# Haven Green Environmental Assessment Statement CEQR No. 18HPD105M



Image courtesy of Curtis + Ginsberg Architects, LLP.

**Prepared For:** Pennrose, LLC.

Lead Agency:

New York City Department of Housing and Preservation

**Prepared By:** Philip Habib & Associates

**November 9, 2018** 

# Haven Green Environmental Assessment Statement

# CEQR No. 18HPD105M

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# ENVIRONMENTAL ASSESSMENT STATEMENT FULL FORM



TAX BLOCK(S) AND LOT(S) Block 493, Lot 30

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

		l out and submit	t to the appropriate agency ( <u>s</u>	<u>ee instructions</u> )	
Part I: GENERAL INFORMATI	ON				
PROJECT NAME Haven Gree	n EAS				
1. Reference Numbers					
CEQR REFERENCE NUMBER (to be a	assigned by lead age	ency)	BSA REFERENCE NUMBER (if appli	cable)	
18HPD105M					
ULURP REFERENCE NUMBER (if app	olicable)		OTHER REFERENCE NUMBER(S) (if	applicable)	
			(e.g., legislative intro, CAPA)		
2a. Lead Agency Information	7		2b. Applicant Information		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department o	f Housing Presei	rvation and	Pennrose, LLC		
Development (HPD)					
NAME OF LEAD AGENCY CONTACT	PERSON		NAME OF APPLICANT'S REPRESEN		PERSON
Callista Nazaire			Dylan J. Salmons, Senior De		
ADDRESS 100 Gold Street, 7A		1	ADDRESS 1301 Avenue of the		
CITY New York	STATE NY	ZIP 10038	CITY New York	STATE NY	ZIP 10019
TELEPHONE (212) 863-5953	EMAIL nazairec	@hpd.nyc.gov	TELEPHONE (267) 386-8643	EMAIL	
				dsalmons@pen	nrose.com
3. Action Classification and	Гуре				
SEQRA Classification					
<del></del>			NYC Executive Order 91 of 1977, as a	mended): 6 NYCRR	617.4 (b)(9)
Action Type (refer to Chapter 2,					
LOCALIZED ACTION, SITE SPEC	IFIC	LOCALIZED ACTION	N, SMALL AREA GEN	IERIC ACTION	
4. Project Description					
The Project Sponsors, a joint	venture of Penr	nrose, LLC, RiseE	Boro Community Partnership,	and Habitat for H	lumanity NYC,
are seeking construction fina	ncing and the a	pproval of sever	al discretionary actions (colle	ctively, the "Prop	osed
Actions") to facilitate the dev	elopment of an	approximately !	92,761 gross square foot (gsf)	mixed-use build	ing containing
affordable, senior housing as	well as local ref	tail and commur	nity facility uses in the Nolita	neighborhood of	Manhattan,
Community District (CD) 2 (th	ne "Developmer	nt Site"). The Pro	posed Actions include seekin	g construction fir	nancing from
the New York City Departme	nt of Housing Pr	eservation and	Development (HPD) and seve	ral discretionary	actions,
			AA) designation, Urban Devel		
(UDAAP) approval, and the d	•	•	, •	'	,
(,,		,	-7-		
The through-block Developm	ent Site Tocate	d on the block b	ounded by Elizabeth Street to	the east Mott S	treet to the
			rth, is an unimproved, City-ov		
			ture garden with some public		, ,
			rithin the Special Little Italy Di		-
•					•
	itown and Little	italy Historic Dis	strict, which is listed on the St	ate and National	Registers of
Historic Places.					
		. 611		10 1	
•			redeveloped with the Propo	•	
		_	the mechanical bulkhead), ap	•	_
	•		e, senior housing (124 units to	_	
	•		oor local retail, and approxima		•
			ccessible open space. The Pro	posed Developm	ent is
expected to be completed ar	nd operational b	y 2021.			
Project Location					
BOROUGH Manhattan	COMMUNITY DIS	STRICT(S) 02	STREET ADDRESS 199-207 Eliza	abeth St. / 222-23	80 Mott St.

ZIP CODE 10012

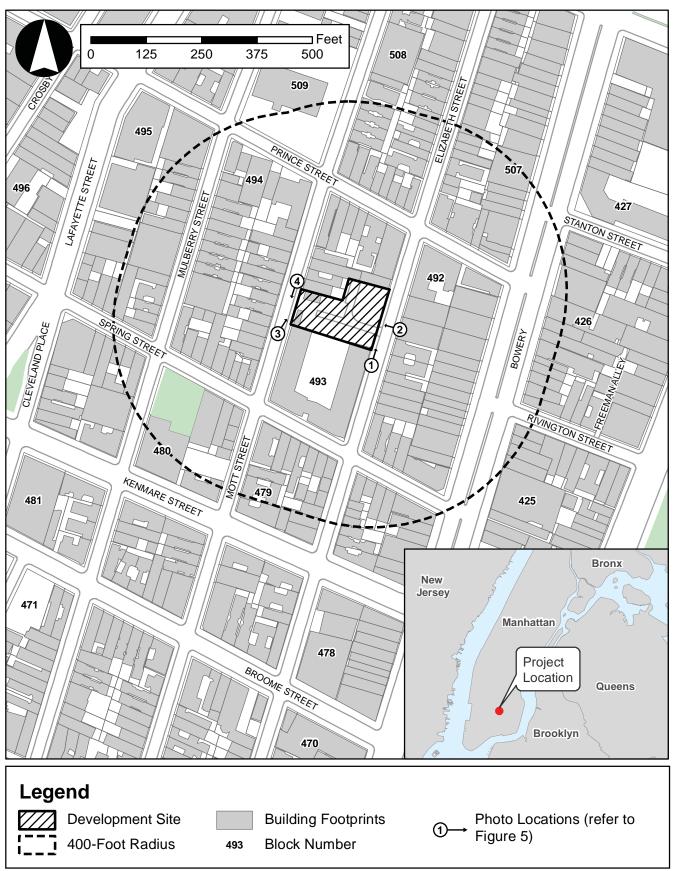
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The property is located on the block bounded by Elizabeth Street to the
east, Mott Street to the west, Prince Street to the north, and Spring Street to the south.  EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C6-2: LI ZONING SECTIONAL MAP NUMBER 12c
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C6-2; LI ZONING SECTIONAL MAP NUMBER 12c (Little Italy Special District)
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  DISPOSITION—REAL PROPERTY  FRANCIUSE
SITE SELECTION—PUBLIC FACILITY  DISPOSITION—REAL PROPERTY  FRANCHISE  OTHER. explain:
HOUSING PLAN & PROJECT OTHER, explain:  SPECIAL PERMIT (if appropriate, specify type: modification; renewal; other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION
Board of Standards and Appeals: YES NO
VARIANCE (use)
VARIANCE (use)
SPECIAL PERMIT (if appropriate, specify type: modification; renewal; other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION
Department of Environmental Protection: ☐ YES ☐ NO If "yes," specify:
Other City Approvals Subject to CEQR (check all that apply)
LEGISLATION FUNDING OF CONSTRUCTION, specify: HPD & HDC - to be
specified
RULEMAKING POLICY OR PLAN, specify:
CONSTRUCTION OF PUBLIC FACILITIES FUNDING OF PROGRAMS, specify:
384(b)(4) APPROVAL PERMITS, specify:
OTHER, explain:
Other City Approvals Not Subject to CEQR (check all that apply)
PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION  LANDMARKS PRESERVATION COMMISSION APPROVAL
AND COORDINATION (OCMC)  OTHER, explain:
State or Federal Actions/Approvals/Funding: YES NO If "yes," specify:
<b>6. Site Description:</b> 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.
<b>Graphics:</b> 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.
SANBORN OR OTHER LAND USE MAP
TAX MAP  FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP
Physical Setting (both developed and undeveloped areas)
Total directly affected area (sq. ft.): 20,265 Waterbody area (sq. ft.) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): TBD Other, describe (sq. ft.):
7. Physical Dimensions and Scale of Project (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): approximately 92,761 gsf
NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): approximately 92,761 gsf
HEIGHT OF EACH BUILDING (ft.): 74  NUMBER OF STORIES OF EACH BUILDING: 7
Does the proposed project involve changes in zoning on one or more sites? YES NO
If "yes," specify: The total square feet owned or controlled by the applicant:
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? X YES NO
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):

#### **EAS FULL FORM PAGE 3**

AREA OF TEMPORARY DISTURBANCE: 20,265 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)						
AREA OF PERMANENT DISTURBANCE: 20,265 sq. ft. (width x length)						
8. Analysis Year CEQR Technical Manual Chapter 2						
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2021						
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 24						
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? YES NO IF MULTIPLE PHASES, HOW MANY?						
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction is anticipated to commence in 2019 with a 24 month construction						
duration. The development is expected to be complete and operational by 2021.						
9. Predominant Land Use in the Vicinity of the Project (check all that apply)						
RESIDENTIAL MANUFACTURING COMMERCIAL PARK/FOREST/OPEN SPACE OTHER, specify:						

### **Project Location**

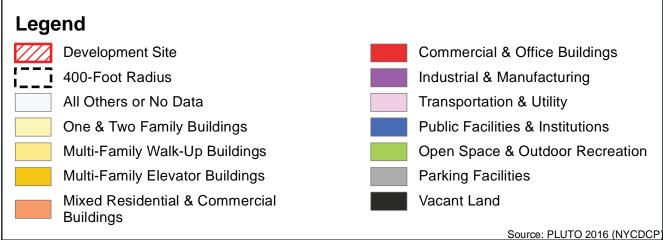
Figure 1

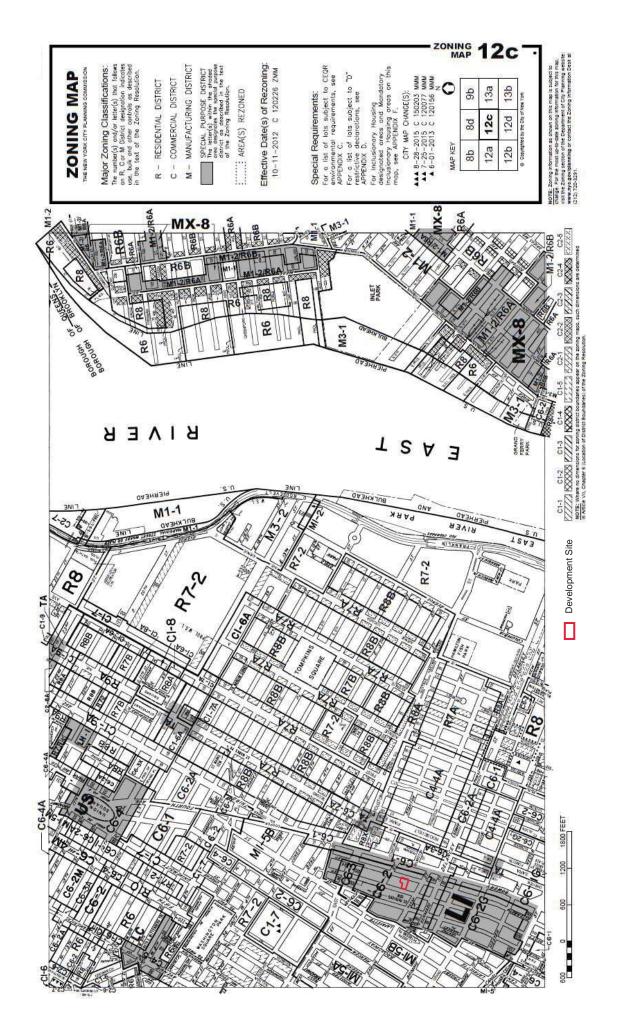


Haven Green EAS Figure 2

**Land Use Map** 











1. Along Elizabeth Street facing north.



2. Along Elizabeth Street facing west towards the Development Site.



3. Along Mott Street facing north.



4. Along Mott Street facing south.

#### **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.

	EXIS	TING	NO-A	ACTION	WITH-	ACTION	INICDENTENT
	CONE	DITION	CON	DITION	CONE	DITION	INCREMENT
LAND USE			•		•		
Residential	YES	NO NO	YES	NO NO	YES	NO NO	
If "yes," specify the following:							
Describe type of residential structures					Affordable s	enior	New affordable senior
••					housing + su	ıper	housing + super
No. of dwelling units					124		+124 units
No. of low- to moderate-income units					123		+123 units
Gross floor area (sq. ft.)					approx. 75,4	122 gsf	+75,422 gsf
Commercial	YES	≥ NO	YES	≥ NO	YES	NO	
If "yes," specify the following:							
Describe type (retail, office, other)					Local retail		New local retail
Gross floor area (sq. ft.)					approx. 4,45	54 gsf	+4,454 gsf
Manufacturing/Industrial	YES	NO NO	YES	NO	YES	NO	
If "yes," specify the following:							
Type of use							
Gross floor area (sq. ft.)							
Open storage area (sq. ft.)							
If any unenclosed activities, specify:							
Community Facility	YES	NO	YES	NO	XES YES	☐ NO	
If "yes," specify the following:							
Type					Services pro	vided by	Services provided by
					Habitat for I	Humanity	Habitat for Humanity
					New York Ci		New York City.
Gross floor area (sq. ft.)					approx. 12,8	385 gsf	+12,885 gsf
Vacant Land	YES	☐ NO	X YES	NO	YES	≥ NO	
If "yes," describe:	approx. 20,2	265 sf City-		265 sf City-			-20,265 sf City-owned lot
	owned lot		owned lot				
Publicly Accessible Open Space	YES	NO	YES	☐ NO	YES	☐ NO	
If "yes," specify type (mapped City, State, or	approx. 20,265 sf City-		approx. 20,265 sf City-			00 sf publicly	-20,265 sf City-owned lot
Federal parkland, wetland—mapped or	owned lot currently		owned lot currently		accessible o	pen space	+6,800 sf publicly
otherwise known, other):	subject to a month lease		subject to a month-to- month lease operating				accessible open space
	as a comme		as a comm				
	sculpture ga			ulpture garden			
Other Land Uses	YES	⊠ NO	YES	NO NO	YES	NO NO	
If "yes," describe:							
PARKING					I		<u> </u>
Garages	YES	NO NO	YES	NO NO	YES	NO NO	
If "yes," specify the following:			11.3				
, , , , ,							
No. of public spaces No. of accessory spaces							
Operating hours							
Attended or non-attended							
Lots	YES	NO NO	YES	NO NO	YES	NO NO	
If "yes," specify the following:			113	<u> </u>			
No. of public spaces							
No. of accessory spaces							
Operating hours							
Other (includes street parking)	YES	NO NO	YES	NO NO	YES	NO NO	
e errer (morades su cet parking)		V 1110	11 1 1 2	V 1110		V 1110	

#### **EAS FULL FORM PAGE 5**

	EXIST CONDI	NO-ACTION CONDITION			WITH-ACTION CONDITION				INCREMENT	
If "yes," describe:										
POPULATION						•				
Residents	YES	NO NO	YES		NO		YES		l NO	
If "yes," specify number:				Ľ		126	residents	5	, 110	+126 residents
Briefly explain how the number of residents was calculated:	Assumes 1 res	sident / seni	ior housin	g unit (	studio); a	issum	nes 3 resid	dents	s / supe	r's unit.
Businesses	YES	NO NO	YES		NO	X	YES		NO	
If "yes," specify the following:										
No. and type						Com	al Retail & nmunity F pitat for H	acilit		Local Retail & Community Facility (Habitat for Humanity)
No. and type of workers by business						13 ro 39 c	esidential etail emp ommunit bloyees	loye	es	+12 residential employees +13 retail employees +39 community facility employees
No. and type of non-residents who are not workers										
Briefly explain how the number of businesses was calculated:	Assumes 1 wo community fa		nior DUs;	3 work	ers / 1,00	00 sf	of local re	etail;	assume	es 3 workers / 1,000 sf of
<b>Other</b> (students, visitors, concert-goers, etc.)	YES	⊠ NO	YES		NO		YES	$\boxtimes$	NO	
If any, specify type and number:										
Briefly explain how the number was calculated:			1							
ZONING	<u> </u>									
Zoning classification	C6-2		C6-2			C6-2	)			
	Max. allowabl	e	Max. allo	wable		Max	. allowab	le		
developed	residential FAI Max. allowabl commercial FAI Max. allowabl community fa 6.5	e AR: 6.0 e	residentia Max. allo commerc Max. allo communi 6.5	wable ial FAR wable	: 6.0	Max com Max	dential FA a allowab mercial F a allowab munity fa	le AR: ( le	5.0	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Predominant include mixed & commercial & buildings, and facilities & ins Predominant districts includ M1-5, C4-4A, Refer to Figurabove.	residential buildings, office public titutions. zoning de C6-2, and R8. es 2 and 3	No chang expected	antially se to zo	change.	not :	d use patt substanti change to ected.	ally c	hange.	

If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.

#### **Part II: TECHNICAL ANALYSIS**

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

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

	YES	NO
1. LAND USE, ZONING, AND PUBLIC POLICY: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?		$\boxtimes$
(b) Would the proposed project result in a change in zoning different from surrounding zoning?		$\boxtimes$
(c) Is there the potential to affect an applicable public policy?		
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?		$\boxtimes$
<ul> <li>If "yes," complete a PlaNYC assessment and attach.</li> </ul>		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?		$\boxtimes$
o If "yes," complete the <u>Consistency Assessment Form</u> .		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of more than 200 residential units <i>or</i> 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?		$\boxtimes$
If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
<ul> <li>Directly displace more than 100 employees?</li> </ul>		$\boxtimes$
If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
Affect conditions in a specific industry?		$\boxtimes$
■ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below.  If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
<ul> <li>If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?</li> </ul>		
<ul> <li>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?</li> </ul>		
ii. Indirect Residential Displacement		
<ul> <li>Would expected average incomes of the new population exceed the average incomes of study area populations?</li> </ul>		
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?		
<ul> <li>If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?</li> </ul>		
iii. Direct Business Displacement		
<ul> <li>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?</li> </ul>		
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?		
iv. Indirect Business Displacement		
Would the project potentially introduce trends that make it difficult for businesses to remain in the area?		
<ul> <li>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?</li> </ul>		
v. Effects on Industry		
<ul> <li>Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?</li> </ul>		
<ul> <li>Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?</li> </ul>		
3. COMMUNITY FACILITIES: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
<ul> <li>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?</li> </ul>		
(b) Indirect Effects		
i. Child Care Centers		
<ul> <li>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 <u>Chapter 6</u>)</li> </ul>		
<ul> <li>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?</li> </ul>		
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?		
ii. Libraries		
<ul> <li>Would the project result in a 5 percent or more increase in the ratio of residential units to library branches?</li> <li>(See Table 6-1 in <u>Chapter 6</u>)</li> </ul>		
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?		
<ul> <li>If "yes," would the additional population impair the delivery of library services in the study area?</li> </ul>		
iii. Public Schools		
<ul> <li>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 <u>Chapter 6</u>)</li> </ul>		
<ul> <li>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?</li> </ul>		
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?		
iv. Health Care Facilities		
Would the project result in the introduction of a sizeable new neighborhood?		$\boxtimes$
o If "yes," would the project affect the operation of health care facilities in the area?		
v. Fire and Police Protection		
Would the project result in the introduction of a sizeable new neighborhood?		$\boxtimes$
If "yes," would the project affect the operation of fire or police protection in the area?		
4. OPEN SPACE: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	$\boxtimes$	
(b) Is the project located within an under-served area in the <u>Bronx</u> , <u>Brooklyn</u> , <u>Manhattan</u> , <u>Queens</u> , or <u>Staten Island</u> ?	$\overline{\boxtimes}$	
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	$\overline{\boxtimes}$	
(d) Is the project located within a well-served area in the <u>Bronx</u> , <u>Brooklyn</u> , <u>Manhattan</u> , <u>Queens</u> , or <u>Staten Island</u> ?		$\boxtimes$
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	一一	
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?		
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		<u> </u>
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?		$\square$
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		

	YES	NO
percent?		
<ul> <li>If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered?</li> <li>Please specify: See Attachment C, "Open Space".</li> </ul>		
5. SHADOWS: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?		
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?		
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach sensitive resource at any time of the year. See Attachment B.	any sun	light-
6. HISTORIC AND CULTURAL RESOURCES: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)		
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	$\boxtimes$	
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting informa whether the proposed project would potentially affect any architectural or archeological resources. See Attachment D, "Hist Cultural Resources".		
7. URBAN DESIGN AND VISUAL RESOURCES: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?		
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?		
(c) If "yes" to either of the above, please provide the information requested in Chapter 10.		
8. NATURAL RESOURCES: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of <a href="https://doi.org/10.2016/journal.org/">Chapter 11</a> ?		
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 <u>Jamaica Bay Watershed</u> ?		
<ul> <li>If "yes," complete the <u>Jamaica Bay Watershed Form</u> and submit according to its <u>instructions</u>.</li> </ul>		
9. HAZARDOUS MATERIALS: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?		
<b>(b)</b> Does the proposed project site have existing institutional controls ( <i>e.g.</i> , (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?		
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in <a href="Appendix 1">Appendix 1</a> (including nonconforming uses)?		
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?		
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (e.g., gas stations, oil storage facilities, heating oil storage)?	$\boxtimes$	
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?		
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?		
(h) Has a Phase I Environmental Site Assessment been performed for the site?		
<ul> <li>If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment B,</li> <li>"Supplemental Screening" and Appendix 3.</li> </ul>		
(i) Based on the Phase I Assessment, is a Phase II Investigation needed? See Attachment B, "Supplemental Screening" and Appendix 3		
10. WATER AND SEWER INFRASTRUCTURE: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?		$\square$

	YES	NO
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000		
square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?		
(c) If the proposed project located in a <u>separately sewered area</u> , would it result in the same or greater development than that listed in Table 13-1 in <u>Chapter 13</u> ?		
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?		$\boxtimes$
(e) If the project is located within the <u>Jamaica Bay Watershed</u> or in certain <u>specific drainage areas</u> , including Bronx River,		
Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek,	, ∐	Ш
would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?		
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?		
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?		$\boxtimes$
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. SOLID WASTE AND SANITATION SERVICES: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per we	eek): 6,4!	57
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?		$\square$
(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?		
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?		Ш
12. ENERGY: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 13,	749,637 [	
(b) Would the proposed project affect the transmission or generation of energy?		
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?		$\boxtimes$
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following	question	is:
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?		
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection?		
**It should be noted that the lead agency may require further analysis of intersections of concern even when a project	╷└┘│	Ш
generates fewer than 50 vehicles in the peak hour. See Subsection 313 of <u>Chapter 16</u> for more information.  O Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?		
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one		
direction) or 200 subway/rail trips per station or line?		
<ul> <li>Would the proposed project result in more than 200 pedestrian trips per project peak hour?</li> </ul>		
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?		
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) Mobile Sources: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?		$\boxtimes$
(b) Stationary Sources: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	$\boxtimes$	
<ul> <li>If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <u>Chapter 17</u>? (Attach graph as needed) See Attachment B</li> </ul>		
(c) Does the proposed project involve multiple buildings on the project site?		$\square$
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?		
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating		
to air quality that preclude the potential for significant adverse impacts?		
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
15. GREENHOUSE GAS EMISSIONS: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?		
(b) Would the proposed project fundamentally change the City's solid waste management system?		$\square$
(c) Would the proposed project result in the development of 350,000 square feet or more?		

	YES	NO				
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18?						
<ul> <li>If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See <u>Local Law 22 of 2008</u>; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.</li> </ul>						
16. NOISE: CEQR Technical Manual Chapter 19	•					
(a) Would the proposed project generate or reroute vehicular traffic?						
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed						
rail line with a direct line of site to that rail line?  (c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?						
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?						
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Att. E, "Noise	"					
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20						
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?						
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in <a href="Chapter 20">Chapter 20</a> , "Public Heap preliminary analysis, if necessary. See Attachment B, "Supplemental Screening".	alth." Atta	ich a				
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21						
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?						
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <a href="Chapter 21">Character</a> ." Attach a preliminary analysis, if necessary. See Attachment B, "Supplemental Screening".	"Neighbo	rhood				
19. CONSTRUCTION: CEQR Technical Manual Chapter 22						
(a) Would the project's construction activities involve:						
Construction activities lasting longer than two years?		$\boxtimes$				
<ul> <li>Construction activities within a Central Business District or along an arterial highway or major thoroughfare?</li> </ul>		$\boxtimes$				
<ul> <li>Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?</li> </ul>	$\boxtimes$					
<ul> <li>Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?</li> </ul>						
<ul> <li>The operation of several pieces of diesel equipment in a single location at peak construction?</li> </ul>						
Closure of a community facility or disruption in its services?						
Activities within 400 feet of a historic or cultural resource?						
<ul> <li>Disturbance of a site containing or adjacent to a site containing natural resources?</li> </ul>		$\boxtimes$				
<ul> <li>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?</li> </ul>						
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guida <a href="22">22</a> , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology equipment or Best Management Practices for construction activities should be considered when making this determination. See Attachment B, "Supplemental Screening".	for constr					
20. APPLICANT'S CERTIFICATION						
I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.  Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity						
that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.						
APPLICANT/REPRESENTATIVE NAME SIGNATURE DATE	<b>12.5.</b> -					
Dylan J. Salmons O9/24,	/2018					

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.

Pa	Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)						
INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive							
Or	rder 91 or 1977, as amended), which contain the Stat	e and City criteria for determining significance.					
	1. For each of the impact categories listed below, consider whether the project may have a significant Potentially						
	adverse effect on the environment, taking into acco	ount its (a) location; (b) probability of occurring; (c)	Signif	-			
	duration; (d) irreversibility; (e) geographic scope; an	nd (f) magnitude.	Adverse Impact				
	IMPACT CATEGORY		YES	NO			
Ī	Land Use, Zoning, and Public Policy	., .		×			
Ī	Socioeconomic Conditions			X			
	Community Facilities and Services			X			
Ī	Open Space	li li		X			
	Shadows			X			
	Historic and Cultural Resources			X			
	Urban Design/Visual Resources						
	Natural Resources			X			
	Hazardous Materials			X			
	Water and Sewer Infrastructure			X			
	Solid Waste and Sanitation Services			X			
Ī	Energy			Z Z			
	Transportation		П	X			
	Air Quality			V			
	Greenhouse Gas Emissions			X			
İ	Noise			X X X X X			
-	Public Health		H	X			
	Neighborhood Character			X			
1	Construction			X			
	2. Are there any aspects of the project relevant to the	determination of whether the project may have a		JZSJ .			
	significant impact on the environment, such as coml			X			
	covered by other responses and supporting materia			1			
	If there are such impacts, attach an explanation stat	ting whether, as a result of them, the project may					
	have a significant impact on the environment.	,					
	3. Check determination to be issued by the lead a	gency:					
	Positive Declaration: If the lead agency has determine	ad that the project may have a cignificant impact on t	. سمداد مما				
L	and if a Conditional Negative Declaration is not appr						
	a draft Scope of Work for the Environmental Impact	- ·	ration and p	Tepares			
_	•	• •					
	Conditional Negative Declaration: A Conditional Neg						
	applicant for an Unlisted action AND when condition no significant adverse environmental impacts would						
	the requirements of 6 NYCRR Part 617.	rresuit. The CND is prepared as a separate documen	t allu is sub	ject to			
X							
	environmental impacts, then the lead agency issues separate document (see template) or using the emb		ay be prepa	red as a			
	4. LEAD AGENCY'S CERTIFICATION	reduced Negative Declaration on the next page.					
TITL		LEAD AGENCY					
	Director of Environmental Planning	NYC Department of Housing Preservation	n & Develo	pment			
NAN		DATE					
	Callista Nazaire	November 9th, 2018					
SIGI	NATURE						

#### **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, 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 that finds the proposed project:

See Negative Declaration dated 11/9/18

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	LEAD AGENCY	
Director of Environmental Planning	NYC Department of Housing Preservation & Development	
NAME	DATE	
Callista J. Nazaire	November 9, 2018	
CICNIATURE		

# ATTACHMENT A PROJECT DESCRIPTION

#### I. INTRODUCTION

The Project Sponsors, a joint venture of Pennrose, LLC, RiseBoro Community Partnership, and Habitat for Humanity NYC, are seeking construction financing and the approval of several discretionary actions (collectively, the "Proposed Actions") to facilitate the development of an approximately 92,761 gross square foot (gsf) mixed-use building containing affordable, senior housing as well as local retail and community facility uses in the Nolita neighborhod of Manhattan, Community District (CD) 2 (the "Development Site"). The Proposed Actions include seeking construction financing from the New York City Department of Housing Preservation and Development (HPD) and several discretionary actions, including the designation of an Urban Development Action Area (UDAA), Urban Development Action Area Project (UDAAP) approval, and the disposition of City-owned property.

The Proposed Actions would facilitate the development of a 7-story (approximately 74 ft. tall; approximately 86 ft. tall including the mechanical bulkhead), approximately 92,761 gross square foot (gsf) mixed-use building containing approximately 123 units of senior, affordable housing, approximately 4,454 gsf of ground floor local retail, and approximately 12,885 gsf of community facility space. In addition, approximately 6,700 sf of publicly accessible open space would be developed. The Proposed Development would provide much needed affordable, transitional housing for older adults in this area of Manhattan, in addition to making efficient use of large City-owned sites suitable for housing that are located in close proximity to public transportation in order to meet City needs. Construction of the Proposed Development is expected to begin in 2019 with all building elements complete and fully operational in 2021.

This attachment provides a summary and description of the Proposed Actions, including project site location, existing conditions of the Development Site, project purpose and need, project description, the analysis framework under the No-Action and With-Action conditions, and the governmental approvals required. The attached supplemental studies examine the potential for the Proposed Actions to result in impacts to certain technical areas, including separate attachments with detailed analyses of open space, historic and cultural resources, and noise in Attachments C through E, respectively. The preliminary screening assessments for other technical areas are summarized in Attachment B, "Supplemental Screening".

#### II. EXISTING CONDITIONS

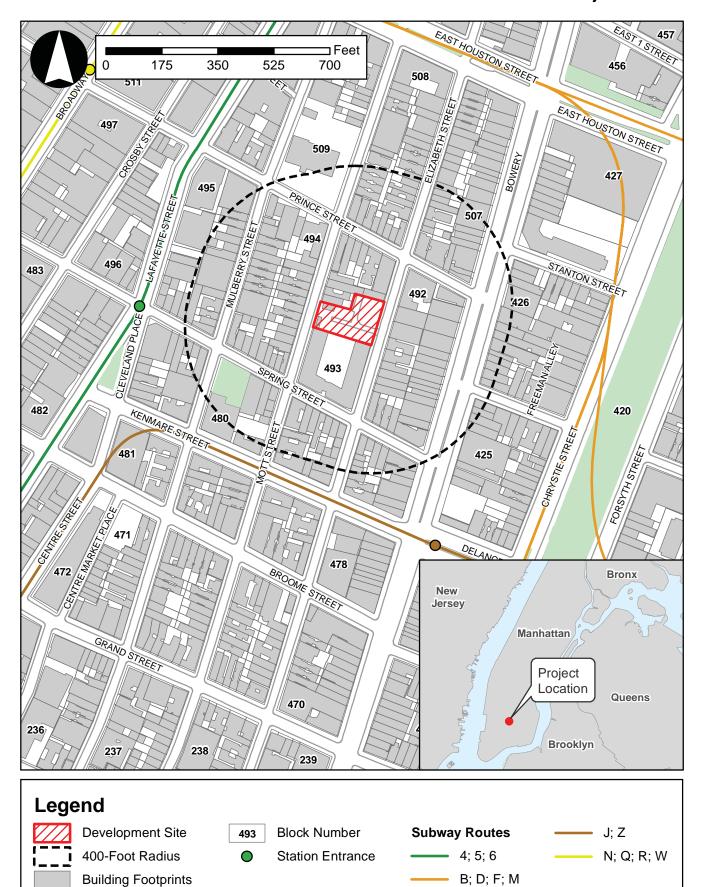
#### **Development Site**

As shown in **Figure A-1**, the Development Site is a through-block lot (199-207 Elizabeth Street / 222-230 Mott Street) with a total lot area of approximately 20,265 square feet (sf). It is located on the block bounded by Elizabeth Street to the east, Mott Street to the west, Prince Street to the north, and Spring Street to the south. The site has approximately 80 feet of frontage on Mott Street, a one-way southbound street with a mapped width of 50 feet, and approximately 136 feet of frontage on Elizabeth Street, a one-way northbound street with a mapped width of 50 feet. Parking is permitted along Mott Street and Elizabeth Street. The Development Site is an unimproved, City-owned lot. It is currently subject to a month-to-month lease operating as a commercial sculpture garden with some public access, free programming, and events.

The Development Site is zoned C6-2 and is located within the Special Little Italy District. C6-2 districts permit residential development up to a maximum floor area ratio (FAR) of 6.02, commercial development

Haven Green EAS Figure A-1

#### **Project Location**



Source: NYCDCP, DoITT

Haven Green EAS

up to a maximum FAR of 6.0, and community facility development up to a maximum FAR of 6.5. Building height and setback are controlled by a sky exposure plane, which begins 65 feet above the street line. The Development Site is also located within the Chinatown and Little Italy Historic District, which is listed on the State and National Registers of Historic Places.

#### **Surrounding Area**

Land uses in the surrounding area are characterized by residential, commercial, mixed residential/commercial, public facility and institutional, open space, and industrial and manufacturing uses (see Figure 2 of EAS Form). Residential uses are generally walkup multi-family residential buildings that range in height from approximately three- to six-stories. Commercial land uses are predominantly located along Prince Street, Spring Street, and Elizabeth Street, and are generally located on the ground-floor and include a range of uses from local retail/services to restaurants and office space. A number of public facility and institutional uses are located in the surrounding area including the Basilica of St. Patrick's Old Cathedral, St. Patrick's Youth Center, the New York Public Library Mulberry Street Branch, Ladder 20 fire house, the Bowery Mission, and the New Museum. The DeSalvio playground is located across Spring Street to the south of the Development Site.

The surrounding area is also within close proximity to public transportation including the IRT 6 subway line at the intersection of Spring Street and Lafayette Street, the IND J and Z subway lines at the intersection of Bowery and Delancey Street, and the IND F and M lines at the intersection of East Houston Street and 2<sup>nd</sup> Avenue. There are a couple of New York City Transit bus lines within the area surrounding the Development Site including the M21 local crosstown route between the Lower East Side and the West Village and the M103 local route between East Harlem and City Hall.

#### III. DESCRIPTION OF THE PROPOSED ACTIONS

The Project Sponsors are seeking construction financing from HPD and the approval of several discretionary actions to facilitate the development of an approximately 92,761 gsf mixed-use building containing affordable, senior housing as well as local retail and community facility uses in the Nolita neighborhood of Manhattan. The discretionary actions include proposing a UDAA designation, UDAAP approval, and the disposition of City-owned property.

#### IV. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The Proposed Actions would facilitate the development of 123 dwelling units affordable to seniors with incomes at or below 60% of the Area Median Income (AMI), as well as housing for formerly homeless seniors. Additionally, the Development Site would contain approximately 6,700 sf of publicly accessible open space in a new garden that will be designed and programmed through a community engagement process. The Proposed Development would also include a new headquarters for Habitat for Humanity New York City and flexible community activity space.

The Proposed Development strikes a balance between the need for affordable senior housing and dedicated public space. It supports the Housing New York 2.0 Plan, which is the City's goal to create and preserve 300,000 units of affordable housing.

#### V. DESCRIPTION OF PROPOSED DEVELOPMENT

The Proposed Actions are intended to facilitate the development of a new, approximately 92,761 gsf mixed-use building ("Haven Green") consisting of 123 affordable DUs marketed to extremely low-, very-low, and low-income households, including formerly homeless seniors. Haven Green would also consist of approximately 4,454 gsf of ground floor local retail, approximately 12,885 gsf of community facility space, and approximately 6,700 sf of publicly accessible open space.

The ground floor would contain the residential lobby area, local retail space, Habitat for Humanity offices, and flexible community workspace (see **Figure A-2**); the second floor would contain 18 affordable DUs, floors three through six would contain a mix of 22 affordable units per floor, and the seventh floor would contain 17 affordable DUs. See **Figure A-3** for the illustrative building section. Building residents would have access to a residential library, computer lab, and roof terrace. RiseBoro would provide onsite social services, programming, and case management to the residents. The apartments would meet Uniform Federal Accessibility Standards (UFAS) and the building would incorporate elements of Active and Universal Design to ensure safe and healthy affordable homes for future senior residents.

The Proposed Development would serve as Habitat NYC's new headquarters. In addition to continuing to serve low and moderate-income New Yorkers across the city, Habitat NYC would provide credit counseling and education services to residents and community members, as well as manage the ongoing maintenance and programming for the public open space provided on-site. A portion of the Habitat NYC space would serve as a flexible workspace for community activities.

The public space design seeks to recreate many of the existing features and layout of the site, including passive spaces, sculptures and art pieces, lawns, diverse plantings, space for gardening, and open seating (see **Figure A-4**). Construction on the Proposed Development is anticipated to begin in 2019 and be completed and occupied by June 2021.

#### VI. ANALYSIS FRAMEWORK

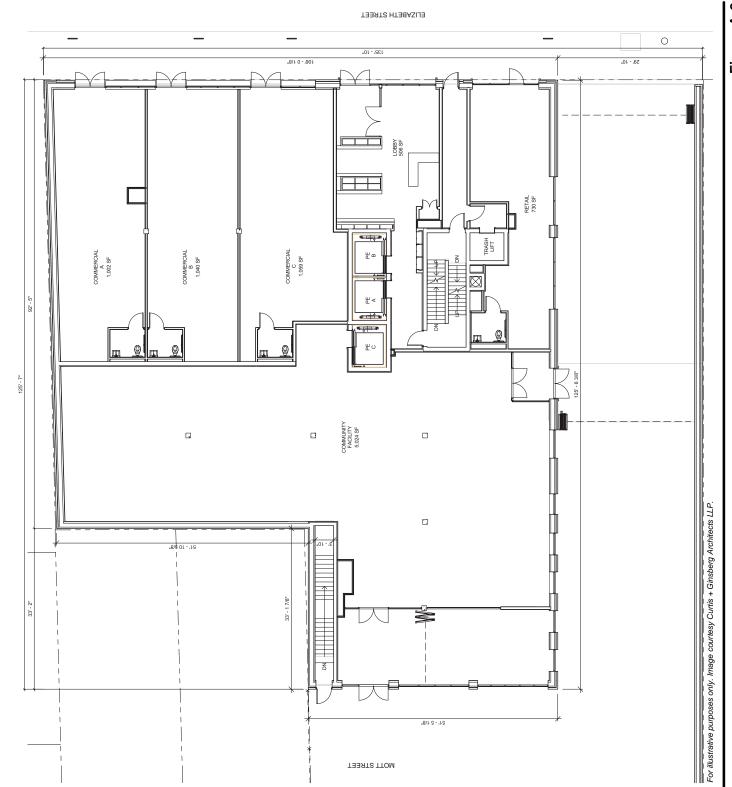
The incremental difference between future No-Action and With-Action conditions are the basis for the impact category analysis of this EAS. As discussed below, standard methodologies have been used following 2014 CEOR Technical Manual guidelines and employing reasonable, worst-case assumptions.

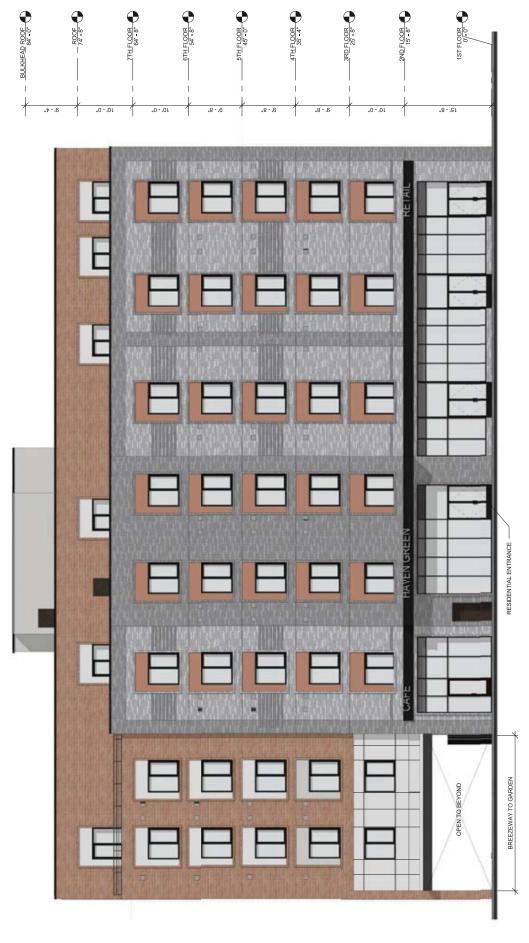
#### The Future without the Proposed Actions (No-Action Condition)

Under 2021 No-Action conditions, the Proposed Actions would not be approved. In the absence of approval, the approximately 20,265 sf Development Site would remain an unimproved, City-owned lot. Therefore, it is conservatively assumed that no development would occur on the Development Site in the future No-Action condition.

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

The 2021 future with the Proposed Actions would allow for the development of an approximately 92,761 gsf mixed-use building, rising to a maximum building height of approximately 74 feet (approximately 86 feet including mechanical bulkhead). The Proposed Development would consist of 123 dwelling units (with the addition of one two-bedroom unit set aside for an on-site superintendent), in which 100 percent of the units would be designated affordable to seniors earning at or below 60% AMI per public financing from





For illustrative purposes only. Image courtesy Curtis + Ginsberg Architects LLP.

For illustrative purposes only. Image courtesy Curtis + Ginsberg Architects LLP.

Haven Green EAS

HPD, approximately 4,454 gsf of ground floor local retail, approximately 12,885 gsf of community facility space, and approximately 6,700 sf of publicly accessible open space (refer to **Table A-1** below).

#### **Possible Effects of the Proposed Action**

The incremental difference between the No-Action condition and the Proposed Development provides the basis by which the potential environmental effects are evaluated in the EAS. Therefore, the EAS analyzes an incremental net increase of 123 affordable dwelling units (124 units including the superintendent's unit; approximately 75,422 gsf), approximately 4,454 gsf of local retail, and approximately 12,885 gsf of community facility space, and a net reduction of approximately 13,565 sf of open space.

Table A-1 Comparison of 2021 No-Action and With-Action Conditions

Use	Existing / No-Action	With-Action <sup>1</sup>	Increment
Residential (Affordable Senior + Super)	0 gsf 0 DUs	75,422 gsf 124 DUs	+75,422 gsf +124 DUs
Local Retail	0 gsf	4,454 gsf	+4,454 gsf
Community Facility	0 gsf	12,885 gsf	+12,885 gsf
Open Space	20,265 sf (0.46 acres)	6,700 sf (0.15 acres)	-13,565 sf (-0.31 acres)
Population/Employment <sup>2</sup>	Existing/No- Action	With-Action	Increment
Residents	0 residents	126 residents	+126 residents
Workers	0 workers	64 workers	+64 workers

#### Notes:

#### VII. REQUIRED APPROVALS AND REVIEW PROCEDURES

The Proposed Development is subject to City Environmental Quality Review (CEQR) and the Uniform Land Use Review Procedure (ULURP) due to the disposition of City-owned property and the designation of the site as a UDAAP. ULURP is a process that allows public review of Proposed Actions at four levels: the Community Board; the Borough President; the City Planning Commission; and if applicable, the City Council. The procedure mandates time limits for each stage to ensure a maximum review period of seven months. Through CEQR, agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment.

<sup>&</sup>lt;sup>1</sup>All figures are approximate and subject to change.

<sup>&</sup>lt;sup>2</sup>Assumes 1 person per senior housing DU, 1 worker per 10 senior DUs, 3 workers per 1,000 sf of local retail, and 3 workers per 1,000 sf of community facility space.

# ATTACHMENT B SUPPLEMENTAL SCREENING

#### I. INTRODUCTION

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidelines and methodologies presented in the 2014 *CEQR Technical Manual*. For each technical area, thresholds are defined which if met or exceeded, require that a detailed technical analysis be undertaken. Using this guidance, preliminary screening assessments were conducted for the Proposed Actions to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. The technical areas that warranted a "Yes" answer in Part II of the EAS form were Land Use, Zoning, and Public Policy; Open Space; Shadows; Historic and Cultural Resources; Hazardous Materials; Air Quality; Noise; Public Health; Neighborhood Character; and Construction. As such, a supplemental screening assessment for each area is provided in this attachment. All remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds and/or are unlikely to result in significant adverse impacts.

The supplemental screening assessment contained herein identified that a detailed analysis is required in a number of technical areas. **Table B-1** identifies for each CEQR technical area whether (a) the potential for impacts can be screened out based on the EAS Form, Part II, Technical Analyses; (b) the potential for impacts can be screened out based on a supplemental screening per the *CEQR Technical Manual*, (c) or whether a more detailed assessment is required.

Table B-1 Summary of CEQR Technical Areas Screening

TECHNICAL AREA	SCREENED OUT PER EAS FORM	SCREENED OUT PER SUPPLEMENTAL SCREENING	DETAILED ANALYSIS REQUIRED
Land Use, Zoning, & Public Policy		X	
Socioeconomic Conditions	X		
Community Facilities & Services	X		
Open Space			X
Shadows		X	
Historic & Cultural Resources			X
Urban Design & Visual Resources	X		
Natural Resources	X		
Hazardous Materials		X	
Water & Sewer Infrastructure	X		
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation	X		
Air Quality		X	
Greenhouse Gas Emissions	X		
Noise			X
Public Health		X	
Neighborhood Character		X	
Construction		X	

As detailed in Attachment A, "Project Description", the Proposed Actions include seeking construction financing from the New York City Department of Housing Preservation and Development (HPD) and several discretionary actions, including the designation of an Urban Development Action Area (UDAA), Urban Development Action Area Project (UDAAP) approval, and the disposition of City-owned property to facilitate the development of an approximately 20,265 sf City-owned site in the Nolita neighborhood of

Haven Green EAS

Manhattan Community District 2. The Development Site, which is currently subject to a month-to-month lease and is operating as a commercial sculpture garden with some public access, free programming, and events, is bounded to the east by Elizabeth Street, to the north and to the south by mixed-use residential and commercial buildings, and to the west by Mott Street.

The Proposed Actions would facilitate the development of a new, approximately 92,761 gross square foot (gsf) mixed-use building ("Haven Green") consisting of 123 affordable dwelling units (DUs), approximately 4,454 gsf of ground floor local retail, approximately 12,885 gsf of community facility uses, and approximately 6,700 sf of publicly accessible open space. Contingent on approval of the Proposed Actions, construction of the Proposed Development is anticipated to begin in 2019 with all components complete and fully operational by June 2021. Absent the Proposed Actions, the Development Site would remain in its existing conditions.

As outlined in Attachment A, "Project Description", the incremental (net) changes between the existing/No-Action and With-Action scenarios would result in an increase of 123 affordable DUs (124 units including the superintendent's unit; approximately 75,422 gsf), approximately 4,454 gsf of ground floor local retail, and approximately 12,885 gsf of community facility uses and, and a net reduction of approximately 13,565 sf (0.31 acres) of public open space. These incremental differences are presented below in **Table B-2** and serve as the basis for the impact category of this EAS.

Table B-2 Comparison of 2021 Existing/No-Action and With-Action Conditions

Use	Existing / No-Action	With-Action <sup>1</sup>	Increment
Residential (Affordable Senior + Super)	0 gsf 0 DUs	75,422 gsf 124 DUs	+75,422 gsf +124 DUs
Local Retail	0 gsf	4,454 gsf	+4,454 gsf
Community Facility	0 gsf	12,885 gsf	+12,885 gsf
Open Space	20,265 sf (0.46 acres)	6,700 sf (0.15 acres)	-13,565 sf (-0.31 acres)
Population/Employment <sup>2</sup>	Existing/No- Action	With-Action	Increment
Residents	0 residents	126 residents	+126 residents
Workers	0 workers	64 workers	+64 workers

#### **Notes:**

#### II. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

#### Land Use, Zoning, and Public Policy

A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use.

<sup>&</sup>lt;sup>1</sup>All figures are approximate and subject to change.

<sup>&</sup>lt;sup>2</sup>Assumes 1 person per senior housing DU, 1 worker per 10 senior DUs, 3 workers per 1,000 sf of local retail, and 3 workers per 1,000 sf of community facility space.

#### Land Use and Zoning

Compared to the future without the Proposed Actions, the Proposed Actions would introduce new residential, retail, and community facility uses on the Development Site, which would be compatible with adjacent land uses. The Proposed Actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses or structures that would be incompatible with the underlying zoning or cause a substantial number of existing structures to become nonconforming.

#### Public Policy

There are no 197-a plans, industrial business zones, or urban renewal areas governing the Development Site or Project Area, however an adopted City policy, the FRESH program, is applicable to the Development Site. Additionally, the Development Site is located in the boundaries of the State and National Register (SN/R) –listed Chinatown and Little Italy Historic District. As such, the effects of the Proposed Development on architectural and archaeological resources is discussed further in this attachment, as well as in Attachment D, "Historic and Cultural Resources".

#### New York City Food Retail Expansion to Support Health Program (FRESH)

The FRESH program provides zoning and discretionary tax incentives to promote the establishment and retention of neighborhood grocery stores in communities throughout the five boroughs that lack full-line grocery stores. Both the Development Site and Project Area are located within a FRESH designated area. As the Proposed Actions would not introduce or displace any existing grocery stores, it would not alter or conflict with the public policy.

#### **Open Space**

Under CEQR, an analysis of open space is conducted to determine whether or not a proposed project would have a direct impact resulting from the elimination or alteration of open space and/or an indirect impact resulting from overtaxing available open space. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value". An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population.

According to the guidelines established in the CEQR Technical Manual, if a project is located in an area considered underserved by open space, an analysis of indirect effects on open space is warranted if the proposed project would add more than 50 residents or 125 employees. As the Proposed Development is located in an "underserved" area in Manhattan and the Proposed Actions would result in the incremental addition of more than 50 residents, a detailed assessment of indirect effects on open space is warranted. An open space assessment is therefore provided in Attachment C, "Open Space." Based on the analysis provided therein, the Proposed Actions would not result in significant adverse indirect or direct open space impacts.

#### **Shadows**

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

Haven Green EAS

As the Proposed Actions facilitate the development of a new building with an incremental height increase of more than 50 feet and the Proposed Area is located in close proximity to a number of potentially sunlight sensitive resources, further shadows screening has been provided below to determine if the Proposed Actions have the potential to result in significant adverse impacts.

#### **Preliminary Screening**

#### **Methodology**

According to the *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. For projects or actions resulting in structures less than 50 feet tall, a shadow assessment is generally not necessary, unless the site is adjacent to a park, historic resource, or important natural feature (if the feature that makes the structure significant depends on sunlight).

First, a preliminary screening assessment must be conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year. The *CEQR Technical Manual* defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are considered to be sunlight-sensitive resources:

- Public open space (e.g., parks, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions or roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The use of vegetation in an open space establishes its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather dependent features, like wading pools and sandboxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include: passive use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement.
- Features of historic architectural resources that depend on sunlight for their enjoyment by the public. Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends on the contrast between light and dark (e.g., deep recesses or voids, such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromy [multicolored] features found on Victorian Gothic Revival or Art Deco facades); historic landscapes, such as scenic landmarks, including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.
- Natural resources where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources, such as coastal fish and wildlife habitats.

The preliminary screening assessment consists of three tiers of analysis. The first tier determines a simple radius around the proposed buildings representing the longest shadow that could be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier, which 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. 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. If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project.

In accordance with the *CEQR Technical Manual*, shadows on sunlight-sensitive resources of concern are modeled for four representative days of the year. For the New York City area, the months of interest for an open space resource encompass the growing season (i.e., March through October) and one month between November and February representing a cold-weather month (usually December). Representative days for the growing season are generally the March 21st vernal equinox (or the September 21st autumnal equinox, which is approximately the same), the June 21st summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes, such as May 6th or August 6th (which are approximately the same). For the cold- weather months, the December 21st winter solstice is included to demonstrate conditions when open space users rely most heavily on available sunlight warmth. As these months and days are representative of the full range of possible shadows, they are also used for assessing shadows on sunlight-sensitive historic and natural resources.

The CEQR Technical Manual defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset.

#### Tier 1 Screening Assessment

According to the CEQR Technical Manual, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. The maximum shadow radius for the proposed development (370 feet) was determined using the proposed building's maximum height of approximately 86 feet, which includes bulkhead and rooftop mechanical equipment (Tier 1 Assessment). Within this longest shadow study area, there are a number of potentially sunlight-sensitive resources including existing open spaces and historic resources. Therefore, further screening was warranted in order to determine whether any resources could be affected by project-generated shadows.

#### Tier 2 Screening Assessment

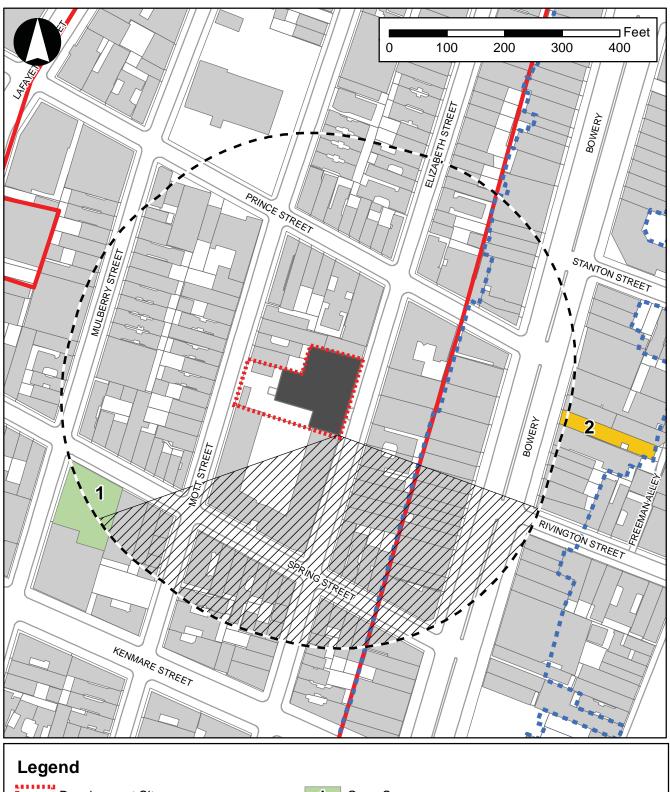
Due to the path of the sun across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. The purpose of the Tier 2 screening is to determine whether the sunlight-sensitive resources identified in the Tier 1 screening are located within portions of the longest shadow study area that can receive shade from the proposed development.

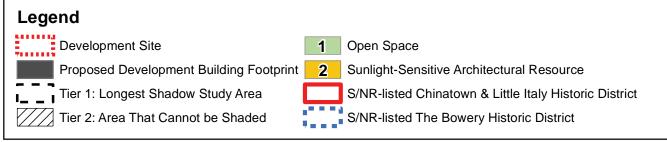
**Figure B-1** provides a base map illustrating the results of the Tier 1 and Tier 2 screening assessments (i.e., the portion of the longest shadow study area lying within -108 degrees from the true north and +108 degrees from true north as measured from southernmost portions of the development sites). A total of one open space resource (DeSalvio Playground) and one historic resource (Bowery Mission) were identified as sunlight-sensitive resources that warranted further assessment. These resources are depicted in **Figure B-1** as resources #1 and #2, respectively.

It is important to note that while the Proposed Development would have the potential to cast incremental shadows on the Chinatown and Little Italy Historic District (S/NR listed) and the Bowery Historic District (S/NR listed), these historic districts are not significant because of design elements that depend on the

Haven Green EAS Figure B-1

#### Tier 1 and 2 Shadow Assessment





contrast between light and dark. Therefore, as direct sunlight does not play a notable role in the districts' historic significance, neither has been identified as a sunlight-sensitive resource warranting further analysis.

Additionally, the Proposed Development would have the potential to cast incremental shadows on the Old St. Patrick's Convent and Girls' School (S/NR listed and LPC-designated). While the building's main doorway is flanked by two sidelights with leaded-glass and a stained-glass rose window, the windows are located along the Prince Street façade facing away from the project site and could not be shaded as a result of the Proposed Development. As Old St. Patrick's Convent and Girls' School does not feature any other sunlight-sensitive features, any incremental shadows that could reach the building would not have the potential to result in significant adverse impacts and further assessment is not warranted.

#### Tier 3 Screening Assessment

According to the *CEQR Technical Manual*, a Tier 3 screening assessment should be performed to determine if, in the absence of intervening buildings, shadows resulting from a proposed action can reach a sunlight-sensitive resource, thereby warranting a detailed shadow analysis. The Tier 3 screening assessment is used to determine if shadows resulting from a proposed action can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

As project-generated shadows could reach a number of sunlight-sensitive resources, a Tier 3 assessment was performed using three dimensional (3D) computer mapping software. The 3D model was used to calculate and display project-generated shadows on individual representative analysis dates. The model contained 3D representations of the elements in the base map used in the preceding assessments and a 3D model of the proposed development. At this stage of the assessment, surrounding buildings within the study area were not included in the model so that it may be determined whether project-generated shadows would reach any sunlight sensitive resources.

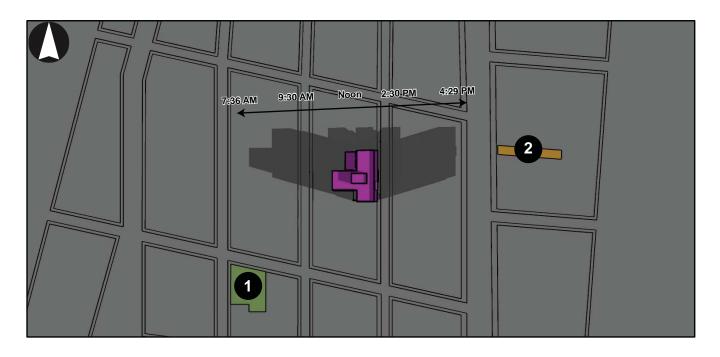
As shown in **Figures B-2a** and **B-2b**, no sunlight-sensitive resources would receive project-generated shadows on any of the four analysis day. Therefore, no additional analysis is warranted for these resources and no significant adverse shadow impacts are anticipated as a result of the Proposed Actions.

#### **Historic and Cultural Resources**

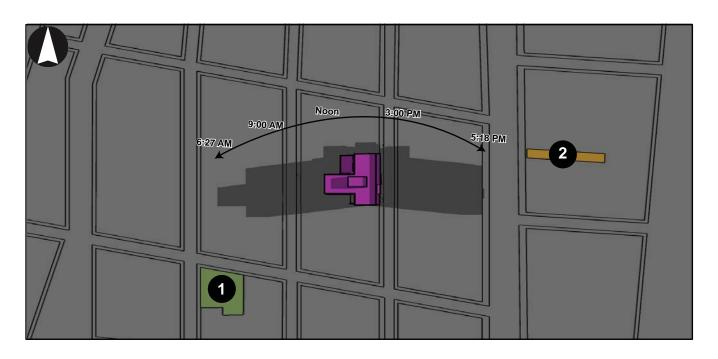
Historic and cultural resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed on the S/NR; and National Historic Landmarks. An assessment of architectural and archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According to CEQR guidelines, impacts on historic resources are considered on those sites affected by a proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the area within a 400-foot radius of the proposed development site. Archaeological resources are considered only in those areas where new excavation or ground disturbance is likely and would result in new in-ground disturbance compared to No-Action conditions.

Although located in the boundaries of the S/NR-listed Chinatown and Little Italy Historic District, the Development Site does not contain any historic resources that contribute to the surrounding historic district. Additionally, the Development Site does not contain any historic resources identified by LPC as NYCL-designated or NYCL-eligible (refer to LPC correspondence in **Appendix 1**). Therefore, the Proposed Development would not result in direct impacts to any historic architectural resources. As detailed in



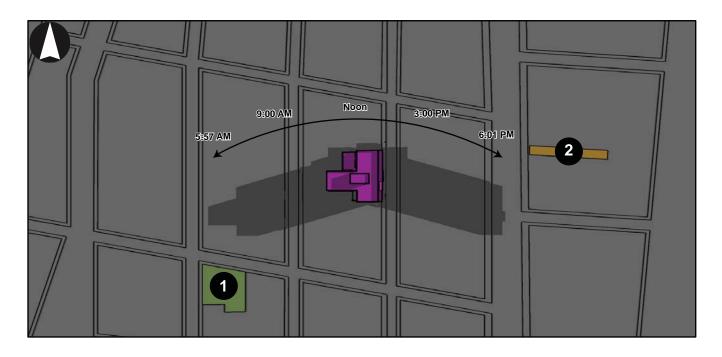
**MARCH 21/SEPTEMBER 21** 



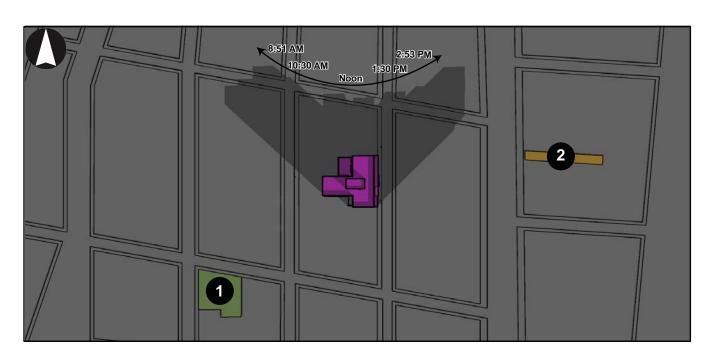
**MAY 6/AUGUST 6** 







**JUNE 21** 



**DECEMBER 21** 





Attachment D, the Proposed Actions would not affect those characteristics that make surrounding buildings eligible for listing on the S/NR or for designation as NYCLs, and as such, the Proposed Actions would not result in any significant adverse indirect or contextual impacts on historic architectural resources. In a letter dated November 8, 2018 (provided in **Appendix 1**), LPC concurred with these finding and required that, in order to ensure consistency with the design, massing, height, scale, fenestration pattern, materials, and color of the new building and its historic context, HPD submit the final building design to LPC for review.

As detailed in Attachment D, "Historic & Cultural Resources," LPC noted that archaeological sensitivity models, reports, and historic maps indicate the potential for the recovery of remains from 19<sup>th</sup> century occupation on the Development Site (refer to LPC correspondence in **Appendix 1**). LPC requested that a Phase 1A Archaeological Assessment of the site be prepared to further clarify its archaeological sensitivity. A Phase 1A study of the Development Site was completed in April 2018 (provided in **Appendix 2**). As discussed in Attachment D, the Phase 1A concludes that, as a result of the lot coverage of former buildings on the Development Site, remains of historic buildings and any potential backyard features associated with early structures on the Development Site would have been severely impacted and probably destroyed as a result of subsequent construction on the site (all of which was demolished in the 20<sup>th</sup> century). Therefore, the Phase 1A Archaeological Assessment determined that the Development Site is not sensitive for archaeological remains, and no further archaeological investigation is necessary. Therefore, the Proposed Actions would not result in significant adverse archaeological impacts.

#### **Hazardous Materials**

As detailed in the CEQR Technical Manual, the goal of a hazardous materials assessment is to determine whether a proposed action 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. 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 semivolitile organic compounds, methane, polychlorinated biphenyls and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to 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.

# June 2018 Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) dated June 2018 was performed by Fleming-Lee Shue, Inc. for the Development Site (Block 493, Lot 30) (see **Appendix 3** for Phase I ESA Executive Summary). The Phase I ESA was prepared in accordance with the American Society of Testing and Materials Standard Practice for Environmental Site Assessments Process (ASTM E 1527-13) as well as the United States Environmental Protection Agency (EPA) All Appropriate Inquiry (AAI) requirements (November 2015). Fleming-Lee Shue utilized a variety of information sources to perform the Phase I ESA, including information searches from state and federal regulatory agency databases, submitted to federal, state, and local regulatory agencies, a review of readily available information including: historical aerial photographs, historical Sanborn fire insurance maps, historical topographic maps, City Directory search, lien search, and observations made during site reconnaissance.

Based on the information gathered as a result of the Phase I EAS process, Fleming-Lee Shue has identified the following recognized environmental conditions (RECs) in connection with the Development Site:

• <u>Historical On-Site Oil Tanks</u> – According to the 1968 Sanborn Map, the Public School on the Development Site contained boiler(s). Around 1968 these boilers were likely converted from coal burning to fuel oil and therefore present a likely potential for former/abandoned tank(s). The

possible fuel tank(s) may have impacted the environmental quality of the Development Site, including soil, groundwater, and soil vapor. As such, these oil tanks are considered a REC.

<u>Historical Metal Spraying Operations at Surrounding Properties</u> – According to Sanborn maps, historical operations related to metal spraying were identified at a neighboring property from 1950 to 2004. Degreasers and solvents were likely used at this property as a part of daily operations. The proximity of a metal spraying shop to the Development Site could have adversely impacted the quality of the Development Site, including soil, groundwater, and soil vapor, and therefore is considered a REC.

Although not technically defined as an REC, the following additional potential environmental issue was noted:

• <u>Potential Mold</u> – Fleming-Lee Shue observed that the two buildings on the Development Site were used for storage and are in a general state of disrepair. Given the current state of the buildings, there is a potential for mold growth within the buildings.

#### August 2018 Remedial Investigation Work Plan

As per the Phase I ESA, the Development Site is potentially contaminated from historic on-site oil tanks and nearby, off-site historic metal spraying operation. As such, a Remedial Investigation Work Plan (RIWP) dated August 2018 was prepared by Arnold F. Fleming, P.E. (AFF) and Fleming Lee-Shue, Inc. (FLS) for the Development Site (Block 493, Lot 30) (see **Appendix 3** for Remedial Investigation Work Plan) to describe the sample locations, sampling matrices, and chemical analyses that will be used to investigate the subsurface. The remedial investigation tasks proposed to fulfill the stated objectives were separated into three areas: 1) Project Planning and Preparation, 2) Health and Safety Plan preparation, and 3) Site Investigation and Characterizations.

- 1) Project Planning and Preparation Prior to initiating the field work, FLS will inspect the work area to assess current conditions, evaluate equipment access, and check general conditions prior to any intrusive work. Additionally, prior to any subsurface investigation, FLS will oversee a geophysical survey to identify underground utilities and any possible underground storage tanks (USTs) on the Development Site.
- 2) <u>Health and Safety Plan</u> A Development Site-Specific Health and Safety Plan (HASP) was prepared for use by FLS employees during environmental investigation. The purpose of the HASP is to identify the real and potential hazards associated with the planned environmental field activities and to stipulate appropriate health and safety procedures. The procedures and guidelines contained in the HASP are intended to minimize exposure to chemical, physical, and biological hazards that may be present in the soil, groundwater, or air, and to reduce the potential for accidents and injuries. The complete HASP can be found in **Appendix 3**.

#### 3) Site Investigation and Characterization

i. Soil Investigation – To investigate the potential for abandoned or historic on-site oil tanks, FLS will advance a minimum of five soil borings evenly spaced across the entire Development Site. A minimum of two soil samples per boring will be collected, including a surface soil sample collected from zero to two feet below grade surface (bgs) and a second sample collected between two feet bgs and the maximum proposed excavation depth (15 feet bgs).

- ii. Groundwater Investigation To investigate the potential impacts to groundwater from the possible former fuel oil tanks and historic metal spraying operations at a surrounding property, two temporary groundwater monitoring wells will be advanced on the Development Site, and two groundwater samples will be collected from the temporary wells
- iii. Soil Vapor Investigation To investigate the possible impacts to soil vapor from potentially impacted groundwater resulting from the historic metal spraying operations at surrounding properties, FLS will install two soil temporary vapor sampling points and collect one ambient air sample for background comparison. In addition, FLS will install two soil vapor samples within the proposed building footprint. Soil vapor samples will be collected at the proposed maximum excavation depth (15 feet bgs) or at least one foot above the water table in areas where the groundwater is less than six feet below grade.

Upon completion of all fieldwork and review of analytical results, a Remedial Investigation Report (RIR) will be prepared. It is anticipated that Remedial Investigation will be conducted in September 2018.

# Air Quality

#### **Mobile Sources**

Localized increases in pollutant levels may result from increased vehicular traffic volumes and changed traffic patterns in the Project Area as a consequence of a proposed project. According to the screening threshold criteria outlined in Section 210 of Chapter 17 of the *CEQR Technical Manual*, detailed analysis is required for this area of the City if 170 or more auto-trips are generated in any given peak period at nearby intersections in the Project Area as a result of the Proposed Actions. The Proposed Actions would not exceed the CEQR threshold of 170 peak hour auto trips at nearby intersections in the Project Area, nor would it exceed the particulate matter emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a quantified assessment of emissions from project generated traffic is not warranted and no significant mobile source air quality impacts are expected as a result of the Proposed Actions.

#### **Stationary Sources**

Stationary source impacts could occur with projects that create new stationary sources or pollutants, such as emission stacks for industrial plants, hospitals, or other large institutional uses, or a building's boiler stacks used for heating/hot water, ventilation, and air conditioning ("HVAC") systems, that can affect surrounding uses. Impacts from boiler emissions associated with a development are a function of fuel type, stack height, minimum distance of the stack on the source building to the closest building of similar or greater height, building use, and the square footage size of the source building. In addition, stationary source impacts can occur when new uses are added near existing or planned emissions stacks, or when new structures are added near such stacks and those structures change the dispersion of emissions from the stacks so that they affect surrounding uses.

# Heat and Hot Water Systems

In accordance with CEQR guidance, Figure 17-7 of the CEQR Technical Manual was used to assess the potential effects of the Proposed Development on existing land uses. If the source building (the Proposed Development) is taller than the receptor building or the distance between the two buildings falls below the applicable curve provided in Figure 17-7, a potential significant impact due to a boiler stack emissions is unlikely and no further analysis is needed. If the distance between the source and receptor buildings is less than or equal to the threshold distance, further analysis is required.

#### Project-on-Existing Assessment

Given the gross floor area (approximately 92,761 gsf) and height (approximately 86 feet including the mechanical room and bulkhead) of the Proposed Development, any existing buildings of similar or greater height located within approximately 75 feet would have the potential to be affected by the Proposed Development's HVAC system and would require further detailed analysis (see **Figure B-3**). As shown in **Figure B-4**, the Proposed Development's bulkhead is located approximately 91 feet from the closest building of similar height. Therefore, the Proposed Development's HVAC system is not expected to have a significant adverse impact on any existing or planned future buildings and no further analysis of heat and hot water systems is required.

#### **Noise**

The purpose of a noise analysis is to determine both a proposed project's potential effects on sensitive noise receptors and the effects of ambient noise levels on new sensitive uses introduced by the Proposed Development. The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating and air conditioning systems), and construction noise (e.g. trucks, bulldozers, power tools, etc.).

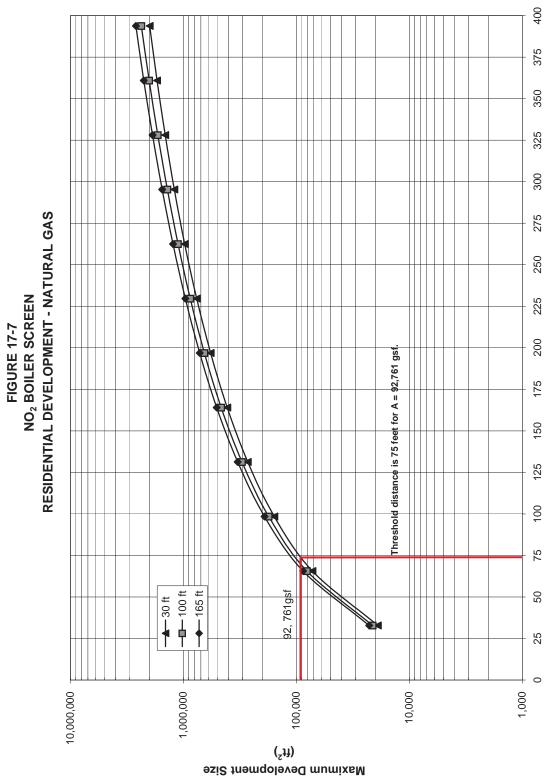
As discussed in Attachment E, "Noise", noise from traffic generated by the Proposed Actions would not cause significant adverse noise impacts, and the increases in  $L_{eq}$  ("equivalent sound level") noise levels would be minimal, ranging from 0.13 to 0.55 dBA. No special noise attenuation measures beyond standard construction practices would be required for residential/community facility or commercial uses on any of the Proposed Project's frontages. Therefore, no significant adverse noise impacts are anticipated as a result of the Proposed Actions. Additionally, upon review from the New York City Department of Environmental Protection (DEP), it was determined that the Proposed Actions would not result in any potential for significant adverse impacts in regards to noise (refer to DEP correspondence letter found in **Appendix 1**).

#### **Public Health**

Public health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, water quality, hazardous materials, and noise.

According to the guidelines of the 2014 CEQR Technical Manual, a public health assessment may be warranted if a project results in (a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; (b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect groundwater to be used as a source of drinking water; (c) solid waste management practices that could attract vermin and result in an increase in pest populations; (d) potential significant adverse impacts to sensitive receptors from noise and odors; (e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; (f) exceedances of accepted federal, state, or local standards; or (g) other actions that might not exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

As noted above, the Proposed Actions would not result in significant adverse impacts in the areas of air quality, water quality, hazardous materials, or noise. Therefore, the Proposed Actions do not have the potential to result in significant adverse public health impacts, and a further assessment is not warranted.



Distance to nearest building (ft)

64′

32'

0' 16' 32' SCALE: 1/32" = 1'-0"

#### **Neighborhood Character**

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

The CEQR Technical Manual also states that for projects not resulting in significant adverse impacts to any technical areas related to neighborhood character, additional analyses may be required to determine if the Project Area would result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. However, the CEQR Technical Manual indicates that neighborhood character impacts are rare and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects in the neighborhood would result in any significant adverse impact to neighborhood character.

As the Proposed Development would not be considered to have any significant effects on any of the technical areas relating to neighborhood character, a neighborhood character assessment can be screened out, and no significant adverse neighborhood character impacts would occur.

#### Construction

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

The Proposed Actions would result in temporary disruptions including construction related traffic, dust, noise, or mobile source emissions. However, these effects would be temporary, as the duration of construction activities for the proposed development are not expected to exceed 24 months and construction activity would be limited to the hours of 7:00 AM to 5:00 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7:00 AM. Occasionally, a Saturday or overtime hours could be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from DEP under the New York City Noise Code.

Construction staging would primarily occur on the Development Site, and construction is not expected to adversely affect surrounding land uses. As required by City regulations, sidewalk protection bridges and full height plywood barriers would be installed to protect the public right of way. Periodic lane and sidewalk closures likely would be required to facilitate material delivery, construction debris removal, and related activities. Standard practices would be followed to ensure safe pedestrian and vehicular access to nearby buildings and along affected streets and sidewalks.

During construction, access to all adjacent buildings, residences, and other uses would be maintained according to the regulations established by the NYC Department of Buildings (DOB). Noise associated with construction would be limited to typical construction activities and would be subject to compliance with the New York City Noise Code and the United States Environmental Protection Agency (EPA) noise emission standards for construction equipment. These controls and the temporary nature of construction

activity would assure that there would be no significant adverse noise impacts associated with construction activity.

The New York City Building Code provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. As the Development Site is located within the Chinatown and Little Italy Historic District, additional protective measures apply to NYCLPC-designated Landmarks and S/NR- listed historic buildings located within 90 linear feet of a proposed construction site. For these structures, the NYCDOB's Technical Policy and Procedure Notice (TPPN) #10/88 applies. TPP #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCLPC-designated or S/NR- listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

Adjacent historic resources, as defined in the procedure notice, only include designated New York City Landmarks (NYCLs), properties within NYCL historic districts, and listed S/NR properties that are within 90 feet of a lot under development or alteration. They do not include S/NR-eligible, NYCL-eligible, potential, or unidentified architectural resources. Construction period impacts on any designated historic resources would be minimized, and the historic structures would be protected, by ensuring that adjacent development projected as a result of the Proposed Actions adheres to all applicable construction guidelines and follows the requirements laid out in TPPN #10/88. Therefore, the Proposed Development would not be expected to cause any significant adverse construction-related impacts to historic resources.

While construction of the Proposed Development would result in temporary disruption in the surrounding area, including noise, dust, traffic associated with the delivery of materials, and arrival of workers on the development site, the incremental effects of the Proposed Development, if any, would be negligible. Therefore, no impacts from construction are expected under the Proposed Development.

# ATTACHMENT C OPEN SPACE

#### I. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *City Environmental Quality Review* (CEQR) *Technical Manual*, if a project is located in an area considered underserved by open space, an analysis of indirect effects on open space is warranted if a proposed action would add more than 50 residents or 125 employees. The Development Site is located in an area considered to be underserved by open space.

The Proposed Actions would displace the commercial sculpture garden that is currently leased to the City-owned Development Site, which is considered as an existing open space resource. In addition, the Proposed Development is expected to result in an incremental increase of 123 affordable dwelling units (DUs) over the 2021 No-Action condition. This would result in an increase of 126 residents<sup>1</sup>, which exceeds the *CEQR Technical Manual* threshold for a detailed indirect open space analysis. A quantitative assessment was conducted to determine whether the Proposed Actions would significantly reduce the amount of open space available for the area's residential population.

#### II. PRINCIPAL CONCLUSIONS

According to the CEQR Technical Manual, a proposed action may result in a significant adverse impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently overburden existing facilities or further exacerbate deficiency in open space. The CEQR Technical Manual also states that "if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect." A five percent or greater decrease in the open space ratio is considered to be "substantial", and a decrease of less than one percent is generally considered to be insignificant unless open space resources are extremely limited. The open space study area analyzed in this attachment is located in an area that is considered underserved by open space as defined in the CEQR Technical Manual Appendix: Open Space Maps.

As discussed below, the detailed open space analysis shows that the Proposed Actions would result in a decrease in the total, active, and passive open space ratios in the half-mile study area. In addition, as discussed below, while the Proposed Actions would result in the displacement of an existing open space resource located on the Development Site, as part of the Proposed Development, a 0.15-acre open space resource would be constructed on a portion of the Development Site. Therefore, the Proposed Actions would not result in a significant adverse open space impact.

<sup>&</sup>lt;sup>1</sup> Based on the assumption of one resident per studio apartment (123 DUs) and three residents per superintendent unit (one DU).

#### III. METHODOLOGY

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

In accordance with the guidelines established in the *CEQR Technical Manual*, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a worker population. Because the Proposed Actions would not increase the local worker population, a half-mile radius is the appropriate study area boundary.

# **Open Space Study Area**

Pursuant to *CEQR Technical Manual* guidelines, the residential open space study area includes all census tracts that have at least 50 percent of their area located within a half mile of the Development Site and all open space resources within it that are publicly accessible.

The Development Site comprises Lot 30 on Manhattan Block 493, a through-block lot with eastern frontage along Elizabeth Street and western frontage along Mott Street in the Nolita neighborhood of Manhattan Community District (CD) 2. As shown in **Figure C-1**, the half-mile open space study area includes the following 15 census tracts in their entirety: census tracts 16, 18, 30.01, 30.02, 36.01, 36.02, 38, 41, 43, 45, 47, 49, 55.01, 55.02, and 57. The open space study area extends to East 9<sup>th</sup> and 10<sup>th</sup> Streets to the north; to Avenue B, Clinton Street, and Norfolk Street to the east; to Canal and Division Streets to the south; and to Sixth Avenue, MacDougal Street, and West Broadway to the west.

# **Analysis Framework**

#### Direct Effects Analysis

According to the *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis.

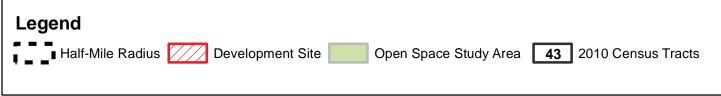
For the purposes of this analysis, the unimproved, City-owned Development Site, currently subject to a month-to-month lease operating as a commercial sculpture garden with some public access, free programming, and events, is conservatively considered to be a publicly accessible open space resource. The Proposed Actions would facilitate a development that would result in the displacement of this open space resource. The direct effects analysis is included in the "The Future with the Proposed Actions (With-Action Condition)" section of this attachment.

#### Indirect Effects Analysis

Indirect effects occur to an area's open spaces when a proposed action would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future

# **Open Space Study Area**





population. The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full detailed analysis should be conducted. The Development Site is located within an underserved area as identified in the *CEQR Technical Manual*.

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

- Characteristics of the existing and future (2021) residential users. To determine the number of residents in the study area, 2010 Census data have been compiled for census tracts comprising the open space study area. The 2021 No-Action residential population was calculated in consideration of anticipated background growth and planned and anticipated study area residential developments. The residential population introduced by the Proposed Development's DUs was estimated based on the assumption of one resident per studio apartment unit (123 DUs) and three residents per superintendent apartment unit (one DU).
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of
  open space acreage to the population in the study area and comparing this open space ratio with
  certain guidelines.
  - O As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces and is consequently used by the City as an optimal benchmark for residential populations in large-scale plans and proposals. Ideally, this would be comprised of a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents).
  - O Local open space ratios vary widely, and the median ratio at the citywide community district level is 1.5 acres of open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the residential open space study area.

# **Impact Assessment**

As described in the *CEQR Technical Manual*, the significance of a project's effects on an area's open space resources is determined using both quantitative and qualitative factors, as compared to the No-Action condition. The determination of significance is based upon the context of a proposed project, including its location, the quality and quantity of the open space in the future With-Action condition, the types of open space uses provided, and any new open space provided by the proposed project.

The quantitative assessment considers how a proposed project would change the open space ratios in the study area. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a proposed project would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement or alteration of existing open space within the study area that has a significant

adverse effect on existing users. In areas that are extremely lacking in open space, a reduction as small as one percent may be considered significant, depending on the area of the City. Furthermore, in areas that are well-served by open space, a greater change in the open space ratio may be tolerated.

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

# IV. PRELIMINARY ASSESSMENT

According to the CEQR Technical Manual, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential population to the total amount of open space in the study area. It then compares that ratio with the open space ratio in the future with the Proposed Actions. If there is a decrease in the open space ratio that would approach or exceed five percent, or if the study area exhibits a low open space ratio from the onset (indicating a shortfall of open spaces), a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to residents within study area delineated in accordance with the CEQR Technical Manual.

Pursuant to the guidelines of the *CEQR Technical Manual*, a preliminary open space assessment was conducted. As the study area is located in an underserved area, exhibiting a low open space ratio (i.e., below the citywide community district median of 1.5 acres per 1,000 residents and the City's optimal planning goal of 2.5 acres per 1,000 residents) under existing and future conditions, a detailed open space analysis is warranted and is provided below.

#### V. DETAILED ANALYSIS

# **Existing Conditions**

#### Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, 2010 Census data were compiled for the census tracts comprising the half-mile study area. With an inventory of available open space resources and the number of potential users, open space ratios were calculated and compared with the existing citywide median ratio and the City's planning goals. As mentioned above and shown in **Figure C-1**, the open space study area is comprised of 15 census tracts. As shown in **Table C-1** on the following page, 2010 Census data indicate that the study area has a total residential population of approximately 70,448.

Table C-1
Residential Population and Age Distribution in the Half-Mile Residential Study Area

Census Tract	Total Population	Unde Yea	r 5	5 to Yea	9	10 to Yea	14	15 to Yea	19	20 to Yea	64	65+ Y	ears	Median
Tract	Population	#	%	#	%	#	%	#	%	#	%	#	%	Age
16	8,478	309	3.6	348	4.1	317	3.7	333	3.9	5,611	66.2	1,560	18.4	40.7
18	8,660	326	3.8	310	3.6	319	3.7	403	4.7	6,234	72.0	1,068	12.3	36.2
30.01	4,492	132	2.9	91	2.0	90	2.0	127	2.8	3,825	85.2	227	5.1	31.3
30.02	3,106	86	2.8	67	2.2	71	2.3	97	3.1	2,270	73.1	515	16.6	37.3
36.01	3,393	113	3.3	101	3.0	118	3.5	149	4.4	2,546	75.0	366	10.8	35.7
36.02	3,151	68	2.2	44	1.4	35	1.1	127	4.0	2,708	85.9	169	5.4	34.1
38	9,237	155	1.7	131	1.4	107	1.2	344	3.7	7,656	82.9	844	9.1	31.9
41	7,817	218	2.8	212	2.7	238	3.0	354	4.5	5,440	69.6	1,355	17.3	38.1
43	4,270	126	3.0	95	2.2	101	2.4	94	2.2	3,410	79.9	444	10.4	34.2
45	1,136	87	7.7	58	5.1	39	3.4	24	2.1	813	71.6	115	10.1	38.9
47	2,524	95	3.8	73	2.9	75	3.0	52	2.1	1,960	77.7	269	10.7	37.4
49	4,942	199	4.0	120	2.4	103	2.1	88	1.8	3,767	76.2	665	13.5	36.7
55.01	4,204	212	5.0	126	3.0	107	2.5	119	2.8	2,972	70.7	668	15.9	38.3
55.02	2,257	104	4.6	70	3.1	33	1.5	29	1.3	1,835	81.3	186	8.2	34.3
57	2,781	129	4.6	80	2.9	48	1.7	39	1.4	2,047	73.6	438	15.7	38.7
Total	70,448	2,359	3.3	1,926	2.7	1,801	2.6	2,379	3.4	53,094	75.4	8,889	12.6	36.2

**Source:** 2010 Census, SF1 100%

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

Therefore, the residential population of the study area was also broken down by age group. As shown in **Table C-1**, people between the ages of 20 and 64 make up the majority (approximately 75.4 percent) of the residential population. Children and teenagers (0 to 19 years old) account for approximately 12.0 percent of the entire residential population, and persons 65 years and over account for approximately 12.6 percent of the residential study area population. Compared to Manhattan and New York City as a whole, the study area residential population includes a lower percentage of children/teenagers and a larger adult (20-64 years) population; the study area's elderly population is comparable to that of Manhattan and New York City as a whole.

The median age for the residential population within the individual census tracts of the half-mile study area ranges from a low of 31.3 years (census tract 30.01) to a high of 40.7 years (census tract 16). The open space study area's median age of 36.2 is comparable to the median age for Manhattan (36.4 years) and older than the median age for New York City as a whole (35.5 years).

These data suggest a need for facilities geared towards the recreational needs of adults and senior citizens, as the study area exhibits a high percentage of residents in the 20 to 64 age bracket.

#### Inventory of Publicly Accessible Open Space

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

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

Within the defined study area, all publicly accessible open space resources were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in February 2018, as well as information provided on the New York City Department of Park and Recreation's (NYC Parks') website, the New York City Open Accessible Space Information System (OASIS) database, and other secondary sources of information.

Table C-2 Inventory of Open Space and Recreational Resources in the Study Area

		L			•			Pag	Passive	Ac	Active	
Name Address Agency Amenities	Owner/ Agency		Ameni	ities	User Groups	Hours of Access	Total Acres	%	Acres	%	Acres	Condition & Utilization
Open Sp	Open St	Open S <sub>I</sub>	Open Sp	oace Reso	urces Included in	Open Space Resources Included in Quantitative Analysis	dysis					
Astor Place Lafayette St. & Fourth Ave.  E. 8th & 9th Sts. with / with / with / sculptur and c fourth Ave.	DOT		Pedestri with 2 sculptur and c benc	Pedestrian Plaza with Alamo sculpture, tables and chairs, benches, plantings, trees	Children, Teenagers, Adults, Senior Citizens	24 Hours	0.30	15%	0.05	85%	0.26	Excellent condition/High utilization
Houston St. & Courts, 1  E. 1st St. & Courts, 3  Houston St. NYC playgr btwn. First & Parks spray s  Second Aves. benn plantin	NY C Parks		Bask courts, l couple playgr spray s peng	Basketball courts, handball courts, playgrounds, spray showers, benches, plantings, trees	Children, Teenagers, Adults	6AM to Dusk	0.76	10%	0.08	%06	89.0	Good condition/High utilization
ABC E. Houston St. NYC courts, btwn Essex & Parks/DOE Spray showers. Norfolk Sts.	NYC Parks/DOE	- >	Baske cou playgre spray sh	etball rts, ounds, owers,	Children, Teenagers	6AM to Dusk	0.45	5%	0.02	%56	0.43	Good condition/Moderate utilization
Division Canal, Featuring granite  Division Division, & DOT block bollards, benches, benches, plantings	DOT		Street featuring block bo benc plant	Plaza ; granite ollards, hes, ings	Adults, Senior Citizens	24 Hours	0.07	15%	0.01	85%	90.0	Fair condition/Low utilization
Allen St. btwn.  Allen St. btwn.  Division & E.  Houston Sts.  Parks comfor protect pr	NY <i>C</i> Parks		Pedestr with b and pl comfor protect	Pedestrian mall with benches and plantings, comfort station, protected bike lanes	Children, Teenagers, Adults, Senior Citizens	24 Hours	1.70	5%	0.09	95%	1.62	Good condition/Moderate utilization
Forsyth Sts., DOT drinking Street Plaza Manhattan Bridge Bridge lane	DOT		Planti trees, b drin fountai	Plantings & rees, benches, drinking fountain, bike	Children, Teenagers, Adults, Senior Citizens	24 Hours	0.23	50%	0.12	50%	0.12	To be completed in 2018

Table C-2 continued Inventory of Open Space and Recreational Resources in the Study Area

		Condition & Utilization	Good condition/High utilization	Good condition/High utilization	Renovation to be completed in 2018	Good condition/Moderate utilization	Good condition/ Low utilization
Ī	Active	Acres	19.9	0.00	0.26	0.00	0.12
	Ac	%	85%	%0	95%	%0	%56
	Passive	Acres	1.18	0.46	0.01	0.05	0.01
	Pas	%	15%	100%	%5	100%	5%
		Total Acres	7.85	0.46	0.27	0.05	0.13
		Hours of Access	6AM to Dusk	Open daily for at least five hours	6AM to Dusk	6AM to Dusk	6AM to Dusk
e Stuay Are		User Groups	Children, Teenagers, Adults, Senior Citizens	Children, Teenagers, Adults, Senior Citizens	Children, Teenagers, Adults, Senior Citizens	Adults, Senior Citizens	Children, Teenagers, Adults
Resources III the Study Area	Amenities		Basketball courts, handball courts, soccer fields, volleyball courts, playgrounds, spray showers, comfort station, benches, plantings, trees	Benches, sculptures, sheds, raised plant beds, landscaping, lawn, trees	Basketball court for tots, play equipment, climbing wall, spray shower, game tables, benches, landscaping	Paved Plaza with seating, landscaping, trees	Basketball court, benches, trees
reational	Owner/ Agency		NY <i>C</i> Parks	DCAS	NYC Parks	NYC Parks	NYC Parks
Inventory of Open Space and Recreational	Address		Address  E. Houston St. to Canal St. btwn. Chrystie & Forsyth Sts. Elizabeth St. btwn. Prince & Spring Sts.		Spring & Mulberry Sts.	Kenmare St., Lafayette St., & Cleveland Pl.	Canal St btwn. Thompson St. & Sixth Ave.
tory of Open		Name	Sara D. Roosevelt Park	Elizabeth Street Garden	DeSalvio Playground	Petrosino Square	Grand Canal Court
Inven		Map No.¹	7	8	6	10	11

Table C-2 continued Inventory of Open Space and Recreational Resources in the Study Area

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	Condition & Utilization	Good condition/High utilization	Good condition/High utilization	Renovation to be completed in 2018	Excellent condition/High utilization	Excellent condition/High utilization
Active	Acres	0.00	0.61	0.08	0.28	0.43
Ac	%	%0	95%	50%	50%	%56
Passive	Acres	60.0	0.03	0.08	0.28	0.02
Pas	%	100%	2%	%05	20%	%5
	Total Acres	60.0	0.64	0.15	0.55	0.45
	Hours of Access	24 Hours	6AM to Dusk	24 Hours	24 Hours	6AM to Dusk
	User Groups	Adults, Senior Citizens	Children, Teenagers, Adults, Senior Citizens	Children, Teenagers, Adults, Senior Citizens	Children, Teenagers, Adults, Senior Citizens	Children, Teenagers, Adults
	Amenities Seating area with benches, landscaping, trees		Basketball courts, handball courts, playgrounds, spray showers, comfort stations, outdoor minipool, benches	Pedestrian Plaza with seating, drinking fountain, landscaping, trees	Playground, pedestrian paths, benches, landscaping, trees	Playgrounds, spray showers, benches, trees
			NYC Parks	NYC Parks	NYC Parks	NYC Parks
	Address Address A Watts Sts.		Thompson St. btwn. Spring & Prince Sts.	Sixth Ave. btwn. Prince & Spring Sts.	La Guardia PI. btwn. Bleecker & W. 3 <sup>rd</sup> Sts.	Mercer St. btwn. Houston & W. 4th Sts.
	Name	Greenstreet	Vesuvio Playground	Father Fagan Park	Fiorello La Guardia Park	Mercer Playground
	Map No. <sup>1</sup>	12	13	14	15	16

Table C-2 continued Inventory of Open Space and Recreational Resources in the Study Area

Map	N		Owner/	•		Hours of	Total	Pas	Passive	Act	Active	Condition &
No.1	Маше	Address	Agency	Amenices	Oser Groups	Access	Acres	%	% Acres % Acres	%	Acres	Utilization
17	Greenstreet	Mercer St. btwn. W. 3 <sup>rd</sup> & W. 4 <sup>th</sup> Sts.	NĀN	Seating area with benches, landscaping, trees	Adults, Senior Citizens	24 Hours	0.10	100%	0.10	%0	0.00	Excellent condition/High utilization
				Total Oper	1 Space in Quant	Total Open Space in Quantitative Analysis:	14.25	14.25 19%		2.66 81% 11.59	11.59	

Table Invent	Table C-2 continued Inventory of Open S	1 Space and Recr	eational Re	Table C-2 continued         Inventory of Open Space and Recreational Resources in the Study Area	tudy Area					Attack	Iment C	Attachment C.: Open Space
Map	Name	Address	Owner/	Amenities	User Groups	Hours of	Total	Passive	ive	7	Active	Condition &
, OF 1			Agency	Open Space Resources Not Included in Quantitative Analysis	es Not Included i	in Quantitative Ana	tysis	%	Acres	%	Acres	Culization
A	Albert's Garden	16-18 E. 2 <sup>nd</sup> St.	MLT	Benches, landscaping, raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday, Wednesday, & Thursday: 4PM- 6PM; Saturday & Sunday: 2PM-4PM	0.07	100%	0.07	%0	0.00	,
В	Liz Christy Garden	110 E. Houston St.	NYC Parks	Compost bins, raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday & Thursday: 6PM to Dusk; Saturday & Sunday: 12PM- 4PM	0.27	100%	0.27	%0	0.00	,
C	First Street Garden	48 E. 1 <sup>st</sup> St.	NYC Parks	Mural, Shed, trees	Children, Teenagers, Adults, Senior Citizens	Friday: 4PM-6PM; Saturday & Sunday: 12PM-4PM	0.06	100%	90.0	%0	0.00	1
D	Miracle Garden	194-196 E. 3 <sup>rd</sup> St.	NYC Parks	Benches, picnic table, compost bins, raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday through Friday: 10AM-4PM; Saturday & Sunday: 12PM to Dusk	0.12	100%	0.12	%0	0.00	
Э	Hope Garden	193 E. 2 <sup>nd</sup> St.	NYC Parks	Compost bins, landscaping, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday: 6PM- 9PM; Sunday: 10AM-5PM	0.05	100%	0.05	%0	0.00	ı
দ	Dorothy Strelsin Memorial Garden	174 Suffolk St.	NYRP	Benches, landscaping, raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Monday through Sunday: 8AM- 7PM	0.05	100%	0.05	%0	0.00	·

Table C-2 continued

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Map	Name	Address	Owner/	Amenities	sanoa5) aəs[]	Hours of	Total	Passive	ive	ρV	Active	Condition &
	Manie	sea may	Agency	Amenines	sdno io roco	Access	Acres	%	Acres	% Acres	Acres	Utilization
	Children's Magical Garden	131 Stanton St.	NYC Parks	Benches, picnic table, shed, compost bins, raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday through Friday: 3PM-6PM; Saturday & Sunday: 3PM to 6PM	0.07	100%	0.07	%0	0.00	
	LaGuardia Corner Community Garden	511 La Guardia Pl.	DOT	Raised plant beds, trees	Children, Teenagers, Adults, Senior Citizens	Tuesday & Thursday: 6PM- 8PM; Saturday & Sunday: 1PM-5PM	0.16	100%	0.16	%0	00.00	ı
			Totz	Total Open Space not included in Quantitative Analysis:	ncluded in Quan	titative Analysis:	0.85	100% 0.85 0% 0.00	0.85	%0	0.00	
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Source: NYC OASIS, NYC Parks, February 2018 field visits.

Notes:

Refer to Figure C-2.

Refer to Figure C-2.

NYC Parks = New York City Department of Parks and Recreation; DCAS = New York City Department of Citywide Administrative Services; DOE = New York City Department of Education; DOT = New York City Department of Transportation; NYU = New York University; MLT = Manhattan Land Trust; NYRP = New York Restoration Project

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

Likewise, judgments as to the intensity of use of the resources were qualitative, based on an observed degree of activity or utilization on a weekday afternoon, which is considered the weekday peak utilization period according to the *CEQR Technical Manual*. If a facility seemed to be at or near capacity (i.e. the majority of benches or equipment was in use), then utilization was considered high. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. **Table C-2**, "Inventory of Existing Open Space and Recreational Resources in Study Area," identifies the address, ownership, features, and acreage of active and passive open space resources in the study area, as well as their condition and utilization. **Figure C-2** maps their location within the study area.

#### **Open Space Resources**

As shown in **Figure C-2** and **Table C-2**, there are 17 publicly accessible open space resources located in the residential open space study area. In addition, there are eight resources located within the study area that are not included in the quantitative analysis due to limited hours of operation and/or accessibility or due to the fact that they do not include seating or other amenities.

The study area contains a total of approximately 14.25 acres of publicly accessible open space, approximately 81 percent of which (11.59 acres) comprises active open space and approximately 19 percent of which (2.66 acres) comprises passive open space (refer to **Table C-2**). However, as indicated in **Table C-2**, three open space resources in the study area are currently closed for renovation or reconstruction. Together, these three resources comprise 0.65 acres of open space (0.45 acres of active open space and 0.20 acres of passive open space). All three of these resources will reopen by the end of 2018.

The largest open space in the study area is the 7.85-acre Sara D. Roosevelt Park (Map No. 7), located in the southern portion of the study area and bordered by East Houston Street to the north and Canal Street to the south, as well as Chrystie Street to the west and Forsyth Street to the east. This open space resource is operated by NYC Parks and features basketball, handball, and volleyball courts, soccer fields, playgrounds, and spray showers for active recreation, as well as a comfort station, walking paths, benches, and landscaped areas for passive recreation. The Allen Street Malls (Map No. 5) is another large open space located in the southern portion of the study area and bordered by East Houston Street to the north and Division Street to the south. This open space resource is operated by NYC Parks and features a pedestrian mall and bike path for active recreation, as well as a comfort station and benches for passive recreation.

The remaining 15 open space resources in the study area are all under one acre in size and predominantly programmed with active open space uses. First Park (Map No. 2) is a 0.76-acre open space resource that features basketball and handball courts, playgrounds, and spray showers for active recreation, as well as benches for passive recreation. ABC Playground (Map No. 3) is a 0.45-acre, jointly-operated playground that features basketball courts, playgrounds, and spray showers for active recreation, as well as benches for passive recreation. Vesuvio Playground (Map No. 12) is a 0.64-acre open space resource that features basketball and handball courts, playgrounds, spray showers, and an outdoor mini-pool for active recreation, as well as a comfort station and benches for passive recreation. Elizabeth Street Garden, the publicly accessible open space resource located on the unimproved Development Site, is also included in the

# Open Space Resources



quantitative analysis and features 0.46-acres of passive open space uses, including benches, sculptures, a lawn, raised plant beds, and landscaping.

As noted above, there are eight additional open space resources that are conservatively not included in the quantitative analysis because they are not fully accessible to the public, have limited hours, or do not include seating or other amenities. These nine resources are community gardens primarily located in the eastern portion of the study area, to the east of Bowery. Together, these nine resources comprise approximately 0.85 acres of passive open space.

#### Assessment of Open Space Adequacy

#### **Quantitative Assessment**

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

In calculating the open space ratio per 1,000 residents for the study area, all of the resources listed in the "Open Space Resources Included in the Quantitative Analysis" section of **Table C-2** were included; open space resources A through H were not included in the calculations pursuant to the *CEQR Technical Manual*, for the reasons described above. **Table C-3** shows that, with an existing study area residential population of approximately 70,448 people, the existing total open space ratio in the study area is approximately 0.193 acres of open space per 1,000 residents; the study area has 0.035 acres of passive open space per 1,000 residents and 0.158 acres of active open space per 1,000 residents. As indicated in **Table C-3**, the existing total, active, and passive residential open space ratios are well below both the City's open space planning goals of 2.5 acres per 1,000 residents and the City's median community district open space ratio of 1.5 acres per 1,000 residents.

Table C-3
Adequacy of Open Space Resources in the Study Area – Existing Conditions<sup>1</sup>

 	_ 1 _ 1 _					-			_
Existing	Оре	en Space Acre	eage	Open Spa	ce per 1,000	Residents	City Open	Space Plani	ning Goals
Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
70,448	13.60	2.45	11.15	0.193	0.035	0.158	2.50	0.50	2.0

#### **Notes:**

# **Qualitative Assessment**

As shown in **Table C-2**, open space resources within the study area are mostly in excellent or good condition, and use levels are high for the majority of these facilities. Although the study area currently has a shortage of open space resources, it should be noted that there are two destination open space resources outside the boundaries of the study area that offer additional active and passive open space uses, particularly Washington Square Park.

Washington Square Park is one of the City's oldest and most recognizable public parks. The 9.75-acre park, first established in 1827, is located immediately to the north of the half-mile study area's northern boundary,

<sup>&</sup>lt;sup>1</sup> The existing open space acreage excludes three open space resources (totaling 0.65 acres) that are currently closed for renovation or reconstruction. These resources will reopen by the end of 2018.

approximately 0.6 miles from the Development Site. Washington Square Park, which is bounded by Washington Park North, Washington Park South, Washington Park East, and Washington Park West, provides a variety of active and passive uses, including multiple playgrounds and spray showers, game tables, a dog park, a comfort station with restrooms and fountains, Wi-fi access, as well as pedestrian paths, benches, sitting areas, and landscaped areas. The park also includes several monuments and statues, including the park's famous Washington Square Arch located near the park's entrance at Washington Square North and Fifth Avenue, as well as a large fountain located in the center of the park, which attracts bathers during the warm seasons, as well as performers and spectators during the cold seasons, who utilize the fountain when it is drained as an ad hoc amphitheater for performances.

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

In the future without the Proposed Actions (the No-Action condition), it is anticipated that the Project Sponsors would not proceed with the Proposed Development. The Development Site would not be redeveloped and would remain in its current state, an unimproved lot operating as a commercial sculpture garden subject to a month-to-month lease.

#### Study Area Population

While there are no known and anticipated residential developments in the open space study area, the study area residential population is expected to increase due to general background growth. Specifically, based on a compound annual growth rate of 2.6 percent, the 2021 open space study area residential population is expected to increase to 93,442.

#### **Open Space Resources**

While there are no planned changes to open space resources that would increase or decrease the overall study area acreage, NYC Parks is currently in the process of reconstructing DeSalvio Playground (Map No. 8 in **Figure C-2**), which will improve the condition and usability of this study area open space resource. The renovation of DeSalvio Playground, which began construction in July 2017, is scheduled to be completed in July 2018. Additionally, NYC Parks is currently in the process of reconstructing Father Fagan Park (Map No. 13 in **Figure C-2**), which will improve the condition and usability of this study area open space resource. The renovation of Father Fagan Park, which began construction in June 2017, is scheduled to be completed in June 2018. The New York City Department of Transportation (DOT) is currently reconstructing Forsyth Street Plaza (Map No. 6 in **Figure C-2**), which will improve the condition and usability of this study area open space resource. The reconstruction of Forsyth Street Plaza, which began construction in April 2015, is scheduled to be completed in summer 2018.

# **Open Space Adequacy**

**Table C-4**, below, presents the No-Action open space ratios for the half-mile study area, based on the anticipated population increase outlined above. As indicated in **Table C-4**, in the No-Action condition, as under existing conditions, the total, passive, and active open space ratios would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents (including 0.5 acres of passive open space and two acres of active open space), as well as the City's median community district open space ratio of 1.5 acres per 1,000 residents. Specifically, the total open space ratio is expected to decrease to 0.153 acres per 1,000 residents in the No-Action condition, with No-Action passive and active open space ratios of 0.028 and 0.124 acres per 1,000 residents, respectively.

Table C-4
Adequacy of Open Space Resource in the Study Area – No-Action Conditions<sup>1</sup>

				Oper	Space per	1,000	City O <sub>I</sub>	en Space P	lanning
No-Action	Ope	n Space Acr	eage		Residents			Goals	
Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
93,442	14.25	2.66	11.59	0.153	0.028	0.124	2.50	0.50	2.0

#### Notes

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

This section describes the open space conditions that would result from the Proposed Actions by 2021. It evaluates the potential for the Proposed Actions to result in significant adverse impacts to open space resources directly and indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

# **Development Site Population**

As described in Attachment A, "Project Description," in the future with the Proposed Actions, the Proposed Development would introduce a total of 124 DUs onto the Development Site, which, together, are expected to house 126 residents. Based on this incremental residential population growth, the study area's population would increase to a total of 93,568 residents in the 2021 With-Action condition.

#### Direct Effects Analysis

The Proposed Actions would have a direct effect on one study area open space resource: existing sculpture garden currently occupying the Development Site. The construction and operation of the Proposed Development would cause the physical loss of this open space resource. The 0.46-acre sculpture garden was established in 1991 on land owned by the City of New York and under the jurisdiction of the New York City Department of Citywide Administrative Services (DCAS). Elizabeth Street Gallery operates the sculpture garden through a month-to month lease with DCAS; the unimproved, City-owned land occupied by the commercial sculpture garden is not mapped as public parkland. The sculpture garden, in its current state, is primarily programmed with passive uses, including a walkway, benches, concrete sculptures, raised plant beds and other forms of landscaping, as well as a lawn and trees.

Although the City-owned lot operating as a sculpture garden would be displaced as part of the Proposed Actions, as part of the Proposed Development, an approximately 0.15-acre open space resource would be constructed on a portion of the Development Site; the new open space resource would be publicly accessible, as required through the land disposition agreement and/or the regulatory agreement with HPD. In addition, the Project Sponsors plan to conduct a participatory design process with the surrounding community to inform the design of the new 0.15-acre resource.

# **Indirect Effects Analysis**

As noted above, the open space impact analysis consists of both a quantitative assessment and a qualitative assessment. The quantitative assessment considers how a proposed project would change the open space ratios in the study area. As the study area open space ratios are significantly less than both the City's optimal benchmark of 2.5 acres of open space per 1,000 residents and the City's median community district open

<sup>&</sup>lt;sup>1</sup> The No-Action open space acreage reflects the re-opening of three open space resources (totaling 0.65 acres) that are currently closed for renovation or reconstruction.

space ratio of 1.5 acres of open space per 1,000 residents, a reduction in the open space ratio of as small as one percent may be considered significant, depending on the area of the City, and in consideration of qualitative factors, including proximity to nearby destination open space resources, the connectivity of open space, the effects of new open space provided by the proposed project, and open spaces created by the proposed project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

#### **Quantitative Assessment**

**Table C-5** compares the No-Action and With-Action open space ratios per 1,000 residents. As presented in **Table C-5**, in the With-Action condition, as under existing and No-Action conditions, the open space ratios in the half-mile study area would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents, including 0.5 acres of passive open space and 2.0 acres of active open space. Specifically, in the future with the Proposed Actions, the total open space ratio is expected to decrease by 2.24 percent, to 0.149 acres of open space per 1,000 residents (as compared to the No-Action condition); the With-Action passive open space ratio would decrease by 11.41 percent to 0.025 acres per 1,000 residents; and the With-Action active open space ratio would decrease by 0.13 percent to 0.124 acres per 1,000 residents.

Table C-5
Adequacy of Open Space Resource in the Study Area – No-Action vs. With-Action Conditions

		Ope	n Space Ac	reage	Open Spa	ce per 1,000 (acres)	Residents		ty Open Sp lanning Go	
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
No-Action Condition	93,442				0.153	0.028	0.124			
With-Action Condition	93,568	13.95	2.36	11.59	0.149	0.025	0.124	2.50	0.50	2.0
Incremental Change	126				-0.003 (-2.24%)	-0.003 (-11.41%)	-0.0002 (-0.13%)			

As the Proposed Actions would result in a decrease in the total, active, and passive open space ratios in an area underserved by open space, a qualitative assessment is needed to determine whether this level of reduction in the open space ratio would be considered a significant adverse indirect open space impact. The qualitative assessment is provided below.

#### Qualitative Assessment

In the future with the Proposed Actions, the study area would continue to have a shortfall of open space. However, although the existing open space ratios in the study area would remain less than the DCP planning goals and the citywide Community District median both without and with the Proposed Actions, the deficiency of open space resources within the study area would be ameliorated by several factors. A majority of the study area open space resources included in the quantitative analysis were found to be in good or excellent condition. In addition, the study area contains a variety of recreational facilities to serve the study area's significant adult population, with 81 percent dedicated to active uses and 19 percent dedicated to passive uses. As noted above, approximately 75.4 percent of the study area's residents are between the ages of 20 and 64, indicating a need for court game facilities and fields for sports, as well as bike paths and promenades for activities such as biking, jogging, and walking. Moreover, as part of the Proposed Development, an approximately 0.15-acre open space resource would be constructed on a portion of the Development Site, which would be made available for use to the public. Additionally, in the future with the Proposed Actions, the proximity of Washington Square Park would continue to be a factor in

alleviating the study area's open space deficiency. Similarly, on a smaller scale, bicycle lanes and other private open spaces in the study area, such as the eight community gardens listed in **Table C-2**, would also provide open space for some study area residents.

As such, demand for open space generated by the Proposed Development would not significantly exacerbate the No-Action deficiency, and the population added as a result of the Proposed Development is not expected to noticeably affect utilization of the area's open spaces.

# ATTACHMENT D HISTORIC AND CULTURAL RESOURCES

#### I. INTRODUCTION

Historic and cultural resources include both architectural and archaeological resources. The 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed in the State/National Registers of Historic Places (S/NR) or contained within a district listed in or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

In accordance with CEQR guidance, archaeological resources are considered only in those areas where excavation is likely and would result in new in-ground disturbance compared to No-Action conditions. The Development Site at 199-207 Elizabeth Street / 222-230 Mott Street (Block 493, Lot 30) in Manhattan is expected to be redeveloped as a result of the Proposed Actions with new in-ground disturbance. In February 2018, LPC determined that archaeological sensitivity models, reports, and historic maps indicated the potential for the recovery of remains from 19<sup>th</sup> century occupation on the Development Site (refer to LPC correspondence in **Appendix 1**). As such, an assessment of the potential effects of the Proposed Actions on archaeological resources is warranted and is provided below.

As shown in **Figure D-1**, the Development Site is located in the S/NR-listed Chinatown and Little Italy Historic District, and as such, an assessment of historic architectural resources is warranted for the Proposed Actions. According to *CEQR Technical Manual* guidance, impacts on historic resources are considered on those sites impacted by a proposed action and in the area surrounding a proposed development site. The historic resources study area is therefore defined as the Development Site plus an approximate 400-foot radius around the Development Site, which is typically adequate for the assessment of historic resources in terms of physical, visual, and historical relationships (refer to **Figure D-1**).

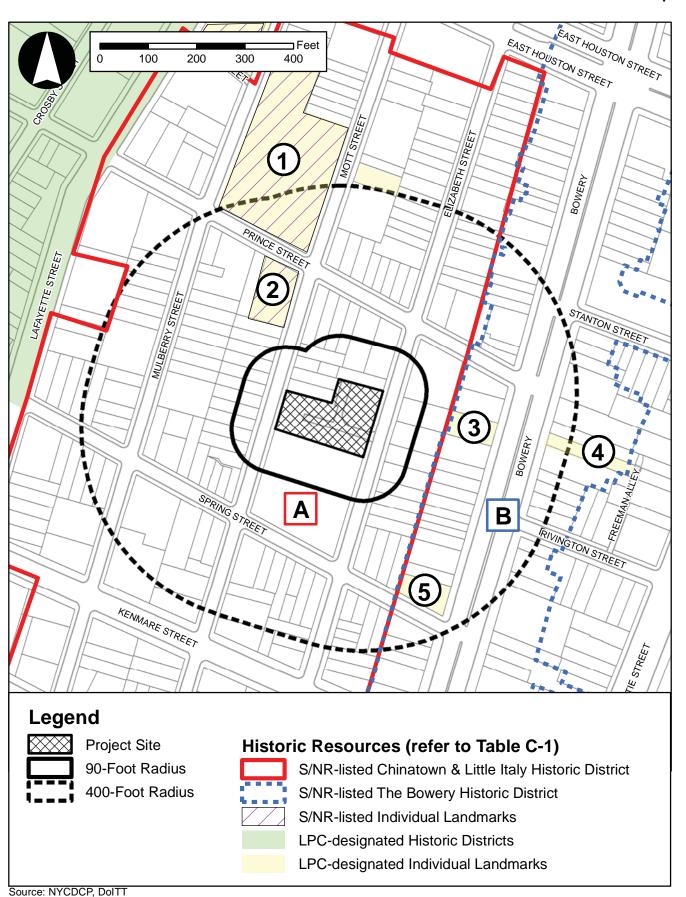
# II. PRINCIPAL CONCLUSIONS

#### **Archaeological Resources**

As discussed above, LPC conducted an initial review of the Development Site and determined that the site possesses potential archaeological significance (LPC correspondence is provided in **Appendix 1**). LPC requested that a Phase 1A Archaeological Assessment of the site be prepared to further clarify its archaeological sensitivity. A Phase 1A study of the Development Site was completed in April 2018 (and is provided in **Appendix 2**). The Phase 1A concludes that, as a result of the lot coverage of former buildings on the Development Site, remains of historic buildings and any potential backyard features associated with early structures on the Development Site would have been severely impacted and probably destroyed as a result of subsequent construction on the site (all of which was demolished in the 20<sup>th</sup> century, as detailed below). Therefore, the Phase 1A Archaeological Assessment determined that the Development Site is not

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# **Historic Resources Map**



sensitive for archaeological remains, and no further archaeological investigation is necessary. Therefore, the Proposed Actions would not result in significant adverse archaeological impacts.

#### **Architectural Resources**

#### Direct (Physical) Impacts

The Proposed Actions would not result in any significant adverse impacts to historic architectural resources. As discussed in Attachment A, "Project Description," the Proposed Actions include seeking construction financing from the New York City Department of Housing Preservation and Development (HPD) and several discretionary actions, including the designation of an Urban Development Action Area (UDAA), Urban Development Action Area Project (UDAAP) approval, and the disposition of City-owned property to facilitate the development of a seven-story, approximately 92,761 gross square foot (gsf) mixed-use building on the Development Site. Although located in the boundaries of the S/NR-listed Chinatown and Little Italy Historic District, the Development Site does not contain any historic resources that contribute to the surrounding historic district. Additionally, the Development Site does not contain any historic resources identified by LPC as NYCL-designated or NYCL-eligible (refer to LPC correspondence in Appendix 1). Therefore, the Proposed Development would not result in direct impacts to any historic architectural resources.

#### Indirect (Contextual) Impacts

No incompatible, visual, audible, or atmospheric elements would be introduced by the Proposed Actions to any historic architectural resource's setting under With-Action conditions. The Proposed Development would not alter the relationship of any identified historic architectural resource to the streetscape, since all streets in the study area would remain open and each resource's relationship with the street would remain unchanged in the future with the Proposed Actions. Although most of the existing views of historic buildings on Mott Street from Elizabeth Street and historic buildings on Elizabeth Street from Mott Street would be eliminated by the Proposed Development, none of these eliminated viewsheds are significant, as more proximate views of these historic buildings exist from adjacent public streets and sidewalks on Mott and Elizabeth Streets. Additionally, all significant elements of these resources would remain visible in view corridors on adjacent public streets and sidewalks as no primary facades, significant architectural ornamentation, or notable features of surrounding historic buildings would be obstructed by the new building on the Development Site. Additionally, it should be noted that the Proposed Development includes a green throughway in the southernmost section of the lot, which would continue to provide limited views of historic buildings on Mott Street from Elizabeth Street and some views of historic buildings on Elizabeth Street from Mott Street.

Although the Proposed Actions would facilitate the construction of a new building in the S/NR-listed Chinatown and Little Italy Historic District, this change would not be significant or adverse. The proposed new building would be built-out to the lot line on Elizabeth Street without lower-level setbacks, continuing the continuous streetscape which is a defining element of the surrounding historic district. At seven-stories tall, the proposed new building would also be in keeping with surrounding heights of the area, which typically range between four- and seven-stories tall. Further, the Proposed Development would be clad in brick with regular fenestration, reflective of the surrounding historic district, which contains predominately brick tenements with regular fenestration. The design of the Proposed Development would incorporate variations in the brick texture and color to maintain the vertical rhythm based on narrow lots and horizontal accents between windows found throughout the historic district. Additionally, there is already a considerable amount of new construction in the area, including the six-story building at 232 Mott Street constructed in 2006 and the seven-story building at 211 Elizabeth Street built in 2007. As such, the construction of the Proposed Development in the S/NR-listed Chinatown and Little Italy Historic District

would not be incompatible with existing neighborhood development, and would not significantly alter the visual setting and historic context of the surrounding historic district. As the Proposed Actions would not affect those characteristics that make surrounding buildings eligible for listing on the S/NR or for designation as NYCLs, the Proposed Actions would not result in any significant adverse indirect or contextual impacts on historic architectural resources. In a letter dated November 8, 2018 (provided in **Appendix 1**), LPC concurred with these findings and requested that, in order to ensure consistency with the design, massing, height, scale, fenestration pattern, materials, and color of the new building and its historic context detailed above, HPD submit the final building design to LPC for review.

#### Construction-Related Impacts

As the Development Site is located within the S/NR-listed Chinatown and Little Italy Historic District, the Proposed Development would include a Construction Protection Plan in order to protect the adjacent historic buildings from potential construction damage. The Construction Protection Plan would be developed in consultation with LPC and/or the New York State Historic Preservation Office (SHPO) and would take into account the guidance provided in the *CEQR Technical Manual*, Chapter 9, Section 523, "Construction Protection Plan" and requirements laid out in the New York City Department of Building's (DOB)'s Technical Policy and Procedure Notice (TPPN) #10/88. With the implementation of the construction protection plan measures outlined in the Construction Protection Plan for the Development Site, no construction-related impacts on historic architectural resources would be anticipated as a result of the Proposed Actions.

#### Shadows Impacts

The proposed building would result in incremental shadow coverage on two historic resources with sunlight-sensitive features: Saint Patrick's Convent and Girls' School (Resource #2 in Figure D-1), and The Bowery Mission (Resource #4). As summarized below and detailed in the "Shadows" section of Attachment B, "Supplementary Screening," project-generated shadows would not result in significant adverse impacts to any sunlight-sensitive features of these two historic resources.

#### III. DEVELOPMENT BACKGROUND<sup>1</sup>

Prior to the arrival of European fur traders and the Dutch West India Company, Manhattan was populated by Native Americans from the Lenape tribe, who traveled between encampments on the island. Wickquasgeck Road in the eastern portion of the study area (now Bowery) is believed to be the oldest thoroughfare in Manhattan, used as a foot trail by the Lenape tribe until the Dutch enlarged it into a wagon road in 1626. When the British took control of New Amsterdam, the street became a component of the Post Road linking New York and Boston, renamed "The Bowery" in 1813.

As shown in **Figure D-1**, the Development Site and surrounding area are located in Nolita (a portmanteau of "North of Little Italy"), which was long regarded as part of Little Italy but lost much of its recognizable Italian character in the late-20<sup>th</sup> century. After the colonization of New Amsterdam, the earliest residents of what is now Little Italy were former African slaves dispatched by the Dutch between 1643 and 1651 to farm the area and provide a buffer for New Amsterdam against hostile invasions by the Lenape to the north.

To the southwest of the study area was the Collect Pond, the largest surface source of fresh water in colonial New Amsterdam and New York (filled in and developed upon in 1808). Just north was the extensive farm of Nicholas Bayard, which was mapped for future development with a street grid in the Maerschalk Plan

<sup>&</sup>lt;sup>1</sup> Much of this section is from SHPO's *Chinatown and Little Italy Historic District Nomination Report* (2009) and *The Bowery Historic District Nomination Report* (2011)

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of 1755. Streets depicted in this plan included the existing Bayard's Lane (now Broome Street) as well as Mulberry, Mott, and Elizabeth Streets (although these likely did not extend north into the study area until the early 1800s).

In 1750, Bayard constructed a slaughterhouse near the Collect Pond (what is now Columbus Park to the southwest of the study area), and by the mid-18<sup>th</sup> century, the neighborhood was an active industrial district. As a result, the Bowery, which until then had been a bustling neighborhood with Federal and Georgian style townhouses, became more commercial. The busy drovers on the Bowery spurred the development of taverns and butchers houses along the road, as well as dry goods and hardware businesses.

The construction of the Third Avenue elevated train on the Bowery in 1878 resulted in the redevelopment of the old townhouses along the thoroughfare with industrial loft buildings and warehouses as the affluent moved north to escape the industrial pollution and typhoid outbreaks. The Bowery soon became an area known for its cheap amusements, including music halls, theaters, and German beer halls as well as dive bars, taxidance halls, pawnbrokers, and gambling venues.

During this time, tenements were rapidly being constructed to the west of the Bowery, intended to crowd the greatest number of people into the smallest possible space for maximum economic gains for developers. The resulting overcrowded and unsanitary conditions in the neighborhood spurred the Tenement House Acts of 1867, 1879, and 1901, with requirements for light, ventilation, and fire escapes. The neighborhood steadily gained population from the mid-18<sup>th</sup> century onward as waves of poor immigrants moved into the area, beginning with the Irish in the 1840s. Sub-neighborhoods developed as concentrations of particular ethnic groups of immigrants settled in enclaves around familiar businesses, religious institutions, and social centers.

In the late-19<sup>th</sup> century, Irish immigrants moved out of the area and Polish and Russian Jews and Germans moved in. These groups were subsequently replaced with Italians and, farther south, Chinese, who dominated the area through the early-20<sup>th</sup> century, creating the enclaves of Chinatown and Little Italy. At the time, Little Italy encompassed most of the study area, extending from Worth to Bleecker Streets between Lafayette Street and the Bowery, and the new immigrants largely chose to live in regionally specific enclaves. In the study area, Elizabeth and Prince Streets were predominately occupied by Sicilians while Mulberry and Mott Streets were primarily occupied by Napolitanis. At the time, Chinatown was located farther south, largely below Canal Street.

By the turn of the 20<sup>th</sup> century, the Bowery in the eastern portion of the study area had declined into a center of transience, homelessness, and vice, and by the 1920s, a wholly impoverished area. The 19<sup>th</sup> century photographer Jacob Riis referred to the Bowery as "thieves' highway." Many of the industrial lofts had been converted into lodging houses, and few residents had jobs. The economic devastation of the Great Depression further blighted the neighborhood, and crime was prevalent. Concurrently, the western portion of the study area was experiencing significant demographic change. The Immigration Act of 1924 restricted Italian immigration to America, and as a result, fewer new immigrants of Italian descent settled in Little Italy. After World War II, the Italian residents of Little Italy began leaving the area for the newly developed suburbs in large numbers, similar to other groups throughout the City.

During the mid- to late-20<sup>th</sup> century, Little Italy remained a tourist attraction for those seeking Italian-American cuisine and festivals, but was inhabited by an expanding Chinese population from the south. The Immigration and Nationality Act of 1965 abolished the 1920s immigrant quota system based on national origins, permitting many more Asians to immigrate to the United States. As a result, the population of Chinatown increased dramatically in the 1970s and 1980s, and the district rapidly expanded east of Bowery into the Lower East Side and north of Canal Street into Little Italy.

Like much of the City, the study area was largely crime-plagued and blighted in the 1970s. Old tenement buildings in Little Italy and industrial loft buildings along the Bowery were burned out and abandoned. Due to the deteriorating building conditions and high crime rates of the area, many remaining residents and businesses left, and the commercial district of Little Italy contracted. The City's occupancy laws changed in 1961, legalizing artists' occupancy of loft buildings, resulting in an influx of artists and creative intellectuals converting the Bowery's abandoned loft buildings into studios and residences.

Around the end of the 20<sup>th</sup> century, residents priced out of nearby SoHo began moving to the area, and real estate agents and developers rebranded the western portion of the study area as "Nolita." Subsequently, new residential buildings were constructed and expensive retail boutiques and trendy restaurants and bars opened in the revitalized neighborhoods of both Nolita and the Bowery. Today, the only remaining commercial stretch of Little Italy located on Mulberry Street, in the southwest corner of the study area, is predominately patronized by tourists.

#### IV. ARCHAEOLOGICAL RESOURCES

Archaeological resources are the physical remnants, usually buried, of past activities on a site. They can include pre-contact archaeological resources associated with the Native American populations who used or occupied a site, or archaeological resources associated with the historic period, which began with the settlement of Europeans in the New York area beginning in the 17<sup>th</sup> century. In developed areas and in urban regions, archaeological resources are often disturbed or destroyed by grading, excavation, and the installation and improvement of infrastructure. However, some archaeological resources do survive in an urban environment and are often sealed beneath the surface and protected from further disturbance.

In accordance with CEQR Technical Manual guidance, archaeological resources are assessed only in areas where excavation is likely and would result in new in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site. For projects that would result in new in-ground disturbance, assessment of both prehistoric and historic archaeological resources is appropriate. As detailed in Attachment A, "Project Description," the Proposed Actions would facilitate the redevelopment of the Development Site at 199-207 Elizabeth Street / 222-230 Mott Street (Block 493, Lot 30) in the Nolita neighborhood of Manhattan (refer to **Figure D-1**), resulting in new in-ground disturbances. As such, an assessment of archaeological resources is necessary for the Proposed Actions.

As detailed in the CEQR Technical Manual, the area of subsurface work for a project is considered the impact area for archaeological resources. Environmental review for archaeological resources is a predictive endeavor. Therefore, to assess whether the impact area may contain significant archaeological resources, data must be gathered from the surrounding area to predict the likelihood of archaeological resources existing in the impact area. For prehistoric resources, it is appropriate to determine whether there are known prehistoric archaeological resources within a half-mile radius of the site. For historic archaeological resources, it is appropriate to determine if there are known historic archaeological resources in the nearby area, such as on the present-day full tax lot or within the boundaries of the nearest adjacent mapped streets.

#### **Existing Conditions**

In a letter dated February 27, 2018 (provided in **Appendix 1**), LPC determined that archaeological sensitivity models, reports, and historic maps indicate the potential for the recovery of remains from 19<sup>th</sup> century occupation on the Development Site. As such, LPC recommended that an archaeological documentary study be performed for the site to clarify the initial findings and provide a threshold for the next level of review, if warranted.

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#### Phase 1A Archaeological Assessment

Celia J. Bergoffen Ph.D. R.P.A. conducted a Phase 1A Archaeological Assessment in April 2018 to examine the Development Site's history and identify any potential archaeological sensitivity on the site (refer to **Appendix 2**). As detailed in the report, P.S. 5 (later renamed P.S. 106), one of the earliest public schools in New York City, was constructed in 1821 on the southernmost portion of Block 493, including the southern section of the Development Site fronting Mott Street. The remainder of the Development Site fronting Elizabeth Street was developed with five residential buildings at least as early as 1867. By 1903, the school and four of the five residential buildings on the Development Site had been demolished and replaced with a new, five-story school building designed by C.B.J. Snyder and designated P.S. 21. The fifth residential building on the Development Site was demolished in the mid-20<sup>th</sup> century, and the P.S. 21 building was demolished in the 1970s. The Development Site was not subsequently built upon, and, as detailed above, is currently subject to a month-to-month lease and is operating as a sculpture garden.

As discussed in the Phase 1A report, as a result of the lot coverage of P.S. 21 and the adjacent residential building on the Development Site, any potential backyard features associated with the former five-story residential buildings on Elizabeth Street would have been severely impacted and probably destroyed during the construction of the new school. No remains of the original 1821 school building (P.S. 5) – which would have been of historic significance – would have survived the construction of the 1903 school building (P.S. 21). Therefore, the Phase 1A Archaeological Assessment determined that the Development Site on Lot 30 of Manhattan Block 493 is not sensitive for archaeological remains, and no further archaeological investigation is necessary (refer to **Appendix 2**). Therefore, the Proposed Actions would not result in significant adverse archaeological impacts.

#### V. ARCHITECTURAL RESOURCES

#### **Development Site**

The Development Site is an unimproved, City-owned through-block lot located at 199-207 Elizabeth Street / 222-230 Mott Street (Block 493, Lot 30) in the Nolita neighborhood of Manhattan (refer to **Figure D-1**). The site is currently subject to a month-to-month lease and is operating as a commercial sculpture garden with some public access, free programming, and events. Although the Development Site is located within the S/NR-listed Chinatown and Little Italy Historic District (detailed below), it is not considered a contributing historic resource as it does not contain any historically significant features.

#### **Surrounding Area**

As shown in **Figure D-1**, there are several designated historic resources within 400-feet of the Development Site. **Table D-1** below provides a list of these resources, photos of which are presented in **Figure D-2**. The following provides a brief description of the historic resources identified in the 400-foot study area surrounding the Development Site. There are no known eligible architectural resources within 400-feet of the Development Site.

Table D-1: Historic Resources Located in the 400-Foot Study Area

Map No. <sup>1</sup>	Name	Location	S/NR- Listed	LPC- Designated
A	Chinatown and Little Italy Historic District	Generally bounded by East Houston Street to the north, lots fronting Elizabeth Street to the east, Worth Street to the south, and Baxter/Lafayette Streets to the west	X	
В	The Bowery Historic District	Includes most lots fronting Bowery between Division Street and Cooper Square	X	
1	Saint Patrick's Old Cathedral	256 Mulberry Street	$X^2$	X
2	Old Saint Patrick's Convent and Girls' School	32 Prince Street	$X^2$	X
3	(Former) Young Men's Institute Building of the YMCA	222 Bowery	$X^3$	X
4	The Bowery Mission	227 Bowery	$X^3$	X
5	(Former) Germania Bank Building	190 Bowery / 1-3 Spring Street	$X^3$	X

#### Notes:

#### Designated Historic Districts

A. Chinatown and Little Italy Historic District (S/NR-Listed): Generally bounded by East Houston Street to the north, lots fronting Elizabeth Street to the east, Worth Street to the south, and Baxter/Lafayette Streets to the west <sup>2</sup>

The Development Site and much of the study area is located in the S/NR-listed Chinatown and Little Italy Historic District (refer to **Figure D-1**). As detailed above, these neighborhoods developed as vibrant enclaves of Italian and Chinese immigrant communities during the late-19<sup>th</sup> and early-20<sup>th</sup> centuries. The 38-block district contains 624 contributing resources, and the predominant, character-defining building type of the neighborhoods are the mid-19<sup>th</sup> through early-20<sup>th</sup> century tenements. As shown in **Figures D-2a** and **D2b**, most buildings in the district are brick and built out to the lot lines without setbacks or front yards, creating a cohesive streetscape. The buildings are distinguished by their architectural styles and ornament as well as often elaborate wrought or cast-iron fire escapes.

As noted above, the Development Site does not contain any historic resources that contribute to the surrounding Chinatown and Little Italy Historic District. However, immediately north of the Development Site are three contributing historic resources. 209 Elizabeth Street (Lot 21) is the Firehouse, Hook & Ladder No. 9/G building constructed in the Renaissance Revival/Aesthetic Movement style in the 1880s (refer to Photo 5 in **Figure D-2b**). This unique building is noted as being a structure of particularly special significance in the district, although its ground floor is currently covered in graffiti. To the west, 228 and 230 Mott Street (Lots 9 and 10) contain six-story tenement buildings (refer to Photo 2 in **Figure D-2a**). 228 Mott Street was constructed in the mid-19<sup>th</sup> century in the Greek Revival style, and 230 Mott Street was built in 1904 in the Colonial Revival style to the designs of the architectural firm Neville & Bagge. It should be noted that, in addition to the Development Site, the adjacent lots at 232 Mott Street (Lot 11) and 211 Elizabeth Street (Lot 41) contain buildings that do not contribute to the surrounding Chinatown and Little Italy Historic District (see **Figures D-2a** and **D-2b**).

<sup>&</sup>lt;sup>1</sup> Refer to **Figure D-1**.

<sup>&</sup>lt;sup>2</sup> Individually listed on the S/NR and also located in the S/NR-listed Chinatown and Little Italy Historic District.

<sup>&</sup>lt;sup>3</sup> Located in the S/NR-listed The Bowery Historic District.

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<sup>&</sup>lt;sup>2</sup> SHPO's Chinatown and Little Italy Historic District Nomination Report (2009)



. View of Development Site from Elizabeth Street, with historic buildings at 219, 221, and 223 Mott Street in the background.



2. Nos. 228, 230, and 234 (historic buildings) and No. 232 (new building) Mott Street, located immediately north of the Development Site.



3. View north on Mott Street from just south of Spring Street.



4. View north on Mulberry Street south of Prince Street.



209 Elizabeth Street, with the Development 5. Historic firehouse at Site to the south and 211 Elizabeth Street to the north.



6. Saint Patrick's Old Cathedral from the corner of Prince and Mulberry Streets.



7. Old Saint Patrick's Convent & Girls' School on Prince Street.

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## B. The Bowery Historic District (S/NR-Listed): *Includes most lots fronting Bowery between Division Street and Cooper Square* <sup>3</sup>

As shown in **Figure D-1**, the eastern portion of the study area is located in the S/NR-listed The Bowery Historic District. The district extends the length of the roughly 1.25-mile-long Bowery from Chatham Square to the south to Cooper Square to the north, and includes 189 contributing resources. As discussed above, the Bowery is one of the oldest thoroughfares in Manhattan, and The Bowery Historic District is unique in that it encompasses buildings dating from every decade from 1780 to the present. As a result, the streetscape of the district contains a wide variety of architectural styles for a wide variety of functions, from Georgian and Federal townhouses, to Italianate, Neo-Grec, and Renaissance Revival commercial and industrial lofts, to Classical banks and institutional buildings (refer to **Figure D-2c**). Like the adjacent Chinatown and Little Italy Historic District, buildings in The Bowery Historic District are generally built out to the lot lines without setbacks, creating a continuous streetwall. However, throughout the length of the Bowery, there is no correlation between geography and the age of structures, creating a uniformly irregular and varied streetscape. Because of this diverse and textured history, The Bowery Historic District is considered one of New York City's most historically significant districts.

#### Designated Individual Landmarks

1. Saint Patrick's Old Cathedral (LPC-designated; S/NR-listed; and located in the S/NR-Listed Chinatown and Little Italy Historic District): 256 Mulberry Street (Block 509, Lot 1)<sup>4</sup>

Located in the northwest corner of the study area, Saint Patrick's Old Cathedral is the oldest Roman Catholic Church and one of the earliest examples of Gothic Revival architecture in New York City. The original cathedral was constructed in 1809-1815 to the designs of architects Joseph F. Mangin and John McComb Jr., and at the time was the largest church building in the City. In 1866 it was gutted by fire, and subsequently rebuilt to the austere design of Henry Engelbert. In 2015, the cathedral was restored to its original Gothic Revival design, including the rehabilitation of the bell tower and the cleaning and re-leading of its stained-glass windows. As shown in Photo 6 in **Figure D-2b**, the restored cathedral is clad in stone, and surrounded by a historic cemetery enclosed by a redbrick wall.

The imposing western façade contains three bays; the central bay includes a deeply recessed basement entrance, hidden behind a stone stoop with stairs to the north and south, surrounded by decorative iron rails and fencing that extend the length of the facades ground floor. Above is the main doorway, set within a stone pointed-arch and flanked by two sidelights with leaded-glass within stone pointed-arches. Immediately above is a stained-glass window containing a rose window, within a stone pointed-arch, and topped with a stone cross. Another rose window is located in the central bay just below the apex of the roofline. The side bays are separated by projecting pilasters, and contain empty niches on the first and second levels, set beneath stone pointed-arches. As shown in **Figure D-2b**, the restored bell-tower is located on the southwest corner of the church, and the south and north elevations each contain eight large stained-glass windows within stone pointed-arches.

2. Old Saint Patrick's Convent and Girls' School (LPC-designated; S/NR-listed; located in the S/NR-Listed Chinatown and Little Italy Historic District): 32 Prince Street (Block 494, Lot 7503)<sup>5</sup>

The building at 32 Prince Street was completed in 1826 as an orphanage, school, and convent for Saint Patrick's Old Cathedral, replacing a smaller wooden building on the site. Designed by James E. Ware,

<sup>&</sup>lt;sup>3</sup> SHPO's *The Bowery Historic District Nomination Report* (2011)

<sup>&</sup>lt;sup>4</sup> LPC's Old St. Patrick's Cathedral Designation Report (1966)

<sup>&</sup>lt;sup>5</sup> LPC's Old St. Patrick's Convent and Girls' School (1966)



8. View southeast on Bowery from Prince Street.



10. The Bowery Mission at 222 Bowery.



9. View southwest on Bowery from Prince Street.



11. The Germania Bank Building at Bowery and Spring Street.

the four-story, Late-Federal style building is clad in Flemish-bond red brick above a schist and granite basement level. The main elevation fronting Prince Street contains a five-bay-wide central section flanked by two three-bay-wide projecting wings. As shown in Photo 7 in **Figure D-2b**, each wing is topped with a pediment containing a round-window, and the central section contains a low-pitched gable roof with three pedimented dormer windows. The main entrance is located in the central bay of the Prince Street façade, and is one of the few remaining complete Late-Federal doorways in the City. It includes a raised stoop as well as fluted Ionic columns, leaded-glass sidelights, and similar half-columns next to the stone frame (refer to **Figure D-2b**). Above the door is a leaded-glass fanlight in a simple elliptical stone arch. Non-original entrances are located in the westernmost bay of the Prince Street elevation and in the center of the Mott Street elevation. In 2010, the school was closed, and in 2015, the building was converted the structure into residences.

### 3. (Former) Young Men's Institute Building of the YMCA (LPC-designated; located in the S/NR-Listed The Bowery Historic District): 222 Bowery (Block 492, Lot 23)<sup>6</sup>

Constructed in 1884-85, the Young Men's Institute Building was the first branch of the YMCA in New York City, founded as an outpost of moral virtue in the debauched Bowery. The building remains the sole survivor of 19<sup>th</sup> century YMCA branches in the City, and is also the major surviving New York City work of the prominent architect Bradford L. Gilbert. As shown in Photo 9 in **Figure D-2c**, the asymmetrical, redbrick, Queen Anne style building is 4.5-stories tall, including a slate-covered mansard roof. The rusticated sandstone base of the building contains segmental arches with retail in the northern three bays and a deeply recessed entrance in the southernmost bay, all of which are currently covered in graffiti. The second and third stories have double-story brick pilasters framing an arcade with recessed metal-framed windows. Floral decorative motifs typical of the Queen Anne style can be seen in the capitals of the pilasters and in the panels between the second and third story windows. The mansard roof is pierced by a hip and a gable dormer; the latter is topped by a pediment with floral terracotta ornament surrounding the numbers "1884." In 1932, the YMCA left the building, which subsequently became an office and factory building, before being converted into artist studios and residences.

## 4. The Bowery Mission (LPC-designated; located in the S/NR-Listed The Bowery Historic District): 227 Bowery (Block 426, Lot 8)<sup>7</sup>

The building at 227 Bowery was constructed in 1876 for the manufacturer Jonas Stolts to the designs of William Jose. The five-story, redbrick, Neo-Grec style loft building is four-bays-wide with incised stone lintels and sills at the third, fourth, and fifth stories topped with a deep bracketed cornice with modillions (refer to Photo 10 in **Figure D-2c**). In 1909, the Bowery Mission moved into the formerly commercial and industrial building, and Marshall and Henry Emery designed the alterations for the subsequent conversion, including Colonial Revival ornament on the ground level and a Tudor Revival addition to the second story. The ground floor of the building has three arch-headed openings with keystone lintels, a bracketed cornice, and stone banding. A chapel was added to the second floor, with a large stained-glass panel by Benjamin Sellers depicting the Biblical story of the Return of the Prodigal Son, surrounded by mock half-timbering and a small shed roof covered with clay tiles. The building is significant for being the home to the Bowery Mission for over 100 years, which, founded in 1879, is a religious-based organization that feeds, houses, and cares for homeless men in the Lower East Side.

<sup>&</sup>lt;sup>6</sup> LPC's (Former) Young Men's Institute Building of the Young Men's Christian Association (YMCA) Designation Report (1998)

<sup>&</sup>lt;sup>7</sup> LPC's The Bowery Mission Designation Report (2012)

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## 5. (Former) Germania Bank Building (LPC-designated; located in the S/NR-Listed The Bowery Historic District): 190 Bowery / 1-3 Spring Street (Block 492, Lot 38)<sup>8</sup>

Located on the northwest corner of Bowery and Spring Street, the former Germania Bank Building is a monumental example of the Beaux Arts style. Built by Marc Eidlitz and Son in 1898-99 to the designs of architect Robert Maynicke, the building epitomizes the influence of the expanding German population in Little Germany, located to the east of the Bowery above Division Street, in the mid- to late-19<sup>th</sup> century. The freestanding building was constructed as the third home of the Germania Bank, an institution established in 1869 by a group of local German businessmen. As shown in Photo 11 in **Figure D-2c**, the granite and brick building includes rusticated stonework and a chamfered corner with an arched entry flanked by Tuscan columns. The ground floor of the Bowery and Spring Street elevations contain large arched openings with voussoirs surmounted by a large denticulated cornice, similar to the one above the fifth story. The northernmost bay of the Bowery façade also contains an arched entry flanked by Tuscan columns, similar to the main entrance on the corner. An additional cornice tops the second floor, and the third through fifth stories feature multi-story pilasters. The sixth story of the building features paired arched openings surrounded with vouissoirs and topped with an elaborate copper cheneau. The building continued to serve as a branch bank until the mid-1960s, when it was converted into artist studios and residences.

#### The Future Without the Proposed Actions (No-Action Condition)

Under No-Action conditions, the status of historic resources could change. S/NR-eligible architectural resources could be listed on the Registers, and properties found eligible for consideration for designation as NYCLs could be calendared and/or designated. Changes to the historic resources identified above or to their settings could also occur irrespective of the Proposed Actions. Future projects could affect the settings of architectural resources. It is possible that some architectural resources in the study area could deteriorate, while others could be restored. In addition, future projects could accidentally damage architectural resources through adjacent construction.

Properties that are designated NYCLs are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition of those resources can occur. The owners of a property may work with LPC to modify their plans to make them appropriate. Properties that have been calendared for consideration for designation as NYCLs are also afforded a measure of protection insofar as, due to their calendared status, permits may not be used by DOB for any structural alteration to the buildings for any work requiring a building permit, without at least 40 days prior notice being given to LPC. During the 40-day period, LPC has the opportunity to consider the case and, if it so chooses, schedule a hearing and move forward with designation.

The New York City Building Code provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork area be protected and supported. Additional protective measures apply to designated NYCLs and S/NR-listed historic buildings located within 90 linear feet of a proposed construction site. For these structures, the DOB's TPPN #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCL-designated or S/NR-listed historic resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

Additionally, historic resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection from the effects of federally-sponsored or federally-assisted projects under

<sup>&</sup>lt;sup>8</sup> LPC's (Former) Germania Bank Building Designation Report (2005)

Section 106 of the National Historic Preservation Act, and are similarly protected against impacts resulting from State-sponsored or State-assisted projects under the New York State Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Private property owners using private funds can, however, alter or demolish their S/NR-listed or S/NR-eligible properties without such a review process.

#### Development Site

As detailed in Attachment A, "Project Description," under 2021 No-Action conditions, the Proposed Actions would not be approved. In the absence of approval, no new development would occur on the Development Site and the approximately 20,265 sf lot would remain as under existing conditions.

#### Study Area

There are no known projects expected to be completed within the approximately 400-foot study area in the future without the Proposed Actions. As such, no changes to historic architectural resources are anticipated in the study area under 2021 No-Action conditions.

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

According to the *CEQR Technical Manual*, generally, if a project would affect those characteristics that make a resource eligible for NYCL designation or S/NR listing, this could be a significant adverse impact. As described above, the historic architectural resources within the 400-foot study area are significant for both their architectural quality and for their historic value as part of the City's development. This section assesses the Proposed Actions' potential to result in significant adverse impacts on identified architectural resources in the study area, including impacts resulting from the construction of the Proposed Development, project-generated shadows, or other indirect effects on existing historic resources in the study area.

The Proposed Actions were assessed in accordance with guidance established in the *CEQR Technical Manual* (Chapter 9, Part 420), to determined (a) whether there would be a physical change to any designated or listed property as a result of the Proposed Actions; (b) whether there would be a physical change to the setting of any designated or listed resource, such as context or visual prominence, as a result of the Proposed Actions; and (c) if so, whether the change is likely to diminish the qualities of the resource that make it important.

As discussed in Attachment A, "Project Description," the Proposed Actions include seeking construction financing from HPD, proposing a UDAA designation, UDAAP approval, and the disposition of City-owned property. The Proposed Actions would facilitate the development of a seven-story (approximately 74-foottall [86 feet including the bulkhead]), approximately 92,761 gsf mixed-use building containing approximately 123 units of senior, affordable housing (124 units including the superintendent's unit), approximately 4,454 gsf of ground floor local retail, and approximately 12,885 gsf of community facility space. In addition, approximately 6,700 sf of publicly accessible open space would be developed on the Development Site under With-Action conditions.

#### Direct (Physical) Impacts

Historic resources can be directly affected by physical destruction, demolition, damage, alteration, or neglect of all or part of a historic resource. For example, alterations, such as the addition of a new wing to a historic building or replacement of the resource's entrance, could result in significant adverse impacts, depending on the design. Direct effects also include changes to an architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features. As

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shown in **Figure D-1**, there are no historic architectural resources on the Development Site. As such, the Proposed Actions would not result in direct impacts to historic architectural resources.

#### Indirect (Contextual) Impacts

Contextual impacts may occur to architectural resources under certain conditions. According to the *CEQR Technical Manual*, possible impacts to architectural resources may include isolation of the property from, or alteration of, its setting or visual relationships with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor. Significant indirect impacts can occur if a proposed action would cause a change in the quality of a property that qualifies it for listing on the S/NR or for designation as a NYCL.

The Proposed Actions would not result in significant adverse indirect impacts on existing historic resources in the study area as compared to No-Action conditions. No incompatible, visual, audible, or atmospheric elements would be introduced by the Proposed Actions to any historic architectural resource's setting under With-Action conditions. The Proposed Development would not alter the relationship of any identified historic architectural resource to the streetscape, since all streets in the study area would remain open and each resource's relationship with the street would remain unchanged in the future with the Proposed Actions. As detailed in Attachment A, "Project Description," the Proposed Actions would facilitate the construction of a seven-story building on a currently unimproved through-lot owned by the City and leased month-to-month as a commercial sculpture garden. As such, most of the existing views of historic buildings on Mott Street from Elizabeth Street and historic buildings on Elizabeth Street from Mott Street would be eliminated by the Proposed Development. However, none of these eliminated view sheds are significant, as more proximate views of these historic buildings exist from adjacent public streets and sidewalks on Mott and Elizabeth Streets. Additionally, all significant elements of these resources would remain visible in view corridors on adjacent public streets and sidewalks as no primary façades, significant architectural ornamentation, or notable features of surrounding historic buildings would be obstructed by the new building on the Development Site. It should be noted that the Proposed Development includes a green throughway in the northernmost section of the lot, which would continue to provide limited views of historic buildings on Mott Street from Elizabeth Street and some views of historic buildings on Elizabeth Street from Mott Street (refer to Figure D-3).

Additionally, although the Proposed Actions would facilitate the construction of a new building in the S/NR-listed Chinatown and Little Italy Historic District, this change would not be significant or adverse. The building would be visible from points along Mott and Elizabeth Streets and potentially from Prince and Spring Streets. As shown in **Figure D-3**, the Proposed Development would be built-out to the lot line on Elizabeth Street without lower-level setbacks, continuing the continuous streetscape which is a defining element of the surrounding historic district. At seven-stories tall, the Proposed Development would also be in keeping with surrounding heights of the area, which typically range between four- and seven-stories. Additionally, as shown in **Figure D-3**, the Proposed Development would be clad in brick with regular fenestration, reflective of the surrounding historic district, which contains predominately brick tenements with regular fenestration. The design of the Proposed Development would incorporate variations in brick texture and color to maintain the vertical rhythm based on narrow lots as well as the horizontal accents between windows found throughout the historic district.

As shown in Figures D-2a and D-2b, there is already a considerable amount of new construction in the area, including the six-story building at 232 Mott Street constructed in 2006 and the seven-story building at 211 Elizabeth Street built in 2007. As such, the construction of the Proposed Development in the S/NR-listed Chinatown and Little Italy Historic District would not be incompatible with existing neighborhood development, and would not significantly alter the visual setting and historic context of the surrounding historic district. As the Proposed Actions would not affect those characteristics that make surrounding

Haven Green EAS Figure D-3

With-Action Conditions on the Development Site





buildings eligible for listing on the S/NR or for designation as NYCLs, the Proposed Actions would not result in any significant adverse indirect or contextual impacts on historic architectural resources. In a letter dated November 8, 2018 (provided in **Appendix 1**), LPC concurred with these findings and requested that, in order to ensure consistency with the design, massing, height, scale, fenestration pattern, materials, and color of the new building and its historic context detailed above, HPD submit the final building design to LPC for review.

#### Construction-Related Impacts

Any new construction taking place adjacent to historic districts has the potential to cause damage to contributing buildings from ground-borne construction vibrations. As noted above, the New York City Building Code provides some measure of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. Additional protective measures apply to NYCL-designated and S/NR-listed historic resources located within 90 linear feet of a proposed construction site. For these structures, DOB's TPPN #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

As shown in **Figure D-1**, the Development Site is located within 90-feet of several contributing historic resources in the S/NR-listed Chinatown and Little Italy Historic District. Therefore, the Proposed Development would include a Construction Protection Plan in order to protect the adjacent historic buildings from potential construction damage. The Construction Protection Plan would be developed in consultation with LPC and/or SHPO and would take into account the guidance provided in the *CEQR Technical Manual*, Chapter 9, Section 523, "Construction Protection Plan" and requirements laid out in TPPN #10/88. With the implementation of the construction protection measures outlined in the Construction Protection Plan for the Development Site, no construction-related impacts on historic resources would be anticipated as a result of the Proposed Actions.

#### **Shadows Impacts**

As discussed above, the Proposed Actions would facilitate the development of a seven-story (approximately 86-foot-tall including the bulkhead) building on the Development Site, which is located in the S/NR-listed Chinatown and Little Italy Historic District. The proposed building would result in incremental shadow coverage on two historic resources with sunlight-sensitive features: Saint Patrick's Convent and Girls' School (Resource #2 in **Figure D-1**), and The Bowery Mission (Resource #4). As detailed in the "Shadows" section of Attachment B, "Supplementary Screening," project-generated shadows would not result in significant adverse impacts to any sunlight-sensitive features of these two historic resources.

- Saint Patrick's Convent and Girls' School: The Proposed Development would have the potential to cast incremental shadows on the Saint Patrick's Convent and Girls' School. However, as detailed above, the leaded-glass sidelights and fanlight surrounding the main entrance of the landmark building are located on the northern façade fronting Prince Street. Therefore, these sunlight-sensitive features of Saint Patrick's Convent and Girls' School could not be shaded as a result of the Proposed Development. As such, any incremental shadows that could reach the building in the future with the Proposed Actions would not have the potential to result in significant adverse shadow impacts.
- The Bowery Mission: As shown in Figures B-2a and B-2b in Attachment B, "Supplemental Screening", the Proposed Development would not cast incremental shadows on The Bowery Mission on any of the four shadow analysis days. As project-generated shadows would not reach the landmark

building's sunlight-sensitive features on these days, no significant adverse shadow impacts would occur as a result of the Proposed Actions.

# ATTACHMENT E NOISE

#### I. INTRODUCTION

This chapter assesses the potential for the Proposed Actions to result in significant adverse noise impacts. As described in Attachment A, "Project Description," the project sponsors, Pennrose, LLC, RiseBoro Community Partnership, and Habitat for Humanity NYC, are seeking construction financing from the New York City Department of Housing Preservation and Development and the approval of several discretionary actions subject to City Planning Commission (CPC) approval (collectively, the "Proposed Actions") to facilitate the construction of a new, mixed-use building consisting of affordable, senior housing as well as local retail and community facility uses on Block 493, Lot 30 in the Nolita neighborhood of Manhattan Community District (CD) 2 (the "Development Site"). The Proposed Actions include seeking construction financing from HPD as well as several discretionary actions, including the designation of an Urban Development Action Area (UDAA), Urban Development Action Area Project (UDAAP) approval, and the disposition of City-owned property.

The Proposed Actions would facilitate the development of a 7-story (approximately 74 ft. tall), approximately 92,761 gross square foot (gsf) mixed-use building containing approximately 123 units of senior, affordable housing, approximately 4,454 gsf of ground floor local retail, and approximately 12,885 gsf of community facility space (the "Proposed Development"). In addition, approximately 6,700 sf of publicly accessible open space would be developed. Building residents will have access to a roof terrace, which would serve as a passive open space. The Proposed Development would provide much needed affordable, transitional housing for older adults in this area of Manhattan, in addition to making efficient use of large City-owned sites suitable for housing that are located in close proximity to public transportation in order to meet City needs.

The noise analysis presented in this chapter focuses on the operational noise effects of the Proposed Actions and includes an analysis to determine the level of building attenuation necessary to ensure that the Proposed Development would satisfy applicable interior noise criteria. The noise analysis for the Proposed Actions was carried out in compliance with *CEQR Technical Manual* guidance and consists of two parts:

- (1) A screening analysis to determine whether traffic generated by the Proposed Actions would have the potential to result in significant adverse noise impacts on existing sensitive receptors;
- (2) An analysis to determine the level of building attenuation necessary to ensure that interior noise levels for the Proposed Development satisfy applicable interior noise criteria. This attachment does not include an analysis of mechanical equipment because such mechanical equipment would be designed to meet all applicable noise regulations and, therefore, would not result in adverse noise impacts.

#### II. PRINCIPAL CONCLUSIONS

Noise from traffic generated by the Proposed Actions would not cause significant adverse noise impacts. Due to the anticipated minor increase in vehicle volumes in the weekday AM, midday, and PM peak hours in the future with the Proposed Actions, noise levels at the two receptor locations would increase slightly during these peak hours. Comparing future With-Action noise levels with No-Action noise levels, the

increases in L<sub>eq</sub> noise levels would be minimal, ranging from 0.13 to 0.55 dBA. According to 2014 *CEQR Technical Manual* guidance, increases of less than 3.0 dBA would be barely perceptible.

Based on predicted future With-Action exterior noise levels and *CEQR Technical Manual* criteria, With-Action noise levels at the two noise receptor locations would remain in the "Marginally Acceptable" (Receptor Location 1) and "Acceptable" (Receptor Location 2) CEQR Noise Exposure categories, and, as such, no special noise attenuation measures beyond standard construction practices would be required for residential/community facility or commercial uses on any of the Proposed Development's frontages in order to achieve the required interior noise level of 45 dBA or lower for residential/community facility uses or 50 dBA or lower for commercial uses.

Additionally, according to the U.S. Department of Housing and Urban Development (HUD) criteria, the calculated With-Action  $L_{dn}$  noise level at receptor locations 1 and 2 would remain in the "acceptable" category, and, based on the methodology outlined in the "HUD Development Guidelines," no special noise attenuation measures beyond standard construction practices would be required for residential uses on any of the Proposed Development's frontages in order to achieve the required residential interior noise level of 45 dB or lower.

Thus, according to both CEQR and HUD development guidelines, no significant adverse noise impacts would occur as a result of the Proposed Actions.

#### III. ACOUSTICAL FUNDAMENTALS

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

#### "A"-Weighted Sound Level (dBA)

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

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

TABLE E-1 Common Noise Levels

Sound Source	Noise Level (dBA)
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0

Note: A ten dBA increase in level appears to double the loudness, and a ten dBA decrease halves the apparent loudness. Source: Cowan, James P. *Handbook of Environmental Acoustics*, Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.

#### **Noise Descriptors Used In Impact Assessment**

As the SPL unit of dBA describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level,"  $L_{eq}$ , can be computed.  $L_{eq}$  is the constant sound level that, in a given situation and time period (e.g., one hour, denoted by  $L_{eq(1)}$ , or 24 hours, denoted as  $L_{eq(24)}$ ), conveys the same sound energy as the actual time-varying sound. The Day-Night Sound Level ( $L_{dn}$ ) refers to a 24-hour average noise level with a ten dB penalty applied to the noise levels during the hours between 10 PM and 7 AM, due to increased sensitivity to noise levels during these hours. Statistical sound level descriptors such as  $L_1$ ,  $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ , and  $L_x$ , are used to indicate noise levels that are exceeded one, ten, 50, 90, and x percent of the time, respectively.

The relationship between  $L_{eq}$  and levels of exceedance is worth noting. Because  $L_{eq}$  is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates very little,  $L_{eq}$  will approximate  $L_{50}$  or the median level. If the noise fluctuates broadly, the  $L_{eq}$  will be approximately equal to the  $L_{10}$  value. If extreme fluctuations are present, the  $L_{eq}$  will exceed  $L_{90}$  or the background level by ten or more decibels. Thus the relationship between  $L_{eq}$  and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the  $L_{eq}$  is generally between  $L_{10}$  and  $L_{50}$ .

For purposes of the Proposed Development, the maximum one-hour equivalent sound level ( $L_{eq(1)}$ ) has been selected as the noise descriptor to be used in this noise impact evaluation.  $L_{eq(1)}$  is the noise descriptor recommended for use in the *CEQR Technical Manual* for vehicular traffic and is used to provide an indication of highest expected sound levels. The one-hour  $L_{10}$  is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines for city environmental impact review classification. The  $L_{dn}$  is the noise descriptor used in the *HUD Noise Guidebook* and sets exterior noise standards for housing construction projects receiving federal funds. As the Proposed Development may include federal sources of funding in the future, the required attenuation levels to meet both CEQR and HUD noise guidelines are provided in this chapter.

#### IV. APPLICABLE NOISE CODES AND NOISE STANDARDS AND CRITERIA

#### **New York City Noise Code**

The New York City Noise Control Code, which was enacted in December 2005 and became effective July 2007, defines "unreasonable and prohibited noise standards and decibel levels" for the City of New York. The Noise Code generally seeks to reduce ambient noise, prohibiting all unreasonable and unnecessary noise and addressing construction hours and activities. It also (1) establishes sound level standards for specific noise sources, such as motor vehicles, air compressors, and construction activities; (2) requires that all exhausts be muffled; and (3) prohibits all unnecessary noise adjacent to schools, hospitals, or courts. It specifies maximum allowable SPLs for designated octave bands emanating from a commercial or business enterprise as measured within a receiving property (such as a mixed-use and residential property). The Noise Code's enforcement is driven by complaints of violations.

TABLE E-2 Noise Exposure Guidelines for Use in City Environmental Impact Review<sup>1</sup>

Noise Exposure Guide	citites to	e be m eng	2211 1 12	ommental m	npact	11011011			
Receptor Type	Time Period	Acceptable General External Exposure	Airport <sup>3</sup> Exposure	Marginally Acceptable General External Exposure	Airport³ Exposure	Marginally Unacceptable General External Exposure	Airport³ Exposure	Clearly Unacceptable General External Exposure	Airport³ Exposure
1. Outdoor area requiring serenity and quiet <sup>2</sup>		$L_{10} \le 55 \; dBA$							
2. Hospital, Nursing Home		$L_{10} \leq 55 \; dBA$		$\begin{array}{c} 55 < L_{10} \leq 65 \\ dBA \end{array}$		$\begin{array}{c} 65 < L_{10} \leq 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
3. Residence, residential	7 AM to 10 PM	$L_{10} \le 65 \; dBA$		$\begin{array}{c} 65 < L_{10} \leq 70 \\ dBA \end{array}$	:	$70 < L_{10} \le 80$ dBA	ц	$L_{10} > 80 \text{ dBA}$	
hotel or motel	10 PM to 7 AM	$L_{10} \leq 55 \; dBA$		$\begin{array}{c} 55 < L_{10} \leq 70 \\ dBA \end{array}$		$70 < L_{10} \le 80$ $dBA$	70≤Ldn	$L_{10} > 80 \text{ dBA}$	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)	Ldn ≤ 60 dBA	Same as Residential Day (7 AM-10 PM)	60 < Ldn ≤ 65 dBA -	Same as Residential Day (7 AM-10 PM)	Ldn ≤ 70 dBA, (II) 7 <sup>1</sup>	Same as Residential Day (7 AM- 10 PM)	- Ldn ≤ 75 dBA
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	9	Same as Residential Day (7 AM-10 PM)	(1) 65 < L	Same as Residential Day (7 AM-10PM)	
6. Industrial, public areas only <sup>4</sup>	Note 4	Note 4		Note 4		Note 4		Note 4	

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

(i) In addition, any new activity shall not increase the ambient noise level by three dBA or more.

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

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

One may use the FAA-approved L<sub>tn</sub> contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

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

#### **New York CEQR Technical Manual Noise Standards**

The *CEQR Technical Manual* sets external noise exposure standards, which are shown above in **Table E-2**. Noise exposure is classified into four categories based on the  $L_{10}$ : Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable. The *CEQR Technical Manual* Noise Exposure Guidelines shown in **Table E-2** are guidelines, not a law. However, City reviewing agencies use the guidelines in determining potential impacts when a project comes under their review.

The CEQR Technical Manual also defines attenuation requirements for buildings based on exterior noise levels (see **Table E-3**). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential, hotel, or community facility uses and interior noise levels of 50 dBA or lower for commercial uses, and are determined based on exterior L<sub>10(1)</sub> noise levels.

TABLE E-3
Required Attenuation Values to Achieve Acceptable Interior Noise Level

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

**Source:** DEP; 2014 CEQR Technical Manual, Table 19-3.

#### **HUD Development Guidelines**

The HUD Noise Guidebook sets exterior noise standards for housing construction projects based  $L_{dn}$  values (see **Table E-4**). The  $L_{dn}$  refers to a 24-hour average noise level with a ten dB penalty applied to the noise levels during the hours between 10 PM and 7 AM, due to increased sensitivity to noise levels during these hours. If the exterior noise level is 65  $L_{dn}$  to 70  $L_{dn}$ , 25 dBA of noise attenuation must be provided; if the exterior noise level is 70  $L_{dn}$  to 75  $L_{dn}$ , 30 dBA of noise attenuation is required; and if the exterior noise level exceeds 75  $L_{dn}$ , sufficient attenuation must be provided to bring interior levels down to 45  $L_{dn}$  or lower for residential uses.

TABLE E-4 HUD Exterior Noise Standards

	Acceptable	Normally Unacceptable	Unacceptable			
Noise Level With Proposed Actions	$L_{dn} \leq 65$	$65 \leq L_{dn} \leq 75$	$75 < L_{dn}$			
Source: U.S. Department of Housing and U	: U.S. Department of Housing and Urban Development (HUD)					

For this analysis,  $L_{dn}$  levels were estimated using the following equation:

$$L_{dn} = L_{10} - 3$$

The method used to determine  $L_{dn}$  values is to measure the loudest hourly  $L_{10}$  for a typical day and then to estimate the  $L_{dn}$  from this loudest hourly  $L_{10}$ , which is consistent with the *HUD Noise Guidebook*.

<sup>&</sup>lt;sup>A</sup> The above composite window-wall attenuation values are for residential dwellings. Commercial office spaces and meeting rooms would be 5.0 dB(A) less in each category. All the above categories require a closed window situation and, hence, an alternate means of ventilation.

 $<sup>^{\</sup>rm B}$  Required attenuation values increase by 1.0 dB(A) increments for  $L_{\rm 10}$  values greater than 80 dBA.

#### V. METHODOLOGY

#### **Noise Prediction Methodology**

Future No-Action and With-Action noise levels were calculated using a proportional modeling technique, which is used as a screening tool to estimate changes in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual*.

Using the proportional modeling technique, the prediction of future noise levels where traffic is the dominant noise source is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine noise levels in the future without the Proposed Development (the No-Action condition) and with the Proposed Development (the With-Action condition). Vehicular traffic volumes are converted into noise PCE values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of 13 cars, one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of 18 cars. Future noise levels are calculated using the following equation:

F NL - E NL = 10 \* log10 (F PCE / E PCE)

where:

F NL = Future Noise Level

E NL = Existing Noise Level

F PCE = Future PCEs

E PCE = Existing PCEs

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

For the purpose of this analysis, during the noise recording, vehicles were counted and classified. To calculate the 2021 No-Action PCE values at the Development Site, an annual background growth rate of 0.25 percent for years one through three was applied to the counted PCE values. To calculate the 2021 With-Action PCE values, the number of incremental trips generated by the Proposed Development was added to the No-Action PCE values. As presented in the *Haven Green EAS Transportation Planning Factors and Travel Demand Forecast (TPF/TDF) Technical Memorandum* provided in **Appendix 4**, the total vehicles generated per hour (in and out trips combined) by the Proposed Development were estimated at 14 for the AM peak hour, 12 for the midday peak hour, and 17 for the PM peak hour. For the purpose of trip assignment, it was conservatively assumed that all project-generated trips would be analyzed along the two adjacent thoroughfares: Elizabeth Street and Mott Street.

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 $<sup>^{\</sup>rm 1}$  Calculation according to Table 16-4 in the CEQR Technical Manual.

#### **Building Attenuation Analysis Procedure**

In general, the following procedure was used in performing the CEQR Technical Manual building attenuation analysis:

- Noise-sensitive receptor locations that have the greatest potential for being adversely affected by action-generated noise in the 2021 analysis year and the location of dominant sources of ambient noise were identified:
- Noise receptor locations were selected based on the following criteria: (1) locations where the highest noise levels are likely to occur based upon the consideration of existing land use patterns (e.g., locations near major commercial roadways, industrial uses, or stationary sources, etc.); and (2) along future street frontages of the Development Site;
- Existing noise levels were determined through field measurements of ambient noise adjacent to the Development Site;
- Future (2021) noise levels without the Proposed Actions were predicted using the PCE-based proportionality equation (per *CEQR Technical Manual* guidelines) for all locations where local traffic is the dominant source of noise;
- Future (2021) noise levels with the Proposed Actions were predicted using the PCE-based proportionality equation (per *CEQR Technical Manual* guidelines) based on the Proposed Development's trip generation estimates;
- Future (2021) noise levels with the Proposed Actions were compared with future noise levels without the Proposed Actions to determine, by applying *CEQR Technical Manual* impact criteria, whether the Proposed Actions have the potential to result in a significant adverse impact;
- Noise levels were determined at exterior building façades in the Project Area; and
- In compliance with CEQR and HUD requirements to determine an acceptable interior space noise environment, façade-based composite window/wall attenuation specifications for the Proposed Development were estimated based on future projected maximum exterior noise exposure at the Development Site; CEQR requirements are based on the maximum L<sub>10</sub> values, whereas HUD requirements are based on maximum L<sub>dn</sub> values.

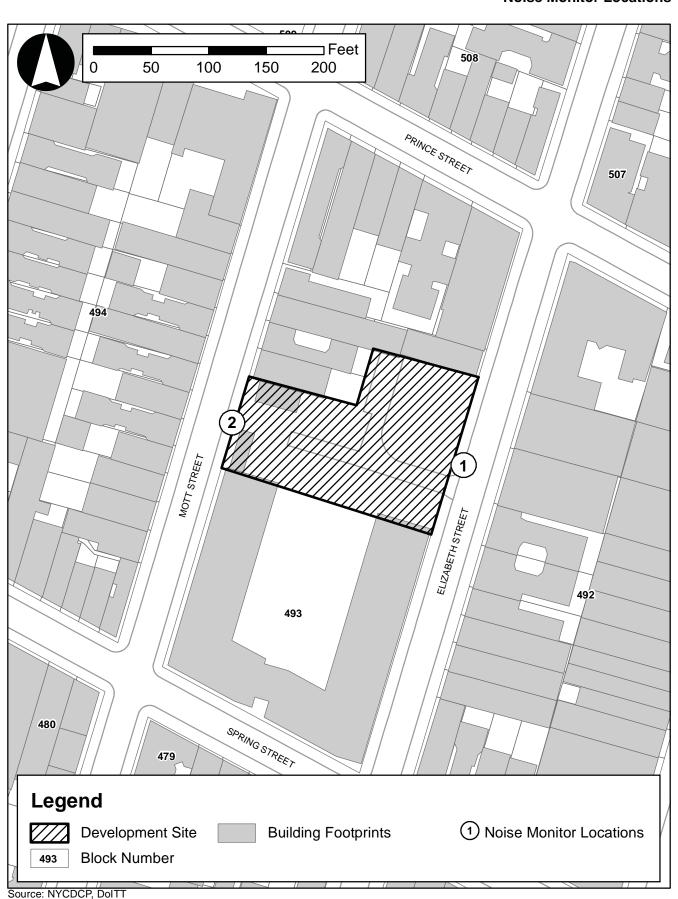
#### VI. EXISTING NOISE LEVELS

The Development Site, an unimproved, City-owned lot, is a through-block lot (199-207 Elizabeth Street / 222-230 Mott Street) located on Block 493, Lot 30, which is roughly bounded by Elizabeth Street to the east, Mott Street to the west, Prince Street to the north, and Spring Street to the south. The Development Site is located within the Special Little Italy District, as well as within the Little Italy and Chinatown Historic District, which is listed on the State and National Registers of Historic Places. The Development Site has a total lot area of approximately 20,265 square feet (sf) and is currently subject to a month-to-month lease operating as a sculpture garden with some free programing and events.

#### **Noise Monitoring Locations**

Existing noise levels in the Project Area were measured at two locations along Elizabeth Street and Mott Street – the Development Site's only street frontage. These locations are described in **Table E-5** and shown in **Figure E-1**.

#### **Noise Monitor Locations**



**TABLE E-5** 

#### **Receptor Locations**

$Receptor^1$	Receptor Frontages	Receptor Location
1	Elizabeth Street	Approximately 200 feet south of Prince Street along the Development Site's Elizabeth Street frontage.
2	Mott Street	Approximately 220 feet north of Spring Street along the Development Site's Mott Street frontage.

#### Notes:

At all receptor locations, 20-minute spot noise measurements were performed during the weekday AM (8:00 – 9:00 AM), midday (12:00 – 1:00 PM), and PM (5:00 – 6:00 PM) peak periods. The noise monitoring occurred on Thursday, February 8, 2018, Tuesday, February 27, 2018, and Thursday, March 1, 2018. On February 8, the weather was partly cloudy with an average temperature of 29°F and wind speed averages of seven miles per hour; on February 27, the weather was clear with an average temperature of 48°F and wind speed averages of five miles per hour; and on March 1, the weather was clear with an average temperature of 52°F and wind speed averages of five miles per hour. Additionally, vehicle classification counts were conducted during the 20-minute measurements, which were used in the proportional modeling analysis.

#### **Equipment Used During Noise Monitoring**

Measurements were performed using Brüel & Kjær Sound Level Meters (SLM) Type 2250 and 2260, Brüel & Kjær ½-inch microphones Type 4189, and Brüel & Kjær Sound Level Calibrators Type 4231. The Brüel & Kjær SLMs are Type 1 instruments according to ANSI Standard S1.4- 1983 (R2006). The SLMs had a laboratory calibration date within one year of the time of use. For the two receptor locations, the microphones were mounted at a height of approximately five feet above the ground surface on a tripod and approximately six feet or more away from any large sound-reflecting surface to avoid major interference with sound propagation.

The SLMs were calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements at each location were made on the A-scale (dBA). The data were digitally recorded by the SLMs and displayed at the end of the measurement period in units of dBA. Measured quantities included the  $L_{eq}$ ,  $L_1$ ,  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$  values, as well as  $\frac{1}{3}$ -octave bands. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

#### **Existing Noise Levels At Noise Receptor Locations**

#### Measured Noise Levels

The results of the measurements of existing noise levels are summarized in **Table E-6**. As shown in the table, the Development Site is located in an area with relatively low ambient noise levels. Noise levels generally reflect the level of vehicle activity present on adjacent roadways, and although the Development Site is located in proximity to two slightly busier roadways (Prince and Spring streets), the roadways immediately adjacent to the Development Site (Elizabeth and Mott streets) experience relatively light traffic. Therefore, the relatively low noise levels in the vicinity of the Development Site are a reflection of the relatively light traffic on Elizabeth and Mott streets.

As shown in **Table E-6**, the results of the monitoring indicated that noise levels are generally highest during the weekday AM and midday peak periods. The highest  $L_{10}$  noise levels were observed at Receptor Location 1, measuring 65.54 dBA in the weekday midday peak period. Existing  $L_{10}$  noise levels at Receptor Location 1 ranged from 62.43 dBA to 65.54 dBA, placing it in the "Marginally Acceptable" CEQR Noise Exposure

<sup>&</sup>lt;sup>1</sup> Receptor locations shown in **Figure E-1**.

category. Existing L<sub>10</sub> noise levels at Receptor Location 2 ranged from 60.99 dBA to 62.24 dBA, placing it in the "Acceptable" CEQR Noise Exposure category.

TABLE E-6 Existing Noise Levels (dBA)

Receptor <sup>1</sup>	Measurement Location	Time	$\mathbf{L}_{eq}$	$\mathbf{L}_{\mathbf{l}}$	$L_{10}^{2}$	$L_{50}$	L90	CEQR Noise Exposure Category <sup>3</sup>
		AM	62.02	73.43	65.07	55.39	52.81	Manainalla
1	Elizabeth Street	MD	62.25	72.10	65.54	57.21	54.39	Marginally Acceptable
		PM	59.44	70.07	62.43	54.77	52.36	
		AM	59.68	68.81	62.17	56.89	53.86	Acceptable
2	Mott Street	MD	59.54	69.34	62.24	56.74	53.59	
		PM	58.37	67.96	60.99	55.09	52.31	

#### **Notes:**

#### Existing L<sub>dn</sub> Noise Levels

As the Proposed Development may include federal sources of funding in the future,  $L_{dn}$  noise levels were calculated for the corresponding receptor locations, as described above in the "HUD Development Guidelines" section. According to the methodology described above, the  $L_{dn}$  for Receptor Location 1 was estimated to be 62.54 dB, and the  $L_{dn}$  for Receptor Location 2 was estimated to be 59.24 dB. According to HUD criteria, the calculated existing  $L_{dn}$  noise level at receptor locations 1 and 2 would both be in the "acceptable" category.

### VII. THE FUTURE WITHOUT THE PROPOSED PROJECT (NO-ACTION CONDITION)

#### **Mobile Source Noise Screening Analysis**

In the 2021 future without the Proposed Development (the No-Action condition), traffic patterns and volumes are expected to differ slightly from existing conditions. As vehicle noise emissions on adjacent roadways are the dominant source of noise at Receptor Locations 1 and 2, the change in traffic patterns is expected to affect the levels of ambient noise at those locations. Pursuant to CEQR guidelines, as no major developments are anticipated in the immediate vicinity (or 400 foot radius) of the Project Area by the 2021 analysis year, future No-Action traffic volumes were estimated by applying an annual background growth rate to the vehicle volumes counted during monitoring. Per Table 16-4 of the *CEQR Technical Manual*, a 0.25 percent annual background growth rate was applied to years one through three. Using the noise prediction methodology described in Section V above, future noise levels in the No-Action condition were calculated for the three analysis periods for the 2021 analysis year. **Table E-7** shows the measured existing noise levels and calculated future No-Action condition noise levels at the receptor locations.

Comparing future No-Action noise levels with existing noise levels, the increases in  $L_{eq}$  noise levels would be minimal, with both receptor locations experiencing a 0.03 dBA increase from existing to future No-Action noise levels. According to 2014 *CEQR Technical Manual* guidance, increases of less than 3.0 dBA would be barely perceptible. The projected No-Action  $L_{10}$  noise levels at Receptor Location 1 would range from 62.46 dBA to 65.57 dBA, and projected  $L_{10}$  noise levels at Receptor Location 2 would range from 61.02 dBA to 62.27 dBA. No-Action  $L_{10}$  noise levels at Receptor Location 1 would remain in the

<sup>&</sup>lt;sup>1</sup> Receptor locations shown in **Figure E-1**.

<sup>&</sup>lt;sup>2</sup>The highest measured noise level at each receptor is indicated in **bold.** 

<sup>&</sup>lt;sup>3</sup> For consistency purposes, the CEQR Noise Exposure categories for existing, No-Action, and With-Action conditions are based on the residential noise exposure guidelines; reflects the worst-case peak hour noise levels.

"Marginally Acceptable" CEQR Noise Exposure category, and No-Action L<sub>10</sub> noise levels at Receptor Location 2 would remain in the "Acceptable" CEQR Noise Exposure category, as under existing conditions.

TABLE E-7
2021 No-Action Condition Noise Levels (dBA)

			Exis	Existing No-Action				
Receptor <sup>1</sup>	Measurement Location	Time	$ m L_{eq}$	$ m L_{10}$	$ m L_{eq}$	$ m L_{10}^2$	Existing to No-Action Change <sup>3</sup>	CEQR Noise Exposure Category
		AM	62.02	65.07	62.05	65.10	+0.03	) ( · 11
1	Elizabeth Street	MD	62.25	65.54	62.28	65.57	+0.03	Marginally Acceptable
		PM	59.44	62.43	59.47	62.46	+0.03	Acceptable
		AM	59.68	62.17	59.71	62.20	+0.03	Acceptable
2	Mott Street	MD	59.54	62.24	59.57	62.27	+0.03	
		PM	58.37	60.99	58.40	61.02	+0.03	

<sup>&</sup>lt;sup>1</sup> Receptor locations shown in **Figure E-1**.

#### No-Action L<sub>dn</sub> Noise Levels

According the methodology described above in the "HUD Development Guidelines" section, the  $L_{dn}$  for Receptor Location 1 was estimated to be 62.57 dB, and the  $L_{dn}$  for Receptor Location 2 was estimated to be 59.27 dB. According to HUD criteria, the calculated No-Action  $L_{dn}$  noise levels at receptor locations 1 and 2 would both remain in the "acceptable" category.

## VIII. THE FUTURE WITH THE PROPOSED PROJECT (WITH-ACTION CONDITION)

In the future with the Proposed Action (With-Action condition), an estimated 123 units of senior, affordable housing, approximately 4,454 gsf of ground floor local retail, approximately 12,885 gsf of community facility space, and approximately 6,700 sf of publicly accessible open space would be built on the Development Site. The Proposed Development would also include a roof terrace, which would serve as a passive open space for residents, and, for the purposes of this noise analysis, is considered a sensitive receptor. As mentioned in Section V, the Proposed Development would generate approximately 14 vehicle trips during the weekday AM peak hour, 12 vehicle trips during the weekday midday peak hour, and 17 vehicle trips during the weekday PM peak hour.

#### **Mobile Source Noise Screening Analysis**

Using the proportional modeling methodology previously described, noise levels in the future with the Proposed Actions were predicted, which are presented in **Table E-8**. As presented in the table, due to the anticipated minor increase in vehicle volumes in the weekday AM, midday, and PM peak hours in the future with the Proposed Actions, noise levels at the two receptor locations would increase slightly during these peak hours. Comparing future With-Action noise levels with No-Action noise levels, the increases in L<sub>eq</sub> noise levels would be minimal, ranging from 0.13 to 0.55 dBA. According to 2014 *CEQR Technical Manual* guidance, increases of less than 3.0 dBA would be barely perceptible. With-Action L<sub>10</sub> noise levels at Receptor Location 1 would range from 63.02 dBA to 65.74 dBA; and noise levels at Receptor Location 2 would range from 61.16 dBA to 62.41 dBA.

<sup>&</sup>lt;sup>2</sup> The highest No-Action noise level at each receptor is indicated in **bold.** 

<sup>&</sup>lt;sup>3</sup> No-Action Leq - Existing Leq.

In terms of CEQR Technical Manual criteria, With-Action noise levels at Receptor Location 1 would remain in the "Marginally Acceptable" CEQR Noise Exposure category, whereas With-Action noise levels at Receptor Location 2 would remain in the "Acceptable" CEQR Noise Exposure category, and, as such, no special noise attenuation measures beyond standard construction practices would be required for residential/community facility or commercial uses on any of the Proposed Development's frontages in order to achieve the required interior noise level of 45 dBA or lower for residential/community facility uses or 50 dBA or lower for commercial uses. Thus, no significant adverse noise impacts would occur as a result of the Proposed Actions.

TABLE E-8
2021 No-Action and With-Action Condition Noise Levels (dBA)

			No-A	ction	With-Action				
Receptor <sup>1</sup>	Measurement Location	Time	$ m L_{eq}$	$L_{10}$	$ m L_{eq}$	${ m L_{10}}^2$	No-Action to With-Action Change <sup>3</sup>	CEQR Noise Exposure Category	
		AM	62.05	65.10	62.29	65.34	+0.24	Marginally	
1	Elizabeth Street	MD	62.28	65.57	62.45	65.74	+0.17		
		PM	59.47	62.46	60.03	63.02	+0.55	Acceptable	
		AM	59.71	62.20	59.88	62.37	+0.17		
2	Mott Street	MD	59.57	62.27	59.71	62.41	+0.13	Acceptable	
		PM	58.40	61.02	58.54	61.16	+0.14	•	

#### **Notes:**

#### With-Action L<sub>dn</sub> Noise Levels

According to the methodology described above in the "HUD Development Guidelines" section, the  $L_{dn}$  for Receptor Location 1 was estimated to be 62.74 dB, and the  $L_{dn}$  for Receptor Location 2 was estimated to be 59.41 dB. According to HUD criteria, the calculated With-Action  $L_{dn}$  noise level at receptor locations 1 and 2 would remain in the "acceptable" category.

#### IX. NOISE ATTENUATION MEASURES FOR THE PROPOSED PROJECT

#### **CEQR**

As shown in **Table E-3**, the *CEQR Technical Manual* has set noise attenuation guidelines for buildings based on exterior L<sub>10</sub> noise levels in order to maintain interior noise levels of 45 dBA or lower for residential/community facility uses. Based on predicted future With-Action exterior noise levels and *CEQR Technical Manual* criteria, With-Action noise levels at Receptor Location 1 would remain in the "Marginally Acceptable" CEQR Noise Exposure category, and With-Action noise levels at Receptor Location 2 would remain in the "Acceptable" CEQR Noise Exposure category, and, as noted above, no special noise attenuation measures beyond standard construction practices would be required for residential/community facility or commercial uses on any of the Proposed Development's frontages in order to achieve the required interior noise level of 45 dBA or lower for residential/community facility uses or 50 dBA or lower for commercial uses. Thus, according to *CEQR* guidance, no significant adverse noise impacts would occur as a result of the Proposed Actions.

<sup>&</sup>lt;sup>1</sup> Receptor locations shown in **Figure E-1**.

<sup>&</sup>lt;sup>2</sup> The highest No-Action noise level at each receptor is indicated in **bold.** 

<sup>&</sup>lt;sup>3</sup> With-Action L<sub>eq</sub> – No-Action L<sub>eq</sub>.

#### HUD

As described above in the "HUD Development Guidelines" section, the  $L_{dn}$  for all two receptor locations were estimated using the worst-case With-Action  $L_{10}$  noise levels (62.74 dB at Receptor Location 1, and 59.41 dB at Receptor Location 2). According to HUD criteria, the calculated With-Action  $L_{dn}$  noise level at receptor locations 1 and 2 would remain in the "acceptable" category, and, based on the methodology outlined in the "HUD Development Guidelines" section, no special noise attenuation measures beyond standard construction practices would be required for residential uses on any of the Proposed Development's frontages in order to achieve the required residential interior noise level of 45 dB or lower. Thus, according to HUD development guidelines, no significant adverse noise impacts would occur as a result of the Proposed Actions.

#### X. OTHER NOISE CONCERNS

#### **Mechanical Equipment**

No detailed designs of the building's mechanical systems (i.e., heating, ventilation, and air conditioning systems) are available at this time. However, those systems will be designed to meet all applicable noise regulations and requirements and would be designed to produce noise levels that would not result in any significant increase in ambient noise levels. In addition, the building mechanical systems would be designed with enclosures where necessary to meet all applicable noise regulations (i.e., Subchapter 5 §24-227 of the New York City Noise Control Code and the NYC DOB Building Code) and to avoid producing levels that would result in any significant increase in ambient noise levels.

#### **Train Noise**

An initial train noise impact screening analysis would be warranted if a new receptor would be located within 1,500 feet of existing rail activity and have a direct line of sight to that activity. As the project site is not within 1,500 of an existing rail line nor does the site have a direct line of sight to a rail activity, no initial train noise impact screening analysis is warranted.

#### **Aircraft Noise**

An initial aircraft noise impact screening analysis would be warranted if the new receptor would be located within one mile of an existing flight path, or cause aircraft to fly through existing or new flight paths over or within one mile of a receptor. As the project site is not within one mile of an existing flight path, no initial aircraft noise impact screening analysis is warranted.

# APPENDIX 1 AGENCY CORRESPONDENCE



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

### **ENVIRONMENTAL REVIEW**

Project number:	HOUSING PRESERVATION AND DEV. / LA-CEQR-M
Draioat.	HAVEN CDEEN

Project: HAVEN GREEN

SPRING STREET, BBL: 1004930030 Address:

Date Received: 2/1/2018

[ ] No architectural significance
[ ] No archaeological significance
[ ] Designated New York City Landmark or Within Designated Historic District
[X] Listed on National Register of Historic Places
[] Appears to be eligible for National Register Listing and/or New York City Landmark Designation
[X] May be archaeologically significant; requesting additional materials
Comments:

#### Comments:

The project site is located within the Chinatown and Little Italy Historic District, which is listed on the State/National Registers. New construction on this site may constitute a potential significant adverse impact to the historic district architectural context and setting as per the CEQR Technical Manual: 2014, Chapter 9, "Historic and Cultural Resources", Section 420, "Impacts to architectural resources". Coordination with LPC regarding the design of the project is recommended in order to minimize any impacts.

There is also a potential for construction impacts to the following contributing buildings surrounding the site: 209 Elizabeth St., 228 Mott St., 230 Mott St., and 232 Mott St. A construction protection plan is required for these buildings, and shall be submitted to LPC for review and comment prior to construction.

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation on the project site. Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2014).

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2/27/2018

SIGNATURE

DATE

Gina Santucci, Environmental Review Coordinator

File Name: 33082\_FSO\_DNP\_02072018.doc



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

### **ENVIRONMENTAL REVIEW**

Final Sign-Off (Single Site)  Project number: HOUSING PRESERVATION AND DEV. / 18HPD105M Project: HAVEN GREEN Address: SPRING STREET, BBL: 1004930030 Date Received: 6/7/2018
[ ] No architectural significance
[ ] No archaeological significance
[ ] Designated New York City Landmark or Within Designated Historic District
[X] Listed on National Register of Historic Places
[] Appears to be eligible for National Register Listing and/or New York City Landmark Designation
[X] May be archaeologically significant; requesting additional materials
Comments:
The LPC is in receipt of the, "Phase 1A Archaeological Assessment for Block 493- Lot 30, Borough of Manhattan, New York," prepared by Celia Bergoffen and dated April 2018.
We concur that there are no further archaeological concerns. Please submit a bound copy of the report to the LPC. In addition, the LPC is in receipt of the EAS and concurs with the text pertaining to archaeology.

Ginn SanTucci

6/13/2018

DATE

SIGNATURE
Gina Santucci, Environmental Review Coordinator

File Name: 33082\_FSO\_ALS\_06132018.doc



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

### **ENVIRONMENTAL REVIEW**

Project number: HOUSING PRESERVATION AND DEV. / 18HPD105M

Project: HAVEN GREEN

Address: SPRING STREET, BBL: 1004930030

**Date Received:** 10/22/2018

#### Comments:

The LPC is in receipt of the revised EAS dated 9/24/18. The project site is located within the Chinatown and Little Italy Historic District, which is listed on the State/National Registers.

LPC finds this Historic Resources chapter of the EAS acceptable with the following stipulations.

LPC concurs with the language on pages D-2 and D-3, section "Architectural Resources, Indirect (Contextual) Impacts", which describes the design, massing, height, scale, fenestration pattern, materials and color of the proposed new building and its relationship to the historic context of the historic district.

In addition, HPD shall submit the final building design to LPC for review in order to ensure consistency with the design, massing, height, scale, fenestration pattern, materials and color of the new building and its historic context as referenced in the revised EAS.

Regarding archaeology, a .pdf of the Phase 1A report shall be submitted to LPC.

Jan JanTucci

11/8/18

SIGNATURE

DATE

Gina Santucci, Environmental Review Coordinator

**File Name:** 33082\_FSO\_GS\_11082018\_final



Vincent Sapienza, P.E. Commissioner

Angela Licata Deputy Commissioner of Sustainability

59-17 Junction Blvd. Flushing, NY 11373

Tel. (718) 595-4398 Fax (718) 595-4422 alicata@dep.nyc.gov September 12, 2018

Callista Nazaire
Deputy Director, Environmental Planning
New York City Department of Housing Preservation and Development
100 Gold Street
New York, New York 10038

Re: Haven Green
Block 493, Lot 30
CEQR # 18HPD105M

Dear Ms. Nazaire:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP), Bureau of Environmental Planning and Analysis (DEP) has reviewed dated August 23, 2018 Noise Memorandum and backup materials prepared by Philip Habib & Associates, on behalf of the Pennrose, LLC. (the applicant) for the above referenced project. It is our understanding that applicant is seeking the approval of several discretionary actions from the New York City Department of Housing Preservation and Development (HPD) to facilitate the development of a new seven-story, approximately 93,281 gross square feet (gsf), mixed-use building, containing approximately 124 dwelling units, approximately 4,298 gsf of ground floor retail space, approximately 10,757 gsf of community facility space and 6,800 square feet of public accessible open space. The project site is bounded by Elizabeth Street, Prince Street, Mott Street and Spring Street in the Nolita neighborhood of Manhattan Community District 2. The project site is currently occupied by a community garden.

Per HPD request (18HPD105M-13-24082018100835), we have reviewed mentioned above materials and have the following conclusion:

#### Noise:

Based on the results of Noise analysis performed as per the City
 Environmental Quality Review Technical Manual, it was determined
 that the proposed project would not result in any potential for
 significant adverse impacts in regards to Noise.

If you have any questions, you may contact Mr. Alex Popov at (718) 595-4031.

Sincerely,

Chung Chan, Director

Air Quality and Noise Review and Planning

# APPENDIX 2 PHASE 1A ARCHAEOLOGICAL ASSESSMENT

## PHASE IA ARCHAEOLOGICAL ASSESSMENT BLOCK 493 - LOT 30 BOROUGH OF MANHATTAN



Prepared for: Philip Habib and Associates Prepared by: Celia J. Bergoffen Ph.D. R.P.A.

April 19, 2018

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#### I. EXECUTIVE SUMMARY

This report assesses the potential archaeological sensitivity of Block 493, Lot 30, the "Project Site", located between Mott Street (west), Elizabeth Street (east), Spring Street (south) and Prince Street (north). The Development Site on this block is the through-block Lot 30 (199-207 Elizabeth Street / 222-230 Mott Street), currently occupied by the Elizabeth Street garden. The conclusions and recommendations offered in this report are based on maps and other primary data sources such as City Directories, Tax Assessments and government reports as well as secondary sources including local histories and other studies. The results of the investigation may be summarized as follows:

Block 493 was probably already developed by ca. 1811. The Mott Street side of the Project Site was occupied by a Public School from 1821 to 1902. There is no detailed information preserved on the type or number of buildings on the rest of the Project Site before the 1857 Perris map, which depicts various frame buildings on the Elizabeth Street side of the block. However, the earliest extant Tax Assessments for the Project Site, of 1828, indicate that the lots were already built upon by that date, and that one of slaughterhouses depicted on the 1857 Perris map at 187 Elizabeth Street. In 1870-71, five-story brick tenements replaced the frame structures on the Project Site. Two had backyards wide enough to have accommodated privies or cisterns, but these potential archaeological features will have been severely impacted or destroyed when the brick buildings were demolished and Public School 21, which had a basement, was built in 1903 over all but the northeast end of the Project Site. The buildings at this address in 1857, formerly 205 Elizabeth Street, covered the entire old lot, while the five-story brick building that replaced them covered all but one foot at the rear of the lot, in both cases, leaving no space for backyard installations.

This report therefore concludes that Block 493, Lot 30 is not sensitive for archaeological remains and recommends that no further archaeological investigation be required.

#### II. DESCRIPTION OF THE PROJECT SITE AND PLANNED DEVELOPMENT

Block 493 is located between Mott Street (west), Elizabeth Street (east), Spring Street (south) and Prince Street (north) in the Special Little Italy District. The Development Site on this block is the through-block Lot 30 (199-207 Elizabeth Street / 222-230 Mott Street), currently occupied by the Elizabeth Street sculpture garden and park. It encompassing 20,110 sq. ft., with a lot frontage of 136.01 ft. on Elizabeth Street and a maximum depth of 181.516 ft. It has approximately 80 feet of frontage on Mott Street and approximately 136 feet of frontage on Elizabeth Street. The park is landscaped with planted and paved areas, shade trees and benches, and contains a few frame sheds, including a one-story structure built against the south side of 228 Mott Street.

The proposal takes into account that the activities taking place in the park, such as gardening workshops, arts performances, and wellness classes, play an important role in the community. Accordingly, the development project proposed by Penrose, LLC, Riseboro Community Partnership, and Habitat for the Humanities, preserves public garden space in its design, providing for approximately 7,680 sf of publicly accessible open space. The proposed construction is a 91,219 gsf mixed-use, seven-story building "Haven Green" that will include 121 units of affordable senior housing as well as ground floor retail and community facility space. called "Haven Green", together with retail and community facilities.

There are five individual New York City landmarks within a two-block radius of the project site. Built in 1817, Saint Patrick's Convent and Girls' School at 32 Prince Street, formerly the Roman Catholic Orphan Asylum, is described by Dolkart and Postal (2009, 42) as the "most signification institutional building in the Federal style surviving in New York City". St. Patrick's Old Cathedral, located on Mott Street at Prince Street, was built by Joseph-Francois Mangin, the architect of City Hall, in 1809-1815. The building was extensively restored in 1866, after a fire (Ibid.). St. Patrick's Chancery Office, now Saint Michael's Russian Church, is a small Gothic Revival building erected in 1858-59 at 266 Mulberry Street. In the same style, the Fourteenth Ward Industrial School of the Children's Aid Society, designed by Calvert Vaux, was erected in 1888-

89 at 256-258 Mott Street (Dolkart and Postal 2009, 43). Finally, the Young Men's Institute Building, otherwise known as the YMCA, at 222 Bowery, was designed by Bradford L. Gilbert in a red brick Queen Anne style. Erected in 1884-85, it is the only surviving 19th century YMCA branch in the city (Dolkart and Postal 2009, 47). Although not landmarked, the Renaissance Revival style building at 209 Elizabeth Street, adjoining Lot 30 on the north, is noteworthy for the multiple rows of terracotta tiles decorating its façade. Built in 1882 by N. LeBrun & Son, it was formerly occupied by the Hook and Ladder No. 9 firehouse.

In 2010, the thirty-eight block Chinatown and Little Italy Historic District, listed on the State and National Registers, was created. It includes the project site block, encompassing the area approximately bounded by Baxter Street, Centre Street, Cleveland Place and Lafayette Street on the west; Jersey Street and East Houston on the north; Elizabeth Street to the east, and Worth Street to the south (National Register 2009).

Because of its location in a historic district, and its proximity to the individual landmarks described above, the Landmarks Preservation Commission recommended that a Phase IA Archaeological Assessment be prepared to trace the development history of the project site and assess whether the proposed construction might impact historically significant archaeological resources whose integrity has not been seriously compromised by successive construction episodes in the past.

#### III. DEVELOPMENT HISTORY OF THE PROJECT SITE

Maps depicting the project site prior to development show it as meadowland. The nearest notable features in the landscape were a cluster of knolls rising roughly along the line of Grand Street around Mott Street, Mulberry Street, and near Broadway (Viele 1874; British H.Q. 1782). The fortifications built during the Revolutionary War took advantage of these eminences in the siting of a defensive wall and forts (British H.Q. 1782).

Further south, along present-day Centre Street south of Canal Street lay the Collect Pond. Bolton recorded a Native American site here known as Warpoes or Werpoes, which he described a "space of cultivated land" north of the pond, marked by shell heaps (Bolton 1920, 79). This, and an Indian station / landing place at Corlears Hook are the nearest Native American sites to the Project Site. Otherwise, prehistoric Native American uses of the land at the southern end of Manhattan Island are poorly documented. European settlement had a significant impact on the topography of this area, especially of the locations most likely to have been favored by prehistoric peoples such as the shores of ponds, or along watercourses, or on elevated tracts of land. By 1811, the Collect Pond and the surrounding marshy areas and streams were filled in with soil from the leveling of the hillocks in the area, which also served to create suitably flat tracts for streets and houses.

During the 17th and 18th centuries, the Project Site was initially part of Bouwery #8, whose "first known occupant", ca. 1638, was Dr. Hans Kierstede, the Dutch West India Company's surgeon (Stokes vol. 5, 73). Over the following decades, several individuals leased this land until Col. Nicholas Bayard purchased it (before 1707). The tract was incorporated into "Smith's Hill Farm", which was located "almost entirely south of Prince St." (Stokes 70-71). The 1767 Ratzer map depicts only meadowland on the project site -- then still part of Bayard's extensive holdings. A short distance away was The Bowery, the main transport artery out of the city, then known as the "High Road to Boston". As development moved northward during the 18th century, houses were built along the line or a short distance from the road. The 1797 Taylor Roberts plan already records a small building approximately in the middle of the Mott Street side of the block, for which, unfortunately, we have no further data. In the ensuing decade the city grew apace: by 1811, Block

493 was well within the developed part of the city, which by then extended to present-day Great Jones Street (Commissioner's Plan 1811).

By 1828, the Elizabeth Street side of the Project Site was divided up into five house lots with the addresses, from south to north, of 185 to 193 Elizabeth Street (Tax Assessments). The 1851 Cross Directory confirms that the Project Site was occupied by buildings that housed one or possibly two families as well as slaughterhouses shops at 185, 187 and 191 Elizabeth Street owned by William Chivois, William Granger, and James Brogan, respectively. Maria Chivvis (*sic*) widow of John, presumably William's father, could be traced back to 1830 at 189 Elizabeth Street (Longworth's 1830). The other occupants of 185 to 193 Elizabeth Street were mostly Irish working class as their listed professions or businesses indicate: laborer, washing, and polisher. The Irish migration from the 6th Ward into the 14th Ward to the north evidently began before ca. 1850, the conventional date for the start of this movement (Gabaccia 1984, 66). Their arrival precipitated the exodus of the native-born residents, who often retained their properties to lease them to the newcomers or to builders (Grabaccia 1984, 67).

On the 1857 Perris map, William Chivois' butcher shop at 185 Elizabeth Street was marked in green for hazard. This building completely covered the lot. At 187, 189, and 191 Elizabeth Street, there were frame buildings on the front of the lots leaving an alleyway on the south side of each to reach a yard in the middle of the lot and a frame building at the rear. The Cross Directory also already recorded a rear building at 191 Elizabeth Street, probably the same structure as shown on the 1857 Perris map, which labels both buildings at 189 and 191 Elizabeth Street as "Slaughterhouse". The lot at 193 Elizabeth Street was completely covered by a building that was frame construction in the front and brick at the rear. Although not very detailed, the 1867 Dripps map appears to depict the same building footprints on the project site. All these buildings were demolished ca. 1870 and replaced with five-story brick structures, which were in turn destroyed ca 1902-03 to make way for a new Public School building (New York City Tax Assessments and see below).

The erection of the new five-story tenement marked the end of the butcher shop era on the Project Site block. The origin of these businesses may be traced back to the 18th century, when

Nicholas Bayard's descendants obtained a permit from the Common Council to operate a slaughterhouse on the east side of the Collect Pond, where several tanneries -- "nuisance industries" were already established. Since the butchers were required to slaughter their animals only in the licensed slaughterhouse, they moved into shops and dwellings nearby, renting their premises from the Bayards, who expected their property values to rise (Day 2008, 183-184). In the late 18th century, the main road to market was down Mulberry Street, also known as "Slaughterhouse Street" (Day 2008, 187). In spite of their mandate, the Bayards did not pursue butchers who illegally butchered cattle on their own premises, and by the early 19th century, butchers increasingly set up their own stalls and markets without obtaining the council's approval. From the 1840s, the laws restricting the unlicensed sale of meat began to loosen and, supported by the public, "shop butchers" could operate independently of the markets (Day 2008, 196). By the time of the 1857 Perris map, the butchers on the Project Site would have been able to sell their meat directly to the public and their by-products to the "Soap & Candle Manufactory" conveniently located on the opposite side of Elizabeth street.

On the Mott Street side of the Project Site block, the 1857 Perris records "Ward School No. 5. This was one of the earliest public schools in New York City. It opened on October 28, 1822 (Boese 1869; Palmer 1905, 49). Between 1897 and 1902, "Gram. Sch. No. 5" [Grammar School] was renamed Public School No. 106 (Bromley 1902). The building in which it was housed occupied an approximately 75.6 ft. wide by 98.0 ft. deep section of Lot 30, leaving small vacant or yard areas at the sides and in the back (Bromley 1879 map; old lot number 911 on the 1879 Dripps map).

The school was erected to serve the rapidly expanding, working-class population, many of whom were immigrants, that was moving into formerly owner-occupied residences converted into boarding houses, or into the new, multi-occupancy tenement buildings. With only two exceptions, at 261 Mulberry and St. Patrick's Old Cathedral rectory at 263-5 Mulberry Street, all the late 18th and early 19th century Federal style and Greek Revival townhouses in the Chinatown and Little Italy Historic District were transformed into tenements or commercial buildings during the 19th century, beginning approximately in the 1820s (National Register, Section 7, p. 3). In fact, the tenement house was first introduced in this Historic District, the building at 65 Mott Street being

perhaps the first of this type in the city (National Register section 7, p. 4) Most of the streets in this Historic District are still lined with five- and six-story brick tenements like those that formerly stood on the Elizabeth Street side of the Project Site (National Register section 7, p. 3). These last, however, did not replace the earlier frame buildings until 1870-71, as already noted (New York City Tax Assessments).

In 1831, ten years after it opened, School No. 5 had 479 pupils (Williams 1831, 176). By 1849, the number had grown to 1,975 students (some of these may have been attending on a part-time basis; Annual Report 1849). In 1863, the 1,908 students were organized into Boys, Girls and primary "departments" and managed by a staff of twenty-five teachers and one janitor (Annual Report 1864, 104). Among other courses, they received instruction in drawing, music, and German (Board of Education 1864, 57). The students continued to be accommodated in the twelve classrooms of the original school building until 1902, by which time the neighborhood and the school were crowded with the Italians immigrants who settled into the tenements on Mulberry Street (*NY Times* 1902). Most of the children, however, only attended school until the age of fourteen and then went to work in factories (Grabaccia 1984, 91).

Although Italians from northern Italy began arriving in New York City in the early- and mid-19th century, along with Germans and Irish, the major influx of south Italian immigrants dates from ca. 1880 and most of those who settled on the Project Site block were Sicilian. A survey conducted by the Immigration Commission averred: "all the people who live on the west side of Elizabeth Street between E. Houston and Prince Street are Sicilians." (survey of homeworkers, quoted in Grabaccia 1984, 54). No doubt the erection of the new tenement buildings in Little Italy between 1860 and 1900, including on the Project Site, in 1870, was promoted by the wave of Italian immigrants who, by ca. 1900, had "completely taken over the ward" (Grabaccia 1984, 67).

The new P.S. 21 was designed by C.B.J. Snyder, the prolific architect and administrator who was responsible for the construction of nearly 350 new schools during his tenure as the Department of Education's Superintendent of Buildings from 1891 to 1922. Snyder's most outstanding contribution was the development the H-shaped building, which improved light and ventilation in mid-block sites off the main avenues, as well as reducing street noise and providing

protected school yard space (NYC DOE 2018). P.S. 21 extended over the entire area of the Project Site between Mott and Elizabeth Streets, south of old lot 22, incorporating the area of the former lots 24 to 26, whose five-story buildings were demolished (Bromley 1902, 1911 and 1921). Since a large portion of the site was occupied by the old school building, which the students needed to continue using until the new one was completed, it was necessary to proceed with the construction in "two distinct building operations" (Snyder 1910, 50). When completed, in 1903, the building was fronted by a large courtyard built over an auditorium reached by entrances from the street (Snyder 1910, 50). The basement, which extended under the entire five-story building, also contained baths, lockers, offices, a workshop and cooking facilities (Snyder 1910, 57; Bromley 1921). Renamed Public School 21, the new building was equipped with sixty classrooms and could accommodate a total of 2,350 students (*NY Times* 1902, Snyder 1910, 57).

The remaining portion of the Project Site on Elizabeth Street, adjacent to P.S. 21, was occupied by a five-story building that covered all but the rear five feet of the lot (1879 Tax Assessments, formerly 193 Elizabeth Street). Erected in 1870, this building subsumed the area of the two old Lots 964 and 965, formerly 191 and 193 Elizabeth Street. The address was changed to 205 Elizabeth Street between 1880 and 1885 (Bromley 1879; Bromley 1885). This building was demolished between 1927 and 1955 and the area not subsequently built upon. In 1972, P.S. 21 had no students and was being used as a warehouse (Farber 1972). By 1977, it was demolished and Lot 30 became vacant.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

In view of the lot coverage of P.S. 21, which also had a basement extending under its entire area, and the virtual complete lot coverage of the adjacent building at 205 Elizabeth Street, erected in 1870, any potential backyard features associated with the former five-story brick buildings or their frame predecessors on Elizabeth Street will have been severely impacted and probably destroyed. No remains of the original 1821 school building -- which would have been of historic significance -- will have survived the construction of the 1903 building. This assessment therefore concludes that Block 493, Lot 30 is not sensitive for archaeological remains and that no further archaeological investigation be required.

# APPENDIX 3 HAZARDOUS MATERIALS REPORTS

# Phase I Environmental Site Assessment

Haven Green Development Parcel Block 493, Lot 30

Fleming-Lee Shue Project Number: 10246-001-1



# **June 2018**

# Prepared For:

Pennrose Properties, LLC 1301 Avenue of the Americas; 7<sup>th</sup> Floor New York, NY 10019

# Prepared By:



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#### PHASE I ENVIRONMENTAL SITE ASSESSMENT

#### Haven Green Street Development Parcel

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#### PHASE I ENVIRONMENTAL SITE ASSESSMENT

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#### PHASE I ENVIRONMENTAL SITE ASSESSMENT

Haven Green Street Development Parcel

#### **FIGURES**

Figure 1 – Site Location Map

Figure 2 – Site Plan

#### **APPENDICES**

**Appendix A: Photograph Log** 

**Appendix B:** Tax Map

**Appendix C: User Questionnaire** 

**Appendix D: Regulatory Agency Database Report** 

**Appendix E: Freedom of Information Requests** 

**Appendix F: Historical Sanborn Fire Insurance Maps** 

**Appendix G: City Directory Abstract** 

#### 1.0 EXECUTIVE SUMMARY

Fleming-Lee Shue, Inc. (FLS) has performed a Phase I Environmental Site Assessment (ESA) for Pennrose Properties, LLC (User) for the property located at the Haven Green development parcel (the Site).

The Site consists of an irregularly shaped lot that is approximately 20,110 square feet in area. The legal definition of the Site is Tax Block 493, Lot 30, and it is located between Elizabeth Street and Mott Street in the Nolita neighborhood of Manhattan. The Site is an undeveloped vacant lot currently used as a community garden. Figure 1 presents a Site Location Map and Figure 2 presents a Site Plan. Photographs of the Site and the surrounding properties are included in Appendix A. This report was prepared in conformance with the American Society for Testing and Materials Standard Practice for Environmental Site Assessment Process (ASTM E 1527-13) as well as the United States Environmental Protection Agency (EPA) All Appropriate Inquiry (AAI) requirements (November 2005).

#### 1.1 Historic Site Use

The Site was developed prior to 1894 with several 5-story residential buildings and Grammar School No. 5. By 1905 the majority of the Site had been redeveloped into Public School No. 21 with some adjoining residential properties still present. Public School No. 21 operated on the Site from approximately 1905 to 1976 at which time the Site area appears vacant. Through the eighties and nineties, the remainder of the Site became vacant and the lot was restructured into its current irregular shape. By 2002, the Site had been designated as the Elizabeth Street Gardens and Gallery and two small storage sheds had been developed in western half of the Site.

#### 1.2 Historic Neighborhood Use

The historical uses of the surrounding properties include residential, commercial/retail, light manufacturing, auto repair and metal spraying. City directory records indicate residential and commercial uses of the properties adjacent to the Site including barber shops, restaurants, bakeries, and auto repair. Sanborn fire insurance maps show a mix of public, residential, commercial and light manufacturing uses on the neighboring properties. According to the maps, a firehouse operated under various titles from 1894 through 1950 at 209 Elizabeth Street. The property at 210 Elizabeth Street was labeled in use by Brush Electric Company in 1894. Approximately 300 feet from the Site a Furniture factory existed from 1894 through 1905. A metal spraying shop was located approximately 85 feet northwest of the Site at 232 Mott Street from approximately 1950 through 2004.

#### 1.3 Summary of Findings, Opinions and Conclusions

The following is a summary of the Phase I ESA findings, opinions and conclusions. The following *recognized environmental conditions* (RECs) were identified at the Site:

- **Historic on-Site Oil Tanks** According to the 1968 Sanborn Map, the Public School on the Site contained boiler(s). Around 1968 these boilers were likely converted from coal burning to fuel oil and therefore present a likely potential for former/abandoned tank(s). The possible fuel tank(s) may have impacted the environmental quality of the Site including soil, groundwater and soil vapor and is therefore considered a REC.
- **Historic Metal Spraying Operations at Surrounding Properties** According to Sanborn maps, historical operations related to metal spraying were identified at a neighboring property from 1950 to 2004. Degreasers and solvents were likely used at this property as a part of daily operations. The proximity of a metal spraying shop to the Site could have adversely impacted the quality of the Site, including soil, groundwater, and soil vapor, and therefore this is considered a REC.

The following additional potential environmental issues were noted although not included within the scope of work defined in ASTM E 1527-13 (See Section 2.3):

• **Potential Mold** - FLS observed that the two buildings on-Site were used for storage and in a general state of disrepair. Given the current state of the buildings there is a potential for mold growth within the buildings.

FLS recommends the following for the property:

• If there is a need to quantify or confirm potential environmental impacts at the Site, a Phase II ESA including soil, groundwater and soil vapor sampling should be performed to determine if any of the RECs have adversely impacted the environmental quality of the Site and/or may result in potential exposure risks for future occupants.

#### Mott-Elizabeth Street Development Parcel Block 493, Lot 30 New York, New York

# REMEDIAL INVESTIGATION WORK PLAN

#### Prepared for

Dylan Salmons
Pennrose Properties, LLC
1301 Avenue of the Americas, 7<sup>th</sup> Floor
New York, New York 10019

#### **Submitted to**

New York City Department of Housing Preservation and Development 100 Gold Street New York, New York 10038

by

#### ARNOLD F. FLEMING P.E.

&

Fleming Lee Shue

Environmental Management and Consulting 158 West 29<sup>th</sup> Street New York, New York, 10001

August 2018

#### **Professional Engineer's Certification**

### Mott-Elizabeth Street Development Parcel Block 493, Lot 30 New York, New York

I Arnold F. Fleming certify that I am currently a New York State registered professional engineer or Qualified Environmental Professional (QEP) as defined by 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with all applicable statues and regulations and in substantial conformance with DER Technical Guidance for Site investigation and remediation (DER-10).

I, Arnold F. Fleming, P.E. certify that this Remedial Investigation Work Plan was prepared by me or persons working under my direct supervision.

8/14/18 Date

License sumber 050411

#### **FIGURES**

Figure 1 Site Location

Figure 2 Site Plan and Proposed Sampling Locations

**TABLES** 

Table 1 Laboratory Analytical Methods and Holding Times for Samples

**APPENDICES** 

Appendix A FLS Standard Operating Procedures

Appendix B Health & Safety Plan

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#### 1.0 INTRODUCTION AND OBJECTIVE

#### 1.1. INTRODUCTION

This Remedial Investigation Work Plan (RIWP) was prepared by Arnold F. Fleming, P.E. (AFF) and Fleming Lee-Shue, Inc. (FLS) for Pennrose Properties, LLC (Pennrose) to investigate the Mott-Elizabeth Street Development Parcel (Site) that occupies Block 493, Lot 30 in lower Manhattan. The RIWP describes the sample locations, sampling matrices, and chemical analyses that will be used to investigate the subsurface.

The city-owned Site is in the Nolita Neighborhood and is bound by Elizabeth Street on the east, Mott Street on the west, and commercial/residential building on the north and south. Prince Street borders the Site on the north side of the block and Spring Street borders the block on the south side.

The development parcel consists of mostly of open space and two, one-story storage buildings. The Site has been vacant since a building on it was razed in the 1970s and it has served as a community garden since circa 2001. Figure 1 shows the Site location. Figure 2 is a Site Plan.

#### 1.2 OBJECTIVES

The objectives of this RIWP are to characterize Site subsurface conditions and include the following:

- Collect soil, groundwater, and soil vapor data to investigate potential impacts from historic
   Site use from possible oil tanks and metal spraying on adjacent properties
- Collect stratigraphic information and visual and instrument observations
- Evaluate the subsurface in order to identify whether there are any actual environmental concerns on the Site

#### 2.0 SITE DESCRIPTION

#### 2.1 SITE LOCATION and DESCRIPTION

The Site is a vacant, city-owned parcel in the Nolita Neighborhood that occupies Tax Block 493, Lot 30 in New York, New York (New York County). The site is a 20,265 ft<sup>2</sup> (0.47 acres), L-shaped parcel that currently functions as a community garden. Figure 1 shows the Site in relation to the general area. Figure 2 is a Site Plan.

Historically, the Site housed a grammar school circa 1894 followed by Public School 21 from 1905 through the 1970s. The site was razed at that time and remained vacant to the present, although it has been used as a community garden since 2001. There are no other known uses of the Site.

A Phase I Environmental Site Assessment (ESA) of the Site was conducted by FLS in June 2018. The Phase I identified the following Recognized Environmental Conditions (RECs):

- **Historic on-Site Oil Tanks** According to the 1968 Sanborn Map, the Public School housed boiler(s). Around 1968 these boilers were likely converted from coal burning to fuel oil and therefore present a likely potential for former/abandoned tank(s). The possible fuel tank(s) may have impacted Site environmental quality including soil, groundwater and soil vapor and is therefore considered a REC.
- **Historic Metal Spraying Operations at Surrounding Properties** According to historic Sanborn maps, historical operations related to metal spraying occurred at a neighboring property from 1950 to 2004. Degreasers and solvents were likely used at this property as a part of daily operations. The nearby metal spraying shop could have adversely impacted the quality of the Site, including soil, groundwater, and soil vapor, and therefore this is considered a REC.

#### 2.2 VICINITY CHARACTERISTICS AND NEARBY PUBLIC AREAS OF CONCERN

The Site is on the block that lies between Mott Street on the west, Elizabeth Street on the east, Spring Street on the south, and Prince Street on the north. The properties near the Site function primarily as mixed-use commercial/residential space. Most of the commercial space is in small food, clothing, and artistry establishments. There are no large commercial operations immediately near the Site.

#### 2.4 DESCRIPTION OF CONTEMPLATED USE

Pennrose plans to build an affordable housing, senior living, mixed-use residential and commercial/community development. The proposed use is consistent with the current zoning and the character of the neighborhood.

#### 2.5 SITE GEOLOGY, HYDROGEOLOGY, AND SUBSURFACE CHARACTERISTICS

There have been no known subsurface investigation on the Site. In general, due to its geographic location, the Site likely consists of a layer of fill of variable thickness over what appears to be lacustrine sands that overlie Manhattan Schist more than 60 feet below the surface. Groundwater is anticipated to lie between 8 to 15 feet below ground surface and is expected to flow east toward the East River. There are no surface water bodies on the Site or on the surrounding properties. The closest surface water body is the East River approximately 3,600 feet to the east and south.

#### 2.6 NATURE & EXTENT OF CONTAMINATION

#### 2.6.1 Previous Investigations

The only known previous investigation is the June 2018 Phase I Environmental Site Assessment (ESA) completed by FLS.

#### 2.6.2 Soil and Groundwater Contamination

No information about soil or groundwater contamination is available since no subsurface investigations have been completed. There is potential contamination by possible fuel oil tanks that may have been on Site and by former nearby metal spraying operations that were identified in the Phase I ESA, but contamination associated with these uses is only a possibility, not fact.

#### 3.0 REMEDIAL INVESTIGATION TASKS

This section summarizes the remedial investigation tasks proposed to fulfill the stated objectives. The tasks are separated in three areas: 1) Project Planning and Preparation, 2) Health and Safety Plan preparation, and 3) Site Investigation and Characterization. Standard Operating Procedures for soil sampling, well installation, and groundwater sampling appear in Appendix A.

#### 3.1 PROJECT PLANNING AND PREPARATION

#### 3.1.1 Site Inspection, Geophysical Survey, Utility Clearance and Permitting

Prior to initiating the field work, FLS will inspect the work area to assess current conditions, evaluate equipment access, and check general conditions prior to any intrusive work. In addition, prior to any subsurface investigation, FLS will oversee a geophysical survey to identify underground utilities and any possible underground storage tanks (UST) on the Site. Equipment to be utilized in this survey includes utility locators, metal detectors, and/or ground penetrating radar (GPR).

#### 3.2 HEALTH AND SAFETY PLAN

A Site-Specific Health and Safety Plan (HASP) has been prepared for FLS employees. All work is expected to be performed in Level D personal protective equipment (PPE) with field personnel monitoring the work space. PPE upgrades will be implemented as necessary. The HASP is included as Appendix B.

#### 3.3 SITE INVESTIGATION AND CHARACTERIZATION

#### 3.3.1 Soil, Groundwater and Soil Vapor Sampling and Analysis Plan

#### Soil Investigation

To investigate the potential for abandoned or historic on-Site oil tanks and attendant contamination, FLS will advance a minimum of five soil borings evenly spaced across the entire subject property. A minimum of one boring will be advanced in the area of the former boilers identified in the 1968 Sanborn Map. Soil samples will be collected continuously and soil types, characteristics, and visual/olfactory and instrument observations noted in the soil logs. The soil cores will be scanned for organic vapors using a photo-ionization detector (PID). Since the general subsurface geology consists of fill and lacustrine sands overlying bedrock. A direct-push drill rig (or equivalent) will be used to advance the soil borings and collect soil samples. The proposed soil boring locations are presented in Figure 2.

#### Soil Sampling and Analysis

A minimum of two soil samples per boring will be collected. The samples will be collected at the following locations:

- A surface soil sample will be collected from 0-2 feet below grade surface (bgs);
- A second sample will be collected between 2 feet bgs and the maximum proposed excavation depth (15 feet bgs) based on visual/olfactory evidence of impacts and/or elevated PID readings. If no evidence or elevated PID readings are noted, the soil sample will be collected from the two-foot interval below the proposed maximum excavation depth or the two-foot interval above the groundwater interface (whichever comes first).
- VOC samples will be collected by taking EnCore™ samples and solids sample from the 1-foot section of core that is most representative of soil conditions based on PID readings, visual observations of contamination (i.e. stained soils, unusual odors, free product, etc.), and the field geologist's judgment and discretion.

Each sample will be labeled (e.g., name of boring and sample interval; B-1 (12.5'-13.5'), sealed, and placed in a chilled cooler for shipment to the laboratory. Soil samples will be analyzed for the following parameters:

- NYSDEC ASP 2005 TCL volatile organic compounds (VOCs) by EPA Method 8260 (incl. STARS list). Samples for TCL VOCs will be collected using an EnCore<sup>™</sup> sampler, a volumetric storage chamber that can be filled completely with zero headspace to minimize loss of VOCs. Soil samples for VOC analysis will be collected by obtaining 3, 5-gram aliquots of soil per 6-inch sample interval using the EnCore<sup>™</sup> samplers. One 60-mL volume of soil will also be collected for each VOC sample for percent solids analysis.
- NYSDEC ASP 2005 TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270
- NYSDEC ASP 2005 Pesticides/Polychlorinated Biphenyls (PCBs) by EPA Methods 8081/8082
- NYSDEC ASP 2005 Target Analyte List (TAL) metals by EPA Methods 6010/7000

#### **Groundwater Investigation**

To investigate the potential impacts to groundwater from the possible former fuel oil tanks and historic metal spraying operations at a surrounding property, two temporary groundwater monitoring wells will be advanced on Site. Two groundwater samples will be collected via a Geopump from the temporary wells.

All samples will be shipped via courier to a New York State ELAP-certified laboratory for analysis. Groundwater samples will be analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260; semi-volatile organic compounds (SVOCs) by EPA Method 8270; TAL metals (filtered and unfiltered) by EPA Methods 6010, and

SW846 7471A; pesticides by EPA Method 8081; and polychlorinated biphenyls (PCBs) by EPA Method 8082.

#### Soil Vapor Investigation

To investigate the possible impacts to soil vapor from potentially impacted groundwater resulting from the historic metal spraying operations at surrounding properties, FLS will install two soil temporary vapor sampling points and collect one ambient air sample for background comparison. In addition, FLS will install two soil vapor samples within the proposed building footprint. All soil vapor samples will be collected at the proposed maximum excavation depth (15 feet bgs) or at least one foot above the water table in areas where the groundwater is less than six feet below grade.

Soil vapor samples will be collected from temporary soil vapor sample points. If the desired depth cannot be reached, the probe will be advanced as deep as practicable at each sample location. A 0.5-inch-diameter, retractable, decontaminated, stainless steel sampling probe (or equivalent) will be driven to the sampling interval. The sampling probe will be retracted approximately 4 inches exposing the sampling screen. The borehole above the sampling probe will be sealed with modeling clay or equivalent material to prevent ambient air from mixing with soil vapor.

The soil vapor samples will be collected in accordance with the New York State Department of Health's Guidance for Evaluating Soil Vapor Intrusion (October, 2006). The samples will be collected in laboratory-provided Summa canisters equipped with a flow regulator calibrated to collect the sample over a period of at least 2 hours. Soil vapor samples will be analyzed for VOCs via EPA Method TO-15.

#### 3.3.2 Investigation Derived Waste Management

All investigation derived waste (IDW) generated during investigation will be stored in covered 55-gallon, Department of Transportation (DOT) approved, steel drums which will be sealed at the end of each work day. Each drum will be labeled with the date, well/boring number, waste type (soil, purge water), and a point of contact. The drums will be stored in a secure area of the Site until the drums can be properly removed. An appropriate waste designation will be assigned based on the remedial investigation results and the IDW will be properly disposed of according to local, state, and federal regulations. Waste sampling will be conducted separately as necessary.

Soils that do not exhibit staining or obvious signs of contamination will be returned to the borehole in lieu of being placed in drums.

## 4.0 QUALITY ASSURANCE PROJECT PLAN

The following procedures will be used to ensure that samples are collected and handled in accordance with NYCDEC protocols.

#### 4.1 Laboratory Testing

A New York State Environmental Laboratory Accreditation Program (ELAP)-certified laboratory will be used for all laboratory analysis. The laboratory will operate a Quality Assurance/Quality Control (QA/QC) program that will consist of proper laboratory practices (including the required chain-of-custody), an internal quality control program, and external quality control audits by New York State. The laboratory will be SGS Laboratories of Dayton, New Jersey. SGS is an ELAP-certified laboratory.

#### 4.2 Laboratory Methods and Holding Times

Table 1 summarizes the laboratory methods, sample preservatives, minimum volume required and holding time that will be used to analyze the soil, groundwater and soil vapor samples.

#### 4.3 Field Quality Assurance/Quality Control

• Trip blank samples will be collected at a rate of one trip blank per cooler with groundwater samples for VOCs.

#### 4.4 Field Decontamination Procedures

Refer to Appendix A.

#### **Chain of Custody**

To ensure the integrity of samples collected, a strict chain of custody record must be maintained on each sample. This begins after sampling with the entry in the sampler's field log book of the sampling details:

- Date and time of sampling
- Sample location (as specific as possible)
- The unique sample number, size, and containers used
- Sample description
- Weather conditions (if applicable)
- Any additional comments

In addition, a record must be kept of the sample's progress from the sample site to the laboratory where it will be analyzed. This is the chain-of-custody form. The form must include:

- The sample number
- The sampler's name

- Date and time of sampling
- Location at which the sample was taken, including the address, if possible
- A description of the sample, as best known
- Signatures of people involved in the chain of possession
- Inclusive dates of possession of each person in the chain

The chain-of-custody form must accompany the sample throughout its trip to the laboratory. If the samples must be shipped to a laboratory, most shipping agents will refuse to sign or separately carry the chain-of-custody form. In this one case, it is permissible to put the chain-of-custody form into the cooler with the sample and then seal the box. The recipient of the cooler, the laboratory's sample custodian, can then attest to the cooler's arrival still sealed and unopened. Accompanying the chain-of-custody record, or included in it, must be a request to the laboratory for sample analysis. Information required includes:

- Name of person receiving the sample
- Laboratory sample number
- Date of sample receipt
- Sample allocation
- Analysis to be performed

Finally, on arrival at the laboratory, the sample custodian must enter the sample in the laboratory's sample log book. The chain-of-custody should be kept on file at the laboratory.

#### 5.0 REMEDIAL INVESTIGATION REPORT

A Remedial Investigation Report (RIR) will be prepared upon completion of all fieldwork and review of analytical results. The RIR will include the following components:

- Description of field activities
- Summaries of field measurements and analytical data
- Conclusions and recommendation section
- Soil boring logs
- Laboratory and field level monitoring summary tables
  - o Tables summarizing sample results, applicable standards for all sampled media
- Maps/Drawings, including:
  - Site Plan and Layout
  - A site map showing the final sample locations
  - Spider diagrams of analytical results

# 6.0 SCHEDULE

# **Mott-Elizabeth Street Development Parcel**

Item	Duration/Date
Submit Proposed RIWP	8/15/18
Agency Review and Approval of RIWP	9/15/18
Begin/Complete Remedial Investigation	1-2 days
Prepare Remedial Investigation Report (RIR)	30 days
Submit Remedial Investigation Report	10 days following RIR Prep

# **Figures**



The National Map Topographic Map, published by the USGS ©2013

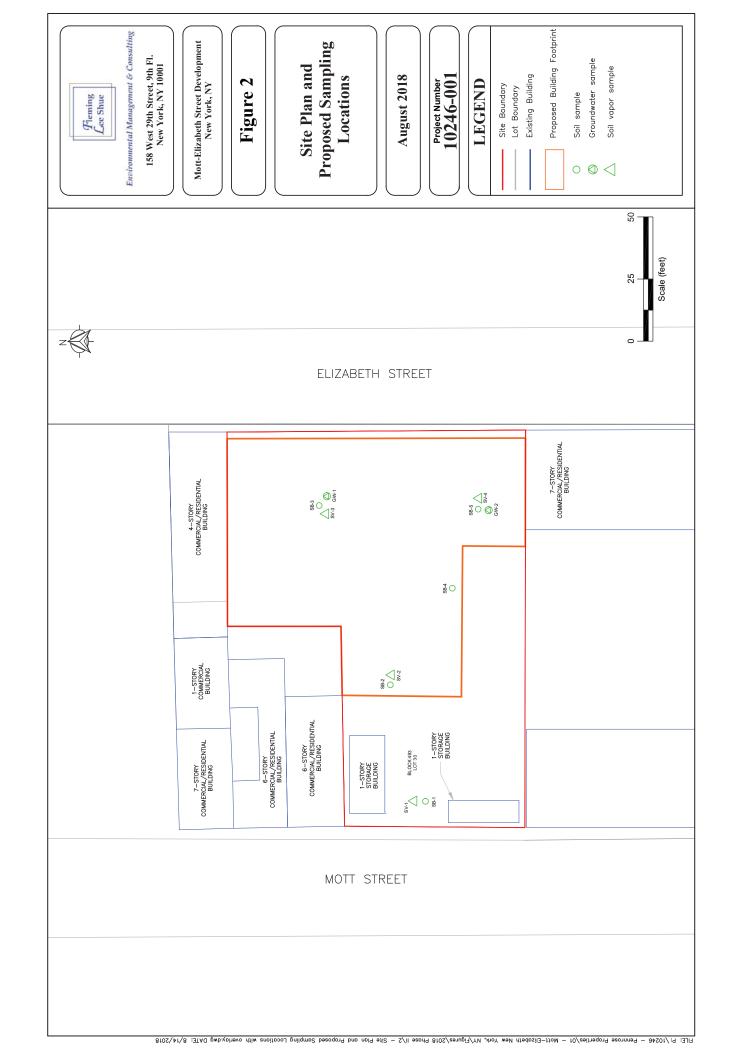


## FIGURE 1: SITE LOCATION MAP

SITE: Mott-Elizabeth Street Development

New York, NY

CLIENT: Pennrose Properties, LLC



# **Tables**

Laboratory Analytical Methods and Sample Holding Times Mott -Elizabeth St. Development Table 1

Sample Container	3 x Encore/ Sample	(1) 300 mL amber glass jar	(1) 300 mL amber glass jar	(1) 300 mL amber glass jar	3 x 40 mL	2 x 1,000 mL	2 x 1,000 mL	500 mL	1 X L SUMMA Canister
Holding Time <sup>2</sup>	Encore, 48 hours for preservation by Method 5035A, 14 days for analysis	14 days to extraction; 40 days from extraction to analysis	14 days to extraction; 40 days from extraction to analysis	28 days to analysis for Hg; 6 months to analysis for other metals	14 days to analysis	14 days to extraction; 40 days from extraction to analysis	14 days to extraction; 40 days from extraction to analysis	28 days to analysis for Hg; 6 months to analysis for other metals	14 days
Sample Preservation	Cool to 40 C; no headspace	Cool to 40 C	Cool to 40 C	Cool to 40 C	Cool to 4 <sup>0</sup> C; no headspace HCL	Cool to 40 C	Cool to 40 C	Cool to 4 <sup>0</sup> HNO <sub>3</sub>	None
Analytical Method	SW-846 Method 8260B	SW-846 Method 8082 & 8081	SW-846 Method 8270C	SW-846 Method 6010B/7000 Series	SW-846 Method 8260B	SW-846 Method 8082 & 8081	SW-846 Method 8270C	SW-846 Method 6010B/7000 Series	EPA TO+15
No. of Samples <sup>1</sup>	4	4	4	4	-		1		2
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analytical Parameter	VOCs, TCL or NYS STARS	TCL Pesticides & PCBs	SVOCs, TCL	Metals, TCL	VOCs, TCL or NYS STARS	TCL Pesticides & PCBs	SVOCs, TCL	Metals, TCL Total	VOCs
Sample Matrix	Soil	Soil	Soil	Soil	Groundwater	Groundwater	Groundwater	Groundwater	Soil Vapor

<sup>&</sup>lt;sup>1</sup> Actual number of samples may vary depending on field conditions, sample material availability, and field observations

 $<sup>^2</sup>$  From date of sample collection  ${\rm TCL-Target\ Analyte\ List\ TCL-Target\ Analyte\ TCL-Target$ 

# **APPENDIX 4**

Haven Green EAS Transportation Planning Factors And Travel Demand Forecast Memorandum



Engineers and Planners • 102 Madison Avenue • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

#### **TECHNICAL MEMORANDUM**

TO: New York City Department of Housing Preservation & Development

FROM: Philip Habib & Associates

DATE: September 24, 2018

PROJECT: Haven Green EAS (PHA No. 1805; CEQR No. 18HPD105M)

RE: Transportation Planning Factors and Travel Demand Forecast

This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, transit, pedestrian, and parking conditions for the *Haven Green EAS*. Estimates of the peak travel demand in the future with the Proposed Actions are provided, along with a discussion of trip assignment methodologies and study area definitions.

#### THE PROPOSED ACTIONS

The Project Sponsors, a joint venture of Pennrose, LLC, RiseBoro Community Partnership, and Habitat for Humanity NYC, are seeking construction financing from the New York City Department of Housing Preservation and Development (HPD) and the approval of several discretionary actions (collectively, the "Proposed Actions") to facilitate the development of a 92,761 gross square foot (gsf) mixed-use building containing affordable, senior housing as well as local retail and community facility uses in the Nolita neighborhod of Manhattan, Community District 2 (the "Development Site"). The Proposed Actions include construction financing from HPD, the designation of an Urban Development Action Area (UDAA), Urban Development Action Area Project (UDAAP) approval, and the disposition of City-owned property.

The Development Site is a through-block lot (199-207 Elizabeth Street / 222-230 Mott Street) with a total lot area of approximately 20,265 square feet (sf). It is located on the block bound by Elizabeth Street to the east, Mott Street to the west, Prince Street to the north, and Spring Street to the south. The Development Site is an unimproved, City-owned lot. It is currently subject to a month-to-month lease and is operating as a commercial sculpture garden with some public access, free programing, and events.

The Proposed Actions would facilitate the development of a 7-story, approximately 92,761 gross square foot (gsf) mixed-use building containing approximately 123 units of senior, affordable housing (124 total units including the superintendent's unit), approximately 4,454 gsf of ground floor local retail, and approximately 12,885 gsf of community facility space. In addition, approximately 6,700 sf of publicly accessible open space would be developed. Construction of the Proposed Development is expected to begin in 2019 with all building elements complete and operational in 2021.

#### **ANALYSIS FRAMEWORK**

In order to assess the potential effects of the Proposed Actions, the incremental difference between the future without the Proposed Actions (No-Action condition) and the future with the Proposed Actions (With-Action condition) is analyzed for an analysis year of 2021.

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

Under 2021 No-Action conditions, the Proposed Actions would not be approved. In the absence of approval, the approximately 20,265 sf Development Site would remain an unimproved, City-owned lot. Therefore, it is conservatively assumed that no development would occur on the Development Site in the future No-Action condition.

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

The 2021 future with the Proposed Actions would allow for the development of an approximately 92,761 gsf mixed-use building, consisting of 123 affordable dwelling units, approximately 4,454 gsf of ground floor local retail, approximately 12,885 gsf of community facility space, and approximately 6,700 sf of publicly accessible open space (refer to **Table 1** below).

Table 1: Comparison of 2021 No-Action and With-Action Conditions

Use	Existing / No-Action	With-Action <sup>1</sup>	Increment
Residential (Affordable Senior + Super)	0 gsf 0 DUs	75,422 gsf 124 DUs	+75,422 gsf +124 DUs
Local Retail	0 gsf	4,454 gsf	+4,454 gsf
Community Facility	0 gsf	12,885 gsf	+12,885 gsf
Open Space	20,265 sf (0.46 acres)	6,700 sf (0.15 acres)	-13,565 sf (-0.31 acres)
Population/Employment <sup>2</sup>	Existing/No- Action	With-Action	Increment
Residents	0 residents	126 residents	+126 residents
Workers	0 workers	64 workers	+64 workers

#### Notes:

#### TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast travel demand for the future with the Proposed Actions are summarized in **Table 2** and discussed below. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand), the weekday midday peak hour (a typical peak period for retail demand), and a weekend Saturday peak hour.

<sup>&</sup>lt;sup>1</sup>All figures are approximate and subject to change.

<sup>&</sup>lt;sup>2</sup>Assumes 1 person per senior housing DU, 3 persons per superintendent unit, 1 worker per 10 senior DUs, 3 workers per 1,000 sf of local retail, and 3 workers per 1,000 sf of community facility space.

#### **Local Retail**

The trip generation rates, temporal and directional distributions, modal splits, and vehicle occupancy rates for local retail uses were based on data from the CEQR Technical Manual and the 2017 East Harlem Rezoning FEIS. Truck trip factors were also based on the CEQR Technical Manual. It was assumed for the purposes of the travel demand forecast that 25 percent of all local retail trips would be linked trips, consistent with CEQR Technical Manual guidelines.

#### Residential

The residential transportation planning factors were based on person trip and truck trip generation rates and temporal and directional distributions cited in the *CEQR Technical Manual*. Weekday AM, MD and PM and Saturday modal splits and vehicle occupancy patterns for the residential use were derived from 2012-2016 American Community Survey (ACS) Means of Transportation to Work data for Manhattan Census Tract 43 and the 2017 *East Harlem Rezoning FEIS*.

#### **Community Facility**

As the community facility use will predominately serve as Habitat for Humanity NYC's headquarters, the trip generation rates, temporal distribution, and truck trip generation rates were conservatively based on the *CEQR Technical Manual* rates for a commercial office use. The weekday AM and PM modal split and the auto vehicle occupancy were based on AASHTO Reverse-Journey-to-Work data for Manhattan Census Tracts 18,36.01, 36.02, 41, 43, 45, 49, 55.01, and 55.02. The weekday midday and Saturday modal split and taxi vehicle occupancy was based on the 2017 *East Harlem Rezoning FEIS*.

#### **TRIP GENERATION**

The net incremental change in person and vehicle trips expected to result from the Proposed Actions by the 2021 analysis year were derived based on the net change in land uses shown in **Table 1** and the transportation planning factors shown in Table 2. Table 3 shows an estimate of the net incremental change in peak hour person trips and vehicle trips (versus the No-Action condition) that would occur in 2021. As shown in **Table 3**, the Proposed Actions would generate a net increase of approximately 150, 216, 210, and 185 person trips (in + out combined) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. Peak hour vehicle trips (including auto, truck, and taxi trips) would increase by a net total of approximately 14, 12, 17 and 12 (in + out combined) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. Peak hour subway trips would increase by a net total of 92 trips, 58 trips and 107 trips in the weekday AM, midday and PM periods, respectively, and increase by a net total of 81 trips during the Saturday midday period. Peak hour bus trips would increase by approximately 2, 8, and 4 trips during the AM, midday and PM periods, respectively, and increase by approximately 8 trips during the Saturday midday period. Lastly, trips made entirely on foot (walk-only trips) would increase by approximately 42, 138, and 81 during the weekday AM, midday and PM peak hours, respectively, and increase by approximately 80 during the Saturday midday period. Total pedestrian trips (including walk only, subway, and bus trips) would increase by 136, 204, and 192 trips during the weekday AM, midday, and PM peak hours, and 169 trips during the Saturday midday peak hour.

**Table 2: Transportation Planning Factors** 

Land Use:	<u>Local I</u>	<u>Retail</u>	<u>Resid</u>	<u>ential</u>	Commun	ity Facility			
Size/Units:	4,454	gsf	124	DU	12,885 gsf				
Trip Generation:	(1	)	(1	1)	(1)  18 3.9 per 1,000 sf  (1) 12.0% 15.0% 14.0% 17.0%  (4)  AM/PM MD 11.0% 2. 2.0% 3. 58.0% 6. 9.0% 6. 20.0% 83  100.0% 100  (2) In C 95% 5. 48% 52 15% 85 60% 40  (2,4) 1.19 1.40  (1) 0.32 0.01 per 1,000 sf  (1) 10.0% 11.0% 2.0% 11.0% 50.0% 50	(1)			
Weekday	20	5	8.0	75	1	.8			
			9.6						
•			per	DU					
Temporal Distribution	: (1	)	(1	1)	(1)				
			10.						
MD	19.0	0%		0%					
PM			11.						
SatMD			8.0						
	(2	)	(3	3)	(4)	(2)			
Trip Generation: (1)  Weekday 20 Saturday 244 per 1,0  Temporal Distribution: (1)  AM 3.0 MD 19.0 PM 10.0 SatMD 10.0  SatMD 10.0  (2)  Modal Splits: AM/MD/PM Auto 2.5% Taxi 0.5% Subway/Railroad 16.5% Bus 4.0% Walk/Other 76.5% 100.0%  In/Out Splits: In AM 50% MD 50% PM 50% Sat MD 50%  Vehicle Occupancy: (2) Auto 2.0 Taxi 2.0  Truck Trip Generation: (1) Weekday 0.3 Saturday 0.0 per 1,0  Truck Trip Generation: (1) Weekday 0.3 Saturday 0.0 Sat MD 11.0 PM 2.0 Sat MD 11.0 PM 2.0 Sat MD 11.0 Notes:  (1) Based on the 201	SAT	All Pe	riods	AM/PM	MD/SAT				
	2.5%	7.0%	7.4	1%	11.0%	2.0%			
Taxi	0.5%	0.0%	3.0	0%	2.0%	3.0%			
Subway/Railr		21.0%	68.			6.0%			
		9.0%	0.0			6.0%			
		63.0%	21.			83.0%			
	100.0%	100.0%	100	.0%	100.0%	100.0%			
	(2	)	(2	2)	(	2)			
In/Out Splits:	In	Out	In	Out	In	Out			
AM	50%	50.0%	16.0%	84.0%	95%	5.0%			
MD	50%	50.0%	50.0%	50.0%	48%	52.0%			
PM	50%	50.0%	67.0%	33.0%	15%	85.0%			
Sat MD	50%	50.0%	53.0%	47.0%	60%	40.0%			
Vehicle Occupancy:	(2	)	(2,	3)	(2	4)			
			1.0						
			1.4						
Sat MD  /ehicle Occupancy: Auto Taxi  ruck Trip Generation	(1	)	(1	L)	(	1)			
Weekday Saturday  emporal Distribution:  AM MD PM SatMD  Auto Taxi Subway/Railro Bus Walk/Other  A/Out Splits:  AM MD PM Sat MD  Pehicle Occupancy: Auto Taxi  ruck Trip Generation: Weekday Saturday  AM MD PM Sat MD  AII Periods  otes:  (1) (2) (3)			0.0						
•			0.0						
•			per						
	(1	)		(1)	(	1)			
AM	8.0	%	1	2.0%	10	.0%			
MD	11.0	0%	9	.0%	11	.0%			
PM	2.0	%	2	.0%	2.	0%			
Sat MD	11.0	0%	9	.0%	11	.0%			
	In	Out	In	Out	In	Out			
All Periods	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%			
(1)	Based on the 2014 City Environmental Quality Review								
4-1	(CEQR) Technical Manual.								
(3)	•		2012-2016) data	a for					
	Manhattan Cens	us Tract 43.							
4.1	_				_				

**Table 3: Travel Demand Forecast** 

			With	n-Action				I	Net Incre	ment	
Land Use: Size/Units:		Local Retail 4,454 gsf		Residential		Commun	Community Facility		(With-Action - No-Action)		
						12,885 gsf					
Peak Hou	r Trips:	(	1)								
	AM		22	1	100	2	28		150		
	MD	1	30		50	3	36		216		
	PM		58		110		32		210		
Sat MD			30	95			10		185		
erson Tr	ips:										
		In	Out	In	Out	In	Out	In	Out	Total	
M	Auto	0	0	1	6	3	0	4	6	10	
	Taxi	0	0	0	3	1	0	1	3	4	
	Subway	3	3	11	58	15	2	29	63	92	
	Bus	0	0	0	0	2	0	2	0	2	
	Walk/Other	8	8	3	18	5	0	16	26	42	
	Total	11	11	15	85	26	2	52	98	150	
		In	Out	In	Out	In	Out	In	Out	Total	
1D	Auto	2	2	2	2	0	0	4	4	8	
	Taxi	0	0	1	1	1	1	2	2	4	
	Subway	11	11	17	17	1	1	29	29	58	
	Bus	3	3	0	0	1	1	4	4	8	
	Walk/Other	49	49	5	5	14	16	68	70	138	
	Total	65	65	25	25	17	19	107	109	216	
		In	Out	In	Out	In	Out	In	Out	Total	
М	Auto	1	1	5	3	1	3	7	7	14	
	Taxi	0	0	2	1	0	1	2	2	4	
	Subway	6	6	51	25	3	16	60	47	107	
	Bus	1	1	0	0	0	2	1	3	4	
	Walk/Other	26	26	15	8	1	5	42	39	81	
	Total	34	34	73	37	5	27	112	98	210	
		In	Out	In	Out	In	Out	In	Out	Total	
at MD	Auto	3	3	4	3	0	0	7	6	13	
	Taxi	0	0	2	1	0	0	2	1	3	
	Subway	8	8	34	31	0	0	42	- 39	81	
	Bus	4	4	0	0	0	0	4	4	8	
	Walk/Other	25	25	11	9	5	5	41	39	80	
	Total	40	40	51	44	5	5	96	89	185	

<sup>(1) - 25%</sup> link-trip credit applied to local retail use.

**Table 3: Travel Demand Forecast (cont.)** 

		With-A	ction						Net Increi	ment
and Use	:	Local Retail Residen		dential	al Community Facility			(With-Action - No-Actio		
/ehicle T	rips :									
		In	Out	In	Out	In	Out	In	Out	Total
AΜ	Auto (Total)	0	0	1	4	3	0	4	4	8
	Taxi	0	0	0	2	1	0	1	2	3
	Taxi Balanced	0	0	2	2	1	1	3	3	6
	Truck	0	0	0	0	0	0	0	0	0
	Total	0	0	3	6	4	1	7	7	14
		In	Out	In	Out	In	Out	In	Out	Total
MD	Auto (Total)	1	1	1	1	0	0	2	2	4
	Taxi	0	0	1	1	1	1	2	2	4
	Taxi Balanced	0	0	2	2	2	2	4	4	8
	Truck	0	0	0	0	0	0	0	0	0
	Total	1	1	3	3	2	2	6	6	12
		In	Out	In	Out	In	Out	In	Out	Total
PM	Auto (Total)	1	1	3	2	1	3	5	6	11
	Taxi	0	0	1	1	0	1	1	2	3
	Taxi Balanced	0	0	2	2	1	1	3	3	6
	Truck	0	0	0	0	0	0	0	0	0
	Total	1	1	5	4	2	4	8	9	17
		In	Out	In	Out	In	Out	In	Out	Total
Sat MD	Auto (Total)	2	2	2	2	0	0	4	4	8
	Тахі	0	0	1	1	0	0	1	1	2
	Taxi Balanced	0	0	2	2	0	0	2	2	4
	Truck	0	0	0	0	0	0	0	0	0
	Total	2	2	4	4	0	0	6	6	12

#### LEVEL 1 SCREENING ASSESSMENT

The CEQR Technical Manual describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed action. According to the CEQR Technical Manual, if a proposed action is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips at one point along a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians and parking.

#### **Traffic**

Based on *CEQR Technical Manual* guidelines, a quantified traffic analysis is typically required if a proposed action would result in 50 or more vehicle trip ends in a peak hour at one or more intersections. As discussed above, the number of incremental peak hour vehicle trips (14, 12 17 and 12 in the AM, midday, PM, and Saturday midday, respectively) do not exceed the 50-trip threshold in any period. As such Level 2 screening analysis is not needed and further traffic analysis is not warranted.

#### **Transit**

According to the general thresholds used by the Metropolitan Transportation Authority and specified in the CEQR Technical Manual, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak hour subway or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted.

As shown in **Table 3**, and discussed above, the Proposed Actions would generate an incremental increase of 92, 58, 107, and 81 subway trips in the weekday AM, midday, and PM peak hours and Saturday midday peak hour, respectively. The Proposed Actions would also generate an incremental increase of 2, 8, 4, and 8 bus trips in the above mentioned peak hours, respectively. As such, these incremental subway and bus trips fall below the *CEQR Technical Manual* threshold of 200 or more new subway passengers and 50 or more new bus passengers in any peak hour. Therefore, detailed subway and bus analyses are not warranted.

#### **Pedestrians**

According to CEQR Technical Manual guidelines, a quantified analysis of pedestrian conditions is typically required if a proposed action would result in 200 or more peak hour pedestrian trips at any pedestrian element (sidewalk, corner area or crosswalk). As shown in **Table 3**, the Proposed Actions would generate 136, 204, 192, and 169 incremental pedestrian trips (including walk-only, subway, and bus trips) in the AM, midday, PM and Saturday midday peak hours, respectively. While project-generated pedestrian trips would exceed the CEQR threshold of 200 pedestrian trips during the weekday midday peak hour, it is anticipated that these trips would be distributed between the Development Site's two frontages along Mott Street and along Elizabeth Street. Therefore, the Proposed Actions would not result in more than 200 pedestrian trips at any one point at any pedestrian element, and a detailed analysis of pedestrian conditions is not warranted.