E 16th St



**Photo 2.4-3**  
View of southern façade of Tax Lot 10, the sole  
visual resource in the Affected Area (a LPC-  
designated individual landmark)



**Photo 2.4-4**  
View of southern façade on Lot 12, which is one of  
three tax lots in the Affected Area



**Photo 2.4-5**

Westward view along E 15 St, which serves as a visual corridor towards Union Square Park



**Photo 2.4-6**

View from Union Square Park near E 15 St to Union Square Savings Bank (an identified visual resource) and the Development Site



**Photo 2.4-7**

View of existing development on E 16 St immediately to the east of the Development Site



**Photo 2.4-8**

Eastward view from the Lincoln Statue in Union Square Park, where a break in vegetation allows a view toward the Development Site



**Photo 2.4-9**

Eastward view from within Union Square Park, where breaks in vegetation allows for glimpses toward the Development Site





**Photo 2.4-10**

Eastward view from walking path within Union Square Park, where existing vegetation within the park obscures views of the surrounding development



**Photo 2.4-11**

Eastward view toward E 16 St through Union Square Park. From this viewing location, existing vegetation within Union Square obscures a significant amount of the surrounding development



**Photo 2.4-12**

View northeast toward Development Site from southern portion of Union Square Park. The Zeckendorf Towers (right) and the W Hotel/Germania Life Insurance Building (far left) frame Union Square Park's eastern boundary



**Photo 2.4-13**

View eastward toward the Development Site near northeast corner of East 14th Street and Union Square West



**Photo 2.4-14**

View southeast toward Development Site from northern paved area in Union Square Park



**Photo 2.4-15**

Southward view toward Development Site from the northeast corner of Union Square Park, opposite Tammany Hall, a visual resource (LPC-designated individual landmark) currently under redevelopment



**Photo 2.4-16**

Southeast view from northeast corner of Irving Place and E 17th St toward the East 17th Historic District, where existing taller developments can be seen immediately to the south of this historic district



**Photo 2.4-17**

Westward view from southeast corner of Irving Place and E 15th St toward the Development Site

**Visual Resources:** The study area contains seven visual resources:

1. **Union Square Savings Bank** is a neo-Classical style former bank building. The four-story granite building features a full-height entrance portico, with a cornice and carved frieze supported by massive Corinthian columns.
2. **Tammany Hall** is a four-story building designed in the neo-Georgian style.
3. **The Consolidated Edison Building** is an eighteen-story, classically inspired facades feature giant segmental arches and double-story porticos at the base and rusticated limestone piers balanced by strong horizontal moldings at the upper stories and are enlivened by a rich blend of Classical Revival and Renaissance motifs.
4. **East 17th Street/Irving Place Historic District** is comprised of 10 residential buildings located along East 17th Street. These Greek Revival and Italianate style rowhouses are linked by similar massing and materials.
5. **The Germania Life Insurance Building** is a 20-story office tower that has been converted into a hotel (W Hotel) use. The granite and brick building has a classic tripartite composition, emphasizing its verticality. Its tall columnar form has a visually separate rusticated platform base, shaft, and crown, in this case formed by a four-story Mansard roof.
6. **The Guardian Life Insurance Company of America Annex** is a neo-Classical low-rise office building whose design features a curtain wall of bands of tinted glass and anodized aluminum spandrel panels.
7. **The Gramercy Arts High School**, previously the Washington Irving High School, features a Neo-Classical style urban school design with beige brick facades with stone and terra cotta elements.

These visual resources are discussed in greater detail in **Section 2.3, “Historic and Cultural Resources”**.

## No-Action Condition

Absent the proposed project, the existing 10-story parking garage on the development site would be demolished and a 58,510 GSF mixed-use building would be constructed within approximately the same footprint as the parking garage. The existing building on lots 10 and 12 would remain in their existing condition.

The No Action building would have a base height of 85 feet. Above this base height, there would be a 15-foot setback where dormers would be present. The building would rise to a maximum height of 120 feet (excluding bulkhead), or 160 feet (including bulkhead) (see **Figure 2.4-3** through **Figure 2.4-5**). The building footprint would have a lot coverage of 100% of the development site, and the tower component would have a lot coverage of approximately 4,544 SF, or 68.2% of the development site. Relative to the zoning lot (which, as described in **Chapter 1, “Project Description”**, would consist of just tax lots 10 and 74 in the No-Action condition), there would be 100% lot coverage and a tower coverage of approximately 38.5%.

At the ground level, the development site would have designated pedestrian entries for commercial/community facility uses and residential users. The non-residential use(s) at the ground floor would assist to further activate East 16th Street and the surrounding area.

**Figure 2.4-3: No-Action Condition View from NE corner of Irving Pl/E 16th St**



Figure 2.4-4: No-Action Condition View from SE Corner of Irving Pl/E 15th St (would not be visible)



**Figure 2.4-5: No-Action Condition View from southern Union Square Park (would not be visible)**

Because the height and bulk of the No Action development would be substantially similar to the existing parking garage, the No Action development would have limited visibility to no visibility from most locations in the study area. Closer to the development site, views along East 16th Street would change to include a new mixed-use building in place of the existing parking garage.

Within the study area, by the analysis year (2021) there would be no modification to the existing streets, open spaces, or natural features in the No-Action condition. The improvements currently under construction at Tammany Hall, a visual resource building, would be complete and in use. The Consolidated Edison Building and the Zeckendorf Towers would continue to be the tallest buildings within the study area (approximately 470 and 326 feet tall, respectively).

### **With-Action Condition**

In the With-Action condition, acquired development rights from adjacent tax lots 10 and 12 would be used to facilitate the development of an approximately 110,000 GSF mixed-use building on the development site, and a restoration and continuing maintenance plan would be adopted that would facilitate improvements with a preservation purpose to the existing visual resource on lot 10; the existing development on lot 12 would remain in its existing condition. The zoning lot would have a zoning floor area of 79,822 SF, and an FAR of 6.5.

The proposed development would be built to the street line with a base height of approximately 230 feet and a maximum height of up to 268 feet excluding the bulkhead (or 283 feet including the bulkhead) across 21 stories. This new tower,



whose design has been developed in coordination with LPC, would be constructed with a mansard inspired roof with side setbacks in 2.5 foot increments at each floor beginning no higher than the 19th floor. The ground floor would cover the entirety of the tax lot (100% coverage of the proposed development site). The zoning lot (affected area) coverage would be 16,986 SF, or 100%. The tower residential lot coverage on through Lot 1 would equate to 4,662 SF, or 35%.

The existing curb cut on East 16th Street would be reduced from approximately 60 feet to 11 feet in width, and the streetscape would be improved with two new street trees in proximity to the frontage of the proposed development. The proposed garage door would reflect and be continuous with other portions of the proposed development's ground floor façade. The residential lobby and commercial and/or community facility uses at the ground floor would provide approximately 45 feet of active street frontage.

The proposed development would be 123 feet taller than the No Action development, rising to a total height of up to 283 feet (including the building bulkhead), and would introduce additional building height into the streetscape. While this additional building height would be visible from locations throughout the study area, the proposed project would not block views to or from any of the visual resources in the study area. **Figures 2.4-6** through **Figure 2.4-8** provide additional information about the proposed development's effects on views to and from the visual resources in the study area.

The (former) Century Association Building would be protected through the proposed restoration and continuing maintenance program, which would improve this visual resource and ensure it continues to contribute to the surrounding streetscape.

**Figure 2.4-6 Representative No-Action/With-Action View from Irving Pl/E 16th St**



*The proposed development would change the context of this westward view toward Union Square Park by introducing a taller building at the development site. However, Union Square Park would continue to be visible from this representative location and would not be obstructed.*

**Figure 2.4-7 Representative No-Action/With-Action View from Irving Pl/E 15th St**



*The proposed development would be visible behind existing developments on East 15th Street when viewed from this representative viewing location. While the proposed development would add a new element in the view towards the (former) Century Association Building and Union Square Park, the view of these visual resources themselves would be unaffected from this representative viewing location.*

**Figure 2.4-8 Representative No-Action/With-Action View from eastern Union Sq Park**



*Upper portions of the proposed development would be visible from this representative viewing location in the southern portion of Union Square Park. The Mansard-inspired roof would provide additional visual interest and provide an architectural style that mirrors the Germania Life Insurance Building (at left, currently a W Hotel). The Zeckendorf Towers (at right) would continue to be the dominant visual element from this area of Union Square Park. While the proposed development would add a new element in views of both the Union Square Savings Bank and the Germania Life Insurance Building, views to both these visual resources would remain.*

## **2.4-4 Conclusion**

The proposed development of approximately 110,000 GSF would be built to the street and incorporate design elements that respond to its location adjacent to the (former) Century Association Building, a visual resource. The proposed development has been designed in coordination with LPC, and would have a maximum base height of approximately 230 feet, with a maximum height of up to 283 feet (including the building bulkhead). There would also be active ground floor uses, two new street trees introduced along East 16th Street, and preservation improvements made to the existing landmark in the affected area. The proposed project would be limited to the development site and would therefore affect the viewing context, but the view corridors along the street grid themselves would be unaffected.

The proposed development would be approximately 187 feet shorter than the tallest building within the study area (the Consolidated Edison Building). The representative views and associated photomontages demonstrate that while the proposed development would be developed with a maximum height greater than the No-Action condition, the proposed building height would not be out of context with existing development in the area and has been designed in a way that would enhance the existing visual resources in the vicinity. The proposed project would add a new element in various views, but would not block any views to the area's visual resources.

Overall, the proposed project would have a minimal effect on the urban design of the street network, open spaces, visual resources, and buildings of the study area. No significant adverse impacts to urban design or visual resources would result from the proposed project.



# 2.5

## Hazardous Materials

The goal of this chapter is to determine whether the proposed project may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts.

### 2.5-1 Introduction

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive or toxic). According to the 2014 *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: a) hazardous materials exist on a site and b) an action would increase pathways to their exposure; or c) an action would introduce new activities or processes using hazardous materials.

This chapter evaluates the potential for significant adverse impacts (as defined by the *CEQR Technical Manual*) that could result because of the proposed 110,000 gross square foot (GSF) mixed-use development at 110 East 16th Street.

## 2.5-2 Methodology

As indicated in **Chapter 1, “Project Description”**, the proposed project would result in the construction of a new mixed-use, predominantly residential development on the site of the existing parking garage on Lot 74; therefore, a hazardous materials analysis is warranted in accordance with the CEQR *Technical Manual*.

As indicated in the 2014 CEQR *Technical Manual*, the hazardous materials (E) designation is an institutional control that may be placed on a site to establish a hazardous materials review and approval framework. It provides a mechanism to ensure that testing for and remediation of hazardous materials, if necessary, are completed prior to future development of an affected site, thereby eliminating the potential for a hazardous materials impact. (E) designated parcels are administered under the authority of the New York City Mayor’s Office of Environmental Remediation (OER).

The potential for hazardous materials on the development site was evaluated in a Phase I Environmental Site Assessment (ESA) prepared by Hillman Consulting, LLC (Hillman), dated January 23, 2015. Hillman’s Phase I ESA was prepared in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-13, inclusive of the “All Appropriate Inquiry” requirement amended in the Federal Register on December 30, 2013. The United States Environmental Protection Agency (EPA) “All Appropriate Inquiry” requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

## 2.5-3 Assessment

### Existing Conditions

The development site is located on the south side of East 16th Street (Block: 871, Lot: 74), east of Union Square East and west of Irving Place in the Union Square neighborhood of Manhattan. The development site is a 6,660 SF rectangular parcel improved with a nine-story 56,760 SF parking garage, operated by Icon Parking, owned by East 16th Street Owner LLC. The development site is located in an urban developed area of Manhattan characterized by a mix of low- and high-rise commercial and residential buildings, and various retail stores and businesses.

### Phase 1 Environmental Site Assessments

Hillman’s Phase I ESA, dated January 23, 2015, was completed for the development site and included analyses as specified in the ASTM Method E1527-13. The goal of the Phase I ESA process is to identify “Recognized Environmental Conditions” (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release,

a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

Per the ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ESA also included reconnaissance of the site and surrounding neighborhood and interviews with the building manager.

As stated in the current ASTM Practice E1527-13, there may be environmental issues or conditions at the site, which may be requested by the user to be addressed as part of the Phase I ESA, which are not covered within the scope of ASTM Practice E1527-13. These issues are referred to as "non-scope considerations" and include evaluations relating to asbestos, lead-based paint, mold, etc. These added considerations were also evaluated as part of the Phase I ESA prepared by Hillman.

The Hillman Phase I ESA indicates the site is currently improved with a nine-story 56,760 SF parking garage, operated by Icon Parking. According to the Phase I ESA, the development site was previously improved with two residential buildings dating back to at least 1903. In 1960, the residential buildings were presumably demolished and replaced with the existing nine-story parking garage.

The Hillman Phase I ESA also incorporated the results of a previous Phase I ESA conducted on the development site, dated May 19, 2014 prepared by AEI Consultants (AEI).

Based upon the information provided in the Hillman Phase I ESA, the following findings and site features were identified:

- › The development site is located at a topographic elevation of approximately 39 feet above mean sea level (amsl) with the general topographic gradient sloping downward to the east, toward the East River.
- › Groundwater beneath the development site is within 39 feet below grade surface (bgs). Based upon surface topography, groundwater flow beneath the development site is assumed to flow to the east, toward the East River.
- › No wetlands or suspected wetlands were identified on or within the immediate surrounding areas of the site that would warrant appropriate permitting or additional action.
- › Potable water is provided to the development site by the New York City Department of Environmental Protection (DEP). No potable water supply wells were identified within one-quarter mile of the site, and potable water is not obtained from groundwater beneath the site.
- › Sanitary wastes are discharged to the New York City municipal sewer system. Stormwater runoff discharges to the New York City storm sewers.



- › A review of a computerized database report generated by Environmental Data Resources, Inc. (EDR) indicated the development site was identified in the Facility Index System (FINDS) and Manifest databases in association with a Con Edison service box within the roadway in front of the site. The database listings were determined to not be relevant to the development site and were not considered an environmental risk. No additional relevant database listings were identified in the Phase I ESA.
- › No evidence of hazardous materials handling, storage and/or disposal was observed during the Phase I ESA site reconnaissance.
- › No polychlorinated biphenyl (PCB)-containing equipment or transformers were observed at the site.
- › No heating systems are located at the development site. Furthermore, there was no visual evidence of underground storage tanks or aboveground storage tanks (USTs/ASTs) during the Phase I ESA site reconnaissance.
- › Based upon the age of the parking structure, there is a potential for asbestos-containing materials (ACM) to be present. Suspect ACM was noted during a visual screening during the Phase I ESA site reconnaissance. Such materials included spray-on fireproofing. Additional (inaccessible) suspect ACM may be present at the development site.
- › There is a potential for lead-based paint (LBP) to be present.
- › No mold, mildew or radon risks were identified at the development site during the Phase I ESA.
- › In accordance with the ASTM standard, a Tier One Vapor Encroachment Screen was performed at the site and was incorporated into the AEI Phase I ESA, which was appended to the Hillman Phase I ESA. The results of the Tier One Vapor Encroachment Screen indicated that no sites, including the development site, and those located immediately adjacent to, or nearby would represent a significant risk for soil vapor migration or encroachment to the site.
- › No current or previous site uses, along with any current or historic adjacent uses/registries were identified with the potential to represent a significant concern to the development site in the Hillman Phase I ESA.

Based upon the findings of the Phase I ESA, it was determined that there were no RECs identified for the development site.

In correspondence issued to the lead agency dated July 12, 2017, the New York City Department of Environmental Protection (NYCDEP) indicated that based upon the results of the Hillman Phase I ESA, a Phase II ESA is necessary to *adequately identify/characterize the surface and subsurface soils at the subject parcels.*

## **No-Action Condition**

Absent the proposed actions (No-Action Scenario), the existing public parking facility on the development site would be demolished and a 58,510 GSF mixed-use development would be constructed. No changes would occur to the existing buildings on Lots 10 or 12. With respect to hazardous materials, the No-Action Scenario would result in demolition of the existing public parking facility on the development site. Therefore, existing building materials may be present that are considered ACM or contain lead-based paint, which would be subject to standard abatement procedures and would be remediated in accordance with applicable regulations as part of redevelopment. Furthermore, any potential subsurface impacts that may exist at the development site would go uninvestigated under the No-Action condition, and therefore, unmitigated.

## **With-Action Conditions**

In the With-Action condition, the development site would be developed with a 110,000 GSF mixed-use development. With respect to hazardous materials, the With-Action scenario would result in demolition of the existing public parking facility on the development site. Therefore, existing building materials may be present that are considered ACM or contain lead-based paint, which would be subject to standard abatement procedures and would be remediated in accordance with applicable regulations as part of redevelopment. Further, prior to development, and as requested by NYCDEP, the applicant would be required to ensure that additional subsurface testing and mitigation would be provided as necessary. To preclude the potential for significant adverse impacts related to hazardous materials, an (E) designation (E-481) would be incorporated into the rezoning for the development site (Block: 871, Lot: 74). With the placement of an (E) designation, further hazardous materials assessments would be directed through the New York City Office of Environmental Remediation (OER).

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

### Task 1

The applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil and groundwater testing protocol (a.k.a. Remedial Investigation Work Plan [RIWP] along with a site-specific Health and Safety Plan (HASP), including a description of methods and a project site map with all sampling locations clearly and precisely represented.

If site sampling is required, 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 Remedial Action Plan (RAP) must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER in accordance with the approved RAWP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed.

An OER-approved CHASP would be implemented during excavation and construction 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.

All demolition or rehabilitation would be conducted in accordance with applicable requirements for disturbance, handling and disposal of suspect lead-paint and asbestos containing materials.

Given these measures, the With-Action scenario would not result in any significant adverse impacts relating to hazardous materials.

### **2.5-4 Conclusion**

Any potential impacts relating to hazardous materials would be identified and investigated prior to subsurface disturbance as required by an (E) designation for hazardous materials (E-481). Any potential remedial action that may be required would also be administered as part of the (E) designation protocol under the regulatory oversight of OER. In order to reduce the potential for exposure to future site occupants, during and following construction, regulatory requirements pertaining to ACM, LBP, PCBs and chemical use and storage would be followed. With the implementation of these measures, no significant adverse impacts related to hazardous materials would result from the proposed action.



# 2.6

## Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project.

### 2.6-1 Introduction

This section examines the potential for air quality impacts from the proposed action. According to the *2014 CEQR Technical Manual*, air quality impacts can be characterized as either direct or indirect impacts. Direct impacts result from emissions generated by stationary sources, such as stack emissions from on-site fuel burned for boilers and heating, ventilation, and air conditioning (HVAC) systems. Indirect effects are caused by off-site emissions associated with a project, such as emissions from on-road motor vehicles ("mobile sources") traveling to and from a development site.

The With-Action increment would not exceed the minimum development density thresholds requiring transportation analysis, thus the number of incremental trips

generated by the proposed action would be lower than the *CEQR Technical Manual* CO-based screening threshold of 170 vehicles per hour. Additionally, it is anticipated that the PM<sub>2.5</sub>-based screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual* will not be exceeded. Therefore, traffic from the proposed action would not result in a significant adverse impact on mobile source air quality and a quantified assessment of on-street mobile source emissions is not warranted.

The proposed project would introduce up to 14 more parking spaces as compared to the No-Action condition, which would not exceed the threshold that triggers a detailed parking facility analysis according to Table 16-1 in Chapter 16, "Transportation", in the *CEQR Technical Manual*. Thus, no significant adverse impact would be anticipated associated with the proposed parking spaces and no quantitative analysis is warranted.

Therefore, the following assessment is limited to the stationary sources analyses of the proposed project.

## Pollutants of Concern

Air pollution is of concern because of its demonstrated effects on human health. Of special concern are the respiratory effects of the pollutants and their potential toxic effects, as described below.

**Carbon monoxide (CO)** is a colorless and odorless gas that is a product of incomplete combustion. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches, nausea, and at sustained high concentration levels, can lead to coma and death.

**Particulate matter** is made up of small solid particles and liquid droplets. PM<sub>10</sub> refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and PM<sub>2.5</sub> refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particulates smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

**Nitrogen oxides (NO<sub>x</sub>)**, the most significant of which are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>), can occur when combustion temperatures are extremely high (such as in engines) and atmosphere nitrogen gas combines with oxygen gas. NO is relatively harmless to humans but quickly converts to NO<sub>2</sub>. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

**Sulfur Dioxide (SO<sub>2</sub>)** emissions are the main components of the “oxides of sulfur,” a group of highly reactive gases from fossil fuel combustion at power plants, other industrial facilities, industrial processes, and burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. High concentrations of SO<sub>2</sub> will lead to formation of other sulfur oxides. By reducing the SO<sub>2</sub> emissions, other forms of sulfur oxides are also expected to decrease. When oxides of sulfur react with other compounds in the atmosphere, small particles that can affect the lungs can be formed. This can lead to respiratory disease and aggravate existing heart disease.

**Non-criteria pollutants** may be of concern in addition to the criteria pollutants discussed above. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). Emissions of non-criteria pollutants from industrial sources are regulated by the United States Environmental Protection Agency (EPA).

Federal ambient air quality standards do not exist for non-criteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (February 2014). DAR-1 contains a compilation of annual and short term (1-hour) guideline concentrations for these compounds. The NYSDEC guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

## Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, for CO from mobile sources and for PM<sub>2.5</sub>, the City's de minimis criteria are also used to determine significance of impacts.

### National Ambient Air Quality Standards

The Clean Air Act (CAA) requires the EPA to set standards on the pollutants that are considered harmful to public health and the environment. The NAAQS were implemented as a result of the CAA, amended in 1990 (see Table 2.6-1)<sup>1</sup>. The NAAQS applies to six principal (“criteria”) pollutants: carbon monoxide (CO),

<sup>1</sup> United States Environmental Protection Agency (October 2011). National Ambient Air Quality Standards. Retrieved from <http://www.epa.gov/air/criteria.html>.

nitrogen dioxide (NO<sub>2</sub>), particulate matter 10 (PM<sub>10</sub>), particulate matter 2.5 (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and ozone.

**Table 2.6-1 National and New York State Ambient Air Quality Standards**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>Standard</b>
Carbon Monoxide	1-Hour	35 ppm (40,000 µg/m <sup>3</sup> )
	8-Hour	9 ppm (10,000 µg/m <sup>3</sup> )
Nitrogen Dioxide	Annual	53 ppb (100 µg/m <sup>3</sup> )
	1-Hour	100 ppb (188 µg/m <sup>3</sup> )
Ozone	8-Hour	0.075 ppm
Particulate Matter (PM <sub>10</sub> )	24-Hour	150 µg/m <sup>3</sup>
Particulate Matter (PM <sub>2.5</sub> )	Annual	12.0 µg/m <sup>3</sup>
	24-Hour	35.0 µg/m <sup>3</sup>
Sulfur Dioxide	Annual	0.03 ppm (80 µg/m <sup>3</sup> )
	24-Hour	0.14 ppm (365 µg/m <sup>3</sup> )
	3-Hour	0.5 ppm (1,300 µg/m <sup>3</sup> )
	1-Hour	75 ppb (196 µg/m <sup>3</sup> )

Source: 2014 CEQR Technical Manual

### Non-criteria Pollutant Thresholds

Non-criteria, or toxic, air pollutants include a multitude of pollutants of variable toxicity. No federal ambient air quality standards have been promulgated for toxic air pollutants. However, EPA and NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure.

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter (µg/m<sup>3</sup>) for the one-hour and annual average time periods for various air toxic compounds<sup>2</sup>.

In order to evaluate impacts of non-carcinogenic toxic air emissions, EPA developed a methodology called the "Hazard Index Approach." The acute hazard index is based on short-term exposure, while the chronic non-carcinogenic hazard index is based on annual exposure limits. If the combined ratio of pollutant concentration divided by its respective short-term or annual exposure threshold for each of the toxic pollutants is found to be less than 1.0, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

In addition, EPA has developed unit risk factors for carcinogenic pollutants. EPA considers an overall incremental cancer risk from a proposed action of less than one-in-one million to be insignificant. Using these factors, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all of the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less

<sup>2</sup> NYSDEC DAR-1 - [http://www.dec.ny.gov/docs/air\\_pdf/dar1.pdf](http://www.dec.ny.gov/docs/air_pdf/dar1.pdf).

than one-in-one million, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

### **CO De Minimis Criteria**

New York City has developed *de minimis* criteria to assess the significance of the increase in CO concentrations that would result from the impact of project-generated mobile sources, as set forth in the *CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant adverse environmental impact. Significant increases of CO concentrations in New York City are defined as:

- › an increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or
- › an increase of more than half the difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

### **PM<sub>2.5</sub> De Minimis Criteria**

New York City uses *de minimis* criteria to determine a project's potential to result in a significant adverse PM<sub>2.5</sub> impact under CEQR. The *de minimis* criteria are as follows:

- › Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- › Annual average PM<sub>2.5</sub> concentration increments which are predicted to be greater than 0.1 µg/m<sup>3</sup> at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- › Annual average PM<sub>2.5</sub> concentration increments which are predicted to be greater than 0.3 µg/m<sup>3</sup> at a discrete receptor location (elevated or ground level).

## **2.6-2 Methodology**

### **Stationary Sources**

According to the *CEQR Technical Manual* guidelines, air quality analyses of stationary sources may be warranted if a project would:

- › Create new stationary sources of pollutants – such as emission stacks of industrial plants, hospitals, other large institutional uses, or even a building's boilers – that may affect surrounding uses;



- › Introduce certain new uses near existing or planned emissions stacks that may affect the use; or
- › Introduce structures near such stacks so that changes in the dispersion of emissions from the stacks may affect surrounding uses.

### **HVAC Systems**

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, for single-building projects that would use fossil fuels (i.e., fuel oil or natural gas) for HVAC systems, a preliminary stationary source screening analysis is typically warranted to evaluate the potential for impacts on existing buildings from HVAC systems emissions for the proposed project. The *CEQR Technical Manual* provides screening nomographs based on fuel type, stack height, minimum distance from the source to the nearest receptor buildings with similar or greater heights, and floor area of development resulting from the proposed project. There are three different curves representing three different stack heights (30 feet, 100 feet and 165 feet) on the figures, and the height closest to but not higher than the proposed stack height should be selected. Based on the development size, if the distance from the development site to the nearest building of similar or greater height is less than the minimum required distance determined, there is the potential for a significant air quality impact from the project's boilers, and further analysis needs to be conducted using the USEPA's AERSCREEN and/or AERMOD model.

### **Industrial Source Analysis**

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of air toxics emissions from ventilation exhaust systems of manufacturing or processing facilities when a project would result in new sensitive uses (particularly schools, hospitals, parks, and residences) within a 400-foot radius. A screening analysis is usually performed based on Table 17-3 in Chapter 17 of the *CEQR Technical Manual*. The screening table provides the maximum 1-hour, 8-hour, 24-hour and annual average modeled values based on a generic emission rate of 1 gram per second of a pollutant from a 20-foot tall point source for the distances between 30 feet and 400 feet from the receptor of same height. Potential impacts predicted from the industrial source of concern based on the screen table are compared with the short-term guideline concentrations (SGCs) and annual guideline concentration (AGCs) recommended in NYSDEC's DAR-1 AGC/SGC Tables. If a proposed project fails the above screening analysis, or the screening analysis methodology is not applicable to the project, further refined analysis using EPA's AERSCREEN and/or AERMOD model is warranted to determine any potential for significant adverse impacts.

### **"Large" or "Major" Source Analysis**

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of emissions from a "large" or "major" emission source when a project would result in

new uses within a 1,000-foot radius. "Major" sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. "Large" sources are identified as sources located at facilities that require a State Facility Permit. A detailed analysis is usually performed for such sources to determine any potential for significant adverse impact.

## 2.6-3 Assessment

### Existing Conditions

The total concentrations experienced at receptors include background concentrations from existing surrounding emission sources. Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other area emission sources. The NYSDEC maintains an air quality monitoring network and produces annual air quality reports that include monitoring data for CO, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub>. To develop background levels, the latest available pollutant concentrations from monitoring sites located closest to the development site were used. If the pollutant concentration from the nearest monitoring station is not available or the data is not for background concentrations determination (e.g., data collected from Tapered Element Oscillating Microbalance [TEOM] sampler), the next closest monitoring station is selected, and so forth. **Table 2.6-2** summarizes the background concentrations for each of the pollutants.

**Table 2.6-2 Background Concentrations**

Pollutant	Averaging Time	Monitoring Location	Background Concentration
Carbon Monoxide	1-Hour <sup>1</sup>	CCNY, Manhattan	2.3 ppm
	8-Hour <sup>1</sup>	CCNY, Manhattan	1.5 ppm
Nitrogen Dioxide	1-Hour <sup>2</sup>	IS 52, Bronx	120.9 µg/m <sup>3</sup>
	Annual <sup>3</sup>	IS 52, Bronx	38.3 µg/m <sup>3</sup>
Particulate Matter (PM <sub>10</sub> )	24-Hour <sup>4</sup>	Division Street, Manhattan	44 µg/m <sup>3</sup>
Particulate Matter (PM <sub>2.5</sub> )	24-Hour <sup>5</sup>	JHS 126, Brooklyn	23 µg/m <sup>3</sup>
Sulfur Dioxide	1-Hour <sup>6</sup>	IS 52, Bronx	36.9 µg/m <sup>3</sup>

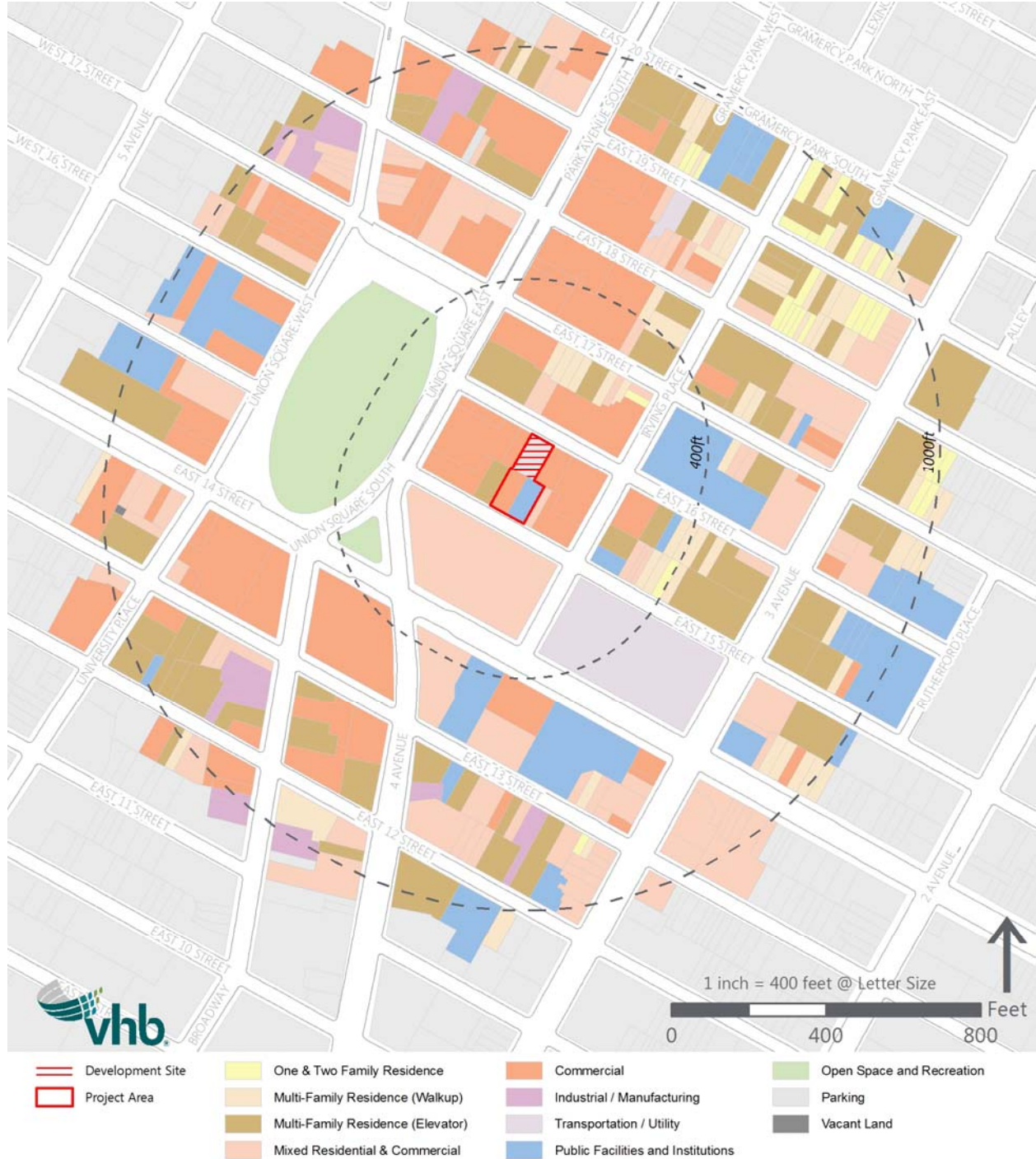
Notes:

- 1 1-hour CO and 8-hour CO background concentrations are based on the highest second max value from the latest five years of available monitoring data from NYSDEC (2011-2015)
- 2 1-hour NO<sub>2</sub> background concentration is based on three-year average (2013-2015) of the 98th percentile of daily maximum 1-hour concentrations from available monitoring data from NYSDEC.
- 3 Annual NO<sub>2</sub> background concentration is based on the maximum annual average from the latest five years of available monitoring data from NYSDEC (2011-2015).
- 4 24-hour PM<sub>10</sub> is based on the highest second max value from the latest three years of available monitoring data from NYSDEC (2013-2015).
- 5 The 24-hour PM<sub>2.5</sub> background concentration is based on maximum 98th percentile concentration averaged over three years of data from NYSDEC (2013-2015).
- 6 1-hour SO<sub>2</sub> background concentration is based on maximum 99th percentile concentration averaged over the latest three years of available monitoring data from NYSDEC (2013-2015).

Source: NYSDEC Ambient Air Quality Report, 2015, <http://www.dec.ny.gov/chemical/29310.html>

PM<sub>2.5</sub> impacts are assessed on an incremental basis and compared with the PM<sub>2.5</sub> *de minimis* criteria, without considering the annual background. Therefore, the annual PM<sub>2.5</sub> background is not presented in the table. Land uses within 1,000-feet of the project area are shown on **Figure 2.6-1** below.

**Figure 2.6-1 Land Use Map Within 1,000-Feet of Project Area**



## Future No-Action Condition

As described in Section 1.0, "Project Description," absent the proposed action (the No-Action condition), the existing public parking facility on tax lot 74 would be demolished and a 58,510 GSF (51,040 ZFA) mixed-use development would be constructed, comprising 46 DUs (55,460 residential GSF), 690 GSF of community facility space, 2,360 GSF of commercial space, and 9 accessory parking spaces.

## With-Action Condition

In the With-Action scenario, the development site would be redeveloped with a 110,000 GSF mixed-use building comprising up to: 55 dwelling units, 4,700 GSF of commercial and/or community facility space (with a minimum of 690 GSF of community facility space), and 23 accessory parking spaces. The development would reach a maximum height of up to 283 feet, including the proposed bulkhead.

## Stationary Sources

### HVAC Screening Analysis

The proposed project consists of a building that would reach a maximum height of 283 feet including the proposed bulkhead. It is assumed that the HVAC stack will be located on the bulkhead of the proposed building. Consistent with *CEQR Technical Manual* guidelines, it is assumed that the stack would rise three feet above the proposed bulkhead, reaching a total height of approximately 286 feet above grade.

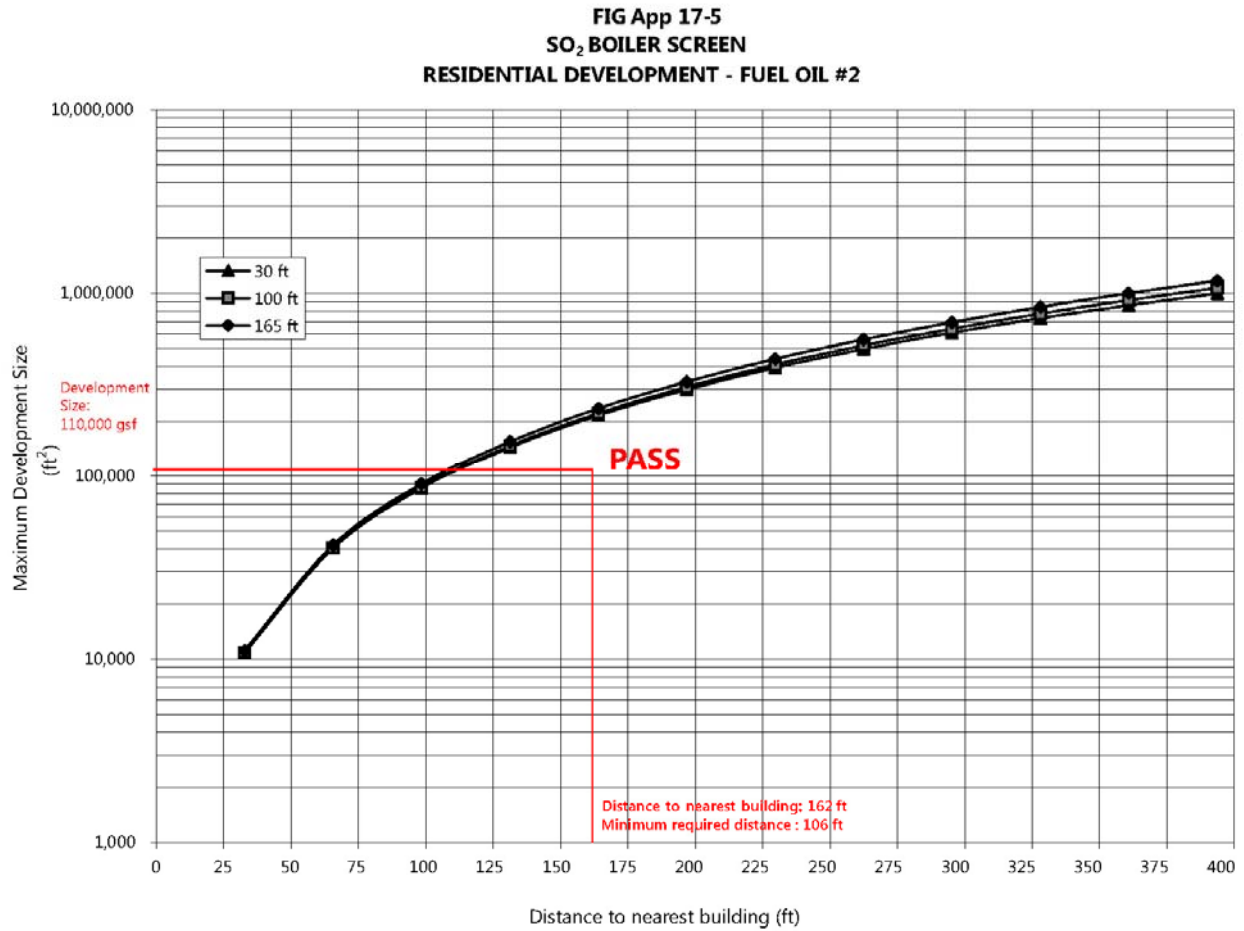
A survey of existing land uses within a 400-foot radius of the development site identified two potential sensitive receptor sites that have similar to or greater height than the proposed project: a commercial building located at 201 Park Avenue South, approximately 310 feet away from the development site; and the Zeckendorf Towers, a mixed-use building approximately 162 feet away from the development site at One Irving Place. Zeckendorf Towers consists of four separate towers each reaching a maximum height of 326 feet above grade. Sensitive receptors (i.e., operable windows or air intakes) at the Zeckendorf Towers are located at or below an approximate height of 278 feet above grade as shown in **Figure 1.0-6**, which is below the proposed project's stack height. However, for conservative purposes, the Zeckendorf Towers building is considered a potential receptor site.

An HVAC screening analysis was performed to assess the potential impact from emissions from the HVAC system at the development site, using the screening procedures described previously. Based upon the proposed project's height and square footage, the minimum screening distance necessary to avoid potential adverse air quality impacts was determined to be approximately 106 feet assuming No. 2 fuel oil is used for the HVAC systems<sup>3</sup> (see **Figure 2.6-2**). Therefore, regardless of fuel type, the screening distance requirement is met and there would be no

<sup>3</sup> This is a conservative assumption for the screening analysis since the proposed project would likely use a natural gas system.

significant adverse stationary source impacts related to the proposed project’s HVAC systems and no further analysis is necessary.

**Figure 2.6-2 No. 2 Oil HVAC Screening**



**Industrial Source Analysis**

To assess potential air quality impacts on the proposed project from existing industrial sources that would emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the development site was conducted. Land use maps were reviewed to identify surrounding land uses that could have New York City Department of Environmental Protection (NYCDEP) issued industrial permits (i.e., sites classified as Industrial/Manufacturing, Transportation/Utility, or Public Facilities/Institutions). **Table 2.6-3** shows the only existing land use that has potential air toxics concerns within a 400-foot radius of the development site. This site is classified as a Transportation/Utility use in MapPLUTO data; however, as noted in **Section 2.1, “Land Use, Zoning, and Public Policy,”** the site is a commercial office building.

To identify facilities listed in **Table 2.6-3**, a preliminary survey was conducted including online searches of NYCDEP’s Clean Air Tracking System (DEP CATS), New

York City's Open Accessible Space Information System Cooperative (OASIS) database, telephone directory listings, available aerial photos provided by Google and Bing, internet websites, etc. A total of 18 industrial permit records were identified from the DEP CATS online database.

A permit search request was sent to NYCDEP on May 12, 2017. Based on the information provided by NYCDEP, five permits (i.e., PB026407, PB026507, PB022615, PB027303 and PB036401) associated with engines/generators were identified for emergency use only with very limited operating hours (less than one hour per day). These generators are not "large" sources that require a State Facility permit or "major" sources that require a Title V permit. Additionally, based on Google aerial images, the distance between the emission exhaust point (i.e., stack) to the development site is approximately 475 feet, beyond the threshold of 400 feet within which a quantitative industrial source analysis is typically required. Therefore, it is unlikely the emissions from these emergency generators would have any significant adverse impact on the proposed project. The remaining 13 permits were canceled and no longer operating. Therefore, no significant adverse impact associated with air toxics emissions are expected and no further analysis is warranted.

**Table 2.6-3 Industrial Sources within 400 Feet of Development Site**

<b>Address</b>	<b>Land Use*</b>	<b>Owner Name</b>	<b>DEP CATS</b>
121 East 14th Street/ 4 Irving Place (Bl: 870, Lot: 24)	Transportation/ Utility	Consolidated Edison	PB026407, emergency generator
			PB026507, emergency generator
			PB022615, emergency generator
			PB027303, emergency generator
			PB036401, emergency generator
			PB044401, cancelled
			PB055701, cancelled
			PB056501, cancelled
			PB056801, cancelled
			PB057401, cancelled
			PB057901, cancelled
			PB058701, cancelled
			PB063001, cancelled
			PA004894, cancelled
			PA004994, cancelled
PB024512, cancelled			
PB038114, cancelled			
PB048114, cancelled			

\*As per MapPLUTO

Source: NYCDEP's Clean Air Tracking System (CATS). <https://a826-web01.nyc.gov/DEP.BoilerInformationExt/>

### **"Large" or "Major" Source Analysis**

To assess the potential impacts of any "large" or "major" sources on the development site, a review of existing permitted facilities was conducted. "Major"

sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. "Large" sources are identified as sources located at facilities that require a State Facility Permit. Sources of information reviewed include the NYSDEC Title V and State Facility Permit websites and available aerial photos provided by Google and Bing.<sup>4,5</sup>

Based on review of available information mentioned above, there are no existing "large" or "major" emission sources within a 1,000-foot radius of the development site. Therefore, no significant adverse impacts from existing "large" or "major" emission sources on the proposed project are anticipated, and no further analysis is warranted.

## **2.6-4 Conclusion**

Based on the findings of the detailed HVAC screening analysis, there would be no potential for significant adverse stationary source air quality impacts from the proposed project's HVAC systems, even assuming No. 2 fuel oil would be used. Additionally, no significant adverse impacts are expected from existing industrial sources within a 400-foot radius of the development site, and no "large" or "major" emission sources were identified in a 1,000-foot radius of the development site. Therefore, there would be no significant adverse air quality impacts as a result of the proposed action.

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<sup>4</sup> NYSDEC Title V- [http://www.dec.ny.gov/dardata/boss/afs/issued\\_atv.html](http://www.dec.ny.gov/dardata/boss/afs/issued_atv.html)

<sup>5</sup> State Permit- [http://www.dec.ny.gov/dardata/boss/afs/issued\\_asf.html](http://www.dec.ny.gov/dardata/boss/afs/issued_asf.html)



# 2.7

## Noise

The goal of this chapter is to determine whether the proposed project may increase noise exposure at existing sensitive receptors and whether new receptors would be introduced into an acceptable ambient noise environment.

### 2.7-1 Introduction

The proposed project would facilitate the development of a new mixed-use building comprising up to 55 dwelling units and up to 4,700 gsf of commercial and/or community facility space. As such, the proposed development would introduce new noise-sensitive receptors in the area. The purpose of the noise assessment under CEQR is to determine if:

1. the proposed development would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the development site, including residential, commercial, and institutional land uses; and
2. new noise receptors introduced at the development site would be in an acceptable ambient sound level environment.

Per the *2014 CEQR Technical Manual*, a noise analysis is appropriate if an action would generate mobile or stationary sources of noise or would be located in an area with high ambient noise levels. Mobile sources include vehicular traffic; stationary



sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

The following analysis includes:

- › background on metrics used to describe noise;
- › the methodology and criteria used to assess potential impacts;
- › results from a sound level monitoring program at the development site;
- › an evaluation of the ambient sound levels at new receptor locations; and
- › an assessment of the potential for the proposed development to significantly affect existing receptors due to the introduction of new mobile or stationary sources.

## Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

- › Level - Sound level is based on the amplitude of sound pressure fluctuations and is often equated to perceived loudness.
- › Frequency - Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz (Hz). Pure tones have energy concentrated in a narrow frequency range and can be more audible to humans than broadband sounds. Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels results in a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:
  - A 3 dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
  - A 10 dB increase is a tenfold increase in acoustic energy and is perceived as a doubling in loudness to the average person.

Audible sound is comprised of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 2.7-1** presents a list of common outdoor and indoor sound levels.

**Table 2.7-1: Common Indoor and Outdoor Sound Levels**

<b>Outdoor Sound Levels</b>	<b>Sound Pressure μPa</b>	<b>Sound Level dBA</b>	<b>Indoor Sound Levels</b>
	6,324,555	-	110 Rock Band at 5 m
Jet Over-Flight at 300 m	-	105	
	2,000,000	-	100 Inside New York Subway Train
Gas Lawn Mower at 1 m	-	95	
	632,456	-	90 Food Blender at 1 m
Diesel Truck at 15 m	-	85	
Noisy Urban Area—Daytime	200,000	-	80 Garbage Disposal at 1 m
	-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70 Vacuum Cleaner at 3 m
Suburban Commercial Area	-	65	Normal Speech at 1 m
	20,000	-	60
Quiet Urban Area—Daytime	-	55	Quiet Conversation at 1 m
	6,325	-	50 Dishwasher Next Room
Quiet Urban Area—Nighttime	-	45	
	2,000	-	40 Empty Theater or Library
Quiet Suburb—Nighttime	-	35	
	632	-	30 Quiet Bedroom at Night
Quiet Rural Area—Nighttime	-	25	Empty Concert Hall
Rustling Leaves	200	-	20
	-	15	Broadcast and Recording Studios
	63	-	10
	-	5	
Reference Pressure Level	20	-	0 Threshold of Hearing

μPA MicroPascals describe pressure. The pressure level is what sound level monitors measure.

dBA A-weighted decibels describe pressure logarithmically with respect to 20 μPa (the reference pressure level).

**Source:** Highway Noise Fundamentals, Federal Highway Administration, September 1980.

Because sound levels change over time, a variety of sound level metrics can be used to describe environmental noise. The following is a list of sound level descriptors that are used in the noise analysis:

- ›  $L_{10}$  is the sound level which is exceeded for 10 percent of the time during a given time period. Therefore, it represents the higher end of the range of sound levels. The unit is commonly used in the *2014 CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed development.
- ›  $L_{eq}$  is the energy-average A-weighted sound level. The  $L_{eq}$  is a single value that is equivalent in sound energy to the fluctuating levels over a period of time. Therefore, the  $L_{eq}$  considers how loud noise events are during the period, how long they last, and how many times they occur.  $L_{eq}$  is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *2014 CEQR Technical Manual*, the  $L_{eq}$  sound level is used to

assess the potential for significant increases in noise due to a proposed development at existing receptors in the study area.

## **Assessment Methodology**

This noise analysis considers two receptor types when evaluating noise for the proposed development. Since the proposed development would introduce a new residential and commercial building, this is considered a “new receptor.” Additionally, the analysis considers “existing receptors” which are the current noise-sensitive uses such as commercial and residential properties surrounding the development site. The following describes the results of the noise assessment for these two types of receptors.

### **2.7-2 Noise Assessment for Existing Receptors**

Noise impact at existing nearby sensitive receptors is assessed according to the relative increase between No-Action condition and With-Action condition sound levels. Noise impact is assessed according to the increase in the  $L_{eq}$  sound level in accordance with the *2014 CEQR Technical Manual*. If mobile or stationary sources associated with the proposed development would increase  $L_{eq}$  sound levels by 3 dB or more and absolute levels would exceed 65 dBA  $L_{eq}$ , the proposed development would cause a significant adverse impact prior to mitigation. Additionally, if No-Action condition noise levels are 60 dBA  $L_{eq}$  or less, a 5 dB increase would be considered a significant adverse noise impact.

#### **Mobile Sources**

Since the With-Action scenario would not generate sufficient vehicular traffic to exceed the threshold for a detailed transportation analysis according to Table 16-1 in the *2014 CEQR Technical Manual*, the proposed development would not result in a doubling of noise passenger car equivalents (PCEs), which would be necessary to cause a 3 dBA increase in noise levels. Therefore, the proposed development would not cause a significant adverse vehicular noise impact and the existing noise measurements results are representative of the With-Action conditions.

#### **Stationary Sources**

The proposed project is not anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, truck loading docks, loudspeaker systems, stationary diesel engines, car washes, or other similar types of uses. The design and specifications for the mechanical equipment, such as heating, ventilation, and air conditioning, are not known at this time. However, the selection of equipment that would incorporate sufficient noise reduction devices would comply with applicable noise regulations and standards (including the standards contained in the revised New York City Noise Control

Code), which would ensure that this equipment does not result in any significant increases in noise levels by itself or cumulatively with other project noise sources.

### 2.7-3 Noise Assessment for New Receptors

With-Action noise conditions at new sensitive receptors that would be introduced by the proposed development are evaluated according to absolute exterior level. The noise exposure guidelines for acceptable ambient conditions depend on the type of land use; for residential buildings, the goal is to maintain interior noise levels of 45 dBA or lower. With-Action exterior sound levels are evaluated to determine if receptors would be in an acceptable ambient sound level environment. It is generally assumed that without specific information on a building's window and wall construction, the outdoor-to-indoor noise reduction of the building is 25 decibels. Therefore, exterior ambient sound levels exceeding 70 dBA at residential receptors (which would equate to an interior noise level of 45 dBA) are considered to be Marginally Unacceptable and the need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels must be considered.

Since the proposed development would introduce a mixed-use development with commercial and residential components to the development site, the highest L<sub>10</sub> sound level is used to evaluate whether the proposed project would introduce new receptors into an acceptable noise environment. The analysis presents the results of the ambient noise monitoring and the assessment of whether new receptors would be in a high ambient noise environment.

#### Noise Exposure Guidelines

The *2014 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential and commercial receptors, as shown in **Table 2.7-2**.

**Table 2.7-2: Noise Exposure Guidelines for Use in City Environmental Impact Review**

Receptor Type	Time Period	Acceptable External Exposure	Marginally Acceptable External Exposure	Marginally Unacceptable External Exposure	Clearly Unacceptable External Exposure
Commercial or Office	All Times	L10 ≤ 65 dBA	65 ≤ L10 ≤ 70 dBA	70 ≤ L10 ≤ 80 dBA	L10 > 80 dBA
Residence	7 AM to 10 PM				
Residence	10 PM to 7 AM	L10 ≤ 55 dBA	55 ≤ L10 ≤ 70 dBA	70 ≤ L10 ≤ 80 dBA	L10 > 80 dBA

**Source:** Table 19-2, 2014 CEQR Technical Manual.

## Existing Sound Levels

Noise monitoring was conducted on Wednesday, May 3, 2017 to determine the existing sound levels near the project site. A noise monitor was set up at ground level on the sidewalk on East 16th Street between Union Square and Irving Place as shown in **Figure 2.7-1**. The microphone was located to have a direct line of sight to vehicles traveling on the East 16th Street. This measurement location is representative of ground-level receptors at the development site; the affected area is currently improved with a public parking garage that generates mobile noise sources (vehicular movements) that would not exist in the With-Action condition. To account for this proposed change in conditions, noise measurements were taken from the north side of East 16th Street, approximately 50 feet west of the public parking facility at 101 East 16th Street. Relative to the affected area, this noise measurement location is closer to Union Square East, where existing mobile noise sources are expected to be higher, thereby providing a conservative representation of With-Action noise conditions along the proposed project's northern façade.

The noise monitor was placed with a minimum of four feet between the microphone and nearby reflecting surfaces. With roadway activity dominating the overall noise environment, 25-minute noise measurements were conducted during the weekday morning peak period (8:00 – 9:00 AM), midday period (12:00 – 1:00 PM) and evening peak period (5:00 – 6:00 PM). Measurements were conducted using a Type I sound level meter at ground level and followed the procedures outlined in the *2014 CEQR Technical Manual*, which include documenting significant sources of sound and conducting spot counts of traffic by vehicle classification. **Table 2.7-3** summarizes the measurement results. The measured  $L_{eq}$  levels were approximately 66 dBA and the  $L_{10}$  levels ranged between 67 and 68 dBA.

**Table 2.7-3: Ambient Sound Levels Measured at Ground Level**

Monitoring Location	Time Period	Duration	$L_{eq}$	$L_{min}$	$L_{max}$	$L_1$	$L_{10}$	$L_{50}$	$L_{90}$
East 16th Street between Union Square and Irving Place	Morning	25 mins	66.3	60.5	83.9	74.9	67.4	64.3	62.5
	Midday	25 mins	65.6	60.6	79.1	73.2	67.9	63.8	62.0
	Evening	25 mins	65.7	61.6	81.6	72.2	67.7	64.2	62.7

**Source:** Measurements conducted by VHB on May 3, 2017.

**Figure 2.7-1 Noise Monitoring Location**



## Assessment

The *2014 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 2.7-2**. Based on these noise exposure guidelines, noise impact has been assessed to determine the level of acceptability for new sensitive receptors on all facades of the proposed building. **Table 2.7-4** summarizes the L<sub>10</sub> sound level results and whether sound levels are considered acceptable according to the *2014 CEQR Technical Manual*.

**Table 2.7-4: Sound Level Acceptability**

Project Façade	Time	Measured	Acceptability
		L <sub>10</sub> Sound Level	
All Facades	Morning	67.4	Marginally Acceptable
	Midday	67.9	Marginally Acceptable
	Evening	67.7	Marginally Acceptable

According to the noise exposure guidelines in the *2014 CEQR Technical Manual*, With-Action L<sub>10</sub> levels are considered Marginally Acceptable during all the time periods because they are less than 70 dBA. Based on the finding of Marginally Acceptable sound levels, it is not necessary to require specific window-wall sound attenuation to maintain acceptable interior noise levels.

### 2.7-4 Conclusion

A noise assessment was conducted to determine whether the proposed project would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the development site, and if new noise receptors that would be introduced by the proposed project would be in an acceptable ambient sound level environment.

As the proposed project does not exceed the detailed transportation analysis thresholds of Table 16-1 in the *2014 CEQR Technical Manual*, it would not result in a doubling of noise passenger car equivalents (PCEs), which would be necessary to cause a 3 dBA increase in noise levels. Therefore, the proposed project would not result in a significant adverse vehicular noise impact and the existing noise measurements results are representative of the With-Action vehicular noise conditions.

The proposed project is not anticipated to include any substantial stationary source noise generators. The design and specifications for the building's mechanical equipment are not known at this time. However, the selection of equipment that would incorporate sufficient noise reduction devices would comply with applicable noise regulations and standards (including the standards contained in the revised New York City Noise Control Code).

Noise monitoring was conducted on Wednesday, May 3, 2017 to determine the existing sound levels near the development site. A noise monitor was set up at

ground level on the sidewalk on East 16th Street. With roadway activity dominating the overall noise environment, 25-minute noise measurements were conducted during the weekday morning, midday and evening peak periods. The measured  $L_{eq}$  levels were approximately 66 dBA and the  $L_{10}$  levels ranged between 67 and 68 dBA. Since With-Action  $L_{10}$  levels are considered Marginally Acceptable sound levels, it is not necessary to require specific window-wall sound attenuation to maintain acceptable interior noise levels.





# 2.8

## Neighborhood Character

This section considers how the proposed action would affect neighborhood character, which is defined as the elements of the environment that combine to create the context and feeling of a neighborhood.

### 2.8-1 Introduction

As defined within the *CEQR Technical Manual*, neighborhood character is an amalgam of various elements that give neighborhoods a distinct “personality,” including land use, urban design and visual resources, historic resources, socioeconomic conditions, transportation, and noise.

The applicant proposes a series of land use actions to facilitate the development of a mixed-use residential tower with ground floor retail and/or community facility uses and accessory parking on the proposed development site. This section presents a preliminary assessment of neighborhood character, prepared in conformance with the guidelines set forth in the *CEQR Technical Manual*.

### Methodology

As described in the *CEQR Technical Manual*, an assessment of neighborhood character is generally appropriate when a proposed project has the potential to result in significant adverse impacts in one or more of the following technical areas:

land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. Per the *CEQR Technical Manual*, even if a project does not have the potential to result in a significant adverse impact in any specific technical area(s), additional analysis may be required based on the potential for a combination of “moderate effects” in more than one area.<sup>1</sup> As detailed in the previous sections of this EAS, the proposed project would not result in any significant adverse impacts in the above technical areas. Therefore, this assessment focuses on the potential for the proposed development to affect neighborhood character through a combination of effects on the contributing elements of neighborhood character that warranted detailed analysis (shadows, historic resources, urban design and visual resources, and noise).

## Study Areas

The study area for the neighborhood character analysis is consistent with the study areas in the relevant technical areas assessed under CEQR that contribute to the defining elements of the neighborhood.

## 2.8-2 Preliminary Assessment

**Table 2.8-1** below describes the proposed project’s potential for moderate effects by contributing technical area.

**Table 2.8-1: Potential for Moderate Effects by Contributing Technical Area**

<b>Contributing Technical Area</b>	<b>Potential for Moderate Effects</b>
Land Use, Zoning, and Public Policy	No potential for moderate effects. While the proposed project seeks waivers to accommodate the permissible FAR, the proposed development would not exceed the building height of taller buildings in the study area, including the Consolidated Edison Building, the Zeckendorf Towers, or the Germania Life Insurance Building. The proposed uses are permitted as-of-right in the existing zoning district and would be consistent with existing land uses in the vicinity.
Socioeconomics Open Space	No potential for moderate effects. None of the socioeconomic or open space screening criteria listed in Part II of the EAS form were exceeded.
Historic & Cultural Resources	No potential for moderate effects. The proposed project would involve restoration of the (former) Century Association Building, and would establish a continuing maintenance plan. Further, a construction protection plan would minimize the potential for construction-related impacts to this historic resource.
Urban Design & Visual Resources	No potential for moderate effects. The proposed development would be limited to one tax lot at a mid-block location and seeks waivers to accommodate the permissible FAR. The proposed development would be consistent with the existing urban design of the area and would not be developed in an existing visual corridor.

<sup>1</sup> A “moderate” effect is generally defined in the *CEQR Technical Manual* as an effect that is reasonably close to the significant adverse impact threshold for a particular technical analysis area.

Shadows	Potential for moderate effects. The proposed development would cast incremental shadow on Union Square Park, an open space resource with sunlight sensitive elements. The incremental shadow would be relatively short-lived (less than 2.5 hours on all CEQR analysis days), occur only in the early morning periods, and occur outside the park's peak usage times.
Transportation	No potential for moderate effects. None of the transportation screening criteria listed in Part II of the EAS form was exceeded.
Noise	No potential for moderate effects. Based on noise monitoring, the analysis found existing noise levels to be "marginally acceptable" and representative of the With-Action noise conditions.

As described in **Table 2.8-1** above, the proposed project would have a moderate effect solely in the technical area of shadows, as incremental shadow would be cast on a notable open space resource in the morning period. However, as detailed further in **Section 2.2, "Shadows"**, this incremental shadow would be relatively short-lived in the early morning periods, and occur well outside times of peak usage during the early morning.

Accordingly, the proposed project does not have the potential to result in a significant adverse neighborhood character impact due to a combination of moderate effects. Further, the proposed project would be consistent with the defining features of the neighborhood, which are as follows:

- › The area's mix of land uses, which consist of predominately commercial and residential uses within the Special Union Square District and which combine to form a lively, mixed-use area around Union Square. Retail and other commercial uses are particularly prominent along the east side of Union Square East;
- › The mix of building forms from different periods, including larger-scale mixed-use and commercial developments that exceed ten stories. Prominent examples of these larger buildings include the Consolidated Edison Building, which has a maximum height of 470 feet, and the Zeckendorf Towers, a 670-unit mixed-use development constructed in 1987 that occupies the full block to the south of the proposed project and that dominates views from Union Square to the east. The Irving Place Historic District is the sole historic district within 400 feet of the affected area, and this district is predominately comprised of older, multi-family walkup buildings less than six stories; and
- › Union Square Park, a significant open space resource that is also a National Historic Landmark noted for its significance in social history. This relatively large park contains active and passive recreational components and is to the west of the affected area and in the western portion of the land use study area. Active ground floor uses along the street frontages opposite Union Square Park such as commercial, community facility, and residential assist to activate the park;
- › The existing topography, which is relatively flat.

### **2.8-3 Conclusion**

The proposed project would develop a portion of the affected area by replacing an existing parking garage with a residential building with commercial and/or community facility space at the ground floor. The proposed uses would be consistent with the area's existing mix of uses, which are predominantly residential and commercial. The proposed building's height would not exceed the building height of taller buildings in the study area, including the Consolidated Edison Building, the Zeckendorf Towers, or the Germania Life Insurance Building. The proposed development is limited to one tax lot and has been designed with input from LPC such that the building complements and is consistent with the design aesthetic of the neighborhood and adjacent landmark structure. The proposed project would also restore the (former) Century Building and establish a continuing maintenance plan for this historic resource. Further, the sole technical area where there would be moderate effects is shadows, and therefore the proposed project does not have the potential to result in a significant adverse impact due to a combination of moderate effects.

As the proposed project would not significantly alter the existing land use, shadows, urban design and visual resources, historic resources, socioeconomic conditions, transportation, or noise character of the surroundings, no significant adverse neighborhood character impacts would result.



# 2.9

## Construction

Construction activities, although temporary in nature, can sometimes result in significant adverse impacts. A project's construction activities may affect a number of technical areas analyzed for the operational period, such as air quality, noise, and traffic; therefore, a construction assessment relies to a significant extent on the methodologies and resulting information gathered in the analyses of these technical areas.

### 2.9-1 Construction Impact Screening

As noted in the EAS Form, construction of the proposed project involves several conditions that may warrant the need for further assessment (see EAS Form question 19). Specifically, construction would last longer than two years, would require the closing and/or narrowing of a traffic, transit, or pedestrian element, and would involve activities within 400 feet of a historic resource. Therefore, this screening was undertaken to assess the project's potential to result in significant adverse impacts during the construction period.

Construction activities related to the proposed project would last approximately 29 months and would be limited to construction of the new building on the development site and to implementing a restoration and continuing maintenance

program at the landmarked (former) Century Association Building. Construction of the proposed building at 110 East 16th Street would entail approximately three months of demolition of the existing public parking garage, four months of site preparation work and foundation installation, and five months of vertical construction and building enclosure. Construction would be most intensive during this approximately 12-month period, and substantially less during the approximately 17 additional months required to complete interior construction and fit-out of the proposed building. During the period of interior construction, there would be reduced noise or air quality construction effects as work will substantially be within building, where the attenuating effects of the building's façade, as well as the minimal need for heavy machinery on site, will significantly reduce the potential for construction-related effects on the surrounding area; accordingly, there would be no significant adverse construction impacts due to the duration of construction at 110 East 16th Street.

Restoration to the (former) Century Association Building may occur at any time before the proposed development at 110 East 16th Street is issued a Temporary Certificate of Occupancy. The restoration work will be targeted in scope and require significantly less time and heavy construction machinery than the development at 110 East 16th Street, and therefore no significant adverse construction impacts would occur as a part of the proposed restoration of the (former) Century Association Building.

The standard measures that would be employed by the DOB and DOT's OCMC would ensure that no significant adverse impacts related to construction activities would occur, and no further analysis is required. These standards include oversight from the following agencies:

- › The New York City Department of Buildings (DOB) has primary oversight of construction. DOB oversees compliance with the New York City Building Code to ensure that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both workers and the general public during construction. Areas of oversight include installation and operation of equipment such as cranes and lifts, sidewalk sheds, safety netting, hours of construction, and scaffolding.
- › The New York City Department of Environmental Protection (DEP) enforces the New York City Noise Code, reviews and approves any needed Remedial Action Plans (RAPs) and associated Construction Health and Safety Plans (CHASPs) as well as the removal of fuel tanks and abatement of hazardous materials. DEP also regulates water disposal into the sewer system and reviews and approves any rerouting of wastewater flow.
- › The New York City Fire Department (FDNY) has primary oversight of compliance with the New York City Fire Code.
- › The New York City Department of Transportation Office of Construction Mitigation and Coordination (DOT OCMC) reviews and approves any sidewalk closures.

- › The New York City Landmarks Preservation Commission (LPC) approves studies to prevent damage to architectural resources.
- › The New York State Department of Environmental Conservation (NYSDEC) regulates disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. NYSDEC also regulates discharge of water into rivers and streams.
- › The New York State Department of Labor (DOL) licenses asbestos workers.
- › The U.S. Environmental Protection Agency (EPA) has wide-ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons, however, much of its responsibility is delegated to the state level.
- › The Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

In addition, New York City regulates the hours of construction work through the New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007. Construction is limited to weekdays between the hours of 7:00 AM and 6:00 PM, and noise limits are set for certain specific pieces of construction equipment. The City may permit work outside of these hours to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. The DOB issues these work permits, and in some instances, approval of a noise mitigation plan from the DEP under the City's Noise Code is also required.

The proposed project would comply with the requirements of the New York City Noise Control Code. All travel lanes would remain open during construction. In the event closure of any portion of sidewalk element(s) is needed, such temporary closures would be fully addressed through coordination with DOT OCMC. The development site is not located along an arterial or major thoroughfare and as such, no significant adverse impacts from any sidewalk closures are expected.

The proposed project would also implement a Construction Protection Plan (CPP) that will minimize the potential for construction-related impacts to the existing LPC-designated (former) Century Association Building in the affected area.

As such, detailed construction analysis is not warranted, and the proposed project would not result in a significant adverse construction impact.

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## Appendix 2.1 – Historic Resources



## ENVIRONMENTAL REVIEW

**Project number:** DEPARTMENT OF CITY PLANNING / LA-CEQR-M  
**Project:** 110 EAST 16 STREET  
**Date received:** 5/3/2017

---

**Properties with no Architectural or Archaeological significance:**

- 1) ADDRESS: 112 EAST 16 STREET, BBL: 1008710074
- 2) ADDRESS: 115 EAST 15 STREET, BBL: 1008710012

**Properties with Architectural significance:**

- 1) ADDRESS: 111 EAST 15 STREET, BBL: 1008710010, LPC FINDINGS: DESIGNATED NYC LANDMARK EXTERIOR; PERMIT FROM THE LPC PRESERVATION DEPARTMENT REQUIRED, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE FOR NATIONAL REGISTER LIST

**Properties with no Archaeological significance:**

- 1) ADDRESS: 111 EAST 15 STREET, BBL: 1008710010

The project site is directly adjacent to the LPC designated and S/NR eligible Century Association Building at 111 E. 15 St. A construction protection plan (CPP) is required for this property as per the CEQR Technical Manual: 2014. The CPP should be submitted to LPC for review and approval prior to construction.

A shadow analysis is also required as per the CEQR Technical Manual: 2014.

In the study area: The Union Square Savings Bank, LPC designated and S/NR eligible; the Con Ed Headquarters, LPC and S/NR listed, the E. 17 St. Historic District, LPC designated and S/NR eligible, The Stuyvesant Square HD, LPC and S/NR listed, The Gramercy Arts High School, S/NR listed, and Tammany Hall, LPC designated and S/NR eligible.



5/9/2017

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SIGNATURE  
Gina Santucci, Environmental Review Coordinator

DATE

**File Name:** 32373\_FSO\_DNP\_05082017.doc

## ENVIRONMENTAL REVIEW

**Project number:** DEPARTMENT OF CITY PLANNING / 77DCP435M  
**Project:** 110 EAST 16 STREET  
**Date received:** 6/15/2017

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**Comments:** The LPC is in receipt of the draft EAS dated 6/15/17. The text appears acceptable for historic and cultural resources, however, the final LPC permits issued under the LPC landmarks law shall be attached to the final EAS.

*Gina Santucci*

6/30/2017

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SIGNATURE  
Gina Santucci, Environmental Review Coordinator

DATE

**File Name:** 32373\_FSO\_GS\_06302017.doc

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## Appendix 2.2 – Architectural Drawings

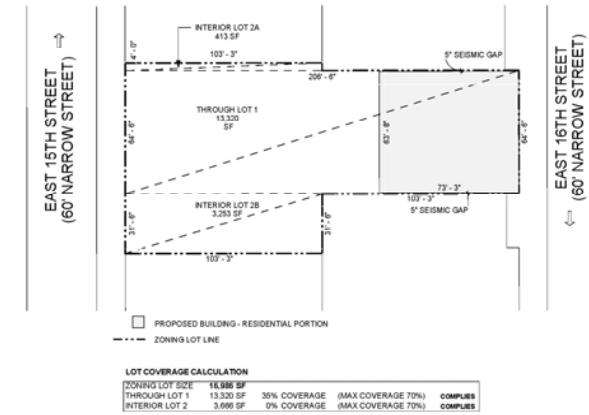
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Figure A2.2-1: Site Data and Zoning Analysis

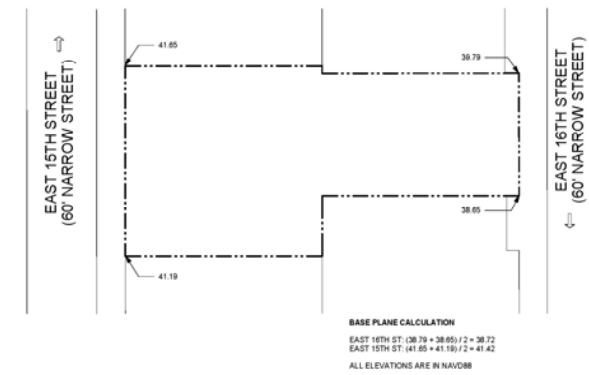
SITE DATA	
BOROUGH	MANHATTAN
BLOCK	871
LOTS	74, 10, 12
ADDRESS	110 EAST 15TH STREET
ZONING MAP	12C
ZONING DISTRICT	C9-2A (RSA EQUIVALENT)
SPECIAL DISTRICT	NONE
ZONING LOT AREA	LOT 74: 8,860 SF (BUILDING A) LOT 10: 3,163 SF (BUILDING B) LOT 12: 3,163 SF (BUILDING C) TOTAL: 15,186 SF
LANDMARKS	NO LANDMARK DISTRICT YES INDIVIDUAL LANDMARK (BUILDING B)
E-DESIGNATION	NONE
COMMUNITY BOARD	5 MANHATTAN

TABLE B BUILDING ZONING FLOOR AREA SCHEDULE								
BUILDING	EXISTING FLOOR AREA			PROPOSED ZONING FLOOR AREA				BUILDING SUB TOTAL
	AREA BY USE			AREA BY USE				
	RESIDENTIAL	COMMERCIAL	PARKING	RESIDENTIAL	COMMERCIAL	COMMUNITY FACILITY	PARKING	
A	0 SF	0 SF	50,174 SF (4)	76,822 SF	2,310 SF (5)	690 SF (5)	0 SF (6)	79,822 SF (7)
B (1)	14,027 SF (2)	0 SF	0 SF	14,027 SF	0 SF	0 SF	0 SF	14,027 SF (8)
C	0 SF	16,560 SF (3)	0 SF	0 SF	16,560 SF	0 SF	0 SF	16,560 SF (8)
TOTAL	0 SF	30,587 SF	50,174 SF	76,822 SF	32,877 SF	690 SF	0 SF	110,409 SF

- (1) LANDMARK BUILDING
- (2) TOTAL BUILDING AREA CALCULATED USING SURVEY BY LOVELL DATED 09/25/2015
- (3) TOTAL BUILDING AREA CALCULATED USING SURVEY BY LOVELL DATED 05/24/2017
- (4) EXISTING PARKING GARAGE BUILDING AREA TO BE DEMOLISHED
- (5) SUBJECT TO CHANGE PROVIDED THAT NO LESS THAN 690 SF IS ALLOCATED TO COMMUNITY FACILITY
- (6) PARKING TO BE ACCESSORY TO UGZ, UNDERGROUND WITH THE OVERGROUND PORTIONS BELOW 23 FT FROM CURB; THIS IS EXCLUDED FROM ZFA
- (7) NEW CONSTRUCTION ZFA ASSUMES 3% MECHANICAL DEDUCTION TO GFA
- (8) EXISTING TO REMAIN



1 LOT COVERAGE DIAGRAM - RESIDENTIAL  
1" = 30'-0"

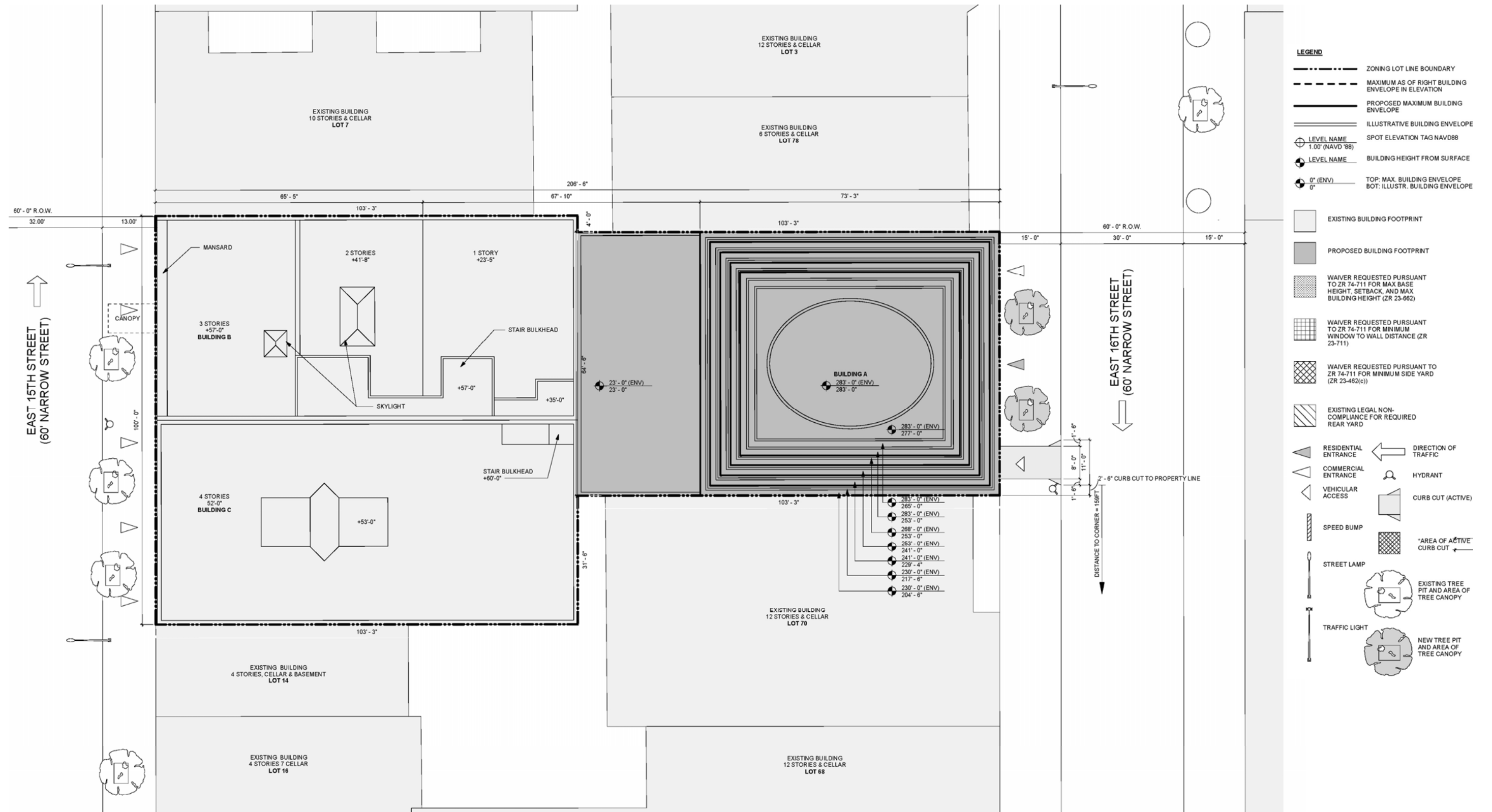


2 BASE PLANE DIAGRAM  
1" = 30'-0"

ZONING CHART		REQUIRED / PERMITTED			COMPLIANCE			COMMENTS
ZONING SECTION	ITEM / DESCRIPTION	EXISTING TO REMAIN	PROPOSED NEW	TOTAL	COMPLIANCE	COMPLIANCE	COMPLIANCE	NOTES
<b>USE</b>								
22-10, 33-10	USE GROUPS		1 THROUGH 12		6 & 9	2, 3, 4, 6 & 10	2, 3, 4, 6 & 10	COMPLIES
<b>BULK</b>								
23-01(a)	QUALITY HOUSING PROGRAM							SEE ANALYSIS THAT FOLLOWS
NEW BUILDINGS SHALL COMPLY WITH BULK REGULATIONS FOR QUALITY HOUSING BUILDINGS IN ARTICLE 2 CHAPTER 3 AND THE REQUIREMENTS OF ARTICLE 2 CHAPTER 8								
23-153	MAXIMUM FAR							
33-122	RESIDENTIAL	6.50	-	6.50		4.50	4.50	COMPLIES
23-21	COMMERCIAL	6.50	1.80	8.30		2.14	2.14	COMPLIES
	COMMUNITY FACILITY	6.50	-	6.50		0.04	0.04	COMPLIES
23-153	MAXIMUM FLOOR AREA							
	RESIDENTIAL	102,256 SF		76,822 SF		76,822 SF	76,822 SF	COMPLIES
	COMMERCIAL	101,316 SF		2,310 SF		32,897 SF	32,897 SF	COMPLIES
	COMMUNITY FACILITY	110,409 SF	30,587 SF	690 SF		690 SF	690 SF	COMPLIES
23-153	MAXIMUM LOT COVERAGE							
	LOT AREA							
	THROUGH LOT 1	13,330 SF		13,330 SF		13,330 SF	13,330 SF	COMPLIES
	INTERIOR LOT 2	3,866 SF		3,866 SF		3,866 SF	3,866 SF	COMPLIES
	TOTAL	16,996 SF		16,996 SF		16,996 SF	16,996 SF	COMPLIES
	NEW LOT COVERAGE							
	THROUGH LOT 1	70%	0%	39%		39%	39%	COMPLIES
	INTERIOR LOT 2	8324 SF	0 SF	4,662 SF		4,662 SF	4,662 SF	COMPLIES
	INTERIOR LOT 2	2,566 SF	0 SF	0 SF		0 SF	0 SF	COMPLIES
23-32	MINIMUM LOT AREA OR LOT WIDTH FOR RESIDENCES							
	MIN. LOT AREA	1,700 SF		16,996 SF		16,996 SF	16,996 SF	COMPLIES
	MIN. LOT WIDTH	18 FT		64.5 FT		64.5 FT	64.5 FT	COMPLIES
23-533	REQUIRED REAR YARD EQUIVALENT THROUGH LOT							
23-53	AN OPEN AREA WITH A MINIMUM DEPTH OF 80 FT, MIDWAY (OR WITHIN 10 FT OF MIDWAY) BETWEEN THE TWO STREET LINES UPON WHICH SUCH THROUGH LOTS SHALL BE PROVIDED				0 FT	30 FT	30 FT	EXISTING LEGAL NON COMPLIANCE NEW BUILDING COMPLIES
					AT BUILDINGS B & C	AT BUILDING A		
23-44	PERMITTED OBSTRUCTIONS IN REQUIRED YARDS OR REAR YARD EQUIVALENTS							
33-23	PERMITTED OBSTRUCTIONS INCLUDE: 33-23 (a)(3) ANY BUILDING OR PORTION OF A BUILDING USED FOR ANY PERMITTED USE OTHER THAN RESIDENCES. PROVIDED THAT THE HEIGHT DOES NOT EXCEED 23 FEET ABOVE CURB LEVEL. 33-23 (b)(5) PARKING SPACES FOR AUTOMOBILES OR BICYCLES, OFF-STREET, ACCESSORY, PROVIDED THAT THE HEIGHT OF THE BUILDING HEIGHT IN THAT PORTION DOES NOT EXCEED 23 FEET ABOVE CURB LEVEL.				PORTIONS OF BUILDINGS B & C ABOVE 23 FT	PORTIONS OF BUILDING A BELOW 23 FT		EXISTING LEGAL NON COMPLIANCE NEW BUILDING COMPLIES
23-452 (a)	SIDE YARDS							
33-52	NONE REQUIRED, IF PROVIDED, 8 MINIMUM ALONG ENTIRE SIDE LOT LINE					2'-6" TO 7'-6" PROVIDED	2'-6" TO 7'-6" PROVIDED	DOES NOT COMPLY WAIVER REQUESTED PER 16-711
23-891 (a) (2)	STREET WALL LOCATION							
33-891	FOR QUALITY HOUSING BUILDINGS IN DISTRICT 5B, ALONG A NARROW STREET THE STREET BEYOND 50 FT OF THEIR INTERSECTION WITH A WIDE STREET, AT LEAST 70 PERCENT OF THE STREET WALL SHALL BE LOCATED WITHIN 15 FEET OF THE STREET LINE.				EXISTING STREET WALLS FOR BUILDINGS B & C ARE LOCATED ALONG THE STREET LINE	PROPOSED BUILDING A STREET WALL IS LOCATED ALONG THE STREET LINE		COMPLIES
23-652 (a)	MAXIMUM HEIGHT OF BUILDINGS AND SETBACK REGULATIONS, BUILDING HEIGHTS							
33-652	AS PER TABLE, FOR CONTEXTUAL DISTRICT 5B:							
	THE MINIMUM BASE HEIGHT IS 40 FT				52 FT	230 FT		EXISTING LEGAL NON COMPLIANCE NEW BUILDING COMPLIES
	THE MAXIMUM BASE HEIGHT IS 65 FT				57 FT			DOES NOT COMPLY WAIVER REQUESTED PER 16-711
	THE MAXIMUM BUILDING HEIGHT IS 120 FT				57 FT	266 FT		DOES NOT COMPLY WAIVER REQUESTED PER 16-711
23-652 (b)	SETBACK REQUIREMENTS							
33-652	FOR ALL QUALITY HOUSING BUILDINGS, AT A HEIGHT NOT LOWER THAN THE MINIMUM BASE HEIGHT OR HIGHER THAN THE MAXIMUM BASE HEIGHT, A SETBACK OF AT LEAST 15 FT SHALL BE PROVIDED FROM ANY STREET				N/A	NO SETBACK PROVIDED AT MAXIMUM BASE HEIGHT		DOES NOT COMPLY WAIVER REQUESTED PER 16-711
23-711	STANDARD MINIMUM DISTANCE BETWEEN BUILDINGS							
	THE REQUIRED MINIMUM DISTANCE BETWEEN A PORTION OF A BUILDING CONTAINING RESIDENCES AND ANY OTHER BUILDING ON THE SAME LOT SHALL NOT BE LESS THAN THE VALUES IN THIS SECTION FOR A BUILDING HEIGHT MORE THAN 50 FT							
	WALL TO WALL = 40 FT				-	N/A		
	WALL TO WINDOW = 50 FT				-	30 FT BUILDING A TO C		DOES NOT COMPLY WAIVER REQUESTED PER 16-711
	WINDOW TO WINDOW = 80 FT				-	N/A		
<b>SPECIAL URBAN DESIGN GUIDELINES</b>								
23-03	STREET TREE PLANTING							
23-41	ONE STREET TREE, PRE-EXISTING OR NEWLY PLANTED, SHALL BE PROVIDED FOR EVERY 25 FEET OF STREET FRONTAGE OF THE ZONING LOT							
33-02								
33-02b	15TH STREET FRONTAGE = 3 TREES REQUIRED				0	2	2	COMPLIES - PAYMENT FOR 1 TREE EQUIVALENT
	84'-6" STREET FRONTAGE = 3 TREES REQUIRED							
	15TH STREET FRONTAGE = 4 TREES REQUIRED				3	0	3	COMPLIES - PAYMENT FOR 1 TREE EQUIVALENT
	100'-0" STREET FRONTAGE = 4 TREES REQUIRED							
23-82	REQUIRED OFF-STREET LOADING BERTHS							
33-82	NO ACCESSORY OFF-STREET LOADING BERTHS SHALL BE PROVIDED FOR RETAIL USES FOR THE FIRST 8,000 SF OF SERVICE USE				N/A	2,310 SF RETAIL < 8,000 SF - NO LOADING BERTHS	0	COMPLIES
<b>OFF-STREET PARKING REQUIREMENTS</b>								
13-10	PERMITTED OFF-STREET PARKING IN THE MANHATTAN CORE							
13-11	NO PARKING REQUIREMENTS WITHIN THE MANHATTAN CORE							
	FOR COMMUNITY DISTRICT 5 ACCESSORY OFF-STREET PARKING SPACES MAY BE PROVIDED FOR NOT MORE THAN 20% OF TOTAL NUMBER OF DWELLING UNITS OR 200 SPACES, WHICHEVER IS LESS							
	40-55 DWELLING UNITS x 20% = 8-11 PARKING SPACES PERMITTED				N/A	23 PARKING SPACES	23	DOES NOT COMPLY WAIVER REQUESTED PER 13-431
13-23 (b)	FLOOR AREA							
	FLOOR SPACE USED FOR OFF-STREET PARKING SPACES IN AN AUTOMATED PARKING FACILITY UP TO A HEIGHT OF 40 FT ABOVE CURB LEVEL SHALL BE EXEMPT FROM THE DEFINITION OF FLOOR AREA					AUTOMATED OFF-STREET PARKING LOADING AREA LOCATED ON FIRST FLOOR		COMPLIES
13-241	LOCATION OF CURB CUTS							
	CURB CUTS SHALL NOT BE PERMITTED WITHIN 50 FT OF AN INTERSECTION OF ANY TWO STREET LINES					N/A CURB CUT MORE THAN 50 FT FROM AN INTERSECTION		COMPLIES
	SHALL NOT BE LOCATED WITHIN 2.5 FT FROM ANY SIDE LOT LINE					N/A LOCATED AT 2.5 FT FROM SIDE LOT LINE		COMPLIES
	FOR ACCESSORY OFF-STREET PARKING FACILITIES, SHALL NOT BE LOCATED ON A WIDE STREET					N/A LOCATED ON A NARROW STREET		COMPLIES
13-242	MAXIMUM WIDTH OF CURB CUTS							
33-332	A CURB CUT IN A COMMERCIAL DISTRICT FOR RESIDENTIAL ACCESSORY PARKING SHALL BE LIMITED TO A MAXIMUM WIDTH OF 12 FT					CURB CUT WIDTH PROPOSED = 11 FT INCLUDING SPLAYS		COMPLIES

Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-2: Site Plan



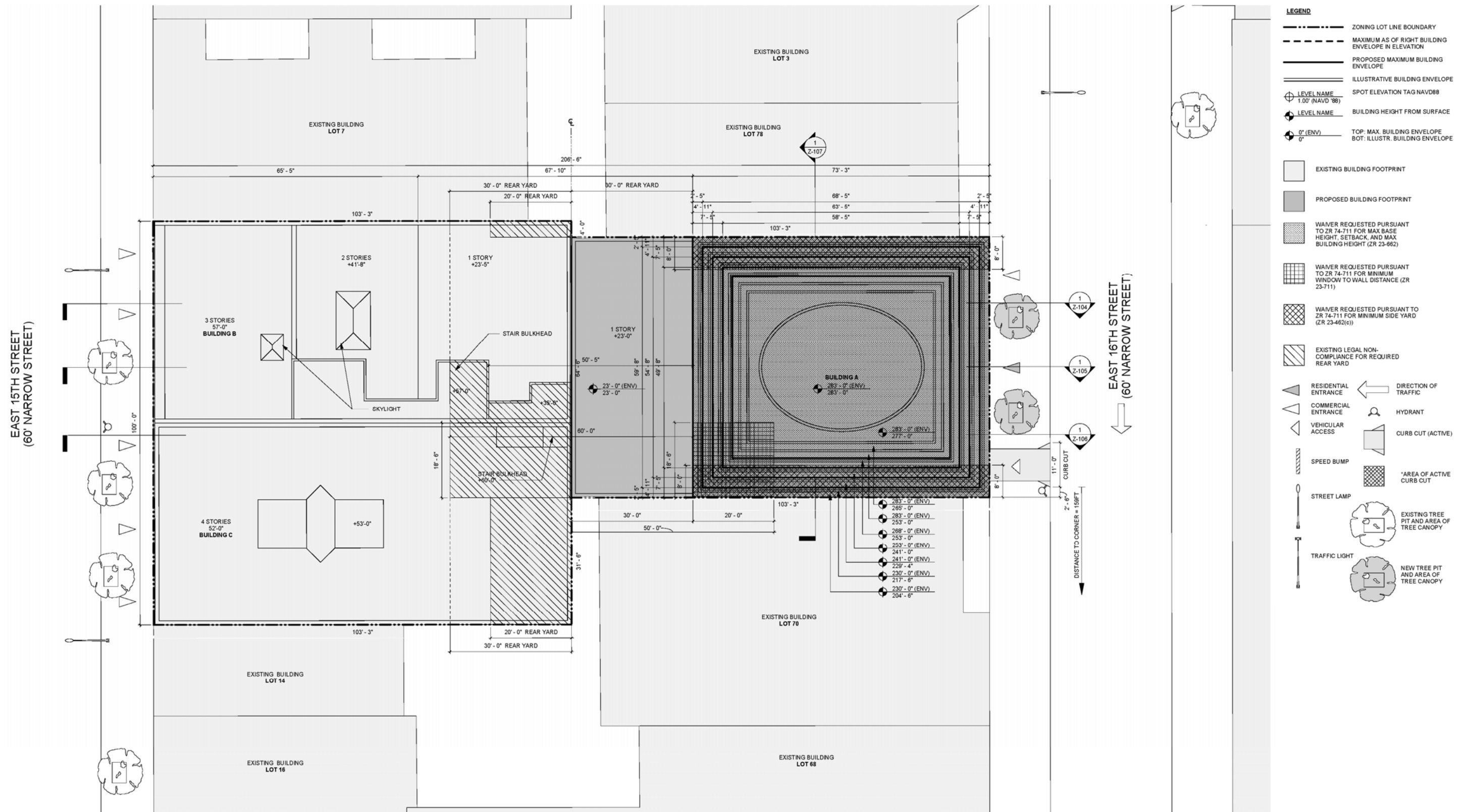
Note: Drawing not to specified scale  
 Source: Morris Adjmi Architects

Figure A2.2-3: Ground Floor Plan



Note: Drawing not to specified scale  
 Source: Morris Adjmi Architects

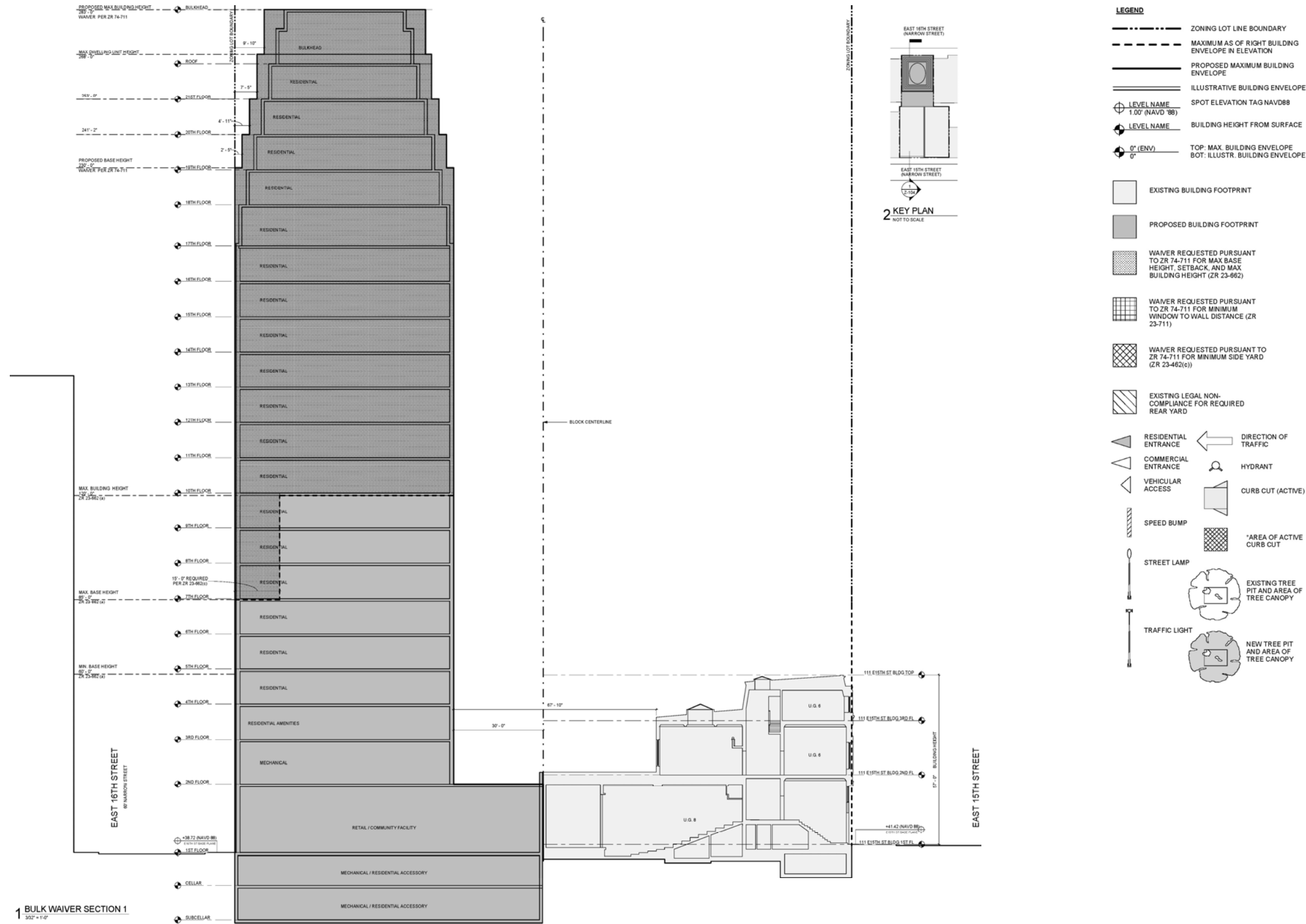
Figure A2.2-4: Bulk Waiver Plan



Note: Drawing not to specified scale  
 Source: Morris Adjmi Architects

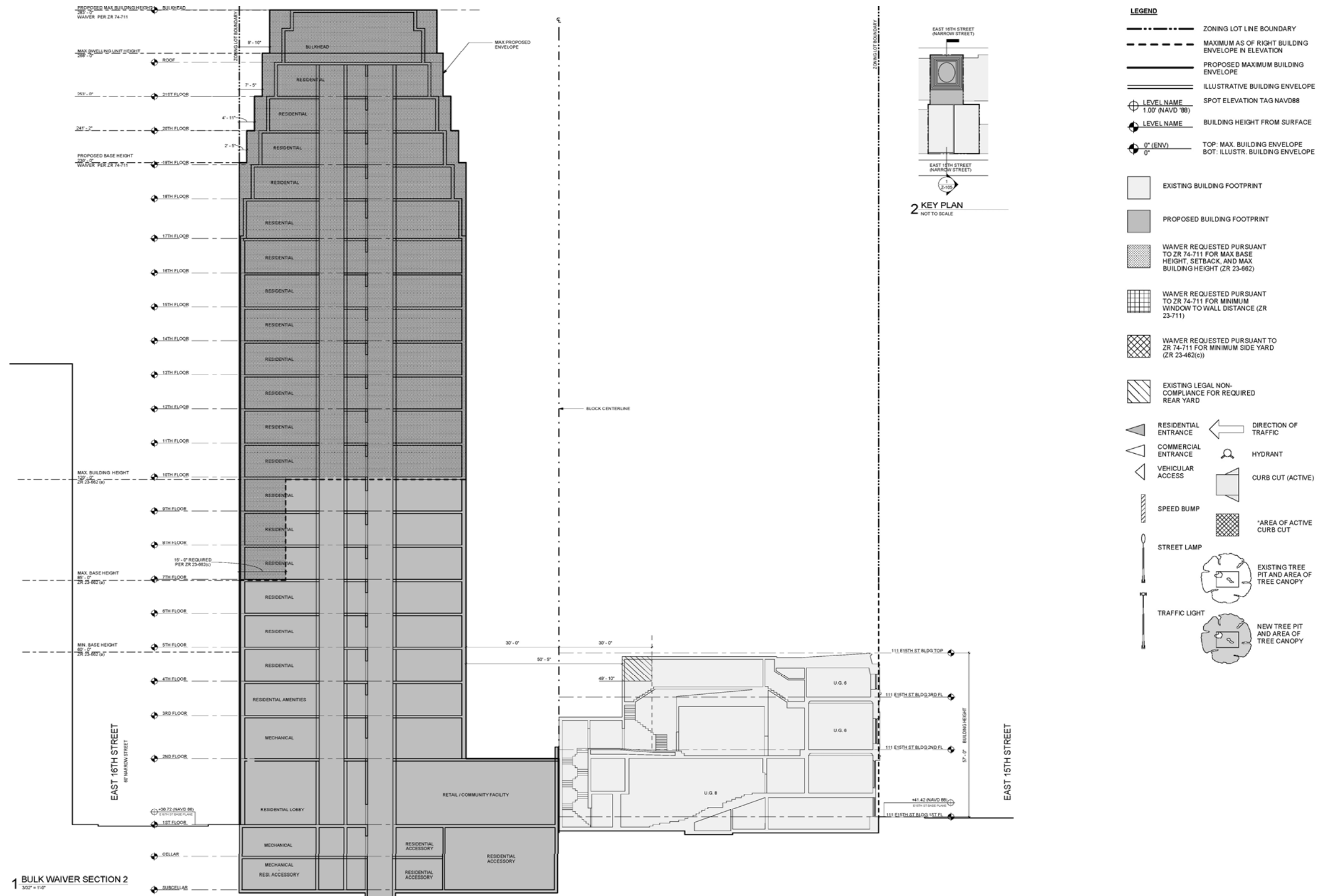


Figure A2.2-5: Bulk Waiver Sectional Drawing 1



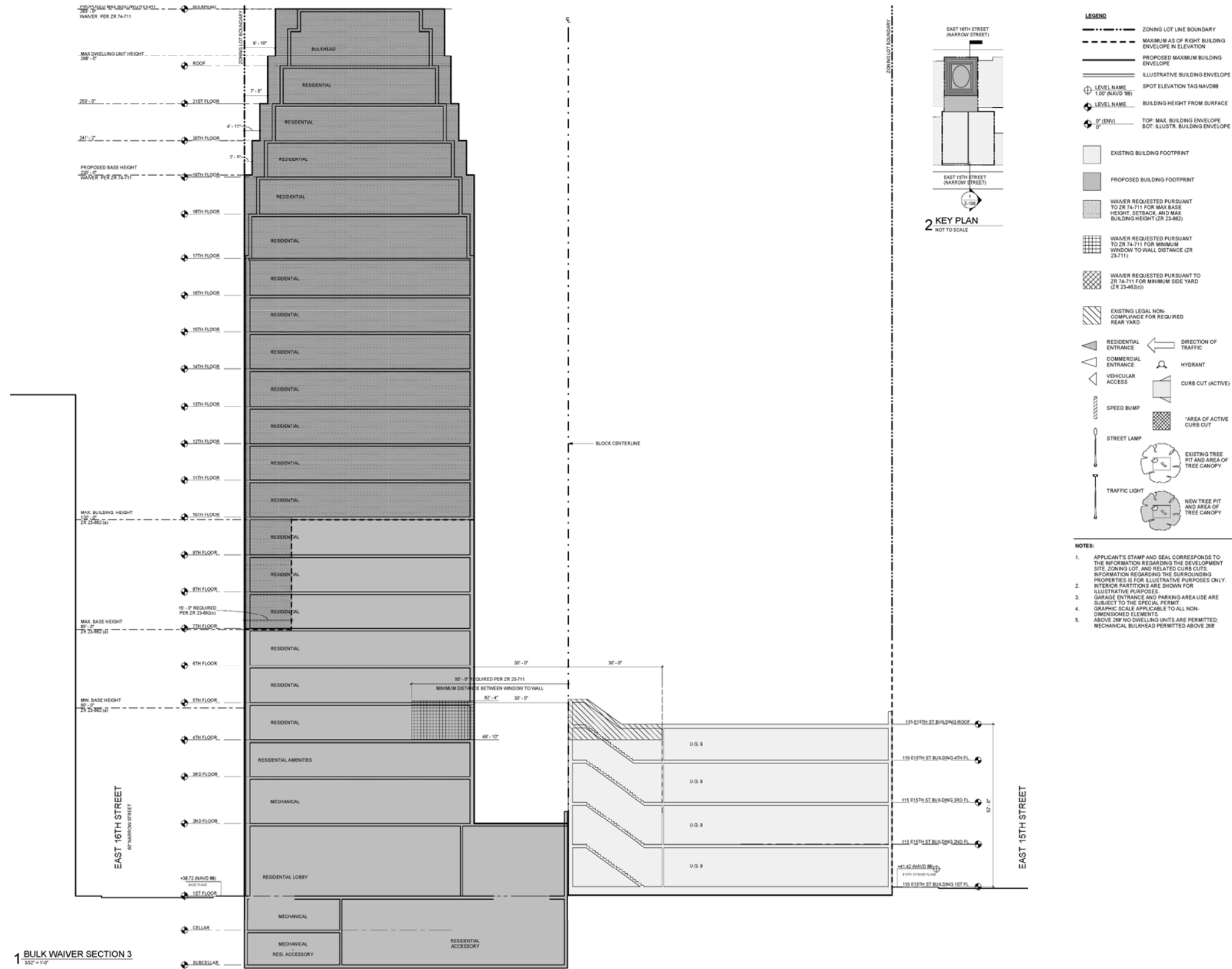
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-6: Bulk Waiver Sectional Drawing 2



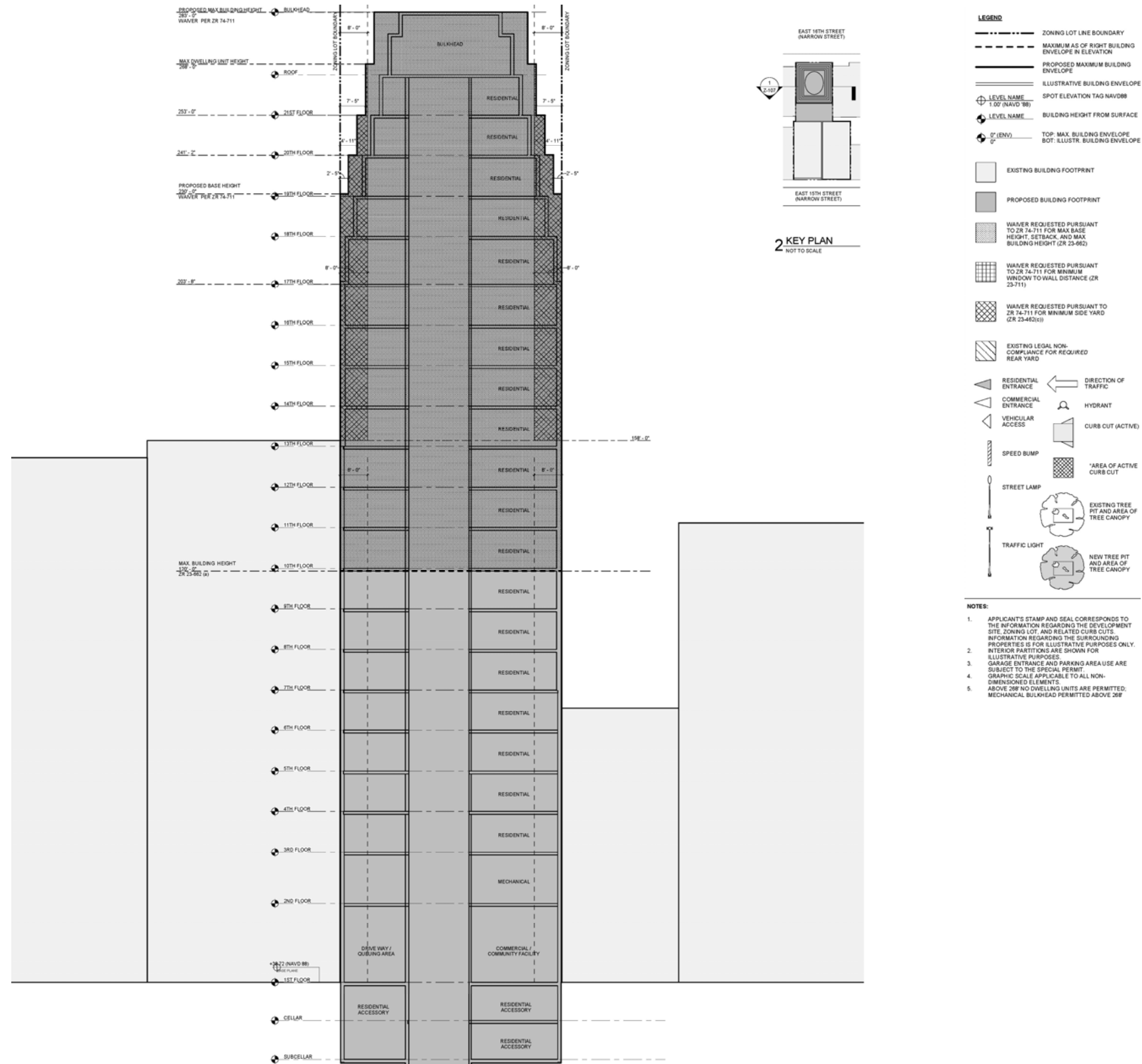
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-7: Bulk Waiver Sectional Drawing 3



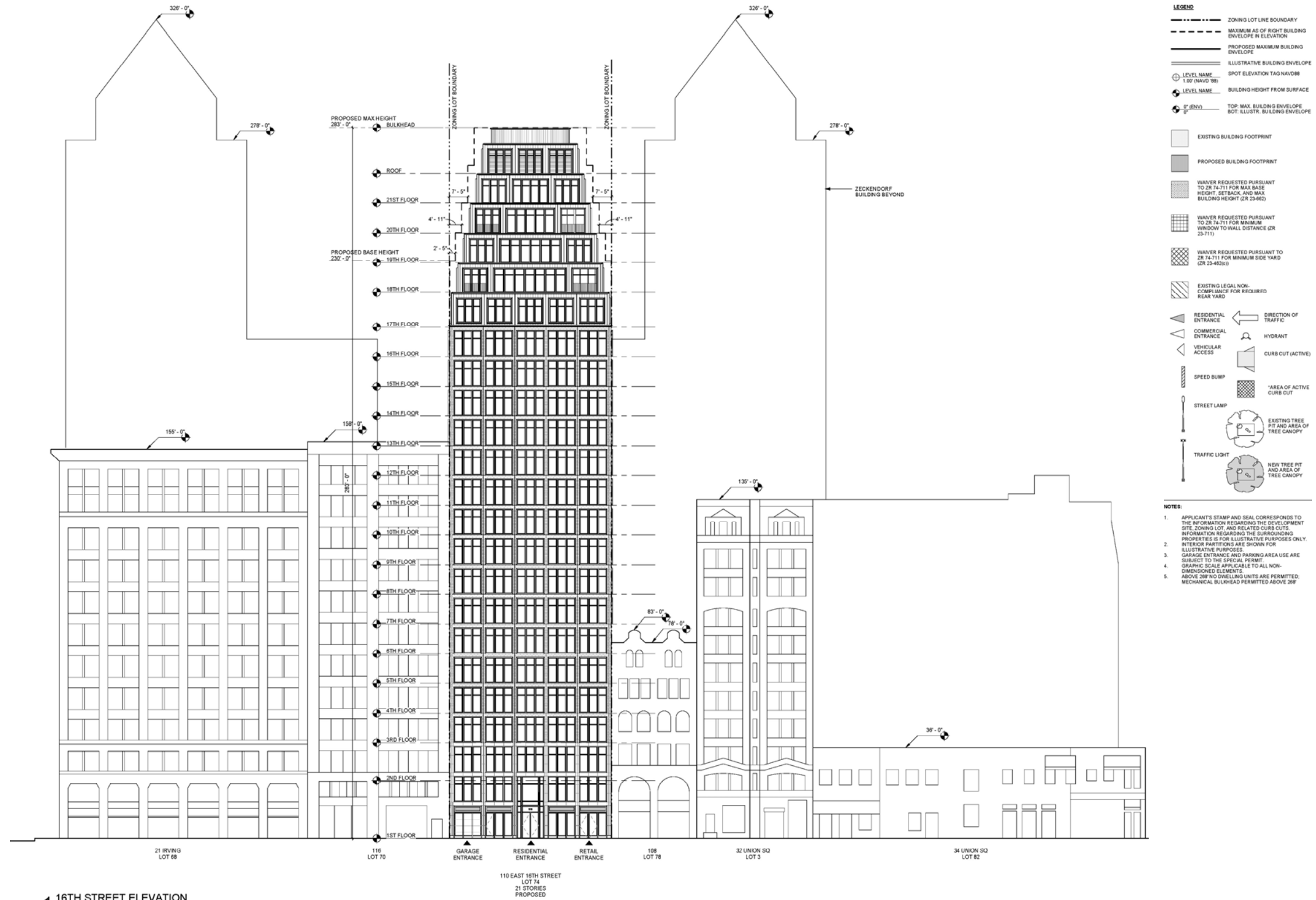
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-8: Bulk Waiver Transverse Sectional Drawing



Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

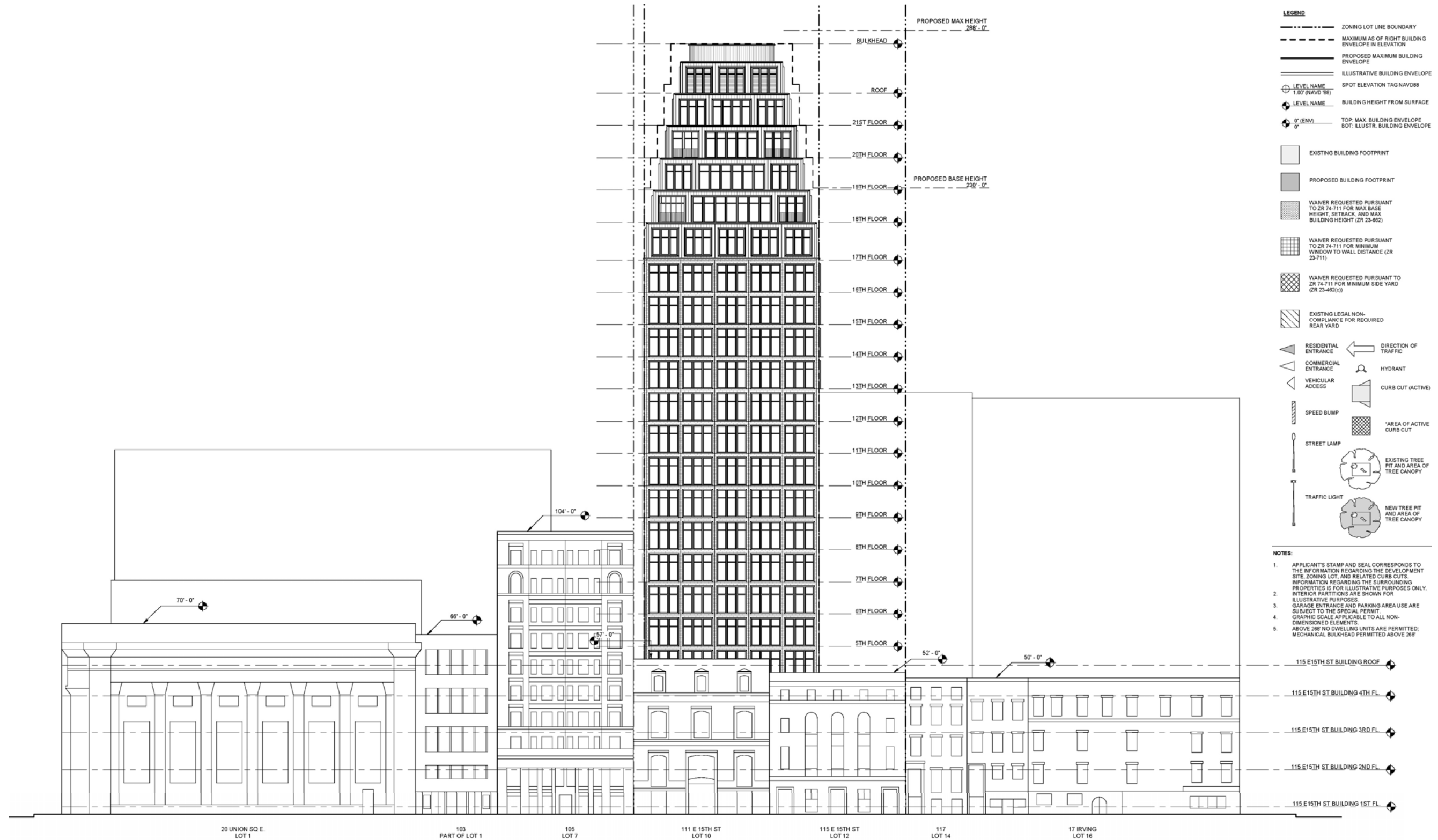
Figure A2.2-9: East 16th Street Elevation



1 16TH STREET ELEVATION  
1/16" = 1'-0"

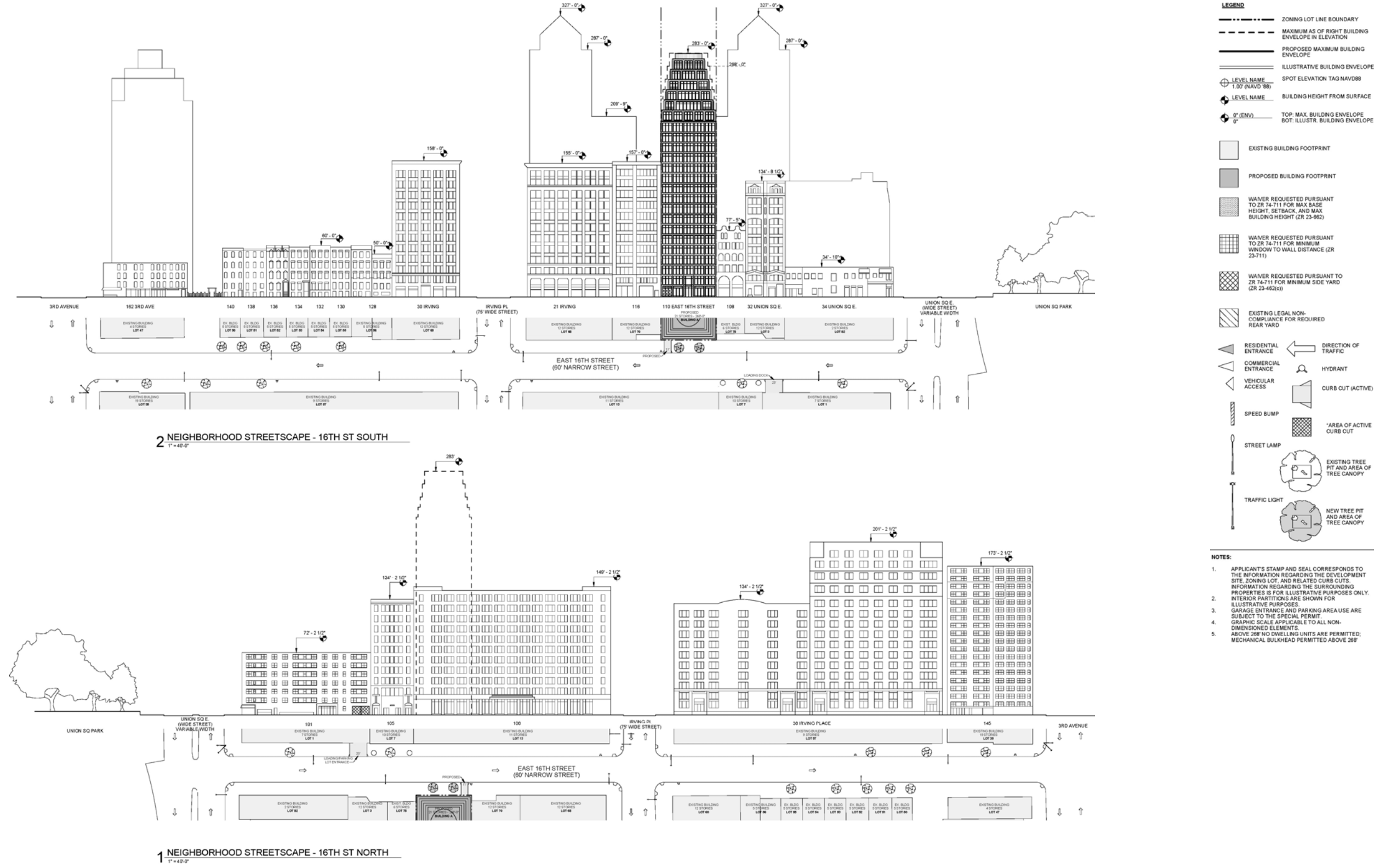
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-10: East 15th Street Elevation



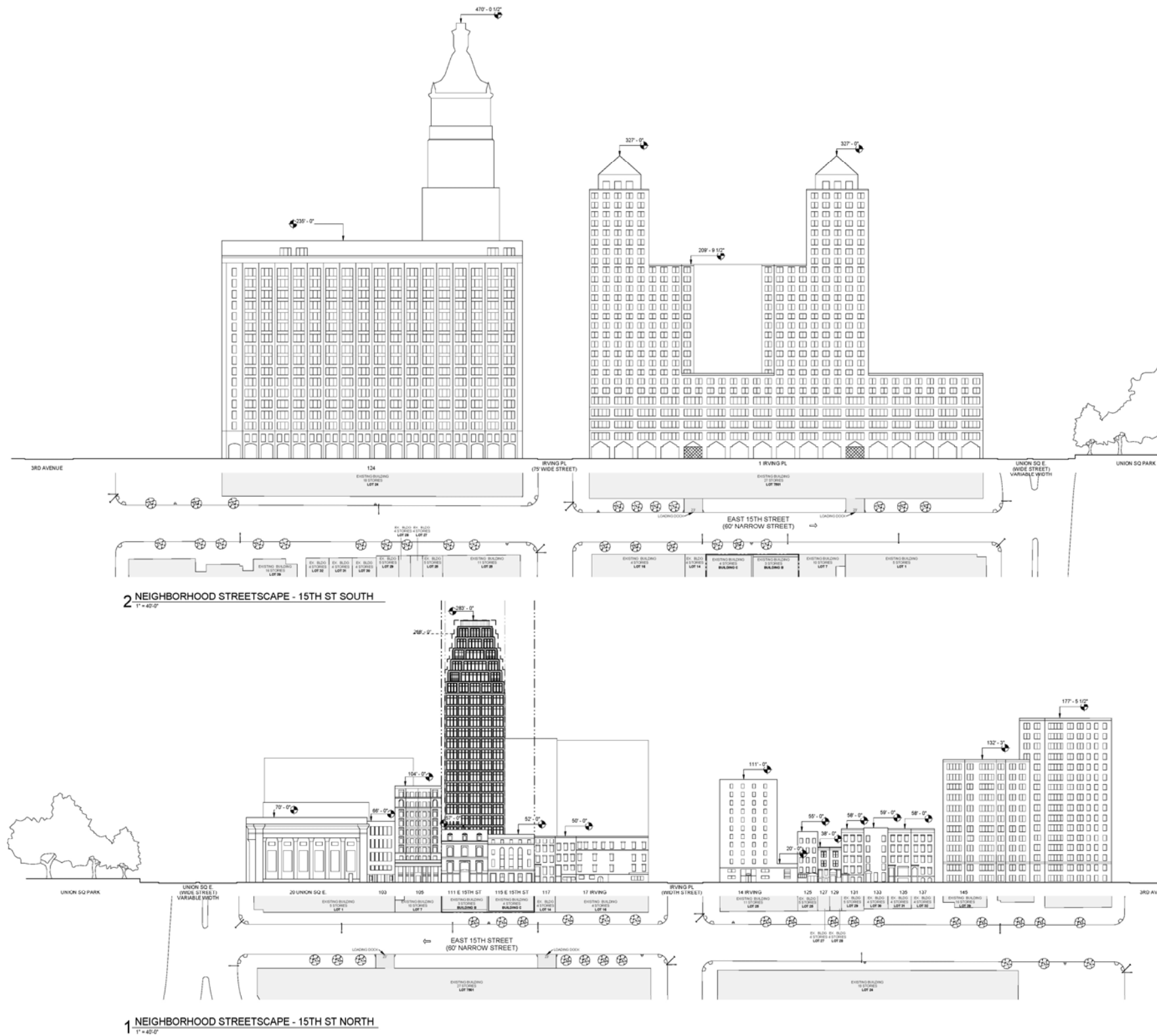
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-11: East 16th Street Neighborhood Character Diagrams



Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

Figure A2.2-12: East 15th Street Neighborhood Character Diagrams



- LEGEND**
- ZONING LOT LINE BOUNDARY
  - - - - MAXIMUM AS OF RIGHT BUILDING ENVELOPE IN ELEVATION
  - PROPOSED MAXIMUM BUILDING ENVELOPE
  - ILLUSTRATIVE BUILDING ENVELOPE
  - ⊕ LEVEL NAME 1.00' (NAVD '88) SPOT ELEVATION TAG NAVD88
  - ⊕ LEVEL NAME BUILDING HEIGHT FROM SURFACE
  - ⊕ (ENV) TOP: MAX. BUILDING ENVELOPE BOT: ILLUSTR. BUILDING ENVELOPE

- EXISTING BUILDING FOOTPRINT
- PROPOSED BUILDING FOOTPRINT
- ▨ WAIVER REQUESTED PURSUANT TO ZR 74-711 FOR MAX. BASE HEIGHT, SETBACK, AND MAX. BUILDING HEIGHT (ZR 23-662)
- ▩ WAIVER REQUESTED PURSUANT TO ZR 74-711 FOR MINIMUM WINDOW TO WALL DISTANCE (ZR 23-711)
- ▩ WAIVER REQUESTED PURSUANT TO ZR 74-711 FOR MINIMUM SIDE YARD (ZR 23-462(c))
- ▨ EXISTING LEGAL NON-COMPLIANCE FOR REQUIRED REAR YARD
- ◀ RESIDENTIAL ENTRANCE
- ◀ COMMERCIAL ENTRANCE
- ◀ VEHICULAR ACCESS
- ▬ SPEED BUMP
- ⊕ STREET LAMP
- ⊕ TRAFFIC LIGHT
- DIRECTION OF TRAFFIC
- ⊕ HYDRANT
- ▬ CURB CUT (ACTIVE)
- ▩ AREA OF ACTIVE CURB CUT
- ⊕ EXISTING TREE PIT AND AREA OF TREE CANOPY
- ⊕ NEW TREE PIT AND AREA OF TREE CANOPY

- NOTES:**
1. APPLICANT'S STAMP AND SEAL CORRESPONDS TO THE INFORMATION REGARDING THE DEVELOPMENT SITE, ZONING LOT, AND RELATED CURB CUTS. INFORMATION REGARDING THE SURROUNDING PROPERTIES IS FOR ILLUSTRATIVE PURPOSES ONLY.
  2. INTERIOR PARTITIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES.
  3. GARAGE ENTRANCE AND PARKING AREA USE ARE SUBJECT TO THE SPECIAL PERMIT.
  4. GRAPHIC SCALE APPLICABLE TO ALL NON-DIMENSIONED ELEMENTS.
  5. ABOVE 208' NO DWELLING UNITS ARE PERMITTED. MECHANICAL BULKHEAD PERMITTED ABOVE 208'

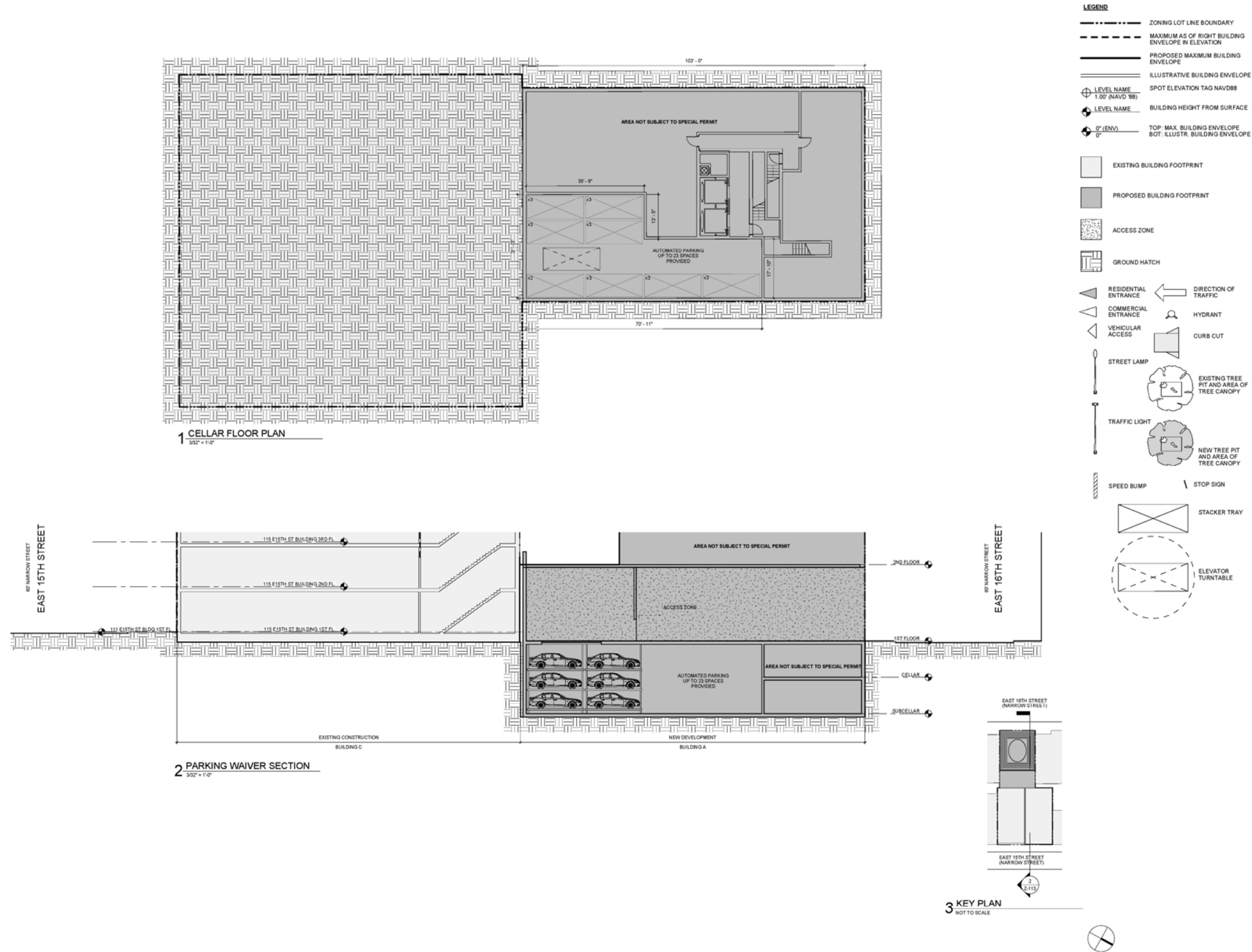
Note: Drawing not to specified scale  
Source: Morris Adjmi Architects







Figure A2.2-14: Cellar Parking Waiver Plan



Note: Drawing not to specified scale  
Source: Morris Adjmi Architects

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## Appendix 2.3 - Shadows

# Tier A2.3-1 Shadow Analysis Map



- Development Site
- Affected Area
- Shadow Study Area
- H# Historic Resources
- O# Open Space Resource

**Table A2.3-1: Historic and Open Space Resources in Shadow Study Area**

<b>Map ID</b>	<b>Resource Name</b>	<b>Potential Resource Summary</b>	<b>Sunlight-Sensitive Elements</b>
<b>Open Space Resources</b>			
O1/ H3	Union Square Park	Approximately 6.5-acre park that serves home for community events and festivals	Passive recreation spaces, vegetation
O2	Stuyvesant Square	Approximately 4-acre park that was formerly the farm of Peter Stuyvesant and his wife Helen Rutherford	Passive recreation spaces, vegetation
O3	Park Avenue Greenstreets	Landscaped median along Park Avenue South north of 17th Street	Vegetation
O4	Broadway Pedestrian Refuge	Pedestrian refuge at the intersection of Broadway and East 19th Street	None
O5	Broadway Pedestrian Plaza	Pedestrian improvements in the bed of Broadway between 17th Street and 18th Street	Passive recreation spaces
O6	Gramercy Park	Private open space closed to public	Passive recreation spaces, vegetation
<b>Historic Resources</b>			
H1	(Former) Century Association Building	Four-story LPC-designated landmark building located within the affected area	None
H2	Union Square Savings Banks	Four-story LPC-designated landmark building located on the same block as the proposed development	None
H3/ O1	Union Square Park	Park designated as a National Historic Landmark	Passive recreation spaces
H4	14th Street - Union Square Subway Station	Underground subway station	None
H5	Irving Place Historic District	LPC-designated Historic District	None
H6	Tammany Hall	LPC-designed landmark, currently undergoing improvements to convert into a mixed-use building	None
H7	Germania Life Insurance Building	20-story former office building that has been converted to a hotel use	None
H8	Consolidated Edison Company Building	18-story office building	None
H9	Guardian Life Insurance Company of America Annex	A four-story office building	None
H10	Ladies Mile Historic District	LPC-designated (and S/NR-eligible) historic district known for the fashionable shops and stores that existing in the 19th century	None
H11	The Everett Building	16-story commercial structure designed with uniquely American architectural expression	None

<b>Map ID</b>	<b>Resource Name</b>	<b>Potential Resource Summary</b>	<b>Sunlight-Sensitive Elements</b>
H12	Stuyvesant Square Historic District	LPC and S/NR-listed historic district comprised of almost 50 row houses, a church, seminary, and several apartment and commercial buildings	St. George's Church (stained glass)
H13	The Century Building	7-story Queen Anne-style commercial building	None
H14	(Former) Scheffel Hall	Four-story LPC-designated landmark designed in German Renaissance Revival Style	None
H15	The Lincoln Building	LPC-designated and S/NR-listed 9-story Romanesque Revival commercial building	None
H16	The Union Building	11-story LPC-designated and S/NR-listed structure	None
H17	The Bank of Metropolis	16-story LPC-designated and S/NR-listed structure	None
H18	Van Tassell & Kearney Auction Mart	3-story LPC-designated and S/NR-listed structure erected for staging horse auctions	None
H19	Gramercy Park Historic District	LPC-designated and S/NR-listed historic district centered around Gramercy Park, a private open space	None
H20	National Arts Club	LPC-designated set of two Victorian Gothic townhouses	None
H21	Baumann Brothers Furniture and Carpets Store	LPC-designated 5-story commercial building	None
H22	The Players	LPC-designated and S/NR-listed remodeled Gothic Revival townhouse	None
H23	Police Athletic League Building	LPC-designated former girls school	None
H24	United States Post Office - Cooper Station	S/NR-listed post office	None
H25	Grace Church and Dependencies	LPC-designated, S/NR-listed, and National Heritage Listed Gothic Revival church compound	Stained glass
H26	Friends Meeting House	LPC-designated two-story example of Anglo-Italianate architecture	None
H27	Webster Hall and Annex	LPC-designated 4-story assembly hall designed in Queen Anne style	None
H28	Theodore Roosevelt House	LPC-designated and S/NR-listed Gothic Revival style rowhouse that is the birthplace of former US president Theodore Roosevelt	None
H29	Gorham Building	LPC-designated Queen Anne style 8-story building	None

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## Appendix 2.4 – Hazardous Materials



July 12, 2017

Robert Dobruskin  
Director, Environmental Assessment and Review Division  
New York City Department of City Planning  
120 Broadway 31st Floor  
New York, New York 10271

Vincent Sapienza, P.E.  
Acting Commissioner

**Re: 110 East 16<sup>th</sup> Street  
Block 871, Lots 10, 12 & 74  
CEQR # 77DCP435M**

Angela Licata  
Deputy Commissioner of  
Sustainability

59-17 Junction Blvd.  
Flushing, NY 11373

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Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the June 2017 Environmental Assessment Statement prepared by Vanasse Hangen Brustlin, Inc., and the January 2015 Phase I Environmental Site Assessment (Phase I), prepared by Hillmann Consulting on behalf of East 16<sup>th</sup> Street Owner LLC., (applicant) for the above referenced project. It is our understanding that the applicant is seeking Special Permits from the New York City Department of City Planning (DCP), pursuant to Zoning Resolution sections 74-711 and 13-451 to:

1. Modify the applicable height, setback and yard requirements, as well as the minimum required distance between buildings.
2. Facilitate the development of accessory parking spaces beyond the number of permitted spaces.
3. Establish a program for the restoration and continuing maintenance of a landmark, the former Century Association Building, located on Lot 10.

As currently proposed, the Special Permits would facilitate the development of Lot 74 (development site), with a 22-story, 110,000 gross square feet (gsf) building, containing 55 dwelling units, up to 4,700 gsf of commercial and/or commercial facility space, with a minimum of 690 gsf of community facility space, and up to 23 accessory parking spaces. The development site is currently improved with a 9-story parking facility and is located between Union Square East and Irving Place in the Union Square neighborhood of Manhattan Community District 5. It should be noted that while Lots 10 and 74 are currently one zoning lot, in the With-Action scenario, the applicant would also undertake an as-of-right zoning lot merger with Lot 12.

The January 2015 Phase I report revealed that historical on-site and surrounding area land uses consists of commercial uses, including a parking garage, TGI Fridays Restaurant, Brother Jimmy's BBQ restaurant, Italian Wine Merchants, Babies R Us, Locksmith NYC, Dalee Manufacturing Company Lamp Shades, Seltzer Disc Manufacturing Company, a printing facility, educational institutions, New York City Human Resources Administration, residential buildings, as well as several commercial office buildings. Regulatory databases such as the New



York State Department of Environmental Conservation (NYSDEC) Leaking Storage Tanks (LTANKS), Resource Conservation and Recovery Act Generators, and Petroleum Bulk Storage (PBS) Underground Storage Tanks (USTs) and PBS Aboveground Storage Tanks (ASTs) identified several sites in close proximity to the project site. The LTANKS database reported 151 LTANKS within a 1/2-mile radius of the project site. It should be noted that one adjoining property to the southeast of the project site, reported one in-service 4,000-gallon AST. Based on the age of the buildings that currently occupies the project site, asbestos containing materials and lead based paint could be present in the structures.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

- DCP should inform the applicant that based on the historical on-site and surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils of the subject parcels. A Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be submitted to DEP for review and approval. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil boring locations and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, Target Analyte List metals (filtered and unfiltered for groundwater samples) and soil vapor samples by EPA Method TO-15. The soil vapor sampling should be conducted in accordance with NYSDOH's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. An Investigative Health and Safety Plan (HASP) should also be submitted to DEP for review and approval.
- DCP should also instruct the applicant that the Phase II Work Plan and HASP should be submitted to DEP for review and approval prior to the start of any fieldwork.

Future correspondence related to this project should include the following CEQR number **77DCP435M**. If you have any questions, you may contact Ms. Cassandra Scantlebury at (718) 595-6756.

Sincerely,



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Acting Deputy Director, Hazardous Materials

cc: R. Weissbard; T. Estes; C. Scantlebury; M. Wimbish; S. Nourieli (DCP);  
O. Abinader (DCP)