



**City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT FULL FORM**

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

PART I: GENERAL INFORMATION

PROJECT NAME

1. Reference Numbers

CEQR REFERENCE NUMBER (To Be Assigned by Lead Agency)	BSA REFERENCE NUMBER (If Applicable)
ULURP REFERENCE NUMBER (If Applicable)	OTHER REFERENCE NUMBER(S) (If Applicable) (e.g. Legislative Intro, CAPA, etc)

2a. Lead Agency Information

NAME OF LEAD AGENCY

2b. Applicant Information

NAME OF APPLICANT

NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP
TELEPHONE	FAX		TELEPHONE	FAX	
EMAIL ADDRESS			EMAIL ADDRESS		

3. Action Classification and Type

SEQRA Classification

UNLISTED TYPE I; SPECIFY CATEGORY (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended):

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

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

4. Project Description:

4a. Project Location: Single Site (for a project at a single site, complete all the information below)

ADDRESS	NEIGHBORHOOD NAME	
TAX BLOCK AND LOT	BOROUGH	COMMUNITY DISTRICT
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION IF ANY:		ZONING SECTIONAL MAP NO:

4b. Project Location: Multiple Sites (Provide a description of the size of the project area in both City Blocks and Lots. If the project would apply to the entire city or to areas that are so extensive that a site-specific description is not appropriate or practicable, describe the area of the project, including bounding streets, etc.)

5. REQUIRED ACTIONS OR APPROVALS (check all that apply)

City Planning Commission: YES NO

- | | |
|--|---|
| <input type="checkbox"/> CITY MAP AMENDMENT | <input type="checkbox"/> ZONING CERTIFICATION |
| <input type="checkbox"/> ZONING MAP AMENDMENT | <input type="checkbox"/> ZONING AUTHORIZATION |
| <input type="checkbox"/> ZONING TEXT AMENDMENT | <input type="checkbox"/> HOUSING PLAN & PROJECT |
| <input type="checkbox"/> UNIFORM LAND USE REVIEW PROCEDURE (ULURP) | <input type="checkbox"/> SITE SELECTION — PUBLIC FACILITY |
| <input type="checkbox"/> CONCESSION | <input type="checkbox"/> FRANCHISE |
| <input type="checkbox"/> UDAAP | <input type="checkbox"/> DISPOSITION — REAL PROPERTY |
| <input type="checkbox"/> REVOCABLE CONSENT | |

ZONING SPECIAL PERMIT, SPECIFY TYPE:

- MODIFICATION OF
 RENEWAL OF
 OTHER

Board of Standards and Appeals: YES NO

- SPECIAL PERMIT
- EXPIRATION DATE MONTH DAY YEAR
- VARIANCE (USE)
- VARIANCE (BULK)

SPECIFY AFFECTED SECTION(S) OF THE ZONING RESOLUTION

Department of Environmental Protection: YES NO

Other City Approvals: YES NO

- | | |
|--|--|
| <input type="checkbox"/> LEGISLATION | <input type="checkbox"/> RULEMAKING |
| <input type="checkbox"/> FUNDING OF CONSTRUCTION; SPECIFY | <input type="checkbox"/> CONSTRUCTION OF PUBLIC FACILITIES |
| <input type="checkbox"/> POLICY OR PLAN; SPECIFY | <input type="checkbox"/> FUNDING OF PROGRAMS; SPECIFY |
| <input type="checkbox"/> LANDMARKS PRESERVATION COMMISSION APPROVAL (<i>not subject to CEQR</i>) | <input type="checkbox"/> PERMITS; SPECIFY: |
| <input type="checkbox"/> 384(b)(4) APPROVAL | <input type="checkbox"/> OTHER; EXPLAIN |
| <input type="checkbox"/> PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) (<i>not subject to CEQR</i>) | |

6. State or Federal Actions/Approvals/Funding: YES NO IF "YES," IDENTIFY

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

GRAPHICS *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11x17 inches in size and must be folded to 8.5 x 11 inches for submission.*

- | | | |
|--|-------------------------------------|---|
| <input type="checkbox"/> Site location map | <input type="checkbox"/> Zoning map | <input type="checkbox"/> Photographs of the project site taken within 6 months of EAS submission and keyed to the site location map |
| <input type="checkbox"/> Sanborn or other land use map | <input type="checkbox"/> Tax map | <input type="checkbox"/> For large areas or multiple sites, a GIS shape file that defines the project sites |

PHYSICAL SETTING (*both developed and undeveloped areas*)

Total directly affected area (sq. ft.):	Type of waterbody and surface area (sq. ft.):	Roads, building and other paved surfaces (sq. ft.)
Other, describe (sq. ft.):		

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

Size of project to be developed: _____ (gross sq. ft.)

Does the proposed project involve changes in zoning on one or more sites? YES NO

If 'Yes,' identify the total square feet owned or controlled by the applicant: _____ Total square feet of non-applicant owned development: _____

Does the proposed project involve in-ground excavation or subsurface disturbance, including but not limited to foundation work, pilings, utility lines, or grading? YES NO

If 'Yes,' indicate the estimated area and volume dimensions of subsurface disturbance (if known):

Area: _____ sq. ft. (width x length) Volume: _____ cubic feet (width x length x depth)

Does the proposed project increase the population of residents and/or on-site workers? YES NO Number of additional residents? _____ Number of additional workers? _____

Provide a brief explanation of how these numbers were determined:

Does the project create new open space? YES NO If Yes: _____ (sq. ft)

Using Table 14-1, estimate the project's projected operational solid waste generation, if applicable: _____ (pounds per week)

Using energy modeling or Table 15-1, estimate the project's projected energy use: _____ (annual BTUs)

9. Analysis Year [CEQR Technical Manual Chapter 2](#)

ANTICIPATED BUILD YEAR (DATE THE PROJECT WOULD BE COMPLETED AND OPERATIONAL): _____ ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: _____

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? YES NO IF MULTIPLE PHASES, HOW MANY PHASES: _____

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

10. What is the Predominant Land Use in Vicinity of Project? (*Check all that apply*)

- RESIDENTIAL MANUFACTURING COMMERCIAL PARK/FOREST/OPEN SPACE OTHER, Describe: _____

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Land Use				
Residential	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following				
No. of dwelling units				
No. of low- to moderate income units				
No. of stories				
Gross Floor Area (sq.ft.)				
Describe Type of Residential Structures				
Commercial	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
Describe type (retail, office, other)				
No. of bldgs				
GFA of each bldg (sq.ft.)				
Manufacturing/Industrial	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
Type of use				
No. of bldgs				
GFA of each bldg (sq.ft.)				
No. of stories of each bldg				
Height of each bldg				
Open storage area (sq.ft.)				
If any unenclosed activities, specify				
Community Facility	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
Type				
No. of bldgs				
GFA of each bldg (sq.ft.)				
No. of stories of each bldg				
Height of each bldg				
Vacant Land	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, describe:				
Publicly Accessible Open Space	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify type (mapped City, State, or Federal Parkland, wetland—mapped or otherwise known, other)				
Other Land Use	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, describe				
Parking				
Garages	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Attended or non-attended				

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Parking (continued)				
Lots	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Other (includes street parking)	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, describe				
Storage Tanks				
Storage Tanks	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes, specify the following:				
Gas/Service stations	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
Oil storage facility	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
Other, identify:	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If yes to any of the above, describe:				
Number of tanks				
Size of tanks				
Location of tanks				
Depth of tanks				
Most recent FDNY inspection date				
Population				
Residents	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If any, specify number				
Briefly explain how the number of residents was calculated:				
Businesses	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
If any, specify the following:				
No. and type				
No. and type of workers by business				
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:				
Zoning*				
Zoning classification				
Maximum amount of floor area that can be developed (in terms of bulk)				
Predominant land use and zoning classifications within a 0.25 mile radius of proposed project				
Attach any additional information as may be needed to describe the project.				
If your project involves changes in regulatory controls that affect one or more sites not associated with a specific development, it is generally appropriate to include the total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

*This section should be completed for all projects, except for such projects that would apply to the entire city or to areas that are so extensive that site-specific zoning information is not appropriate or practicable.

PART II: TECHNICAL ANALYSES

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, answer the subsequent questions for that technical area and consult the relevant chapter of the CEQR Technical Manual for guidance on providing additional analyses (and attach supporting information, if needed) 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 often only means that more information is required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to either 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 or zoning that is different from surrounding land uses and/or zoning? Is there the potential to affect an applicable public policy? If “Yes”, complete a preliminary assessment and attach.		
(b) Is the project a large, publicly sponsored project? If “Yes”, complete a PlaNYC assessment and attach.		
(c) Is any part of the directly affected area within the City’s Waterfront Revitalization Program boundaries? If “Yes”, complete the Consistency Assessment Form .		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
• Generate a net increase of 200 or more residential units?		
• Generate a net increase of 200,000 or more square feet of commercial space?		
• Directly displace more than 500 residents?		
• Directly displace more than 100 employees?		
• Affect conditions in a specific industry?		
(b) If ‘Yes’ to any of the above, attach supporting information to answer the following questions, as appropriate. If ‘No’ was checked for each category above, the remaining questions in this technical area do not need to be answered.		
(1) Direct Residential Displacement		
• If more than 500 residents would be displaced, would these displaced residents represent more than 5% of the primary study area population?		
• If ‘Yes,’ is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?		
(2) Indirect Residential Displacement		
• Would the expected average incomes of the new population exceed the average incomes of the study area populations?		
• If ‘Yes,’ would the population increase represent more than 5% of the primary study area population or otherwise potentially affect real estate market conditions?		
• If ‘Yes,’ would the study area have a significant number of unprotected rental units?		
Would more than 10 percent of all the housing units be renter-occupied and unprotected?		
Or, would more than 5 percent of all the housing units be renter-occupied and unprotected where no readily observable trend toward increasing rents and new market rate development exists within the study area?		

	YES	NO
(3) Direct Business Displacement		
• Do any of the displaced businesses provide goods or services that otherwise could not be found within the trade area, either under existing conditions or in the future with the proposed project?		
• Do any of the displaced businesses provide goods or services that otherwise could not be found within the trade area, either under existing conditions or in the future with the proposed project?		
• Or, is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?		
(4) Indirect Business Displacement		
• Would the project potentially introduce trends that make it difficult for businesses to remain in the area?		
• Would the project capture the retail sales in a particular category of goods to the extent that the market for such goods would become saturated as a result, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?		
(5) Affects on Industry		
• Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?		
• Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?		
3. COMMUNITY FACILITIES: <u>CEQR Technical Manual Chapter 6</u>		
(a) Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?		
(b) Would the project exceed any of the thresholds outlined in Table 6-1 in Chapter 6 ?		
(c) If 'No' was checked above, the remaining questions in this technical area do not need to be answered. If 'Yes' was checked, attach supporting information to answer the following, if applicable.		
(1) Child Care Centers		
• Would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?		
• If Yes, would the project increase the collective utilization rate by 5 percent from the No-Action scenario?		
(2) Libraries		
• Would the project increase the study area population by 5 percent from the No-Action levels?		
• If Yes, would the additional population impair the delivery of library services in the study area?		
(3) Public Schools		
• 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 105 percent?		
• If Yes, would the project increase this collective utilization rate by 5 percent from the No-Action scenario?		
(4) Health Care Facilities		
• Would the project affect the operation of health care facilities in the area?		
(5) Fire and Police Protection		
• Would the project affect the operation of fire or police protection in the area?		
4. OPEN SPACE: <u>CEQR Technical Manual Chapter 7</u>		
(a) Would the project change or eliminate existing open space?		
(b) Is the project located within an underserved area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island ?		
(c) If 'Yes,' would the proposed project generate more than 50 additional residents or 125 additional employees?		
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island ?		
(e) If 'Yes,' would the project generate more than 350 additional residents or 750 additional employees?		
(f) If the project is not located within an underserved or well-served area, would it generate more than 200 additional residents or 500 additional employees?		
(g) If 'Yes' to any of the above questions, attach supporting information to answer the following:		
• Does the project result in a decrease in the open space ratio of more than 5%?		
• If the project is within an underserved area, is the decrease in open space between 1% and 5%?		
• If 'Yes,' are there qualitative considerations, such as the quality of open space, that need to be considered?		

	YES	NO
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 reach any sunlight-sensitive resource at any time of the year.		
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; is listed or eligible for listing on the New York State or National Register of Historic Places; or is within a designated or eligible New York City, New York State, or National Register Historic District? If "Yes," list the resources and attach supporting information on whether the proposed project would affect any of these 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 that is 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) Is any part of the directly affected area within the Jamaica Bay Watershed? If "Yes", complete the Jamaica Bay Watershed Form .		
(b) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11 ? If "Yes," list the resources: Attach supporting information on whether the proposed project would affect any of these resources.		
9. HAZARDOUS MATERIALS: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential use in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?		
(b) Does the proposed project site have existing institutional controls (e.g. (E) designations or a Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?		
(c) Does the project require soil disturbance in a manufacturing zone or any development on or near a manufacturing zone or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?		
(d) Does 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) Does the project result in development where underground and/or aboveground storage tanks (e.g. gas stations) are or were on or near the site?		
(f) Does the project result in renovation of interior existing space on a site with potential compromised air quality, vapor intrusion from on-site or off-site sources, asbestos, PCBs or lead-based paint?		
(g) Does the project result in development on or near a government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, municipal incinerators, coal gasification or gas storage sites, or railroad tracks and rights-of-way?		
(h) Has a Phase I Environmental Site Assessment been performed for the site? If "Yes," were RECs identified? Briefly identify:		
(i) Based on a Phase I Assessment, is a Phase II Assessment needed?		
10. WATER AND SEWER INFRASTRUCTURE: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?		
(b) Is the proposed project located in a combined sewer area and result in at least 1,000 residential units or 250,000 SF or more of commercial space in Manhattan or at least 400 residential units or 150,000 SF or more of commercial space in the Bronx, Brooklyn, Staten Island or Queens?		
(c) Is the proposed project located in a separately sewered area and result in the same or greater development than that listed in Table 13-1 in Chapter 13 ?		
(d) Does the proposed project involve development on a site five acres or larger where the amount of impervious surface would increase?		
(e) Would the proposed project involve development on a site one acre or larger where the amount of impervious surface would increase and is located within the Jamaica Bay Watershed or in certain specific drainage areas including: Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek?		
(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 WWTP and/or generate contaminated stormwater in a separate storm sewer system?		
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?		
(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) Would the proposed project have the potential to generate 1000,000 pounds (50 tons) or more of solid waste per week?		
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?		

	YES	NO
12. ENERGY: CEQR Technical Manual Chapter 15		
(a) Would the proposed project affect the transmission or generation of energy?		
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16 ?		
(b) If "Yes," conduct the screening analyses, attach appropriate back up data as needed for each stage, and answer the following questions:		
(1) 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? <i>**It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peakhour. See Subsection 313 in Chapter 16 for more information.</i>		
(2) 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 trips per station or line?		
(3) Would the proposed project result in more than 200 pedestrian trips per project peak hour? If "Yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?		
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in Chapter 17 ?		
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in Chapter 17 ? If "Yes," would the proposed project exceed the thresholds in the Figure 17-3, Stationary Source Screen Graph ? (attach graph as needed)		
(c) Does the proposed project involve multiple buildings on the project site?		
(d) Does the proposed project require Federal approvals, support, licensing, or permits subject to conformity requirements?		
(e) Does the proposed project site have existing institutional controls (e.g. E) designations or a Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?		
(f) If "Yes," 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, a power plant, or would fundamentally change the City's solid waste management system?		
(b) If "Yes," would the proposed project require a GHG emissions assessment based on the guidance in Chapter 18 ?		
(c) If "Yes," attach supporting documentation to answer the following: Would the project be consistent with the City's GHG reduction goal?		
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-designations or a Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?		
(e) If "Yes," conduct the appropriate analyses and attach any supporting documentation.		
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20		
(a) Would the proposed project warrant a public health assessment based upon the guidance in Chapter 20 ?		
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted for the following technical areas, check Yes if any of the following technical areas required 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 here why or why not an assessment of neighborhood character is warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		

		YES	NO
19.	CONSTRUCTION IMPACTS: <i>CEQR Technical Manual Chapter 22</i> Would the project's construction activities involve (check all that apply):		
	• Construction activities lasting longer than two years;		
	• Construction activities within a Central Business District or along an arterial or major thoroughfare;		
	• Require closing, narrowing, or otherwise impeding traffic, transit or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc);		
	• Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out;		
	• The operation of several pieces of diesel equipment in a single location at peak construction;		
	• Closure of community facilities or disruption in its service;		
	• Activities within 400 feet of a historic or cultural resource; or		
	• Disturbance of a site containing natural resources.		

If any boxes are checked, explain why or why not a preliminary construction assessment is warranted based on the guidance of in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.

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 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

of

APPLICANT/SPONSOR

NAME THE ENTITY OR OWNER

the entity which seeks the permits, approvals, funding or other governmental action described in this EAS.

Check if prepared by: APPLICANT/REPRESENTATIVE **OR** LEAD AGENCY REPRESENTATIVE (FOR CITY-SPONSORED PROJECTS)

APPLICANT/SPONSOR NAME:

LEAD AGENCY REPRESENTATIVE NAME:



SIGNATURE:

DATE:

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

PART III: DETERMINATION OF SIGNIFICANCE (To Be Completed By Lead Agency)

INSTRUCTIONS:

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

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

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

2. Are there any aspects of the project relevant to the determination whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? If there are such impacts, explain them and state where, as a result of them, the project may have a significant impact on the environment.

3. LEAD AGENCY'S CERTIFICATION

Deputy Director, Environmental Assessment and Review Division

New York City Department of City Planning

TITLE

LEAD AGENCY

Celeste Evans



NAME

SIGNATURE

ANALYSIS SECTION

Part 1: General Information

Project Description

Introduction

This application has been prepared on behalf of Downtown RE Holdings, LLC (the “Applicant”), and would affect a vacant lot at 688 Broadway in Manhattan’s NoHo Historic District, located on Lot 4 and part of Great Jones Alley of Block 531 (the “Site”). Outdoor vendors who currently rent the Site from the Applicant would be vacated to allow for the development of a 48,110 gross square foot (gsf) mixed use building, of which 44,140 gsf would be dedicated to residential condominium units and 3,970 gsf of ground floor retail facing Broadway. Private access to the proposed building would be provided through Great Jones Alley, an existing passageway, accessed via Great Jones Street located to the east, or the back of the Lot.

Proposed Action

The Applicant, Downtown RE Holdings, LLC, is seeking a Special Permit pursuant to Sections 74-712 (a) and 74-712 (b) of the New York City Zoning Resolution to modify use and bulk regulations at the Site, located within an M1-5B district (“the Proposed Action”). Section 74-715 (a) permits the modification of the use regulations of M1-5A and M1-5B districts to allow developments that allow contain residential use and Use Group 6 uses below the second story. Section 74-712 (b) permits the modifications of bulk regulations. The proposed building’s residential use, height of the street wall and Use Group 6 ground floor retail are not permitted as-of-right.

Project Location

The block containing the Site is bounded by East Fourth Street to the north, Great Jones Street to the south, Lafayette Street to the west, and Broadway to the east (see *Figure 1.1, Sanborn Map; Figure 1.2, Tax Map; Figure 1.3, Land Use Map; and Figure 1.4, Zoning Map*). Photographs keyed to the Site Location Map are also provided (see *Figure 1.5, Site Location Map; Photo 1, 688 Broadway, View from Northwest; Photo 2, 688 Broadway, View from West Side of Broadway; Photo 3, 688 Broadway, View from Southwest.*)

The Site is located in NoHo and within the NoHo Historic District, an area characterized by a mix of residential, commercial and retail uses, as well as institutions, most notably New York University (NYU). Predominant land uses within 400 feet of the Site are commercial, mixed commercial/residential and residential. Institutional uses include Hebrew Union College-Jewish Institute of Religion and an NYU academic building on the west side of Broadway between East Fourth Street and Washington Place.

The Site is located in an M1-5B district, which also encompasses approximately the eastern 2/3 of the 400-foot study area. The maximum allowable floor area ratios (FAR) within an M1-5B district are 5.0 for manufacturing and commercial uses, and 6.5 for community facility uses. In M1-5B districts mapped in NoHo, artists are permitted to occupy joint living/work quarters. The western portion of the study area is located in a C6-2 district. C6-2 districts are generally commercial districts outside the central business district; the maximum permitted FAR is 6.0 for commercial uses and 6.02 for residential uses. A small western portion of the study area is

located in an R7-2 zoning district, a medium-density residential district with a maximum FAR of 3.44.

Purpose and Need for the Proposed Action

The NoHo Historic District has seen an influx of residential development over the past ten years, in an area that has historically been restricted to commercial and manufacturing development. The neighborhood is a vibrant mix of new residential developments, offices, retail space, art galleries, live/work spaces for artists and older apartment buildings. Within the study area, NYU and other institutions hold a sizable presence.

Recent residential construction within the NoHo Historic District Extension (including three large condominium buildings along Bond Street) has complimented the existing historic building stock and reflects market demand for luxury housing in the area. The Proposed Action would be consistent with recent developments in the area and would satisfy the demand for housing. As part of the Special Permit process, the Applicant has received a Certificate of Appropriateness from the Landmarks Preservation Commission on August 8, 2013 (see Appendix A) and the proposed building's frontage would be clad in brick, metal and terra cotta consistent with the adjacent built form. In addition, the development of the existing vacant parcel would enhance the built form by unifying the streetwall along Broadway, contributing to the character and scale of the area.

Framework for Analysis

Existing Conditions

The existing conditions consist of an 8,998 square foot lot which consists of a vacant lot fronting Broadway used by temporary flea market vendors and a portion of a narrow passageway, Great Jones Alley (Block 531, Lot 4). Located adjacent to the vacant lot and extending south out to Great Jones Street, Great Jones Alley is currently fenced off and used for garbage and service vehicles.

Reasonable Worst Case Development Scenario—No Action Scenario (No Build)

The No Action scenario assumes the Site would be developed as a 46,609 gsf, 12-story hotel, comprised of approximately 93 rooms of which approximately 6,758 gsf of a Use Group 9 trade school would be provided on the ground floor. The No Action development would rise to a height of 153 feet.

Future No-Action Development Projects

As described in the Land Use, Zoning and Public Policy section, there are three future development projects proposed within the Land Use study area that are expected to be built by the 2016 Build Year: 730 Broadway (an NYU conversion from office to academic use), 372 Lafayette Street (eight residential units with 2,143 s.f. of ground floor retail), 300 Lafayette Street (83,200 gsf retail and office building), and a 2,569 gsf rooftop addition to as-of-right, seven-story residential conversion at 36 Bleeker Street.

Reasonable Worst Case Development Scenario—With Action Scenario (Build)

The Applicant proposes to develop a 48,110 gsf, 14-unit residential building with 3,970 gsf of ground-floor retail facing Broadway (see Figure 1.6 Site Plan). However, the Special Permit's minimum requirement for the residential unit size is 1,200 s.f. per dwelling unit. Therefore, for

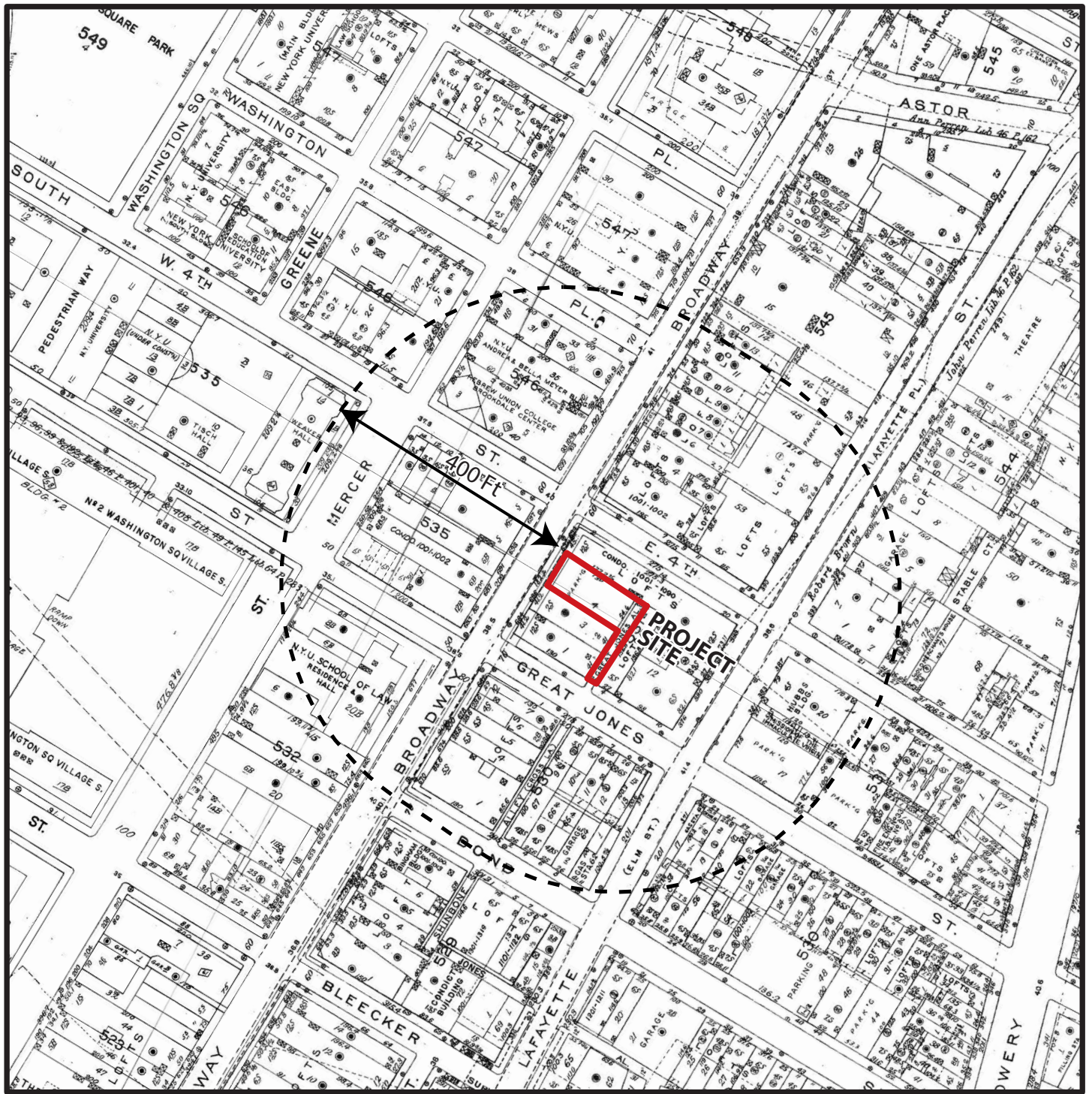
analysis purposes, the Proposed Action assumes a 37 unit building based on the 44,140 gsf area of the residential portion of the proposed development with 3,970 gsf of retail on the ground floor. The proposed building would rise to a height of approximately 153 feet (see Figure 1.7 Site Elevation). Private access to the proposed building would be provided through Great Jones Alley, an existing passageway, accessed via Great Jones Street located to the east, or the back of the lot. In addition, the Applicant has proposed to make accommodations and assist in the payment for the adjacent Silk Building's (14 East 4th Street) south facing in-wall air conditioning (AC) units with a split system AC unit configuration. The AC equipment would not touch or be located on or within the building at 688 Broadway. Shallow setbacks would be provided along the north facing side wall of the 688 Broadway building to accommodate the possible condenser piping for the Silk Building. The mechanical equipment on the Silk Building's roof would be subject to review by the Landmarks Preservation Commission. This EAS reflects the changes in the analysis to the air quality and historic and cultural resources sections and a Technical Memorandum is provided as an appendix to this EAS (Appendix J).

The Build year is estimated to be 2016. The table below summarizes the incremental changes between the No Action and Future With Action scenarios:

Table 1. Comparison of No Action and With Action Scenarios

	GSF Above Grade	Residential GSF	No of DU's	Retail GSF	Hotel GSF	Trade School	Bldg Height (feet)
No Action	46,609	n/a	n/a	n/a	39,851	6,758	153
With Action	48,110	44,140	37	3,970	n/a		153
Increment	+ 1,501	+ 44,140	+ 37	+ 3,970	- 39,851	- 6,758	--

Figure 1.1
Sanborn Map



 Project Site  Study Area


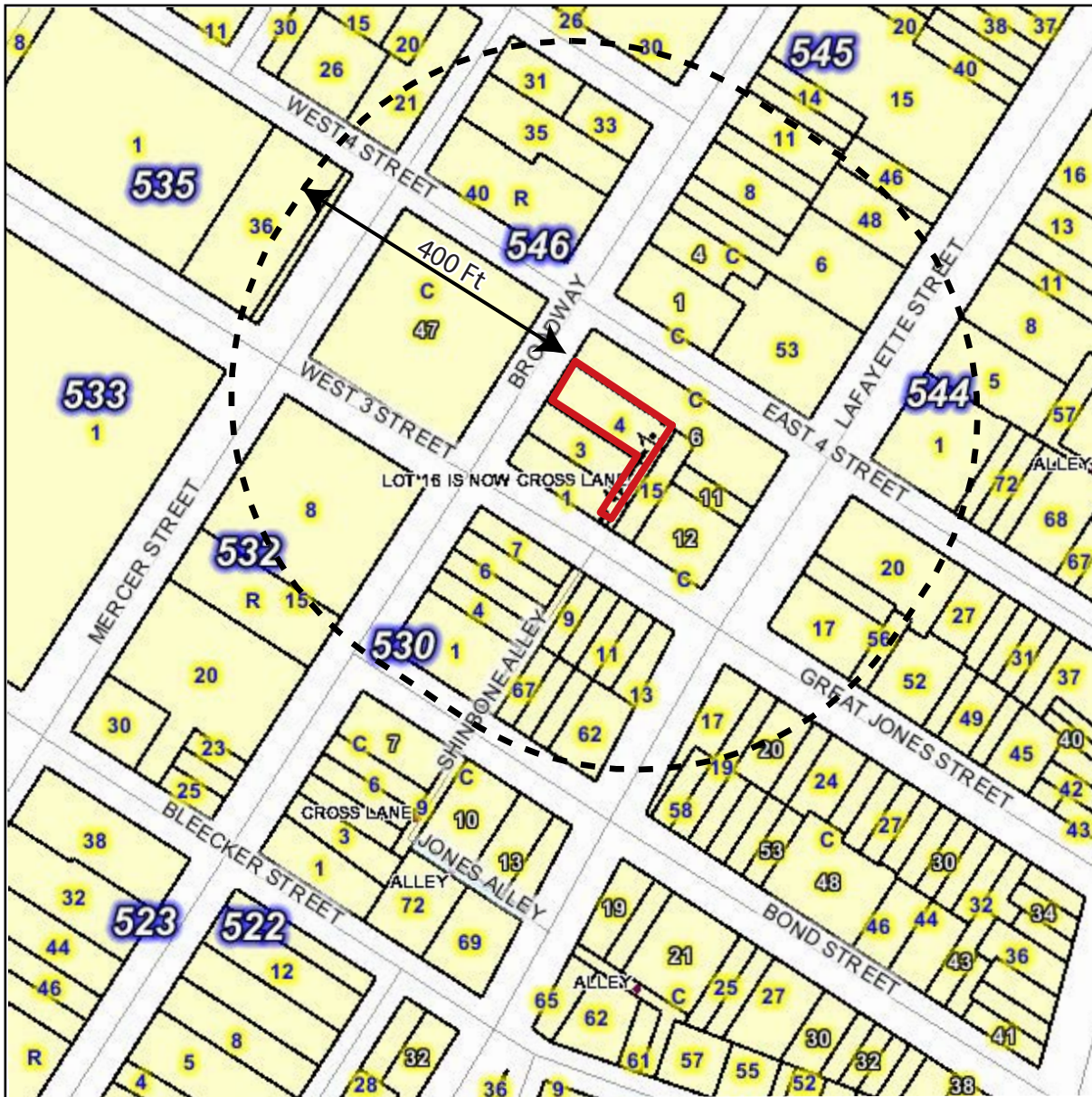
0 100 200 400 Feet 

Figure 1.2
Tax Map



 Project Site  Study Area

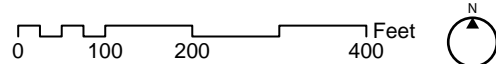


Figure 1.3
Land Use Map

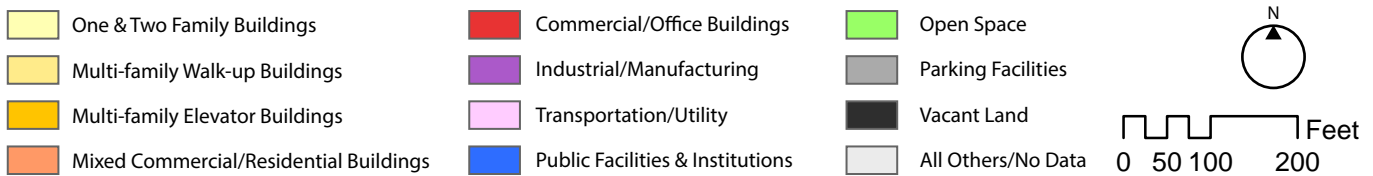
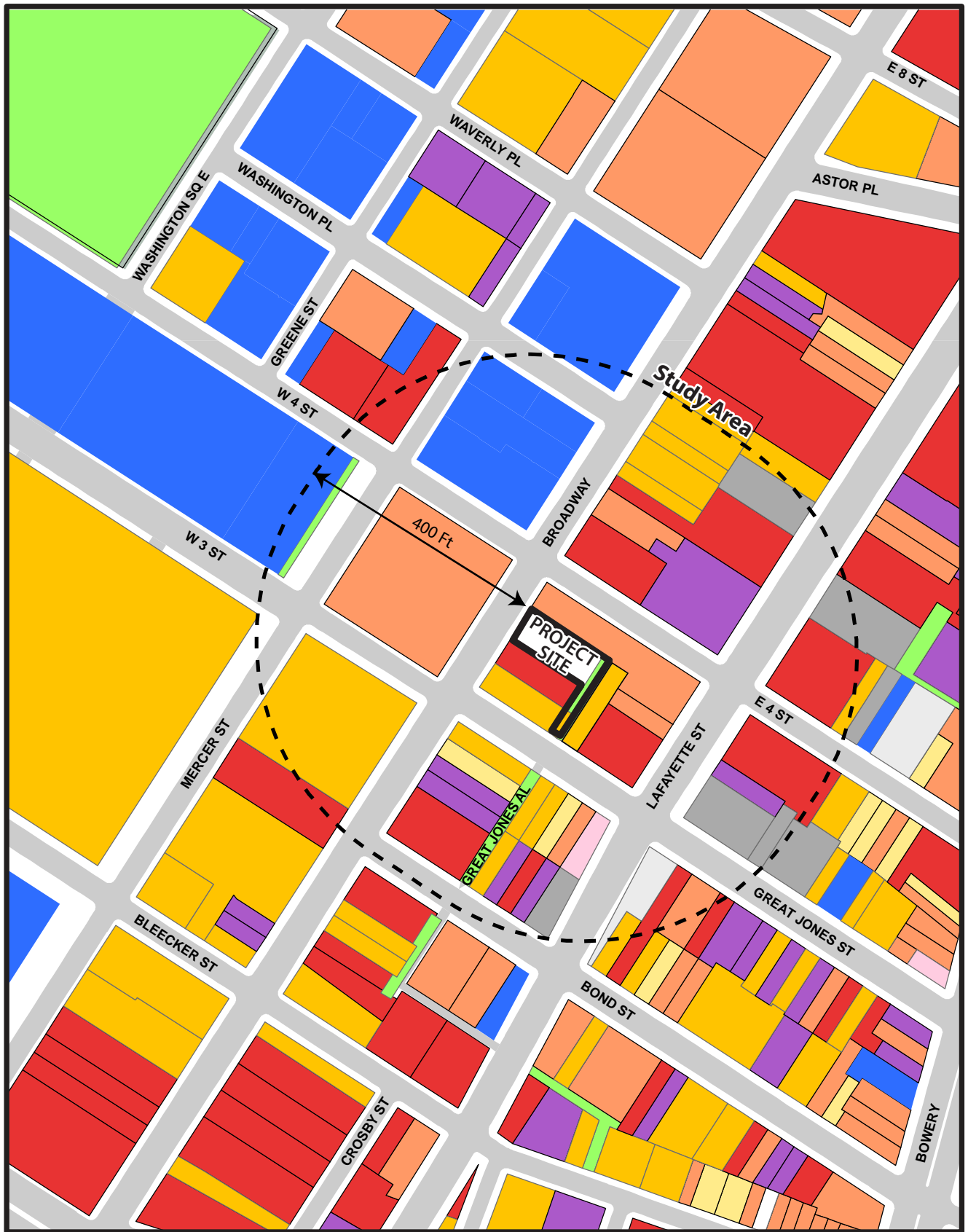
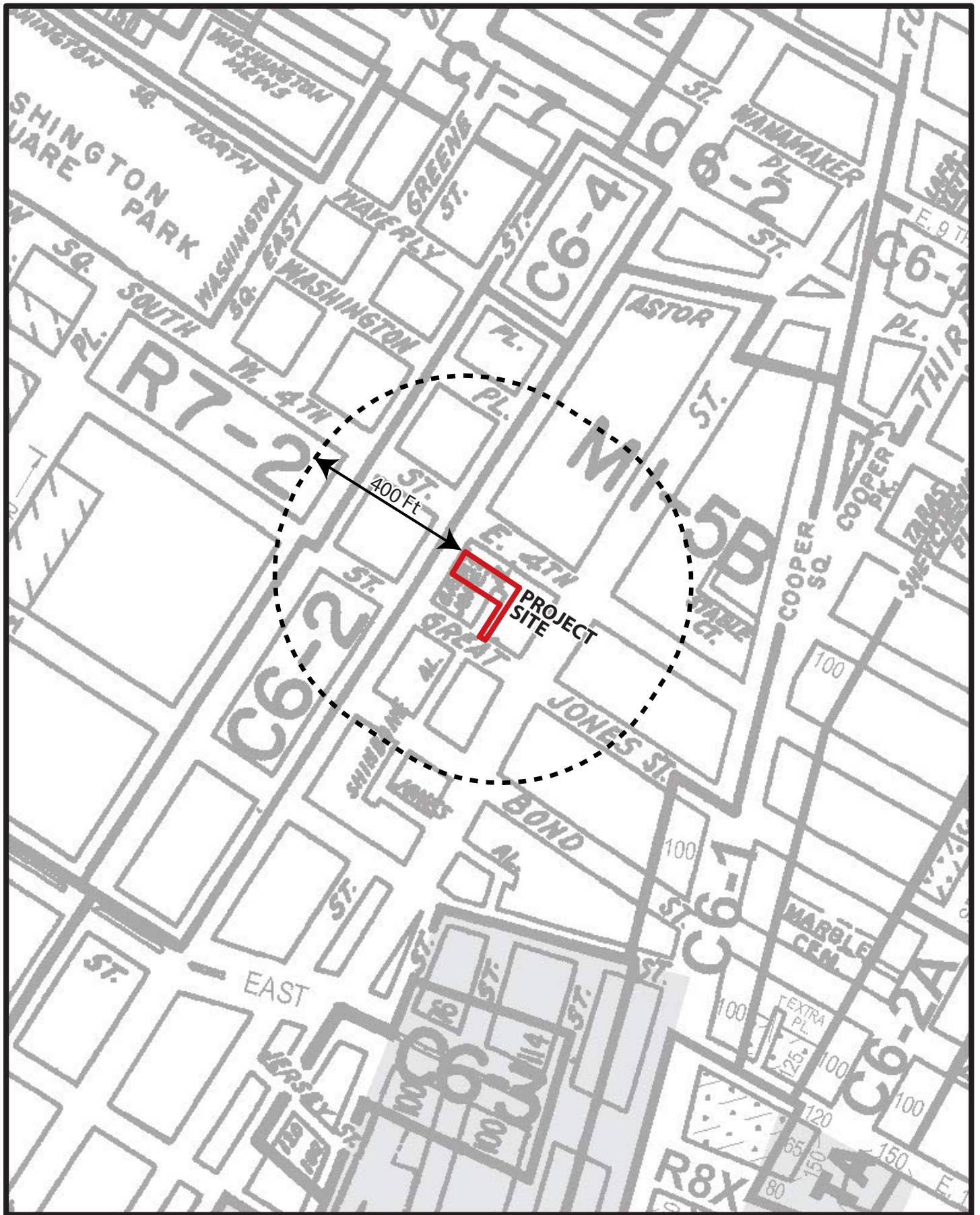



Figure 1.4
Zoning Map



 Project Site  Study Area


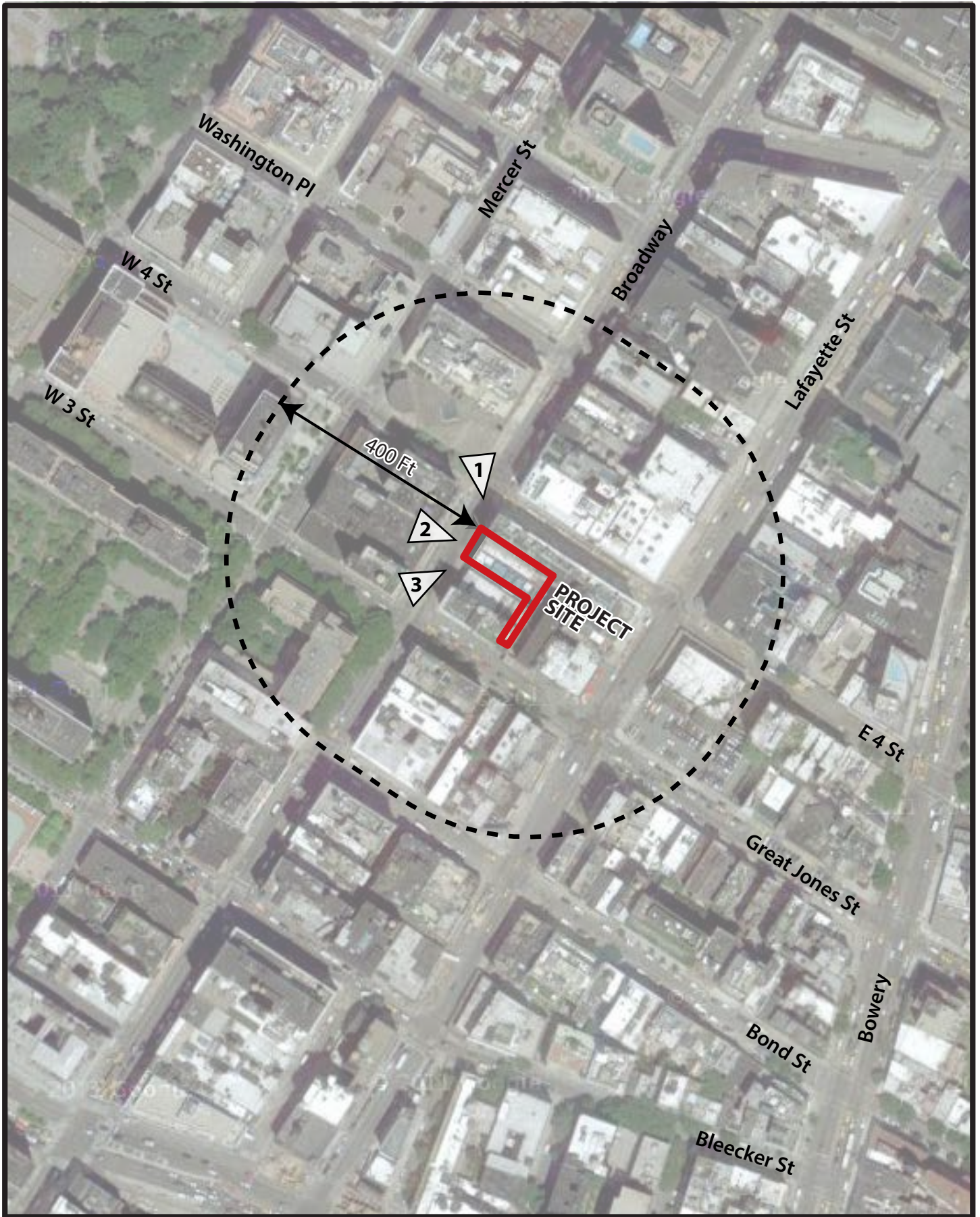



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Figure 1.5
Site Location Map



 Project Site  Study Area  Picture Location

0 100 200 400 Feet



Photo 1

SW corner of Broadway and West 4th Street



Photo 2

Mid-block on Broadway between West 4th Street and West 3rd Street

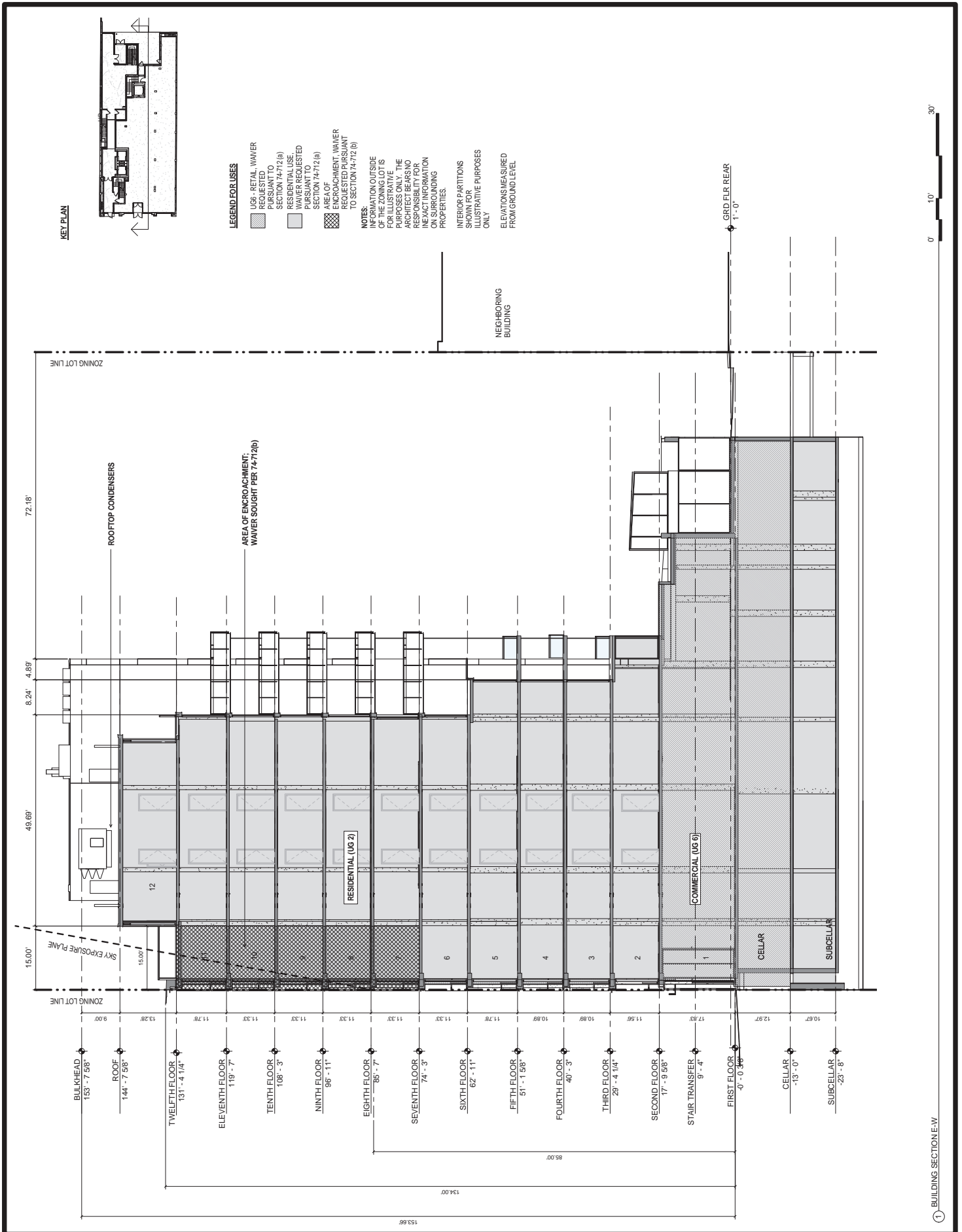


Photo 3

NW corner of Broadway and West 3rd Street



Figure 1.7
Site Elevation



Part II: Technical Analyses

1. Land Use, Zoning and Public Policy

INTRODUCTION

As described in the *CEQR Technical Manual* (page 4-8), the Land Use, Zoning and Public Policy assessment considers whether a project “would affect land use or would change the zoning on a site, regardless of the project’s anticipated effects” and “would be located within areas governed by public policies controlling land use, or has the potential to substantially affect land use regulation or policy controlling land use requires an analysis of public policy.” The following section describes the land use, zoning and public policy issues for the Existing Conditions, No Action and With Action scenarios. As required by the *CEQR Technical Manual*, the changes between the No Action and With Action conditions are assessed.

EXISTING CONDITIONS

Land Use and Zoning

The Site at 688 Broadway consists of an unimproved lot and alley (Great Jones Alley), totaling 8,998 s.f. The unimproved lot is currently being rented to approximately 25 temporary outdoor flea market vendors by the Applicant on a month-to-month basis. Great Jones Alley is fenced off and used for service vehicles and garbage pickup at adjacent buildings, including 684 and 686 Broadway.

The 400-foot study area is generally bounded by Washington Place to the north, Bond Street to the south, Mercer Street to the west, and Lafayette Avenue to the east. Located in the NoHo neighborhood of Manhattan, the dominant land uses within 400 feet of the Site are residential, commercial and institutional. Residential uses are contained within a variety of building types, ranging from four- and five-story walk-ups to larger, modern apartment buildings. The area is also zoned to permit artists’ work/live quarters. Broadway is characterized by residential buildings with commercial uses on the ground floor. Institutional uses, including NYU and the Hebrew Union College-Jewish Institute of Religion are also located along Broadway near the Site. West Fourth Street west of the Site is dominated by NYU administrative and academic buildings. Buildings with residential/loft spaces or commercial uses on the upper floors and ground floor commercial uses are located along East Fourth Street. Great Jones Street exhibits similar characteristics as East Fourth Street; access to Great Jones Alley is provided on the north side of the street. West of Broadway, Great Jones Street becomes West Third Street; an NYU residential building dominates the southern portion of the block. A residential building with ground floor commercial uses and a one-story Gristedes supermarket is located on the northern portion of West Third Street.

The Site is located in an M1-5B district, which also encompasses approximately the eastern 2/3 of the 400-foot study area. The maximum allowable FAR within the M1-5B district are 5.0 for manufacturing and commercial uses, and 6.5 for community facility uses. In M1-5B districts mapped in NoHo, artists are permitted to occupy joint living/work quarters. The western portion of the study area is located in a C6-2 district. C6-2 districts are generally commercial districts outside the central business district; the maximum permitted FAR is 6.0 for commercial uses and 6.02 for residential uses. A small far western portion of the study area is located in an R7-2 zoning district. This is a medium-density residential district with a maximum FAR of 3.44.

Public Policy

The Site is not located within the City’s designated coastal zone boundary and therefore is not subject to the City’s Waterfront Revitalization Program. The Site is not located within an urban renewal area, nor is it subject to any 197-a plans.

The Site is located both within the NoHo Business Improvement District (BID) and the NoHo Historic District (and Extension). A formal organization comprised of property owners and commercial tenants, the NoHo BID represents approximately 120 retail businesses, and provides supplemental sanitation, security, marketing and beautification services. The NoHo Historic District is comprised of approximately 125 buildings representing the City’s commercial history from the early 1850’s through 1910’s. The area is a mix of ornate store and loft buildings, as well as early 19th century houses, 19th and 20th century institutional buildings, and office buildings and commercial structures.

NO ACTION CONDITION

Land Use and Zoning

Without the Proposed Action, the Site would be developed as a 46,609 gsf, 12-story hotel of which 6,758 gsf of a Use Group 9 trade school would be located on the ground floor. The hotel would rise to a height of 153 feet. There are four projects expected to be developed by the 2016 Build Year within the study area as shown in Table 1.1.

Table 1.1 Future No-Action Development Projects

Project Name/Location	Program	Build Year
730 Broadway	NYU conversion from office to academic (no change in s.f.)	2014
372 Lafayette Street	8 residential units; 2,143 sf ground floor retail	2015
36 Bleeker Street	2,569 gsf rooftop addition to as-of-right, seven-story residential conversion	2014
300 Lafayette Street	83,200 gsf retail/office building	2016

A number of proposed actions in the NYU’s 2031 Core Plan were approved by the City Council in July 2012, including zoning map changes and zoning text amendments within NYU’s Proposed Redevelopment Area and Commercial Overlay Areas located just west of the Proposed Action.

The Proposed Development Area is bounded by LaGuardia Place to the west, Mercer Street to the east, West Houston Street to the south, and West Third Street to the north. The Plan would rezone this area from R7-2 and R7-2/C1-5 to C1-7. The Commercial Overlay Area bounded by Washington Square East and University Place to the west, Mercer Street to the east, West Fourth Street to the south, and the northern boundary of the existing R7-2 zoning district near East Eighth Street to the north would be rezoned from R7-2 to R7-2/C1-5. Further, an approximately 20-foot-wide strip within the bed of Mercer Street would be rezoned from C6-2 to C1-7 from West Houston Street to West Third Street and an approximately 10-foot-wide strip within the bed of Mercer Street would be rezoned from C6-2 to R7-2 from West Third Street to West Fourth Street.

Public Policy

There are no anticipated public policy changes within the study area by the 2016 Build Year.

WITH ACTION CONDITION

Land Use and Zoning

According to the *CEQR Technical Manual* (page 4-9), "a change in land use at a single site is usually not enough to constitute a significant land use impact." The Proposed Action would be permitted through a Special Permit from the City Planning Commission and would not require a change in zoning and would not result in a change in land use. According to the *CEQR Technical Manual* (page 4-17), a significant zoning impact may occur if the proposed action would create land uses or structures that substantially do not conform to or comply with the underlying zoning. No zoning changes are required as part of the Proposed Action. Therefore, no significant adverse impacts to land use and zoning are anticipated.

Public Policy

According to the *CEQR Technical Manual* (page 4-18), a significant impact to public policy may occur if the proposed action would create a land use conflict, would itself conflict with public policies and plans for the site or surrounding area, and/or would result in significant material changes to existing regulations or policy. As discussed above, the Proposed Action would be permitted under the parameters of the zoning resolution would thus not result in changes to existing regulations or policies, would not create a land use conflict, and would not conflict with public policies and plans for the Site and area. Therefore, the Proposed Action would not result in a significant adverse impact to public policy.

6. Shadows

According to the *CEQR Technical Manual* (Chapter 8, Shadows), a shadow assessment considers projects that would result in new shadows long enough to reach a sunlight-sensitive source, such as public open space, architectural resources, and natural resources. New structures or additions to existing structures, including the addition of rooftop mechanical equipment of 50 feet or more to be located adjacent to, or across the street from, a sunlight-sensitive resource require a shadow assessment. The Proposed Action would result in a structure rising to a height of 153 feet. To determine whether the Proposed Action would result in a new shadow long enough to reach sunlight-sensitive resources, a preliminary screening assessment was performed.

A base map was developed (see Figure 6.1 Base Map) to illustrate the Site in relationship to sunlight-sensitive resources: Mercer Playground, Mercer Plaza, and 300 Mercer Street. Identification of sunlight-sensitive resources included a review of public open space, architectural resources, landmarks, and natural resources in the study area, as well as a review of the NYU Core Final Environmental Impact Statement (May 2012). The Tier 1 screening assessment identifies the longest shadow that could be cast by the proposed structure, or 4.3 times the height of the structure which occurs on December 21, the winter solstice. Figure 6.2, Longest Potential Shadow, illustrates that the proposed 153-foot tall building would cast its longest shadow out to a radius of 657 feet, 11 inches. Mercer Plaza and portions of both the Mercer Playground and 300 Mercer Street lie within the longest shadow study area.

As a portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment was performed. In New York City, no shadow can be cast within an area between -108 and +108 degrees from true north of a site. Figure 6.3, Area That Cannot Be Shaded by the Proposed Action, indicates the area that would not be shaded by the Proposed Action. The Tier 2 study did not rule out the possibility of a new shadow being cast upon the aforementioned sunlight-sensitive resources.

However, when existing buildings and structures are accounted for, the Proposed Action would not result in an incremental shadow on a sunlight-sensitive resource. The existing building stock located between the Proposed Action and sunlight-sensitive resources, in particular Mercer Plaza, are situated in a manner that prevents the shadows cast from the Proposed Action from reaching Mercer Plaza.

The Proposed Action would neither impede upon the identified sunlight sensitive resources' exposure nor reduce the usability of the open space, or the amount of sunlight necessary for the survival of any resource. Therefore, the Proposed Action would not result in a significant shadow impact and no further analysis is necessary.

Figure 6.1
Shadow Base Map



-  Project Site
-  Publicly - Accessible Open Space or Greenstreet

Figure 6.2
Longest Potential Shadow



- Project Site
- Longest Shadow Study Area Boundary
- Publicly - Accessible Open Space or Greenstreet

7. Open Space

INTRODUCTION

Open space is publicly or privately owned land that is accessible by the public and operates, functions, or is available for leisure, play, or sport on a regular basis. In some instances, this land may be set aside for the protection and/or enhancement of the natural environment. If a proposed action could potentially have a direct or indirect effect on open space resources in the project area, an open space assessment may be necessary. According to the *CEQR Technical Manual*, a direct effect may occur when the proposed project would “result in a physical loss of public open space,” “change the use of an open space so that it no longer serves the same user population,” or affect the usefulness of a public open space. An indirect effect may occur when “the population generated by the proposed project would be sufficiently large to noticeably diminish the ability of an area’s open space to serve the future population.”

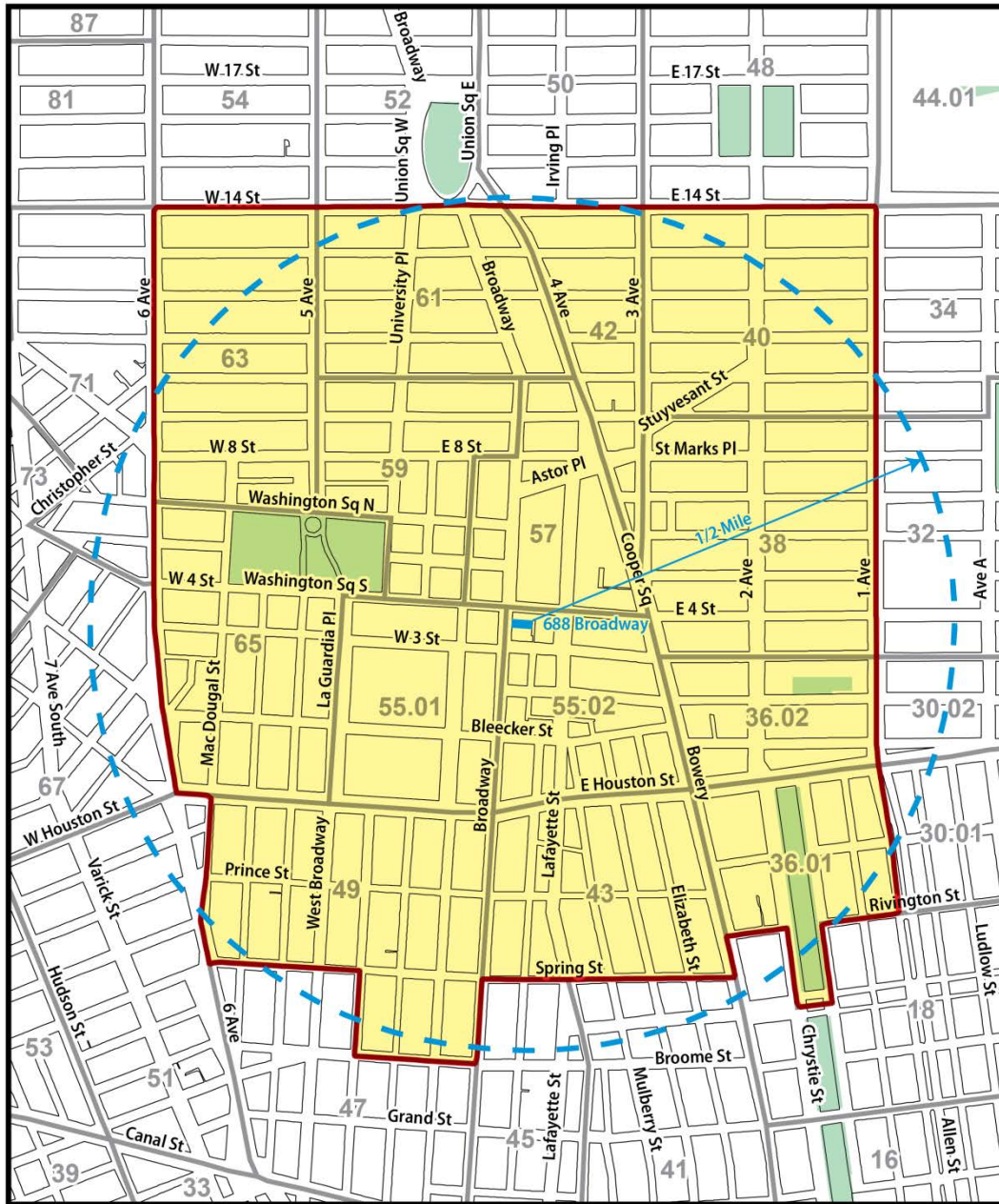
According to guidelines established in the *CEQR Technical Manual* (p. 7-4), a project that would add fewer than 200 residents or 500 employees, or a similar number of users to an area, is typically not considered to have an indirect effect on open space. If the area is well-served or underserved by open space, the need for an open space assessment may vary. The Proposed Action would result in an increase of approximately 62 residents and 10 workers.

The Site is located in an area that is under-served by open space resources, and the *CEQR Technical Manual* threshold for a preliminary open space analysis in such an area is more than 50 residents. As the Proposed Action would result in an increase of approximately 62 residents, an assessment of the Proposed Action’s potential to have an effect on open space and recreational facilities is necessary. In addition to new residents, the Proposed Action would result in an increase of approximately 10 workers. Thus, the Proposed Action would not exceed the 125-employee CEQR screening threshold for an under-served area, and an assessment of the effects of the new worker population associated with the Proposed Action is not warranted.

With an inventory of available resources and potential users, a preliminary, quantitative assessment of the adequacy of open space in the study area can be conducted. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares the ratio with certain criteria. In accordance with the guidelines established in the *CEQR Technical Manual*, the study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. This distance is typically a ½-mile for residential projects.

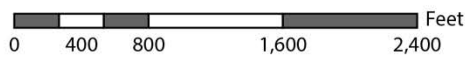
For purposes of analysis, the study area was determined by identifying the area within a ½-mile of the Site. As described in the *CEQR Technical Manual*, census tracts with 50% or greater of their area located within the area of ½-mile radius were included in the calculation of population and open space; those with less than 50% of their area in the ½-mile radius were excluded. Based on this methodology, the study area is defined by the boundaries of 14 census tracts as shown in Figure 7.1, Open Space Study Area.

Figure 7.1
Open Space Study Area



Source: U.S. Census Bureau; New York City Department of Parks and Recreation

- Open Space Study Area
- Census Tract



*PRELIMINARY ASSESSMENT**Study Area Residential Population*

To determine the residential population served by existing open space resources, 2010 Census data were compiled for the census tracts comprising the study area. With an inventory of available open space resources and the number of potential users, open space ratios can be calculated.

There are also three projects expected to be developed by the 2016 Build Year within the study area as listed in Table 7.1 below; these projects are projected to increase the study area population by 17 persons.

Table 7.1 Future No-Action Development Projects

Project Name/Location	Program	Build Year	Residential Population *
730 Broadway	NYU conversion from office to academic (no change in s.f.)	2014	N/A
372 Lafayette Street	8 residential units; 2,143 sf ground floor retail	2015	13
36 Bleeker Street	2,569 gsf rooftop addition to as-of-right, seven-story residential conversion	2014	4
300 Lafayette Street	83,200 gsf retail/office building	2016	N/A
TOTAL			17

*Assumes 1.67 persons per household in Manhattan Community District 2; unit size is 1,200 s.f./dwelling unit.

The population of the study area is listed in Table 7.2 below; the study area is comprised of the 14 census tracts listed in the table. Table 7.2 lists data from the 2010 Census and indicates that the study area had a residential population of 71,238 persons.

According to the 2010 Census, the residential population of Manhattan grew by 3.2% between 2000 and 2010 (0.32% average annual growth rate). Applying the 2000 – 2010 average annual growth rate of 0.32% to 2016 and adding the 17 persons associated with the No Action development projects results in a No Action residential population projection of 72,623 persons for the 2016 Build Year. The Proposed Action would increase the residential population by 62 persons at the Site. Thus, the With Action residential population projection is 72,685, as listed in Table 7.2 below.

Table 7.2 Residential Population

Census Tract	Residential Population
36.01	3,393
36.02	3,151
38	9,237
40	8,651
42	5,145
43	4,270
49	4,942
55.01	4,204
55.02	2,257
57	2,781
59	5,401
61	5,224
63	6,380
65	6,202
Total (2010)¹	71,238
No-Action Development Projects	17
No Action (2016)²	72,623
688 Broadway Site (2016)	62
With Action (2016)	72,685

Notes:

1. U.S. Census 2010

2. Derived by application of 0.32% average annual growth rate to Census 2010 plus No Action development projects

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. Public open space is defined as facilities open to the public at designated hours on a regular basis and should be assessed for impacts under CEQR. Private open space is not accessible to the general public on a regular basis and should only be considered qualitatively.

Open space is determined to be active or passive by the uses that the design of the space allows. Active open space is used for activities play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, with benches, walkways, and picnicking areas.

Publicly accessible open space facilities within the study area were inventoried and identified by their location, size, owner, description, utilization, hours, and condition. As listed in Table 7.3, Inventory of Existing Open Space, the condition of each open space facility was categorized as "Excellent," "Good," or "Fair." A facility was considered to be in excellent condition if the area was clean, attractive, and all equipment was present and well-maintained. A good facility had

minor problems such as litter, or older but operative equipment. A fair facility was one which was poorly maintained, had broken or missing equipment, and/or other factors that might diminish the facility's attractiveness. Determinations were made subjectively, based on a visual assessment of the facilities. The locations of the open spaces inventoried for this assessment are mapped in Figure 7.2, Open Space Resources. The Map # provided in the first column of Table 7.3 indicates each open space in Figure 7.2.

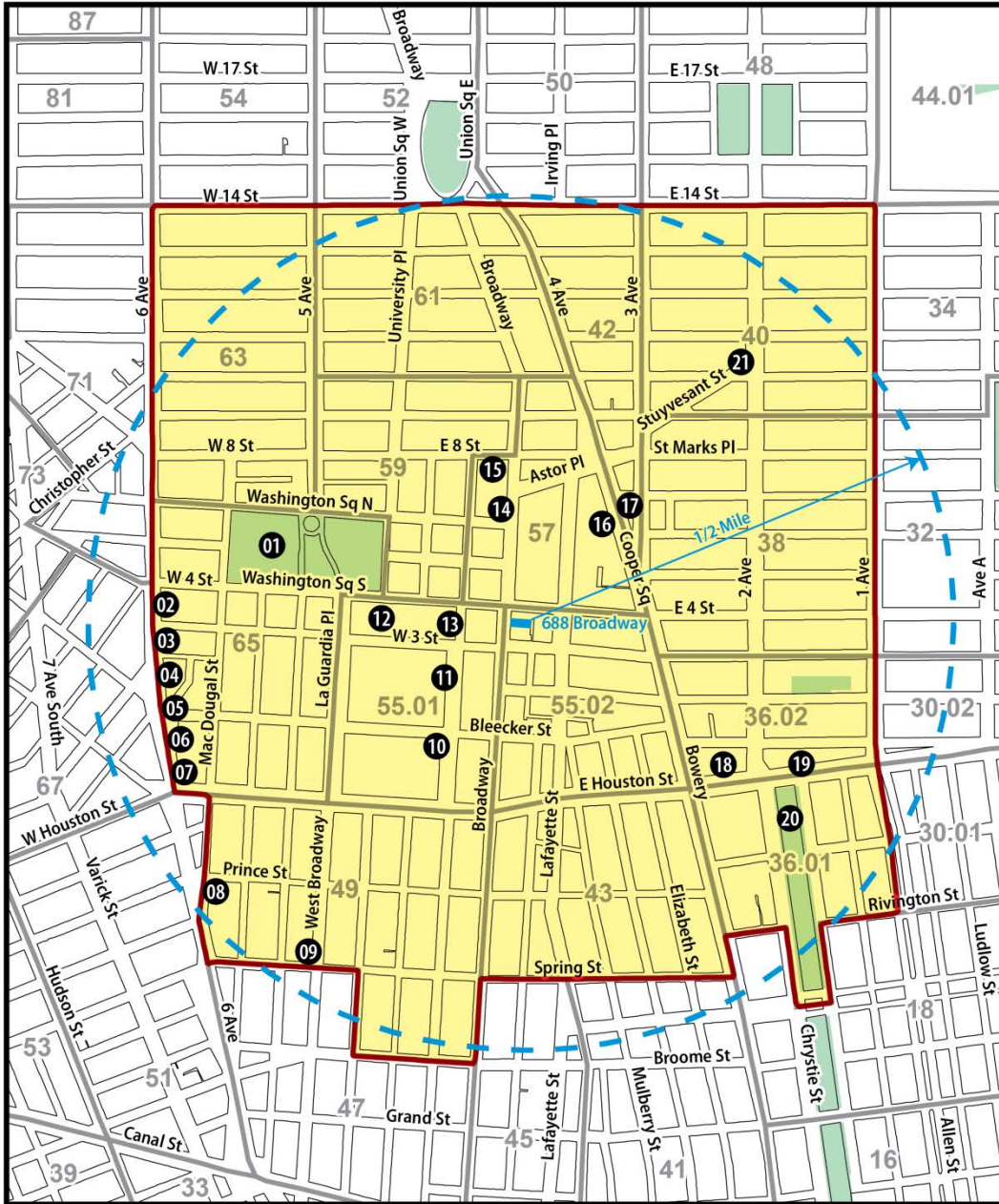
Judgments as to the intensity of use and conditions of the facilities were qualitative, based on an observed degree of activity or utilization. If a facility seemed to be at or near capacity, for instance, and the majority of benches and/or equipment were in use, then utilization was considered heavy. 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. As shown in Table 7.3, the study area has a number of publicly accessible open space facilities, ranging from medium-sized neighborhood parks to playgrounds. In total, 21 sites have been identified, with a total of approximately 18.80 acres of open space in the study area. The features of the open spaces shown in Figure 7.2 are described below.

The largest open space in the study area is Washington Square Park. The park has a variety of amenities for active and passive users including benches, a children's playground, grassy areas, chess tables, trees, and dog runs. The most notable features of the park include the Washington Arch and a large fountain located in the center. Of this park's 9.75 acres, an estimated 7.31 acres are for primarily passive recreational uses and 2.44 acres are for active recreational uses.



In December 2007, the Department of Parks and Recreation (DPR) initiated a major reconstruction effort for Washington Square Park. The first phase of reconstruction, completed in May 2009, covered the northwest quadrant of the park and the central plaza. The improvements included new and expanded lawns and planting beds, the relocation and conservation of the fountain, conservation of the Alexander Holley Monument, repaved paths, and new benches and lighting. The fountain was completely rebuilt and restored in its previous dimensions, and is now the focal point of a large central plaza, rebuilt on one level to make it accessible. The shifting of the fountain helped make possible an approximately 20 percent increase in unpaved green space in the park. The new lawns abutting the plaza are for passive recreation. The second phase of the reconstruction project featured restored landscaping, plantings, and flower beds replacing excess asphalt in the remaining northeast, southeast, and southwest quadrants. The northeast playground was upgraded, and a new play area in the southwest section that incorporates the "mounds" was rebuilt slightly below grade to improve sightlines and minimize their impact on the park landscape, and covered with carpet-style synthetic turf for safety. A new performance stage was built, the dog runs were relocated and expanded, the Giuseppe Garibaldi Monument was conserved and relocated, the petanque courts were reconstructed, paths were repaved, and new lighting and fences were added. The final phase, scheduled for completion in the last quarter of 2013, will include a new Parkhouse with a new comfort station for the public and space for DPR maintenance staff.

Mercer Street Playground is a 0.33-acre DPR-managed playground on Mercer Street, north of Bleecker Street. The playground is mostly concrete, intended as a play space for pre-teens and is designed for skateboarding, cycling, and rollerblading. Also on Mercer Street just south of Bleecker Street is Coles Plaza, which offers benches and landscaping for passive recreation.

Figure 7.2
Open Space Resources



Source: U.S. Census Bureau; New York City Department of Parks and Recreation

-  Open Space Resource
-  Open Space Study Area
-  Census Tract

0 400 800 1,600 2,400 Feet



Further north on Mercer Street (north of Waverly Place) are two publicly accessible open space areas that feature passive uses at 300 Mercer Street and 60 East 8th Street (Georgetown Plaza). The 300 Mercer Street plaza contains 0.31 acres of space, including seating, planters, and a fountain. It is in poor condition and is not heavily utilized. The 0.25-acre Georgetown Plaza also contains planters and a fountain, and is in excellent condition with heavy utilization. Just east of these resources is an additional private open space, at 445 Lafayette Street. This small, 0.06-acre site contains chess tables, seating, and trees, and is heavily utilized.

Many of the public open spaces in the study area are concentrated along the east side of Sixth Avenue, from East 4th Street to the study area's southern boundary at Spring Street. These open spaces feature active and passive uses. The 0.61-acre Passannante Ballfield, located on the corner of Sixth Avenue and West Houston and MacDougal Streets, is the largest of this cluster, and contains basketball courts as well as a baseball field. The West 4th Street Courts contains basketball and handball courts and a playground for active recreation, and the Golden Swan Garden for passive recreation. Minetta Green, Minetta Triangle, Little Red Square, and Father Fagan Park, also located along Sixth Avenue in this area, all provide passive open space opportunities, such as benches, landscaping, and fountains.

To the east of Sixth Avenue in the southern portion of study area is the 0.44-acre Vesuvio Playground, which is located at Spring Street and Thompson Street. This park contains active uses such as a playground, athletic courts, outdoor pool, and spray shower, as well as passive features, such as benches, tables, chess boards, plantings and landscaping.

A total of 21 publicly accessible open spaces and recreational facilities serve the surrounding residential and commercial populations of the study area. Public open spaces with no useable public amenities (e.g., the Abe Lebewohl Triangle) were not included in the study area inventory. Including all of the public parks and other publicly accessible open spaces listed in the study area, the study area contains a total of approximately 18.80 acres of publicly accessible open space.

Sara D. Roosevelt Park features approximately 2.6 acres of active uses, which include a synthetic turf soccer field, basketball, handball, and volleyball courts, several playgrounds, and a roller-skating rink. The park also contains passive uses, such as a vendor's market, gardens, and a picnic area. First Park contains predominantly active open space, which makes up 0.53 acres of the 0.76-acre park. The park contains courts, playgrounds, and a spray shower play area, in addition to passive uses such as seating areas and an eatery. The park is located on the corner of First Avenue and East 1st Street, at East Houston Street.

Parks that provide seating and greenery include Cooper Park, located at Third and Fourth Avenues and East 6th and 7th Streets, and Abe Lebewohl Park adjacent to St. Marks Church in The Bowery. The Liz Christy Community Garden is on East Houston Street between the Bowery and Second Avenue.

Table 7.3 Inventory of Existing Open Space

Map #	Name/Address	Owner or Agency	Features	Acres	Condition/Utilization
1	Washington Square Park 5th Av, Waverly Pl, W 4th St and MacDougal St	DPR	Fountain, dog parks, playground, paved area, picnic, landscaping	9.75	Excellent/Heavy
2	W 4th St Courts Ave of Americas, W 3rd St and W 4th St	DPR	Basketball courts, handball courts, playground, and Golden Swan Garden	0.42	Excellent/Heavy
3	Minetta Playground Minetta Ln, W 3rd St and Ave of the Americas	DPR	Playground, benches, sitting area, play houses	0.2	Excellent/Moderate
4	Minetta Green SE corner Minetta Ln and Ave of the Americas	DPR	Landscaping, path, garden	0.06	Excellent/Low
5	Minetta Triangle NE corner Ave of Americas and Minetta St	DPR	Landscaping, benches	0.08	Excellent/Low
6	Little Red Square NE corner Ave of Americas and Bleecker St	DPR	Benches, trees	0.04	Good/Moderate
7	Passannante Ballfield W Houston St, Ave of Americas and MacDougal St	DPR	Athletic fields (baseball, softball), athletic courts (basketball), drinking fountain	0.61	Excellent/Moderate
8	Father Fagan Park East side Ave of Americas, Prince and Spring Sts	DPR	Benches, trees	0.15	Fair/Moderate
9	Vesuvio Playground Spring St and Thompson St	DPR	Spray shower, playground equipment, athletic courts (basketball, handball, Bocci), pool, benches, tables, chess, plantings, landscaping	0.63	Excellent/Heavy
10	Coles Plaza Mercer St between Bleecker St and Houston St	NYCDOT	Benches and landscaping	0.09	Good/Moderate
11	Mercer Street Playground Mercer St between Bleecker St and W 3rd St	NYCDOT	Benches, fountain, playground, active paths	0.33	Poor/Low
12	Schwartz Plaza	NYU	Benches, sculpture, landscaping	0.32	Excellent/Moderate
13	Mercer Plaza	NYCDOT	Tables, benches, planters, trees	0.18	Excellent/Moderate
14	300 Mercer St	Hilary Gardens Company LLC	Seating, planters, fountain	0.31	Poor/Low
15	Georgetown Plaza 60 East 8th St	Aspenly Co. LLC/Georgetown Plaza Owners Corp.	Planters, fountain	0.25	Excellent/Heavy
16	445 Lafayette St	Astor Place Associates	Chess tables, seating, trees	0.06	Excellent/Heavy
17	Cooper Park/Triangle 3rd Ave to 4th Ave, E 6th St to E 7th St	DPR	Benches, trees, statue	0.23	Good/Moderate
18	Liz Christy Community Garden	DPR	Garden, benches with walkway, trees, pond	0.27	Excellent/Moderate
19	First Park Houston St, E 1st St, 1st Ave	DPR	Center, trees, playground, benches, courts, artwork, fountain, recreation center, food concession	0.76	Excellent/Moderate
20	Sara D. Roosevelt Park E Houston St to Canal St	DPR	Courts, benches, playground, garden, center, restrooms	3.9	Excellent/Heavy
21	Abe Lebewohl Park	DPR	Benches and plantings	0.16	Fair/Moderate
			Study Area Total	18.80	

CONCLUSIONS

The *CEQR Technical Manual* establishes quantitative measures for conducting a preliminary assessment of the adequacy of open and recreational space within a neighborhood. The citywide average of 1.5 acres per 1,000 persons provides a measure of open space adequacy, while the planning goal for large scale developments is 2.5 acres per 1,000 persons.

The open space area study contains a total of approximately 18.80 acres of open space. With a projected No Action study area residential population of approximately 72,623 in 2016, the projected 2016 No Action open space ratio in the study area is approximately 0.2589 acres of open space per 1,000 residents. This is considered a low open space ratio as it is below the citywide average of 1.5 acres per 1,000 residents.

With the addition of 62 residents associated with the Proposed Action, the estimated 2016 With Action open space ratio in the study area is approximately 0.2587 acres of open space per 1,000 residents. The estimated future With Action open space ratio is similar to the No Action ratio, as listed Table 7.4. The change in estimated open space ratios between the No Action and With Action scenarios is a decrease of 0.077%. As indicated in the *CEQR Technical Manual*, detailed analysis of open space is generally unnecessary if the open space ratio decreases by less than 1%. Thus with an open space ratio decrease of 0.077%, a detailed analysis is not required and a significant adverse open space impact is not anticipated.

Table 7.4 Open Space Ratios

Ratio	City Guideline	2016 No Action	2016 With Action	% Change
Open Space Acres/ 1,000 Residents	2.5	0.2589	0.2587	-0.077%

9. Historic and Cultural Resources

Archaeological Resources

An assessment of archaeological resources is usually needed for projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated. An environmental review for properties with architectural or archeological significance was requested from the LPC (see Appendix A, LPC Environmental Review). According to the LPC per the letter dated March 8, 2013, the Site has no archaeological significance and no additional assessment is required.

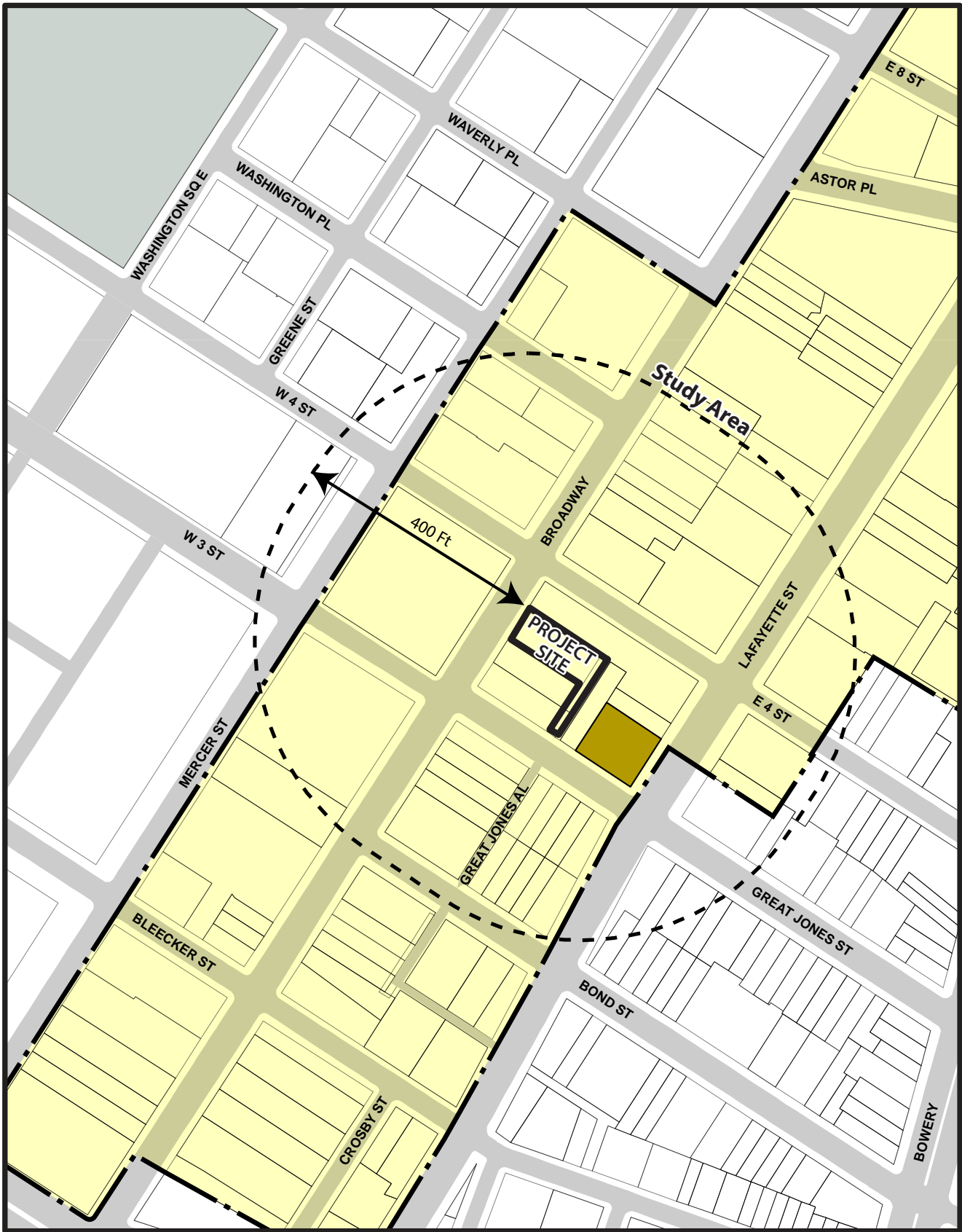
Architectural Resources

An assessment of historic and architectural resources is usually needed for projects 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. LPC indicated that the Site is located within the NoHo Historic District, which is an LPC-designated New York City historic district. Within the 400 foot radius study area, the Schermerhorn Building located at 376-380 Lafayette is both a New York City Landmark and listed on the National Register of Historic Places (see Figure 9.1).

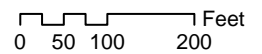
The Proposed Action is located within a NYC Historic District; therefore, the Proposed Action is required to comply with DOB Technical Policy and Procedure Notice (TPPN) #10/88. TPPN #10/88 supplements standard building protections afforded by Building Code C25-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent City landmarks and National Register-listed properties and to detect at an early stage the beginnings of damage so that construction procedures may be changed. The Schermerhorn Building, located at 376-380 Lafayette Street, is both a City Landmark and listed on the National Register of Historic Places. This resource is approximately 97 feet from the Site. Therefore, to avoid inadvertent demolition and/or construction-related damage to this resource from ground-borne construction-period vibrations, falling debris, collapse, etc., the building would be included in a Construction Protection Plan (CPP) for historic structures that would be prepared in coordination with LPC and implemented in consultation with a licensed professional engineer. This CPP would be prepared as set forth in Section 523 of the *CEQR Technical Manual* and in compliance with the procedures included in the DOB's TPPN #10/88 and LPC's Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings. It would include provisions for pre- and post-construction documentation; monitoring including for cracks, settlement and vibration as deemed appropriate; stop work orders; and protection measures for falling objects and party wall exposure. The CPP would be prepared and implemented prior to demolition and construction activities on the project site and project-related demolition and construction activities would be monitored as specified in the CPP. As discussed in the Project Description, the Applicant received a Certificate of Appropriateness (CofA) from the LPC on August 8, 2013 (see Appendix B, LPC CofA).

The proposed accommodation discussed in the Project Description, which would help fund the adjacent Silk Building's (14 East 4th Street) south facing in-wall air conditioning (AC) units with a split system AC unit configuration, would require the installation of condensers on the roof of the Silk Building. Although these condensers would not be visible by LPC standards, the installation of mechanical equipment on the Silk Building's roof would be subject to LPC review. Should the proposed modification of the AC system to the Silk Building move forward, the Applicant would consult with the LPC regarding approval requirements. The proposed accommodation would not change or impact the historic and cultural resources assessment as the AC system to the Silk Building would not affect 688 Broadway's CofA or CPP. The proposed accommodation would only result in setting back the slab edge and sidewall at a few points at 688 Broadway, which the Applicant has stated will not require LPC review. Therefore, the Proposed Action would not result in any significant impacts to archaeological or architectural resources and no further analysis is required.

Figure 9.1
Historic District and Landmark Map



- NoHo Historic District
- 376-380 Lafayette Street Schermerhorn Building Landmark



12. Hazardous Materials

According to the *CEQR Technical Manual* (Chapter 12), a hazardous materials assessment may be necessary when the site of a proposed project or the proposed action could lead to increased exposure of people or the environment to hazardous materials. Hazardous materials are substances that pose a threat to human health or the environment and can include heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls, and other hazardous wastes.

In July 2012, a Phase I Environmental Site Assessment (ESA) of the entire Site was completed by GEI Consultants to investigate the potential presence of hazardous materials. (The Phase I ESA is provided in Appendix C of this EAS.) The Phase I concluded there was no evidence of recognized environmental conditions in connection with the property, although the following item warrants mentioning:

Storage Tank

An oil burner application was filed for a building located on the Site circa 1957. This suggests the previous use of an oil-fired heating system within the former onsite building which would have included the use of a storage tank. It is likely that this tank was removed from the former building prior to its demolition. However, if this is not the case and a tank is discovered at the time of future site excavation and development, it should be properly removed and disposed of in accordance with all applicable New York State Department of Environmental Conservation and New York City Fire Department rules and regulations regarding such projects.

Based on the results of the Phase I ESA, the New York City Department of Environmental Protection (DEP) requested Phase II testing. The DEP approved the Phase II Investigation Work Plan and the Health and Safety Plan on March 20, 2013. On May 20, 2013, the DEP submitted a letter (see Appendix D) concluding its review of the April 2013 Phase II Site Investigation Report, Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) prepared by Hydro Tech Environmental Corporation (the Phase II is provided in Appendix C). The RAP and CHASP were found acceptable and the Applicant was instructed to submit a Certified Remedial Closure Report to the DEP at the completion of the project.

17. Air Quality

INTRODUCTION

Mobile and stationary source air quality screening analyses were prepared pursuant to requirements set forth within the *CEQR Technical Manual* in order to identify the need for more detailed air quality analyses. Results of the mobile and stationary sources screening analyses are presented within.

EXISTING CONDITIONS

National and New York Ambient Air Quality Standards

Since it was originally passed in 1955, the federal Clean Air Act (CAA) had been the primary basis for regulating air pollutant emissions. Amendments to the CAA were passed in 1970, and allowed the United States Environmental Protection Agency (USEPA) authority to delegate responsibility to state and local governing bodies. This allowed each state/local government the opportunity to prevent and control air pollution at the source. The 1970 amendments (Clean Air Act Amendments; CAAA) mandated that the USEPA establish ceilings for certain pollutants based upon the identifiable effects each pollutant may have on public health and welfare. Subsequently, the USEPA promulgated the revised regulations which set National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), lead (Pb), sulfur dioxide (SO₂), coarse inhalable particulate matter smaller than 10 micrometers (PM₁₀), and in 1997, a new particulate standard, fine inhalable particulate matter smaller than 2.5 micrometers (PM_{2.5}). These are known as the criteria pollutants. Standards set forth by the USEPA are shown in Table 17.1.

NAAQS are divided into two types of criterion. The primary standards define air quality levels intended to protect the public health including sensitive populations, such as asthmatics, children and the elderly, with an adequate margin of safety. The secondary standards define levels of air quality intended to protect the public welfare from any known or anticipated adverse effects of a pollutant (e.g. soiling, vegetation damage, material corrosion).

Table 17.1 National Ambient Air Quality Standards

Pollutant	Averaging Period	National Primary	National Secondary
Carbon Monoxide	1 hour 8 hour	35 ppm 9 ppm	- -
Ozone	8 hour	0.075 ppm	0.075 ppm
Nitrogen Dioxide	Annual 1 hour	0.053 ppm 0.100 ppm	0.053 ppm -
Lead	Rolling 3 month Average	0.15ug/m3	0.15ug/m3
Sulfur Dioxide ¹	3 hour 1 hour	75 ppb	0.5 ppm -
Inhalable Particulates (PM ₁₀)	24 hour	150 ug/m3	150 ug/m3
Fine Particulates (PM _{2.5})	24 hour Annual	35 ug/m ³ 12 ug/m ³	35 ug/m ³ 15 ug/m ³
Hydrocarbons (non-methane) 6-9 AM	3-hour (6-9am)	-	-

Notes:

1. A Final Rule was signed on June 2, 2010 creating the 1-hour SO₂ standard and revoking the annual and 24-hour standards. However, the annual and 24-hour standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards.

Source: USEPA and NYSDEC, 2012

State Implementation Plan (SIP)

The Clean Air Act requires states to submit to the USEPA a SIP for attainment of the NAAQS. Manhattan is located in New York County within the New York Metropolitan Air Quality Control Region and is part of NYSDEC Region 2. New York County is in attainment of the NAAQS for P_b, SO₂ and NO₂ and nonattainment for ozone (eight hour), PM₁₀ and PM_{2.5}. The ozone nonattainment status is designated as Moderate for the eight – hour standard. Prior to May 20, 2002, the county also was part of a CO nonattainment area. It is now designated as a CO maintenance area and is subject to the same requirements as a CO nonattainment area. A CO maintenance area must maintain the NAAQS for 20 years by following two sequential 10-year plans.

Each of the criteria pollutants for which ambient air quality standards have been set is monitored on a continuous basis throughout the State of New York by the NYSDEC. The major objectives of monitoring air quality are to provide an early warning system for pollutant concentrations, assess air quality in light of public health and welfare standards, as well as track trends or changes in these pollutant levels. NYSDEC monitored data is available in an annual report entitled *New York State Ambient Air Quality Report*. Table 17.2 includes representative ambient air quality data for each criteria pollutant monitored by NYSDEC from the *2011 New York State Ambient Air Quality Report*, which is the latest available report.

Table 17.2 Representative Monitored Ambient Air Quality Data

Pollutant	Monitoring Station	Averaging Period	Concentration
Carbon Monoxide ¹	CCNY, 160 Convent Avenue, Manhattan	1 hour 8 hour	2.7 ppm 1.7 ppm
Ozone ²	Queens College 2, Queens	8 hour	0.075 ppm
Nitrogen Dioxide ³	Queens College 2, Queens	Annual 1 hour	.023 ppm .067 ppm
Lead	Morrisania, 1225-57 Gerard Avenue, Bronx	3 months	.008 ug/m3
Sulfur Dioxide	Queens College 2, Queens	3 hour 1 hour	0.030 ppm 30 ppb
Inhalable Particulates (PM ₁₀)	40 Division Street, Manhattan	24 hour	57ug/m3
Fine Particulates (PM _{2.5}) ⁴	40 Division Street, Manhattan	24 hour Annual	28 ug/m3 11.7 ug/m3

Notes:

1. CO data corresponds to the 2nd highest maximum value.
2. Ozone data corresponds to the 3-year average value of the fourth highest maximum 8-hour concentration, consistent with the statistical form in the NAAQS. The 3-year average is based on the last 3 years of monitored data (i.e. 2009, 2010, 2011).
3. The monitored 1-hour value is based on a 3-year average (2009-2011) of the 98th percentile of daily maximum 1-hour average concentrations.
4. 24-hour PM_{2.5} data is representative of the 98th percentile 24-hour concentration averaged over three year, consistent with the statistical form in the NAAQS. The annual PM_{2.5} data is representative of the average of three consecutive annual means (i.e. 2009, 2010, 2011 based on available data), consistent with the statistical form in the NAAQS.

Source: NYSDEC, New York Ambient Air Quality Report (2011).

DETERMINING IMPACT SIGNIFICANCE

As described within the *CEQR Technical Manual*, predicted pollutant concentrations for the criteria pollutants are compared with the NAAQS for determining impact. EPA established a new 1-hour NO₂ primary standard, for which the final rule became effective on April 12, 2010. The final rule for a new 1-hour NAAQS for SO₂ became effective on August 23, 2010, and therefore an assessment of the effects of a project's potential SO₂ emissions should be conducted on this new 1-hour NAAQS.

In addition to the NAAQS, New York City Department of Environmental Protection (DEP) has developed de minimis criteria for criteria pollutants to maintain concentrations lower than the NAAQS in attainment areas and ensure concentrations within non-attainment areas will not be significantly increased. Actions which are predicted to increase concentrations above these de minimis criteria are considered to have a significant adverse impact on air quality. De minimis criteria for CO and PM_{2.5} are described below.

Carbon Monoxide Criteria

The mobile source CO de minimis criteria is used for determining the significance of the incremental increase in CO concentrations resulting from a proposed action. The criteria establishes the minimum 8-hour average incremental change in CO concentrations that would yield a significant environmental impact. As outlined within the *CEQR Technical Manual*, a significant increase in CO in New York City is defined by the de minimis criteria as:

- An increase of 0.5 ppm or greater in the maximum 8-hour average CO concentration at a location where predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (i.e. No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

PM_{2.5} Criteria

In accordance with the *CEQR Technical Manual*, the following criteria should be used for determination of significant adverse PM_{2.5} impacts for projects subject to CEQR:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard; or
- Predicted annual average PM_{2.5} concentration increments greater than 0.1 µg/m³ at ground level on a neighborhood scale (i.e. the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Predicted annual average PM_{2.5} concentration increments greater than 0.3 µg/m³ at a discrete or ground-level receptor location.

MOBILE SOURCE SCREENING ANALYSIS

A mobile source screening analysis was performed utilizing the methodology outlined within Section 210 of the *CEQR Technical Manual*. This methodology evaluates whether or not a project will increase or cause a redistribution of traffic, create any other mobile sources of pollutants (e.g. diesel trains, helicopters, etc), or add new uses near large parking garages or atypical roadways (e.g. elevated highways and bridges). Specific vehicular screening thresholds are provided within the *CEQR Technical Manual* for autos based on the area within the five boroughs in which a project is located. These vehicular screening thresholds are used to identify intersections with the potential to exceed the New York City de minimis criteria for CO, as described above.

In accordance with *CEQR Technical Manual* guidelines, in the area of Manhattan in which the Site is located, projects that would generate 170 or more peak hour auto trips may result in significant adverse air quality impacts from mobile sources and would subsequently require a more detailed assessment of potential CO impacts. Additionally, projects that would generate peak hour heavy duty diesel vehicle (HDDV) traffic or its equivalent in vehicular emissions resulting in: 12 or more HDDV on paved roads with average daily traffic (ADT) less than 5,000 vehicles; 19 or more HDDV on collector roads; 23 or more HDDV on principal and minor arterials; and/or 23 or more HDDV on expressways and limited access roadways may also result in significant air quality impacts from mobile sources. Projects that would generate significant peak hour HDDV trips would subsequently require a more detailed assessment of potential PM_{2.5} impacts.

Based on the trip generation estimates prepared for the Proposed Action (see Appendix E), the Proposed Action would actually result in a net decrease in vehicle trips during the AM, MD and PM peak traffic hours compared to the trips generated by the project assumed in the No Build condition. Further, only 1 truck trip (i.e. HDDV) would be generated during the AM peak traffic hour. As such, the Proposed Action is not anticipated to result in significant adverse air quality impacts from mobile sources, and a more detailed assessment of mobile sources of CO or PM_{2.5} is not warranted.

STATIONARY SOURCE SCREENING ANALYSIS

Per *CEQR Technical Manual* guidelines, projects may result in stationary source air quality impacts when they would 1) create new stationary sources of pollutants that may affect surrounding uses; 2) introduce certain new uses near existing or planned future emissions stacks that may affect the use; or 3) introduce structures near existing or future planned stationary sources that could change the dispersion from stacks of those sources, thereby affecting surrounding sources. Utilizing the methodologies outlined within the *CEQR Technical Manual*, screening analyses were performed to identify:

- 1) The potential for project-generated fossil fuel emissions from the Site's heating/hot water, ventilation, and air conditioning system (HVAC) on surrounding land uses within 400 feet as well as the potential for HVAC impacts from surrounding commercial, residential and institutional uses on the Site;

- 2) Manufacturing or processing facilities, or medical, chemical or research labs within 400 feet of the Site; and
- 3) Large emission sources such as solid waste incinerators, cogeneration facilities, asphalt and concrete plants, and power generating plants within 1,000 feet of the Site.

Results of these screening analyses are presented within.

HVAC and Hot Water Boiler Emissions Screening

The Proposed Action would result in the construction of a new, mixed-use commercial and residential building that would utilize fossil fuels for its HVAC and hot water boiler system. In addition, the Applicant has proposed to make accommodations and assist in the payment for the adjacent Silk Building's (14 East 4th Street) south facing in-wall AC units with a split system AC unit configuration. Shallow setbacks would be provided along the north facing side wall of the 688 Broadway building to accommodate the possible condenser piping for the Silk Building. The proposed system would be independent of the HVAC and boiler system for the proposed building at 688 Broadway. Further, the Silk Building's potential AC vent system would be an electrically driven unit and would not generate emissions. As the AC equipment would not touch or be located on or within the building at 688 Broadway, this accommodation would not change or impact the HVAC and Hot Water Boiler Emissions Screening presented below.

An HVAC screening analysis was performed to identify the potential for air quality impact from the proposed building's boiler emissions to the closest existing building of similar or greater height, relative to the proposed building's stack height. The closest existing building is a 12-story mixed commercial/residential building located at 692 Broadway (Block 531, Lot 7501), directly adjacent to the proposed building. Per 2011 Sanborn Fire Insurance Maps, 692 Broadway is approximately 157 feet in height. Based on information provided by the project design team, the boiler stack for 688 Broadway would be located on the north edge of the bulkhead, approximately 5 feet above the adjacent building (692 Broadway), as depicted in the proposed site section (see Figure 1.7). Therefore, the height of the proposed building's stack above local grade would be approximately 162 feet. The boiler would use Natural Gas to heat approximately 48,110 gsf of space.

Since the adjacent existing building is less than 30 feet from the Site, the CEQR boiler screening nomographs are not applicable for determining potential impact from the proposed building's boiler emissions. Therefore, a calculation of the required boiler flue offset distance from the center of the chimney to the nearest window on the adjacent building (Block 531, Lot 7501) was performed pursuant to New York City Fuel Gas Code Section 503.5.4. Based on a proposed boiler fuel type of Natural Gas with a flue diameter of 12 inches, the required minimum offset distance between the boiler flue and closest window is 21.3 feet (see Appendix F, Boiler Flue Calculations and Diagrams). An AERSCREEN analysis was performed to verify that the calculated required minimum offset distance would preclude impact to the adjacent existing building. Based on the AERSCREEN results, it was determined that the actual minimum required offset distance between the boiler flue and closest window to preclude impact is 22 feet. As depicted within the Boiler Flue Diagrams, the proposed boiler flue will be located at a minimum of approximately 29 feet from the closest existing window on Block 531, Lot 7501. As such, the proposed boiler flue location is further than the minimum required offset distance determined from AERSCREEN and complies with New York City Fuel Gas Code Section 503.5. A more refined HVAC analysis to identify impact to the building at Block 531, Lot 7501 is not warranted.

To ensure that there is no impact to existing land use from the proposed boiler's emissions, an (E) designation for air quality would be required for the Site (Block 531, Lot 4), specifying required minimum offset distance from the closest window, the minimum stack height and the necessary fuel. The text for the (E) designation for the Site is as follows:

Any new residential/commercial development on the above referenced properties must ensure that fossil fuel-fired heating and hot water system(s) utilize only natural gas, and that the heating and hot water system(s) exhaust stack(s) are located at least 163 feet above grade, and at least 22 feet away from edge of the building facing the East Fourth Street lot line, to avoid any potential significant air quality impacts.

In addition to evaluating HVAC and hot water boiler emissions impacts from the Site on the surrounding land use, potential impacts from boilers less than 2.8 million BTU/hour associated with the surrounding commercial, residential and institutional uses within 400 feet of the Site were evaluated utilizing the CEQR nomographs. Based on the building height information obtained from 2011 Sanborn Fire Insurance maps and assuming a stack height of 3 feet above the building rooftop, per *CEQR Technical Manual* guidelines, the stack height above local grade was estimated for commercial, residential and institutional buildings within 400-feet of the Site. The stack height above local grade was then compared to the proposed building roof height of the Site (approximately 145 feet, as shown in Figure 1.7). Subsequently, a search of the DOB website as well as a request for permit information was made to the NYC Department of Environmental Protection (NYCDEP) to identify locations with active registrations or Certificate to Operate permits within a 400-foot radius of the Site. Table 17.3 includes a listing of all commercial, residential and institutional buildings within the 400-foot radius that contain active boiler permits and shows the results of the *CEQR* HVAC screening for these locations. For buildings where fuel oil information was not specified within NYCDEP or DOB records, a conservative, worst-case screening analysis was performed using the nomograph provided in Figure 17-3 of the *CEQR Technical Manual* while the nomographs in Figure App 17-1 through App 17-10 were used for a more refined screening analysis when the fuel oil was identified within the boiler permit. As shown in Table 17.3, *CEQR* HVAC screening procedures indicate no impacts from surrounding HVAC and hot water boiler emissions on the Site. *CEQR* nomographs for the five buildings listed within Table 17.3 are provided within Appendix G.

Table 17.3 Active NYCDEP Boiler Permits within 400-foot Radius

Address	Block	Lot	Sq. Ft.	Stack Distance to Site (ft)	Stack Ht. Above Local Grade (ft)	Fuel Type	DEP/DOB Permit #	CEQR Screen
670 Broadway	530	1	52,999	279	75	No. 2 Oil	CA244192L	PASS
381 Lafayette St	531	19	9,180	236	71	No. 2 Oil	CA114392K	PASS
383 Lafayette St	531	20	37,980	225	65	No. 2 Oil	CB040110J	PASS
393 Lafayette St	544	1	101,936	279	70	Natural Gas	CA276981K	PASS
712 Broadway	545	8	64,326	305	125	Natural Gas	CA226193Y	PASS
704 Broadway	545	7502	50,132	178	145	No. 4 Oil	CA153288M	PASS

Notes:

1. The stack height at 381 Lafayette Street was not provided in the DEP registration, and therefore a stack height of 3 feet was added to the building height obtained from the 2011 Sanborn Fire Insurance maps to determine the stack height above local grade, per *CEQR Technical Manual* guidelines.

Industrial Sources Screening

As the Proposed Action would locate a mixed-use commercial/residential building within a manufacturing zoning district (M1-5B), land use mapping was reviewed, and a field survey was performed to identify any manufacturing or industrial uses within 400 feet of the Site. Six block and lots were identified as industrial/manufacturing, as shown in Figure 3.1, Land Use Map and identified within Table 17.4 below. An inquiry letter was electronically submitted to NYCDEP (see Appendix H) to determine if any of the identified block and lots possess active manufacturing and processing permits on file with NYCDEP. Based on NYCDEP's response (see Appendix H), there are no industrial/manufacturing permits on file for the six (6) block and lots listed within Table 17.4. Therefore, no significant adverse impacts to the Site are anticipated from industrial source emissions.

One additional block and lot (Block 530, Lot 13 – 366/372 Lafayette Street), which is identified in Figure 3.1, Land Use Map, as transportation/utility was identified to be vacant via the field survey. This site was formerly an auto repair shop, which was relocated to Brooklyn. The future use of this site was investigated to determine the potential for impact to 688 Broadway. The future use will be a 6-story mixed commercial/residential building that is currently under construction. It was determined that the mixed commercial/residential building will only contain two small-scale boilers, and would thus have no large scale air quality impact to 688 Broadway.

Table 17.4 List of Industrial Lots

Address	Zip	Land Use	Owner	Block	Lot
676 Broadway	10012	Industrial	JORDAN REALTY LLC	530	4
678 Broadway	10012	Industrial	EM REAL ESTATE LLC	530	5
8 Bond Street	10012	Industrial	BEN LAFAYETTE LLC AS	530	64
4 Bond Street	10012	Industrial	GIURDANELLA, ROBERT J.	530	66
381 Lafayette Street	10003	Industrial	RAUSCHENBERG, ROBERT	531	19
392 Lafayette Street	10003	Industrial	SAND ASSOCIATES, L.P.	545	53

“Major” Emissions Sources Screening

In accordance with *CEQR Technical Manual* guidelines, a comprehensive search of “major” emissions-generating sources within 1,000 feet of the Site was performed utilizing the NYSDEC's online database of Title V and State Facility permits¹ as well as the USEPA's online Envirofacts database.² One Title V source, the NYU Central Plant, was identified within 1,000 feet of the Site. The NYU Central Plant is a cogeneration facility operating under a NYSDEC Title V permit for two (2) emission units. The plant provides electricity and steam for heating, hot water and cooling for portions of the NYU campus. According to Title V permit, emissions generated by the facility are from two (2) combustion turbines that operate on natural gas and No. 2 fuel oil, two (2) duct burners that operate exclusively on natural gas, and three (3) hot water boilers that operate on natural gas and No. 6 fuel oil. All of the emissions from these sources exhaust through a single stack at 251 Mercer Street. Additionally, there are seven (7) diesel engine generators that produce electricity, whose emissions exhaust through a separate stack located at 40 West 40th Street. As stated within the permit, as of June 30, 2010 the seven

¹<http://www.dec.ny.gov/chemical/32249.html>

²http://oaspub.epa.gov/enviro/ef_home2.air

engine generators will serve as power producing back-up, operating no more than 2,000 hours per seven engines combined per year.

Due to the presence of a Title V permitted facility within 1,000 feet of the Site, an air quality impact assessment is warranted. In light of performing a detailed quantitative assessment utilizing the USEPA's AERMOD dispersion model, results of the NYU Core Final Environmental Impact Statement (FEIS), which received a Notice of Completion from the Department of City Planning on May 25, 2012, was reviewed to qualitatively address the potential for impact to the Site from the NYU Central Plant emissions. Based on the results of the detailed dispersion modeling analysis performed for the NYU Core FEIS, NO_x and PM_{2.5} impacts were predicted at a minimum window/air intake height of 195 feet at a distance of approximately 340 feet from the NYU Central Plant stack. It should be noted that the analysis was performed without downwash effects from Washington Square Village 1 and 2 Building, which took a direct line of sight impact into consideration. Given that the Site is located at a greater distance from the NYU Central Plant stack (approximately 425 feet), and the maximum height (above local grade) of any windows at the Site would be approximately 141 feet and the maximum height (above local grade) of any air intakes at the Site would be approximately 150 feet, air quality impacts to the Site from emissions associated with the NYU Central Plant are not anticipated.

Two large-scale residential and institutional uses with boilers that possess a heat input greater than 2.8 million BTU/hour were also identified and include 730 Broadway and 683 Broadway. An EAS was recently completed for 730 Broadway. New York University (NYU), which owns 730 Broadway, proposes to convert the existing 10-story building from its current office use to college or university use and retain the existing ground floor retail space. The conversion of the existing building to academic space would require modifications to the existing heating and hot water system. Therefore, as part of the CEQR EAS submitted for 730 Broadway, a quantitative air quality assessment utilizing AERMOD was performed, assuming the system would use No. 2 fuel oil. The assessment was included within Attachment C of the aforementioned EAS. Therefore, results of the analysis were reviewed to qualitatively address the potential for air quality impact to 688 Broadway. As detailed within the 730 Broadway EAS, concentrations of NO₂, PM₁₀ and SO₂ are all predicted to be below the NAAQS, and maximum 24-hour and annual concentrations of PM_{2.5} are predicted to be below the interim guidance criteria. Maximum concentrations reported were predicted to occur at distances ranging from 46 feet to 161 feet from the boiler stack, depending on the pollutant and whether or not building downwash was modeled. Since 688 Broadway is located greater than 400 feet from 730 Broadway, and thereby further than the distance at which maximum concentrations were predicted, there would be no impact to 688 Broadway from boiler emissions associated with the modified heating and hot water system at 730 Broadway.

The other large-scale residential and institutional use boiler location includes 683 Broadway. The stack height at 683 Broadway is approximately 206 feet above ground level and therefore taller than the building roof height and highest air intake at 688 Broadway (145 feet above ground level). However, since the boiler has a heat input greater than 2.8 million BTU/hour, the USEPA's AERSCREEN model was utilized to identify the potential for impact to 688 Broadway.

AERSCREEN ANALYSIS

The latest available version of the USEPA's AERSCREEN model (version 11126) was utilized to predict concentrations of NO₂, SO₂, PM₁₀, and PM_{2.5} resulting from the boiler system at 683

Broadway. Since 683 Broadway is located across the street from the Site, and a direct line of impact is most conservative, the analysis was completed without building downwash. Discrete receptor locations were modeled at breathing height at each floor (i.e. 6 feet or 1.8 meters above each floor's base elevation) as well as at the rooftop air intake (i.e. 145 feet or 44.2 meters). Flat terrain was modeled, and default meteorological parameters were utilized for the MAKEMET program to generate screening meteorological data. Surface characteristics were determined from the AERMET seasonal tables, assuming an urban site with average moisture conditions. Source information that was utilized to run AERSCREEN is presented within Table 17.5.

Table 17.5 683 Broadway HVAC Emission Rates and Stack Parameters

Parameter	Value
Stack Parameters	
Stack Height (m)	62.8
Stack Diameter (m)	1.22
Exhaust Temperature (K)	426.4
Exit Velocity (m/s)	10.2
Emission Rates (g/s)	
NO _x	1.37X10 ⁻²
PM ₁₀	1.09X10 ⁻²
PM _{2.5}	5.79X10 ⁻³
SO ₂	4.18X10 ⁻²

Source: NYU Core FEIS, May 25, 2012.

The maximum predicted concentrations of NO₂, PM₁₀, and SO₂ from the boiler at 683 Broadway occur at the proposed rooftop air intake location at 688 Broadway. These maximum predicted concentrations were added to the background concentrations and compared to the NAAQS. Total concentrations of each pollutant as well as the background concentrations and applicable NAAQS are presented in Table 17.6. As depicted in the table, total concentrations at the proposed rooftop air intake would be below the NAAQS.

Table 17.6 Maximum Predicted Pollutant Concentrations at 688 Broadway (µg/m³)

Pollutant	Averaging Period	Maximum Modeled Concentration	Background Concentration	Total Concentration	NAAQS
NO ₂ ⁽¹⁾	Annual	0.07	43.3	43.3	100
SO ₂	3-hour	0.74	78.6	79.3	1,300
PM ₁₀	24-hour	0.12	57.0	57.1	150

Notes: (1) To be conservative, NO₂ concentrations were estimated assuming 100% of NO_x is converted to NO₂.

Incremental changes in PM_{2.5} concentrations were compared to the criteria provided within the latest version of the *CEQR Technical Manual* (6/8/13). Since the analysis of 683 Broadway boiler emissions was performed to identify impact to 688 Broadway, only the criteria related to the 24-hour and annual PM_{2.5} standards are applicable (i.e. the first and third criteria listed above within *Determining Impact Significance*). The maximum predicted 24-hour and annual

concentrations of PM_{2.5}, presented in Table 17.7, occur at the proposed rooftop air intake at 688 Broadway. As shown in the table, the maximum incremental change in PM_{2.5} is predicted to be below the criteria. Therefore, there would be no potential for a significant adverse air quality impact at 688 Broadway from the boiler emissions at 683 Broadway.

Table 17.7 Maximum Predicted PM_{2.5} Increments at 688 Broadway (µg/m³)

Pollutant	Averaging Period	Maximum Modeled Concentration	CEQR Criteria ⁽¹⁾
PM _{2.5}	24-hour	0.06	3.5
	Annual	0.01	0.3

Notes:(1) The CEQR 24-hour criteria is determined by computing one-half of the numerical difference between the ambient background concentration (28.0 µg/m³) and the 24-hour standard (35 µg/m³), which yields 3.5 µg/m³.

CONCLUSION

As this section demonstrates that the Proposed Action and the surrounding community pass both mobile and stationary source CEQR screening procedures, air quality impact to the Site as well as the surrounding community is not anticipated.

18. Noise

INTRODUCTION

In accordance with the guidelines established within the *CEQR Technical Manual*, a noise analysis was performed to identify the potential noise impact to the Site from the existing noise environment and identify the required level of attenuation to achieve an acceptable interior noise level of 45 dBA. A mobile source analysis is not provided as the Proposed Action would generate a net decrease in vehicle trips; thus, a mobile source analysis is not warranted.

Noise Fundamentals

Certain critical factors affect noise and the way it is perceived by the human ear. Such factors include the acoustical level (noise), frequency and the length of the exposure period. Sound or noise level is measured in units of decibels (dB). Due to the complex manner in which the human ear functions, measurement of different noise sources does not always correspond to relative loudness or annoyances. Therefore, different scales have been developed to furnish guidance in evaluating the importance of different noise sources. The "A" weighted scale (units expressed as dBA) has been widely accepted for noise to compare well with human reactions. A listing of typical community noise levels is shown in Table 18.1.

Table 18.1 Noise Levels of Common Sources

Sound Source	Sound Pressure Level (dBA)
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Sources: <i>CEQR Technical Manual, 2010 - Cowan, James P. Handbook of Environmental Acoustics, 1994 and Egan, M. David, Architectural Acoustics, 1988</i>	

A decrease in 10 decibels is perceived by the average listener as a reduction of noise by one-half, while an increase in 10 decibels is discerned as a doubling of noise levels. Under normal circumstances, a 3 decibel change is required for the average person to detect a difference without the use of instruments. A change in 5 decibels is considered a noticeable change.

Sound Level Descriptors

As very few noise sources are constant, a way of describing variations in noise over a period of time is needed. Therefore, several sound level descriptors are used in environmental noise assessments to evaluate impacts (see Table 18.2). The choice of descriptor is generally based on the source type. Some common descriptors used in environmental assessments are described below:

- **L_{eq}** is the continuous equivalent sound level that represents an energy average of individual fluctuating sound levels over the duration of the measurement period. The duration is typically specified in hours and shown within parenthesis in the notation (e.g. L_{eq(1)} indicates a 1-hour measurement duration). It is the most common descriptor used in environmental assessments.
- **L_{dn}** is the day-night equivalent sound level, defined as the 24-hour continuous L_{eq} with a 10 dB penalty added to all hourly L_{eq} noise levels documented between 10 PM and 7 AM to account for the increased sensitivity individuals have to noise during typical sleeping hours.
- **L_x** is the statistical percentile noise level, where x represents the percentage of the measurement duration in which the documented sound level has been exceeded. The most commonly used statistical percentile noise descriptors in environmental assessments are the L₁, L₁₀, L₅₀, and L₉₀, which indicate the noise level exceeded 1, 10, 50 and 90 percent of the measurement period, respectively. The L₁₀ is usually regarded as an indication of traffic noise exposure with a steady flow of evenly-spaced vehicles and is used in CEQR assessments for evaluating mobile source noise impacts from vehicular traffic for proposed actions that would create noise sensitive receptors. Like with the L_{eq}, the measurement duration is specified in hours and shown in parenthesis in the notation (e.g. L₁₀₍₁₎ indicates a 1-hour measurement duration).

As the Proposed Action would generate a noise sensitive receptor, the L₁₀ was used to assess noise impacts to the Site, in accordance with *CEQR Technical Manual* guidelines.

Noise Standards and Criteria

The NYCDEP established external noise exposure guidelines, which are absolute noise limits utilized for assessing noise impact in situations where the proposed action introduces a noise sensitive receptor(s). Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable and clearly unacceptable. When exterior noise levels are predicted to exceed the marginally acceptable absolute noise limit, window-wall attenuation requirements are necessary to achieve acceptable interior noise levels of 45 dBA for residential receivers and 50 dBA for commercial spaces. The NYCDEP Noise Exposure Guidelines and associated attenuation requirements are shown in Table 18.3.

Table 18.2 Noise Exposure Guidelines for Use in City Environmental Impact Review¹

Receptor Type	Time Period	Acceptable General External Exposure	Airport ³ Exposure	Marginally Acceptable General External Exposure	Airport ³ Exposure	Marginally Unacceptable General External Exposure	Airport ³ Exposure	Clearly Unacceptable General External Exposure	Airport ³ Exposure
1. Outdoor area requiring serenity and quiet ²		$L_{10} \leq 55$ dBA	----- Ldn ≤ 60 dBA -----		----- 60 < Ldn ≤ 65 dBA -----		(1) 65 < Ldn ≤ 70 dBA, (II) 70 \leq Ldn		----- Ldn ≤ 75 dBA -----
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel or motel	7 AM to 10 PM	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 PM to 7 AM	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ 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)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only ⁴	Note 4	Note 4	Note 4	Note 4	Note 4				

Notes:

- (i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;
- 1 Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.
- 2 Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.
- 3 One may use the FAA-approved L_{dn} 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.
- 4 External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

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

Table 18.3 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

Noise level with proposed project	Marginally Unacceptable				Clearly Unacceptable
	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation ^A	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^B$ dB(A)

Note: ^A The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.

^B Required attenuation values increase by 1 dB(A) increments for L10 values greater than 80 dB(A).

Source: New York City Department of Environmental Protection.

In addition to the Noise Exposure Guidelines, the *CEQR Technical Manual* includes criteria for identifying a significant impact to surrounding existing noise sensitive land use from a proposed action based on an incremental change in noise levels from the No-Action to With Action conditions. These criteria are based on an absolute noise level of 65 dBA L_{eq} that should not be significantly exceeded. For example, if the No-Action noise level is 60 dBA L_{eq} or less, a 5 dBA or greater increase would be considered significant. If the No-Action noise level is 61 dBA L_{eq} , the maximum allowable incremental change in noise levels is 4 dBA. If the No-Action noise level is 62 dBA L_{eq} or higher, the maximum allowable incremental change in noise levels is 3 dBA. For nighttime hours (i.e. between 10 PM and 7 AM), the maximum allowable incremental change in noise levels is always 3 dBA, regardless of the measured L_{eq} noise level.

ANALYSIS METHODOLOGY

To identify potential noise impacts from the ambient environment on the Proposed Action, mobile and stationary source screening analyses were performed using the procedures outlined within the *CEQR Technical Manual*.

Mobile Sources

Vehicular Traffic – Since the Proposed Action would generate a net decrease in vehicle trips, a detailed traffic analysis to identify future traffic volumes is not warranted. Therefore, existing measured traffic noise levels are considered to be representative of noise levels under the Proposed Action condition for purposes of this analysis (refer to Appendix E for the trip generation estimate).

Aircraft Noise – Per *CEQR Technical Manual* guidelines, if a proposed action would locate a noise sensitive receptor within one mile of an existing flight path and within an Ldn 65 contour or greater, a detailed aircraft noise assessment may be necessary. Three (3) major airports are located within 7 to 10 miles of the Site: La Guardia (LGA), John F. Kennedy (JFK) and Newark Liberty International (EWR). The Federal Aviation Administration (FAA) had recently increased the efficiency and reliability of the airspace structure and air traffic control system to reduce delays while maintaining or increasing the safety of the air space (New York /New Jersey Philadelphia Metropolitan Area Airspace Redesign – 2011; Integrated Variation with ICC-Mitigation Alternative). Based on the census track of the site (Block 2000, Block Group 2, Census Tract 55.02), the resultant aircraft noise level of 43.6 Ldn is well below the 65 Ldn screening level. As such, an aircraft noise analysis is not necessary for the Proposed Action.

Train Noise – A proposed action that introduces a receptor within 1,500 feet of an existing rail facility with a direct line of site to that facility requires a rail noise analysis, per *CEQR Technical Manual* guidelines. The Proposed Action would not locate a noise sensitive receptor within 1,500 feet of any existing rail facilities with a direct line of site to that facility. As such, a detailed rail noise assessment is not required.

Stationary Sources

Per *CEQR Technical Manual* guidelines, if a proposed action would locate a sensitive receptor within 1,500 feet of a substantial stationary source noise generator (e.g., unenclosed HVAC systems/cooling towers or manufacturing equipment, truck loading docks, a playground, loudspeaker systems, car washes, etc.), with a direct line of site to that receptor, a more detailed assessment may be necessary. In the five boroughs of New York, noise from exterior-mounted mechanical equipment or indoor equipment vented to the exterior is regulated by provisions set forth within the New York City Noise Control Code. Specifically, Section 24-227 regulates noise from circulation devices such as roof-top condensers and other HVAC equipment by establishing a maximum permissible interior noise level of 42 dBA from a single circulation device, as measured three feet in a receiving dwelling unit with an open window condition. The maximum permissible cumulative noise level from all circulation devices on a building shall not exceed 45 dBA, as measured three feet in a receiving dwelling unit with an open window condition. Rooftop equipment at the Site would be shielded with a 6-foot acoustical screen and would be design and placed to comply with the provisions set forth within the New York City Noise Code. As such, stationary source noise impacts on the surrounding community from the Proposed Action are not anticipated. Further, no substantial stationary source noise generators were identified that would impact the Site.

EXISTING NOISE LEVELS

The land use directly adjacent to the site is comprised of a mixture of residential and commercial retail use. Existing noise levels were monitored at one exterior location along the sidewalk adjacent to the Site (688 Broadway). A Rion Model NL-31 (Type I) noise level meter was utilized to document A-weighted noise levels during AM, midday and PM peak traffic hours (8:00 AM – 9:00 AM, 12:00 PM – 1:00 PM, 5:00 PM – 6:00 PM, respectively). Short-term (i.e. 20-minute) peak hour noise measurements were performed in accordance with *CEQR Technical Manual* guidelines on Tuesday January 8, 2013 and are shown in Table 18.4. A site diagram depicting the noise monitoring location is provided in Figure 18.1. A site diagram showing relevant distances from the noise monitor to nearby roadways as well as a photo log is provided in Appendix I.

Table 18.4 2013 Existing Peak Hour Noise Levels (dBA)

Location	Time	L _{eq}	L ₁	L ₁₀	L ₅₀	L ₉₀	L _{max}	L _{min}
Sidewalk in front of 688 Broadway	AM	72.4	80.4	76.3	68.6	60.5	86.0	57.5
	MD	71.9	81.2	75.7	68.5	63.8	85.0	61.8
	PM	72.8	80.3	76.5	70.5	64.5	84.1	61.2

WITH ACTION CONDITION



As aforementioned, since the Proposed Action would result in a net decrease in vehicle trips, a detailed traffic noise analysis is not required and it is assumed that measured traffic noise levels are representative of noise levels in the future with the Proposed Action. Therefore, the Proposed Action would not cause an incremental change in ambient noise levels from mobile sources (i.e. vehicular traffic trips). Based on the maximum documented L₁₀ existing noise level of 76.5 dBA shown in Table 18.4, the Site would be classified as “marginally unacceptable” in terms of the Noise Exposure Guidelines (see Table 18.2).

Since exterior measured noise levels exceed the “marginally acceptable” category of the Noise Exposure Guidelines, a significant impact to the Site would occur unless the building design provides a composite building attenuation sufficient to reduce interior noise levels to 45 dBA or less on floors 2 through 12 where residential space is planned and 50 dBA or less on the first floor where commercial/retail space is planned. As shown in Table 3, for exterior L₁₀ noise levels greater than 76 dBA, the necessary levels of attenuation would be 33 dBA for floors 2 through 12 and 28 dBA for the first floor commercial/retail space. To ensure these attenuation requirements are met, an (E) designation for noise would be placed on the zoning map for this parcel (Block 531, Lot 4) and would include the following language:

In order to ensure an acceptable interior noise level of 45 dBA, the building facades of future residential uses must provide a minimum composite building attenuation value of 33 dBA with windows closed. The minimum required composite building attenuation for commercial uses would be 5 dBA less (28 dBA) with windows closed. In order to maintain a closed-window condition at all times, an alternate means of ventilation must be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Figure 18.1
Noise Monitoring Location



 Project Site  Study Area

0 100 200 400 Feet



Appendix A

Landmarks Preservation Commission Letter

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 13DCP091M

Project:

Address: 688 BROADWAY, **BBL:** 1005310004

Date Received: 3/5/2013

No architectural significance

No archaeological significance

Designated New York City Landmark or Within Designated Historic District

Listed on National Register of Historic Places

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

May be archaeologically significant; requesting additional materials

Comments:

The LPC is in receipt of the EAS dated 2/6/13. The EAS is acceptable.



3/8/2013

SIGNATURE

Gina Santucci, Environmental Review Coordinator

DATE

File Name: 28055_FSO_GS_03082013.doc

Appendix B

Certificate of Appropriateness



THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
1 CENTRE STREET 9TH FLOOR NORTH NEW YORK, NY 10007

TEL: 212 669-7700 FAX: 212 669-7780



August 8, 2013

ISSUED TO:

David Schwartz
Downtown RE Holdings, LLC
825 3rd Avenue, 37th Floor
New York, NY 10022

Re: **MISCELLANEOUS/AMENDMENTS**

LPC - 147450
MISC 14-7189
688 BROADWAY
HISTORIC DISTRICT
NOHO
Borough of Manhattan
Block/Lot: 531 / 4

Pursuant to Section 25-307 of the Administrative Code of the City of New York, the Landmarks Preservation Commission issued Certificate of Appropriateness 13-7987 on November 28, 2012 for the construction of a new 11-story building with a one-story set-back penthouse and a two-story base, with a rear elevation facing Great Jones Alley, including a one story lobby with a residential entrance of COR-TEN steel, glass, and textured terra-cotta panels, with the upper floors of the building to feature the same brick used at the primary facade, large metal and glass windows, and projecting metal balconies.

Subsequently, on July 30, 2013, the Commission received a proposal for an amendment to the work approved under that permit.

The proposed amendment consists of removing an area of the common garden at the roof of the one story lobby at the Great Jones Alley elevation to create an opening, with the COR-TEN clad beam at the façade of the ground floor elevation to remain; as shown in revised presentation drawings L-30R and L-35R, dated 7/29/13, prepared by BKSK Architects, LLP, and submitted as components of the application.

Accordingly, staff reviewed the proposed modifications and finds that the removal of this area of the roof and retention of the COR-Ten clad beam, will result in a façade that is still consistent with the utilitarian nature of rear facades at historic buildings throughout the historic district; and that the revised scope of work is in keeping with the intent of the original approval. Therefore, Certificate of Appropriateness 13-7987 is hereby further amended to incorporate the above-referenced changes.

This amendment is issued on the basis of the building and site conditions described in the application and disclosed during the review process. By accepting this permit, the applicant agrees to notify the Commission if actual building or site conditions vary. The Commission reserves the right to amend or revoke this permit, upon written notice to the applicant, in the event that the actual building or site conditions are materially different from those described in the application or disclosed during the review process.

All approved drawings are marked approved by the Commission with a perforated seal indicating the date of approval. The approved work is limited to what is contained in the perforated documents. Other work to this filing must be reviewed and approved separately. The applicant is hereby put on notice that performing or maintaining any work not explicitly authorized by this permit may make the applicant liable for criminal and/or civil penalties, including imprisonment and fines. This letter constitutes the permit amendment; a copy must be prominently displayed at the site while work is in progress. Please direct inquiries to Timothy Shaw.

The Commission notes that the applicant is applying for a special permit at the Department of City Planning, pursuant to Section 74-712 of the Zoning Resolution. Any changes to the design required by the Department of City Planning approval must be submitted to the Landmarks Preservation Commission for review and approval prior to the issuance of the final approval letter.

PLEASE NOTE: This permit is issued contingent upon the Commission's review and approval of the final Department of Building filing set of drawings. No work can begin until the final drawings have been marked approved by the Landmarks Preservation Commission with a perforated seal. Please submit these drawings to the Landmarks Preservation Commission staff when they become available.

Also, as the approved work consists of subsurface work, the applicant is required to strictly adhere to the Department of Buildings TPPN 10/88 governing in-ground construction adjacent to historic buildings. It is the applicant's obligation at the time of applying for their permit to inform the Department of Buildings that the TPPN applies.

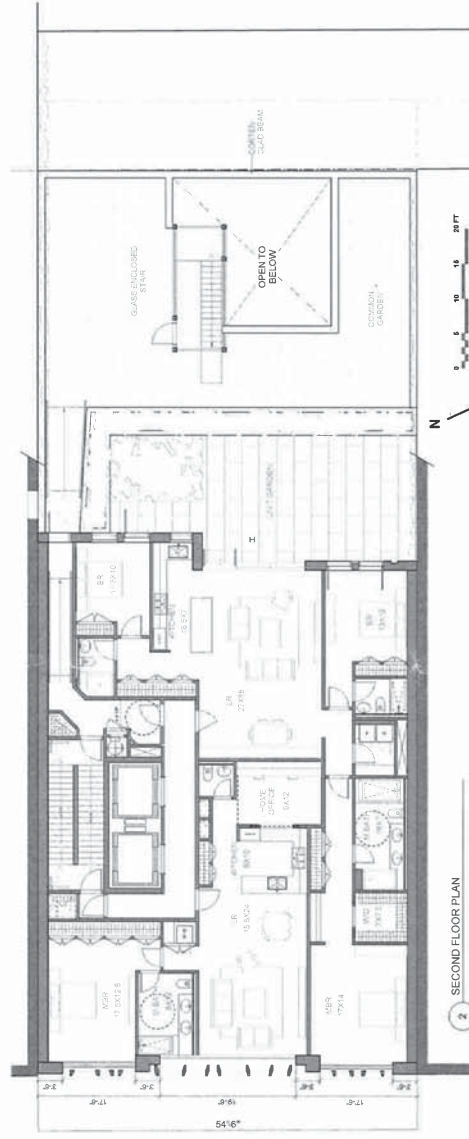
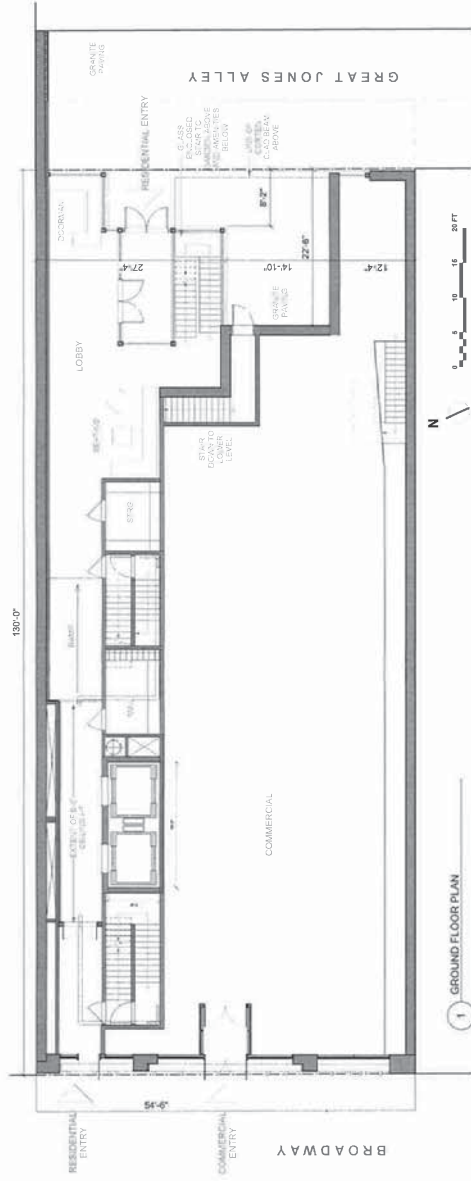


Timothy Shaw

cc: G. Schieferdecker; C. Kane Levy, Deputy Director of Preservation, LPC

DESIGN APPROVAL ONLY
No work may proceed until DOB filing
drawings are reviewed and approved

L-30R



GROUND AND SECOND FLOOR PLANS

688 BROADWAY
 NEW YORK, NEW YORK, 10012

Project No.: 1034
 REVISED 07/26/2010

L-30R

Appendix C

Phase I Environmental Site Assessment

Phase II Site Investigation Report, Remedial Action Plan,
and Construction Health and Safety Plan

Appendix D

DEP Correspondence



**Environmental
Protection**

*Carter H. Strickland, Jr.
Commissioner*

Angela Licata
Deputy Commissioner
of Sustainability
alicata@dep.nyc.gov

59-17 Junction Boulevard
Flushing, NY 11373
T: (718) 595-4398
F: (718) 595-4479

March 20th, 2013

Mr. Robert Dobruskin
Director of Environmental Assessment and Review
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York 10007-1216

**Re: 688 Broadway
Block 531, Lot4
13DCP091M/13DEPTECH034M
Manhattan, New York**

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the Revised March 2013 Phase II Investigation Work Plan (Work Plan) and Health and Safety Plan (HASP) prepared by Hydro Tech Environmental Corp., on behalf of Downtown RE Holdings, LLC., (applicant) for the above reference project. It is our understanding that the applicant is seeking a Special Permit from the New York City Department of City Planning (DCP) pursuant to Section 74-712 (a) of the New York City Zoning Resolution to modify use and bulk regulations at the site located between West 4th Street and Great Jones Street within an M1-5B zoning district. The proposed action would result in the development of a 46,590 gross square foot (gsf) mixed use building of which 42,995 gsf would be dedicated residential condominium units and 3,585 gsf of ground floor retail uses. The project site is an open undeveloped asphalt covered parcel of land currently being utilized as a neighborhood flea market.

The Revised March 2013 Work Plan proposes to install three (3) soil probes (SP-1 to SP-3) to a depth of approximately 28 feet below grade surface (fbgs) and 8 fbgs. Two soil samples will be collected from each boring and analyzed for Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260, Semi Volatile Organic Compounds (SVOCs) by EPA Method 8270, Pesticides/Polychlorinated Biphenyls (PCBs) by EPA Methods 8081/8082 and Target Analyte List (TAL) Metals. Three groundwater samples will be collected via temporary monitoring wells from borings SP-1 through SP-3 (MW-1 through MW-3) and analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Pesticides/PCBs by EPA Methods 8081/8082 and TAL Metals (both filtered and unfiltered groundwater samples). In addition, three (3) Soil vapor samples (SV-1 through SV-3) will be collected and analyzed for VOCs by EPA Method TO-15.

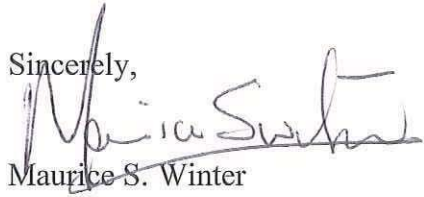
Based on upon our review of the submitted documents, we have the following comments/ recommendations to DCP:

- DEP finds the Revised March 2013 Work Plan for the proposed project acceptable. DCP should inform the applicant that upon completion of the

investigation activities, the consultant should submit a detailed Phase II report to DEP for review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil and groundwater analytical results (i.e. New York State Department of Environmental Conservation (NYSDEC) 6NYCRR part 375, NYSDEC Water Quality Regulations and Soil Vapor Samples in accordance with NYSDOH's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York) updated site plans depicting sample locations, boring logs and remedial recommendations, if warranted.

Future correspondence and submittal related to this project should include the following tracking number **13DEPTECH034M**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,



Maurice S. Winter
Deputy Director, Site Assessment

c: E. Mahoney
M. Winter
W. Yu
T. Estes
M. Wimbish
C. Evans- DCP
I. Young- DCP
File



**Environmental
Protection**

Carter H. Strickland, Jr.
Commissioner

Angela Licata
Deputy Commissioner
of Sustainability
alicata@dep.nyc.gov

59-17 Junction Boulevard
Flushing, NY 11373
T: (718) 595-4398
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May 20th, 2013

Mr. Robert Dobruskin
Director of Environmental Assessment and Review
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York 10007-1216

**Re: 688 Broadway
Block 531, Lot 4
13DCP091M/13DEPTECH034M
Manhattan, New York**

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the April 2013 Phase II Site Investigation Report (Phase II), Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) prepared by Hydro Tech Environmental Corp., (Hydro Tech) on behalf of Downtown RE Holdings, LLC., (applicant) for the above reference project. It is our understanding that the applicant is seeking a Special Permit from the New York City Department of City Planning (DCP) pursuant to Section 74-712 (a) of the New York City Zoning Resolution to modify use and bulk regulations at the site located between West 4th Street and Great Jones Street within an M1-5B zoning district. The proposed action would result in the development of a 46,590 gross square foot (gsf) mixed use 12-story building of which 42,995 gsf would be dedicated residential condominium units and 3,585 gsf of ground floor retail uses. The project site is an open, undeveloped asphalt covered parcel of land currently being utilized as a neighborhood flea market.

During the March 2013 field work, Hydro Tech conducted three soil borings (SP-1 through SP3) to a depth of approximately 28 feet below grade surface (fbgs). Two soil samples were collected from each soil borings and analyzed for Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260, Semi Volatile Organic Compounds (SVOCs) by EPA Method 8270, Pesticides and Polychlorinated Biphenyls (PCBs) by EPA Methods 8081/8082 and Target Analyte List (TAL) Metals, Chromium Hexavalent and Chromium Trivalent. Three groundwater samples were collected via temporary wells and analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Pesticides and PCBs by EPA Methods 8081/8082, TAL Metals (both filtered and unfiltered), Chromium Hexavalent and Chromium Trivalent. Three soil vapor samples (SV-1 through SV-3) were collected and analyzed by EPA Method TO-15.

The soil analytical results revealed that VOCs and PCBs were either non-detect or below New York State Department of Environmental Conservation 6 NYCRR Part 375 Unrestricted-Use Soil Cleanup Objectives (SCOs) and or Residential-Use SCOs. Several SVOCs (Benzo(a)anthracene, Benzo(a)pyrene,

Benzo(b)floranthene and Chrysene), metals and Pesticides (4,4'-DDD, 4,4'-DDE and 4,4'-DDT) exceeded NYSDEC Unrestricted-Use and Residential-Use SCOs. The groundwater analytical results revealed that one SVOC (Bis2-ethylhexyl) phthalate) exceeded NYSDEC Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) Groundwater Quality Standards and Guidance Values (GWQS). The soil vapor analytical results revealed that vapor associated with gasoline and chlorinated solvents were detected beneath the property. In addition, several VOCs exceeded their respective NYSDOH guidance.

The April 2013 RAP proposes to excavate contaminated and non-hazardous soil/fill material, segregate and temporarily stockpile on-site and cover with polyethylene sheeting prior to disposal; dust suppression during the excavation activities; waste characterization of the excavated soil/fill/material prior to disposal in accordance with all federal, state and local regulations; end point sampling; installation of a vapor barrier beneath the cellar slab and behind the foundation walls; removal of underground petroleum storage tank identified during the site development in accordance with NYSDEC regulation; two (2) feet of certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt and obtaining the necessary DEP permits, if de-watering into New York City storm/sewer drains will occur during the proposed construction.

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

DEP finds the April 2013 RAP and CHASP for the proposed project acceptable. DCP should instruct the applicant that at the completion of the project, a Professional Engineer (P.E) certified Remedial Closure Report should be submitted to and approved by DEP for the proposed project. The P.E. Certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e. proper transportation/disposal manifests and certificates from impacted soils removed and properly disposed of in accordance with New York State Department of Environmental Conservation Regulations, proof of installation of vapor barrier and two feet of DEP approved certified clean fill/top soil capping requirement if any landscaped/grass covered areas are not capped with concrete/asphalt etc.,)

Future correspondence and submittal related to this project should include the following tracking number **13DEPTECH034M**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445 or Maurice Winter at (718) 595-4514.

Sincerely,



Maurice S. Winter
Deputy Director, Site Assessment

c: E. Mahoney; M. Winter; W. Yu; T. Estes; M. Wimbish; C. Evans- DCP; I. Young- DCP
File

Appendix E

Trip Generation Analysis

688 Broadway Transportation Demand Factors

Project Component	Size Unit	Proposed Action				No Action Condition	
		Local Retail		Residential		Hotel ⁶	
		3,970 gsf		37 per dwelling unit		76 rooms	
		(1)		(1)		(1)	
Person Trip Generation Rate	Weekday	205.0		8.075		9.4	
	Sunday	240.0		9.600		9.4	
	Unit	per 1,000 gsf		per dwelling unit		per room	
Truck Generation Rate	Weekday	0.35		0.06		0.06	
	Sunday	0.04		0.02		0.06	
	Unit	per 1,000 gsf		per dwelling unit		per room	

Modal Split		Weekday		Saturday		Weekday AM/PM, Saturday		Weekday MD	
		(4)	(3)	(4)	(3)	(4)	(4)	(4)	(4)
	Auto	2.0%	2.0%	4.5%	4.5%	9.0%	8.0%	8.0%	8.0%
	Taxi	3.0%	3.0%	6.4%	6.4%	18.0%	15.0%	15.0%	15.0%
	Subway	6.0%	6.0%	57.2%	57.2%	24.0%	13.0%	13.0%	13.0%
	Bus	6.0%	6.0%	1.2%	1.2%	3.0%	3.0%	3.0%	3.0%
	Walk/Bike/Other	83.0%	83.0%	30.6%	30.6%	48.0%	61.0%	61.0%	61.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Vehicle Occupancy		Auto	Taxi	Subway	Bus	Walk/Bike/Other
	Weekday	1.65	1.40	1.26	1.26	1.40
	Saturday	1.65	1.40	1.26	1.26	1.80

Pass-by Trips (2)		Auto	Taxi	Subway	Bus	Walk/Bike/Other
	Weekday	25%	25%	0%	0%	0%
	Saturday	25%	25%	0%	0%	0%

Temporal Distribution		Weekday AM	Weekday MD	Weekday PM	SAT MD
	Weekday	3.0%	19.0%	10.0%	10.0%
	Saturday	10.0%	5.0%	11.0%	8.0%

Truck Temporal Distribution		Weekday AM	Weekday MD	Weekday PM	SAT MD
	Weekday	8.0%	11.0%	2.0%	11.0%
	Saturday	12.0%	9.0%	2.0%	9.0%

Directional Distribution		IN	OUT	IN	OUT	IN	OUT
	Weekday AM	50.0%	50.0%	15.0%	85.0%	39.0%	61.0%
	Weekday MD	50.0%	50.0%	50.0%	50.0%	54.0%	46.0%
	Weekday PM	50.0%	50.0%	70.0%	30.0%	65.0%	35.0%
	SAT MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Truck Directional Distribution		IN	OUT	IN	OUT	IN	OUT
	Weekday AM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	Weekday MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	Weekday PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	SAT MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes

1. CEQR 2012, table 16-2.
2. Pass-by trips for local retail assumed to be 25% to account for pedestrians already on Broadway.
3. For residential land use, weekday modal split and auto vehicle occupancy are based on New York County 2010 Census journey-to-work data for tract number 55.02.
4. NYU Core FEIS (2012), table 14-6, for local retail and hotel land use. Saturday Modal split and vehicle occupancy assumed to be same as weekday. For hotel land use, directional distribution for Saturday assumed to be 50/50.
5. Western Rail Yards FEIS (2009), table 17-3, for residential land use.
6. No action condition is 76 room hotel therefore all trips associated with hotel were subtracted from proposed condition trips.

688 Broadway Trip Generation

Person Trips		Proposed		No Action Condition	
		Local Retail	Residential	Hotel	
Daily Trips	Weekday	610	299	-714	
	Saturday	715	355	-714	
Peak Hour Trips	Weekday AM	18	30	-57	
	Weekday MD	116	15	-100	
	Weekday PM	61	33	-93	
	SAT MD	71	28	-64	

		IN		OUT		IN		OUT		Net IN	Net Out	Net TOTAL
		IN	OUT	IN	OUT	IN	OUT					
Weekday AM	Auto	0	0	0	1	-2	-3	-2	-2	-2	-2	-3
	Taxi	0	0	0	2	-4	-6	-3	-4	-4	-4	-8
	Subway	1	1	3	15	-5	-8	-2	7	4	4	4
	Bus	1	1	0	0	-1	-1	0	0	0	0	0
	Walk/Other	8	8	1	8	-10	-16	-1	-1	-1	-1	-2
	Total		10	10	4	26	-22	-34	-8	0	-8	0
Weekday MD	Auto	1	1	0	0	-4	-4	-3	-2	-2	-2	-5
	Taxi	2	2	0	0	-8	-7	-6	-5	-5	-5	-11
	Subway	3	3	4	4	-7	-6	1	2	3	3	3
	Bus	3	3	0	0	-2	-1	2	2	2	2	4
	Walk/Other	48	48	2	2	-33	-28	17	22	22	22	40
	Total		57	57	6	6	-54	-46	11	19	31	31
Weekday PM	Auto	1	1	1	0	-5	-3	-4	-2	-2	-2	-6
	Taxi	1	1	1	1	-11	-6	-8	-4	-4	-4	-13
	Subway	2	2	13	6	-14	-8	1	0	0	0	0
	Bus	2	2	0	0	-2	-1	0	1	1	1	1
	Walk/Other	25	25	7	3	-28	-15	5	13	13	13	18
	Total		31	31	22	10	-60	-33	-6	5	5	0
SAT MD	Auto	1	1	1	1	-3	-3	-2	-2	-2	-2	-3
	Taxi	1	1	1	1	-6	-6	-4	-4	-4	-4	-8
	Subway	2	2	8	8	-8	-8	3	3	3	3	5
	Bus	2	2	0	0	-1	-1	1	1	1	1	3
	Walk/Other	30	30	4	4	-15	-15	19	19	19	19	38
	Total		36	36	14	14	-33	-33	-6	5	5	0

Vehicle Trips		IN		OUT		IN		OUT		Net IN	Net Out	Net TOTAL
		IN	OUT	IN	OUT	IN	OUT					
Weekday AM	Auto	0	0	0	1	-1	-2	-1	-1	-1	-1	-2
	Taxi	0	0	1	1	-2	-3	-1	-2	-2	-2	-3
	Taxi (Balanced)	0	0	2	2	-5	-5	-3	-3	-3	-3	-5
	Truck	0	0	0	0	0	0	0	0	0	0	1
	Total		0	0	2	3	-4	-7	-4	-4	-4	-4
Weekday MD	Auto	1	1	0	0	-3	-3	-2	-2	-2	-2	-3
	Taxi	1	1	0	0	-5	-4	-3	-3	-3	-3	-6
	Taxi (Balanced)	2	2	0	0	-9	-9	-7	-7	-7	-7	-13
	Truck	0	0	0	0	0	0	0	0	0	0	0
	Total		3	3	0	0	-12	-12	-9	-9	-9	-9
Weekday PM	Auto	0	0	1	0	-4	-2	-4	-1	-1	-1	-4
	Taxi	1	1	1	1	-6	-4	-4	-3	-3	-3	-7
	Taxi (Balanced)	2	2	2	2	-10	-10	-6	-6	-6	-6	-12
	Truck	0	0	0	0	0	0	0	0	0	0	0
	Total		2	2	3	2	-14	-12	-8	-8	-8	-8
SAT MD	Auto	1	1	1	1	-2	-2	-1	-1	-1	-1	-1
	Taxi	1	1	1	1	-3	-3	-1	-1	-1	-1	-3
	Taxi (Balanced)	2	2	2	2	-6	-6	-2	-2	-2	-2	-4
	Truck	0	0	0	0	0	0	0	0	0	0	0
	Total		3	3	3	3	-8	-8	-2	-2	-2	-2

Notes

1. To be conservative, no taxi overlap was assumed.

Total Walk Trips		IN		OUT		IN		OUT		Net IN	Net Out	Net TOTAL
		IN	OUT	IN	OUT	IN	OUT					
Weekday AM	Total Walk Trips	9	9	4	23	-16	-25	-4	6	2	2	2
Weekday MD	Total Walk Trips	55	55	7	7	-42	-35	20	26	46	46	46
Weekday PM	Total Walk Trips	29	29	20	9	-44	-24	5	14	19	19	19
SAT MD	Total Walk Trips	34	34	13	13	-23	-23	23	23	46	46	46

Notes

1. Total walk trips includes all trips via transit plus walk and bike only trips.

Appendix F

Boiler Flue Calculations and Diagrams



**O'DEA
LYNCH
ABBATISTA**
CONSULTING ENGINEERS

OLA Consulting Engineers, PC
50 Broadway
Hawthorne, NY 10532
(914)747-2800
OLA# NBKS0006.00

Calculations for the boiler flue distance measured from the center of the chimney outlet to the nearest window.

New York City Fuel Gas Code Section 503.5.4 Chimney termination, equation 5-1;

(a) Low temperature chimney

(b) $D = F \times \text{SQRT}(A)$

D is the Distance, in feet, measured from the center of the chimney outlet to the nearest edge of the construction.

F is the value determined from table in New York City Fuel Gas Code Section 503.5.4. Based on Natural Gas fuel type with a 600 degree or less flue gas temperature, $F=2$.

A is the free area on the chimney in inches.

At 688 Broadway there is one boiler flue that is 12" in diameter.

Based on the above formula;

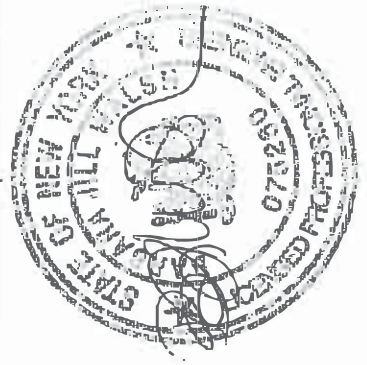
F =	2
A =	113.04 sq. inches
D =	21.3 feet

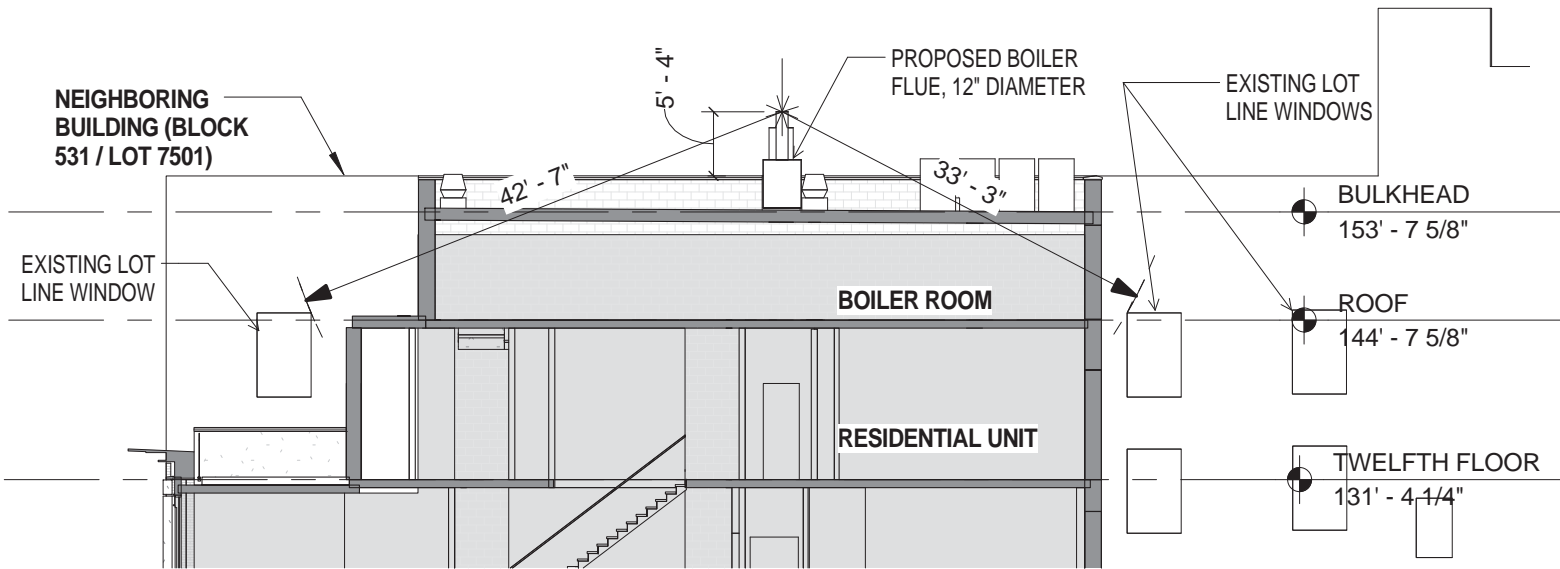
Based on the above calculation a distance of 21.3 feet is required from the center of the chimney to the nearest edge of construction.

If you require any additional information please do not hesitate to call.

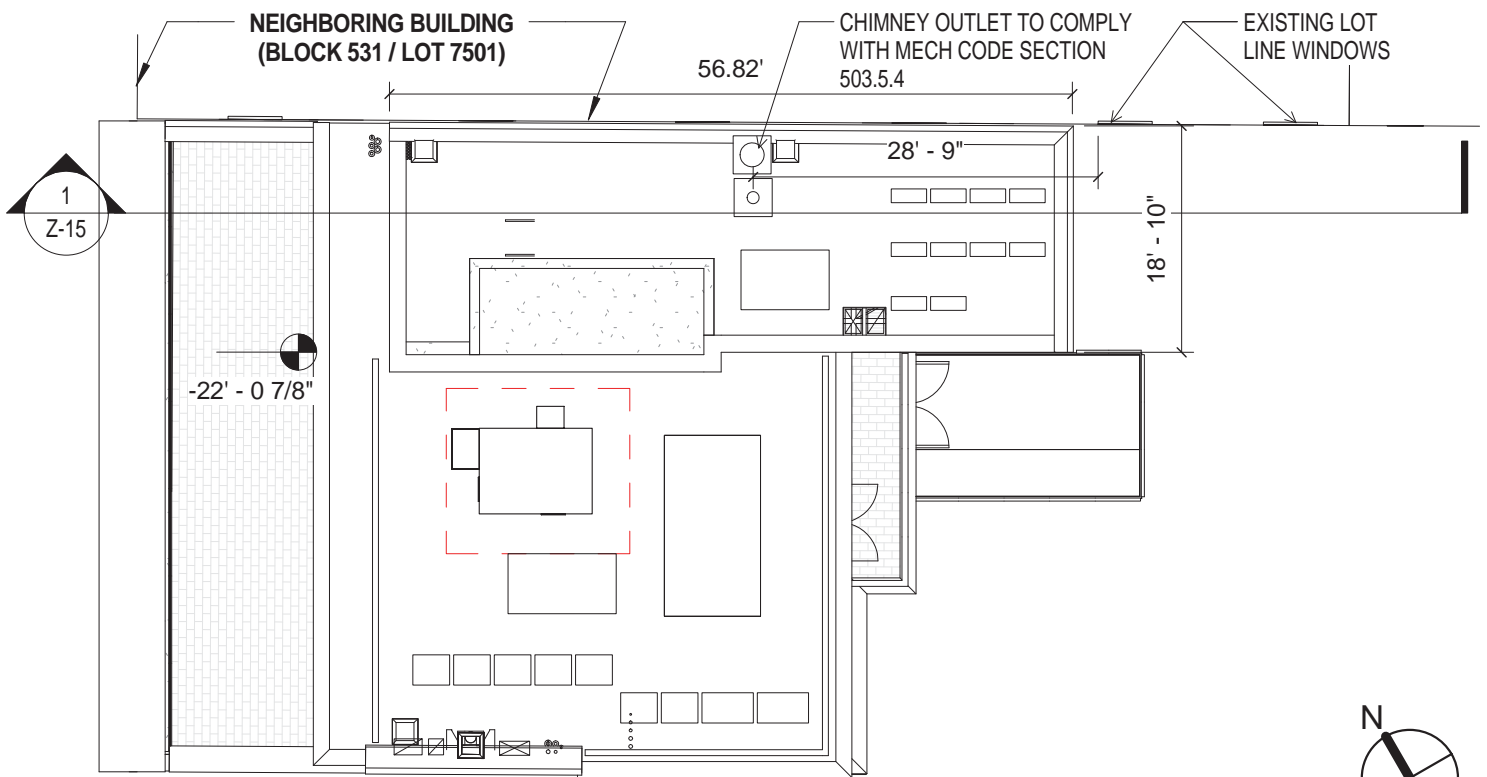
Sincerely,

Barbara Jill Walsh, PE





1 SECTION - BULKHEAD
 1/16" = 1'-0"



2 ROOF PLAN
 1/16" = 1'-0"

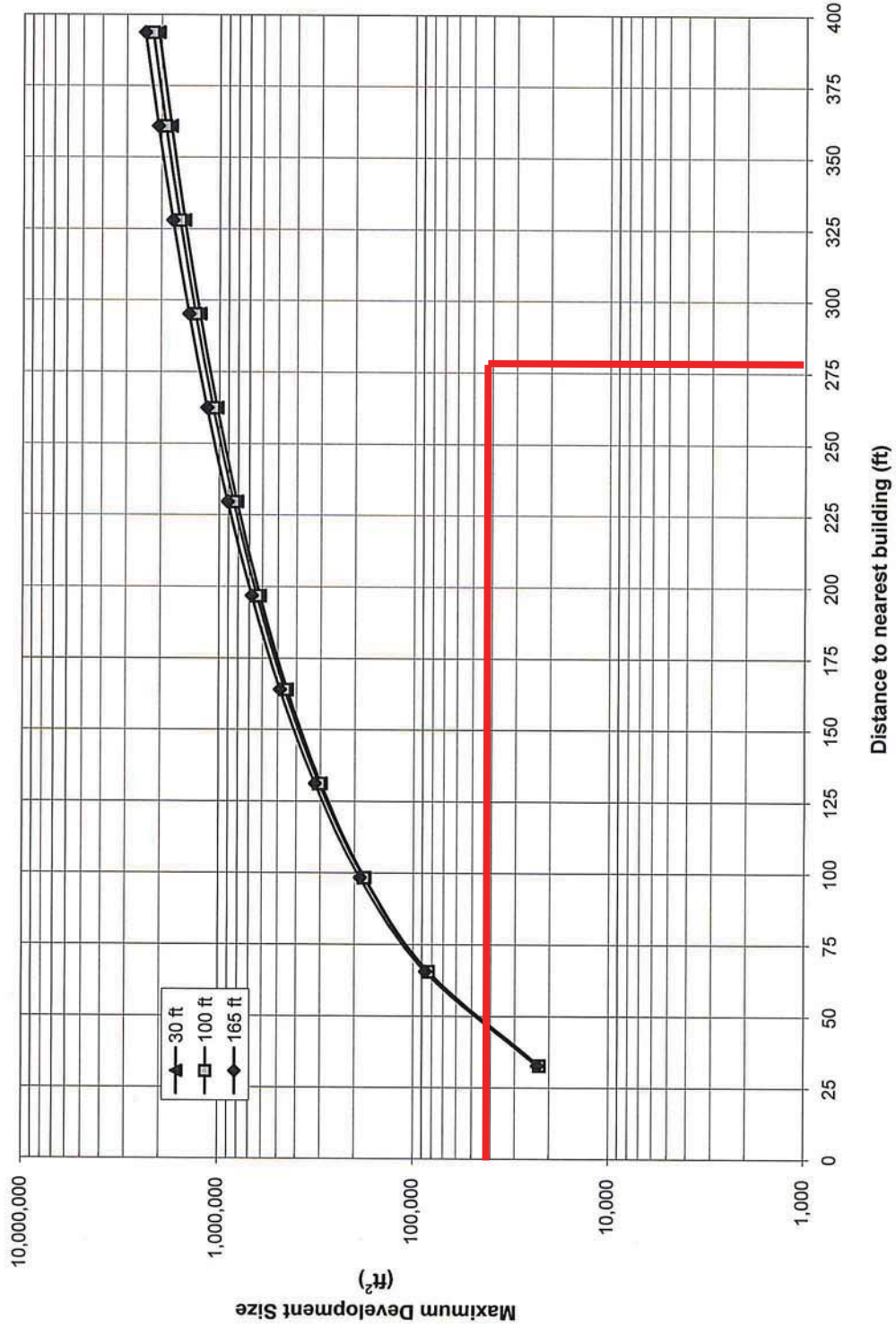
BOILER FLUE DIAGRAMS

Appendix G

CEQR Nomographs

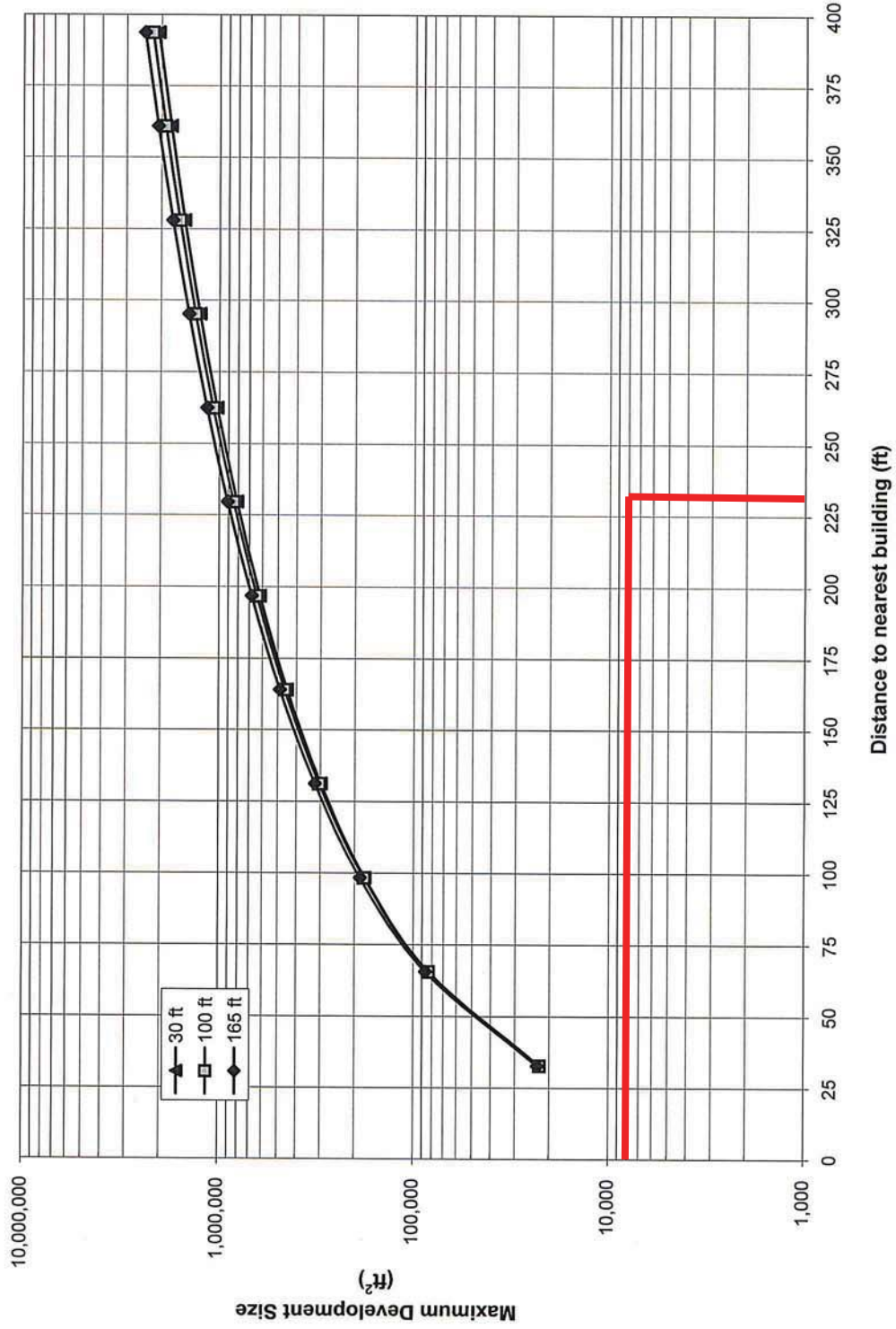
HVAC Screen for: 670 Broadway
Bldg sq ft.: 52,999 sq ft.
Stack Height: 75 ft.
Distance to Site: 279 ft.

FIG App 17-6
SO₂ BOILER SCREEN
COMMERCIAL AND OTHER NON-RESIDENTIAL DEVELOPMENT - FUEL OIL #2



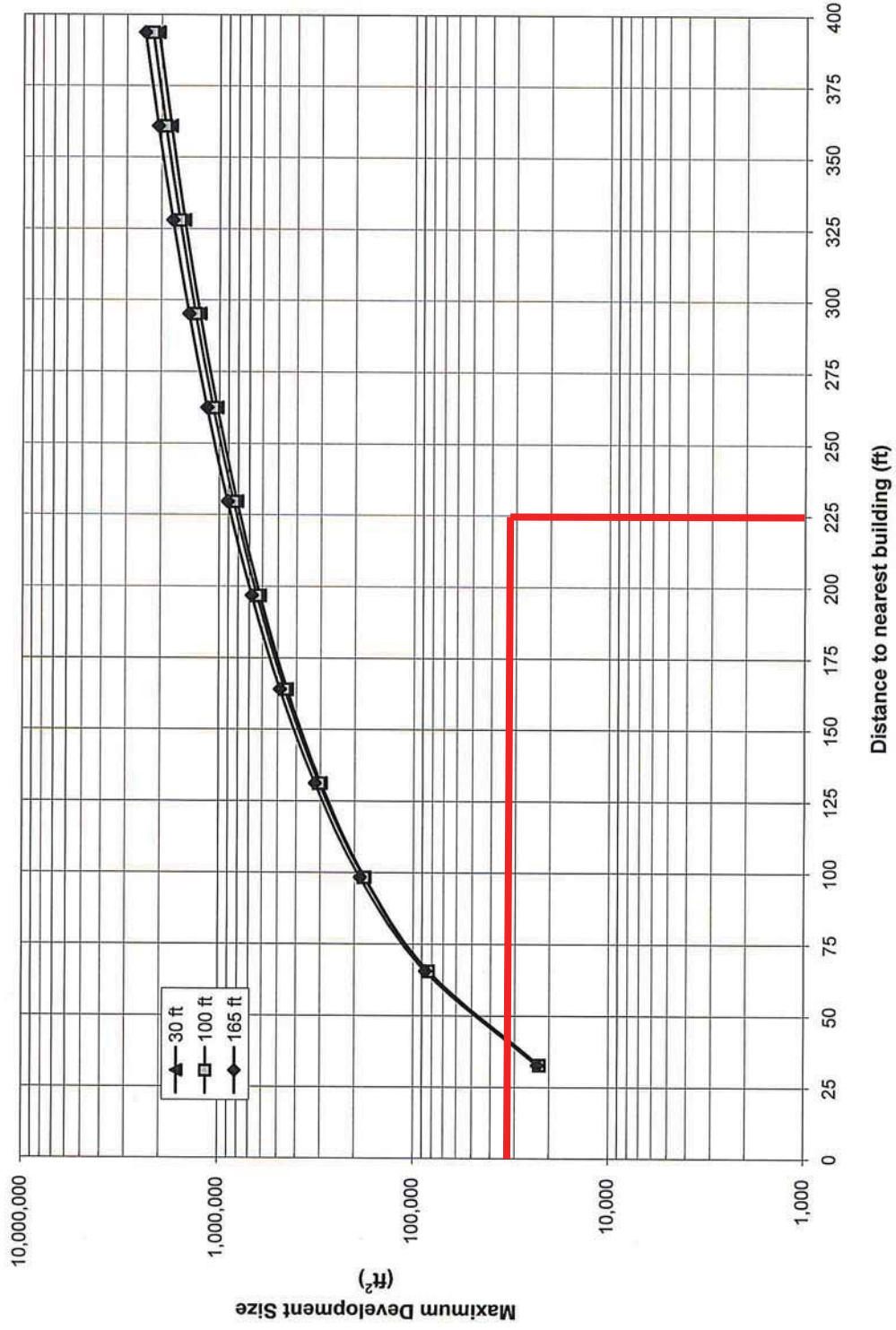
HVAC Screen for: 381 Lafayette
Bldg sq ft.: 9,180 sq ft.
Stack Height: 71 ft.
Distance to Site: 236 ft.

FIG App 17-6
SO₂ BOILER SCREEN
COMMERCIAL AND OTHER NON-RESIDENTIAL DEVELOPMENT - FUEL OIL #2



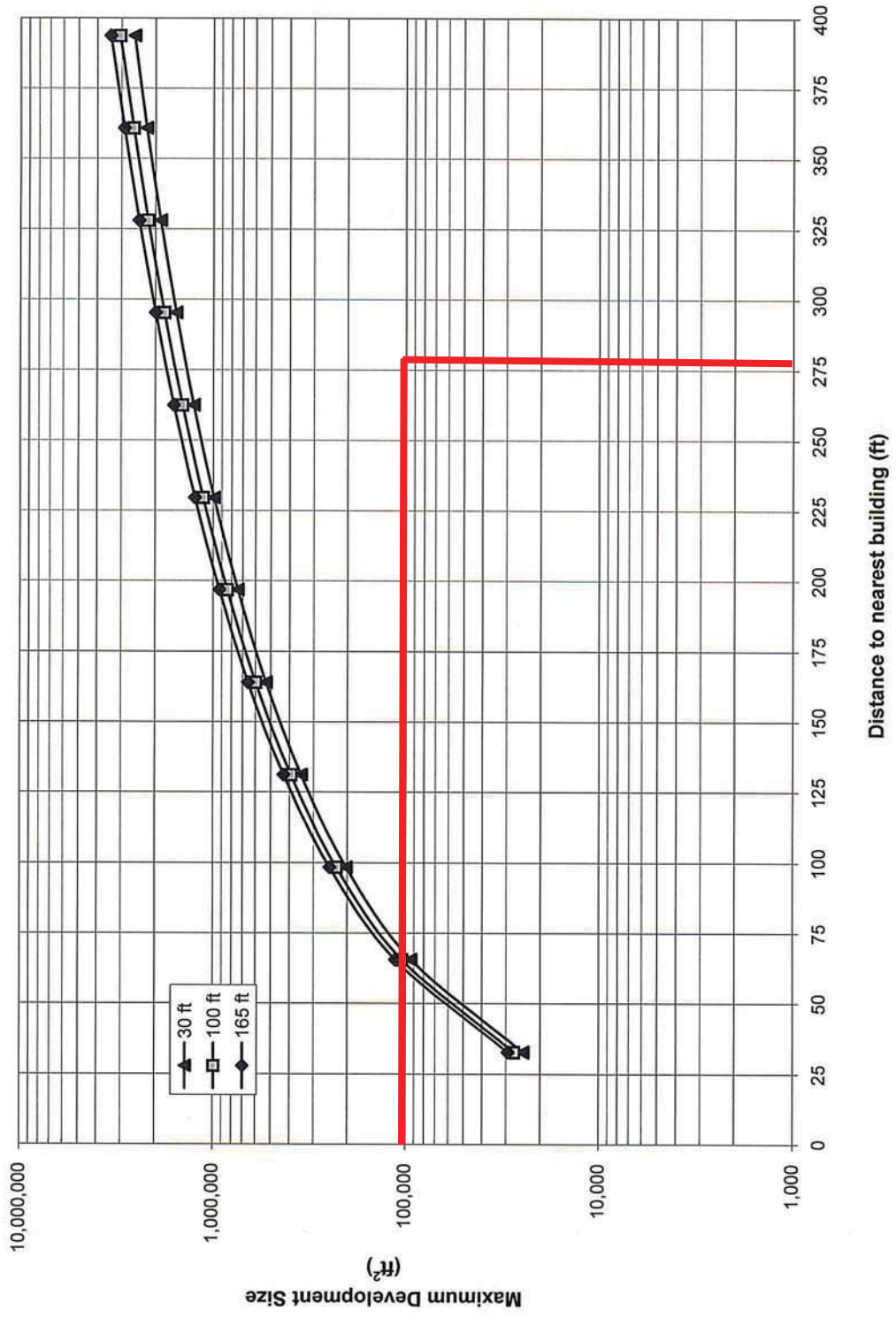
HVAC Screen for: 383 Lafayette
Bldg sq ft.: 37,980 sq ft.
Stack Height: 65 ft.
Distance to Site: 225 ft.

FIG App 17-6
SO₂ BOILER SCREEN
COMMERCIAL AND OTHER NON-RESIDENTIAL DEVELOPMENT - FUEL OIL #2



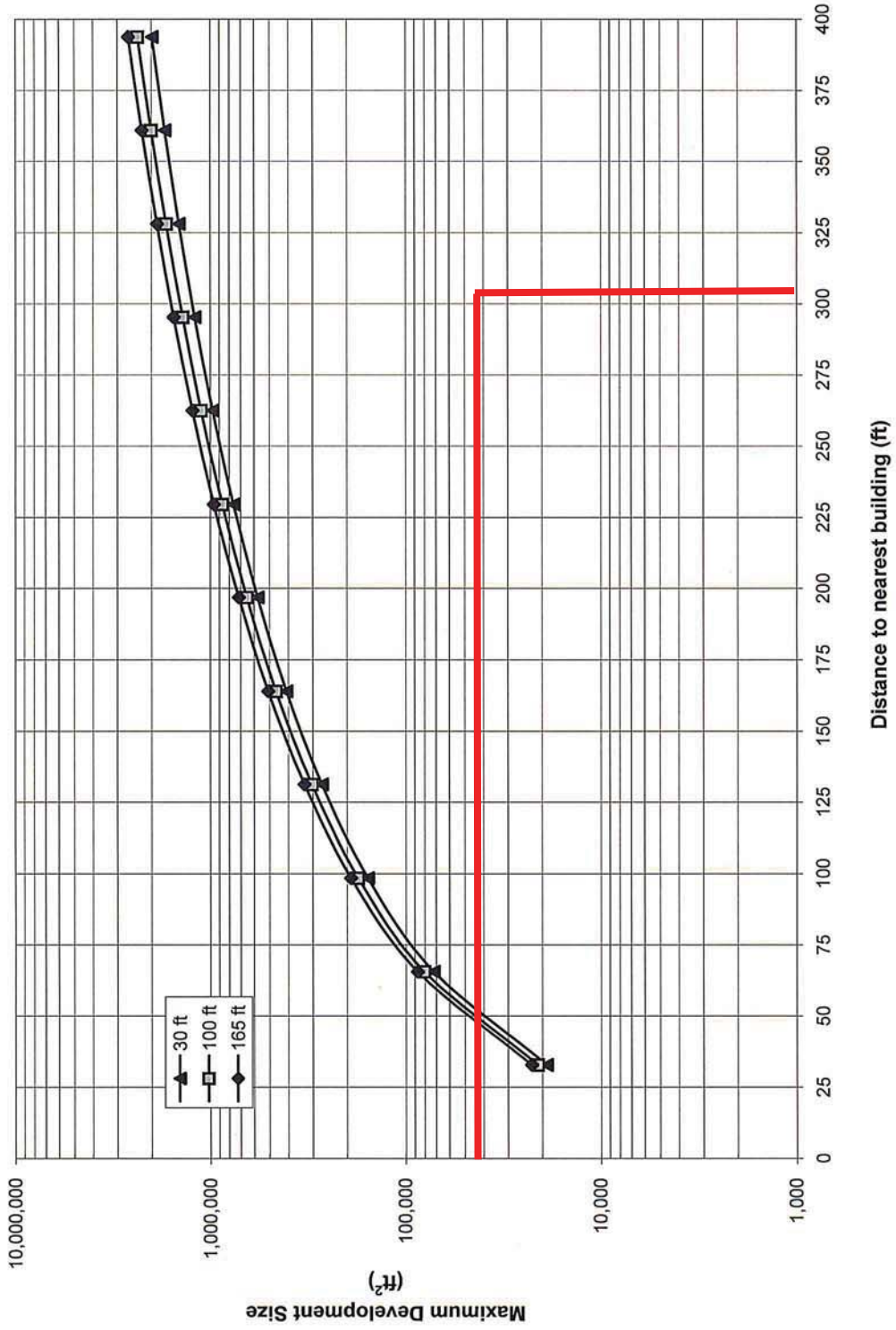
HVAC Screen for: 393 Lafayette
Bldg sq ft: 101,936 sq ft.
Stack Height: 70 ft.
Distance to Site: 279 ft.

FIG App 17-8
NO₂ BOILER SCREEN
COMMERCIAL AND OTHER NON-RESIDENTIAL DEVELOPMENT - NATURAL GAS



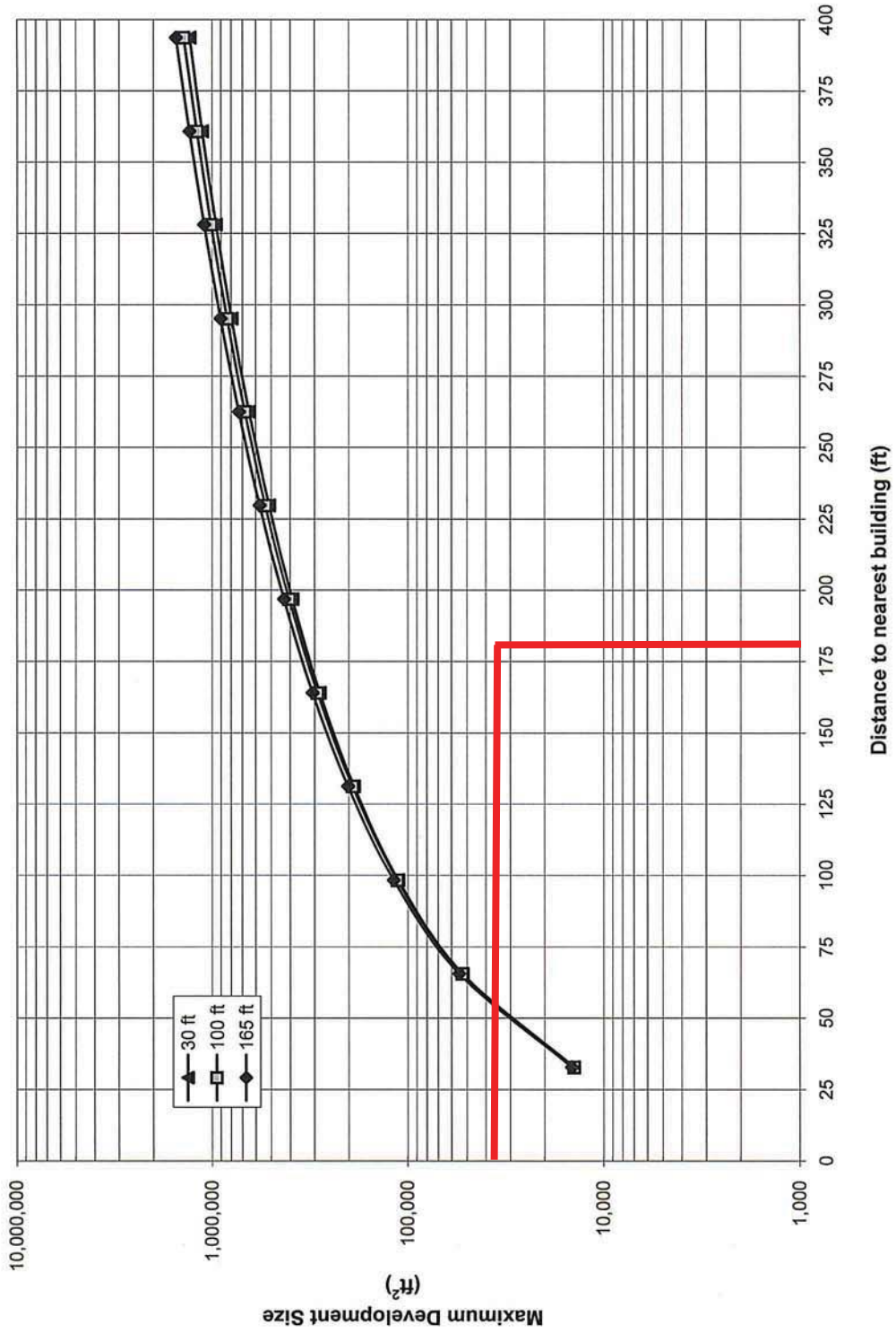
HVAC Screen for: 712 Broadway
Bldg Sq ft: 64,326.
Stack Height: 125 ft.
Distance to Site: 305 ft.

FIGURE 17-7
NO₂ BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS



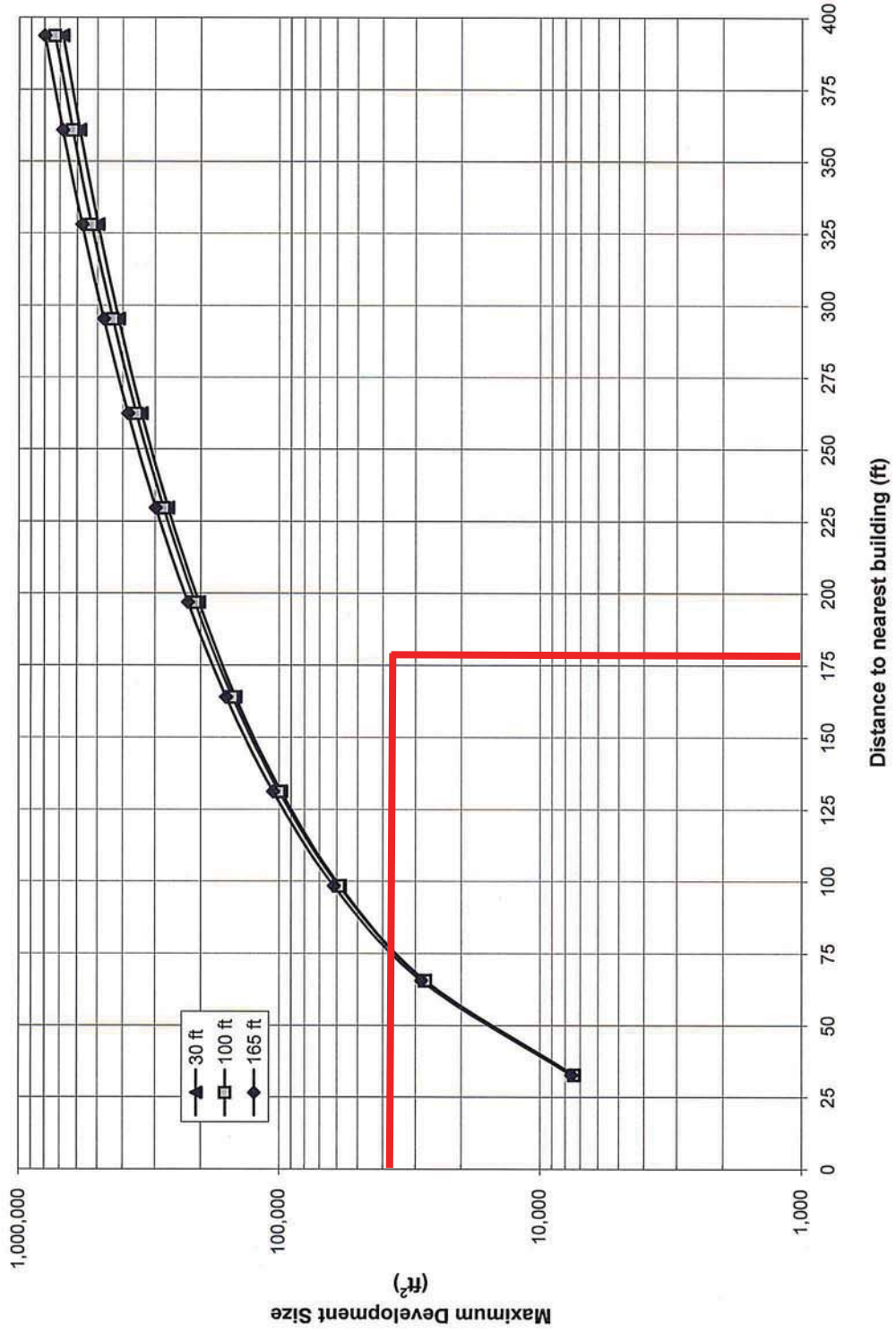
HVAC Screen for: 704 Broadway
Bldg sq ft: 50,132 sq ft.
Stack Height: 145 ft.
Distance to Site: 178 ft.

FIG App 17-4
SO₂ BOILER SCREEN
COMMERCIAL AND OTHER NON-RESIDENTIAL DEVELOPMENT - FUEL OIL #4



HVAC Screen for: 704 Broadway
Bldg sq ft: 50,132 sq ft.
Stack Height: 145 ft.
Distance to Site: 178 ft.

FIG App 17-3
SO₂ BOILER SCREEN
RESIDENTIAL DEVELOPMENT - FUEL OIL #4



Appendix H

Industrial Source Permits



Paul Carpenter Associates, Inc.

A Certified Women-Owned Business Enterprise

Website address: pcainoise.com

23 Vreeland Road
Suite 204
Florham Park, NJ 07932
(973) 822-8221

December 26, 2012

Ms. Kit Liang
New York City Department of Environmental Protection
59-17 Junction Boulevard, 13th Floor
Flushing, New York 11373

Re: 688 Broadway

Dear Ms. Ling:

As part of a Special Permit application for 688 Broadway in the NoHo neighborhood of Manhattan, we are requesting information pertaining to the following six (6) adjacent block/lots. This letter is a formal inquiry to determine whether these six (6) adjacent sites possess industrial/manufacturing permits on file at NYCDEP.

Address	Zip	Land Use	Owner	Block	Lot
676 Broadway	10012	Industrial	JORDAN REALTY LLC	530	4
678 Broadway	10012	Industrial	EM REAL ESTATE LLC	530	5
8 Bond Street	10012	Industrial	BEN LAFAYETTE LLC AS	530	64
4 Bond Street	10012	Industrial	GIURDANELLA, ROBERT J.	530	66
381 Lafayette Street	10003	Industrial	RAUSCHENBERG, ROBERT	531	19
392 Lafayette Street	10003	Industrial	SAND ASSOCIATES, L.P.	545	53

Feel free to respond to the project manager, Ms. Dayna Sherwood at Paul Carpenter Associates, Inc. (daynas@pcainoise.com).

Respectfully,

Sharon Paul Carpenter
President

Cc: file

Dayna Sherwood

From: Liang, Kit Y. <KLiang@dep.nyc.gov>
Sent: Wednesday, January 09, 2013 5:25 PM
To: 'Sharon Paul Carpenter'
Cc: daynas@pcairnoise.com; Narvaez, Angel; Radhakrishnan, Krish
Subject: RE: Industrial / Manufacturing AQ Permit Search
Attachments: 688 Broadway RWCDs Memo.pdf; RE: 688 Broadway - Air Quality Data Needs Request (27.3 KB); 688Broadway_NYCDEPRequestLetter12_26_12.pdf

Sharon/ Dayna,

We performed a search of our permitting database. Our records do not indicate any filing of industrial/manufacturing NYCDEP permits for the 6 adjacent sites at 688 Broadway in the NoHo neighborhood.

For future inquiries, please complete the online FOIL form:

http://www.nyc.gov/html/dep/html/contact_us/foil.shtml

Thanks,
Kit

From: Sharon Paul Carpenter [<mailto:sharonpc@pcairnoise.com>]
Sent: Thursday, December 27, 2012 10:39 AM
To: Liang, Kit Y.
Cc: daynas@pcairnoise.com
Subject: RE: Industrial / Manufacturing AQ Permit Search

Kit – Thanks for getting back to me. Attached is an email that provides the project description and a memo detailing the Reasonable Worst Case assumptions. Is this the necessary information needed to proceed with our request? Thanks.
Sharon Paul Carpenter

From: Liang, Kit Y. [<mailto:KLiang@dep.nyc.gov>]
Sent: Thursday, December 27, 2012 10:31 AM
To: 'Sharon Paul Carpenter'
Cc: daynas@pcairnoise.com
Subject: RE: Industrial / Manufacturing AQ Permit Search

Sharon

Thanks, I will review the request and respond back to you by next week. Please provide me with additional information on the Special Permit for 688 Broadway and let me know what the information will be used for.

Kit Liang, P.E. | [Director of Air Engineering](#) | NYC Environmental Protection
(o) (718) 595 5488 | kliang@dep.nyc.gov

From: Sharon Paul Carpenter [<mailto:sharonpc@pcairnoise.com>]
Sent: Wednesday, December 26, 2012 1:36 PM

Appendix I

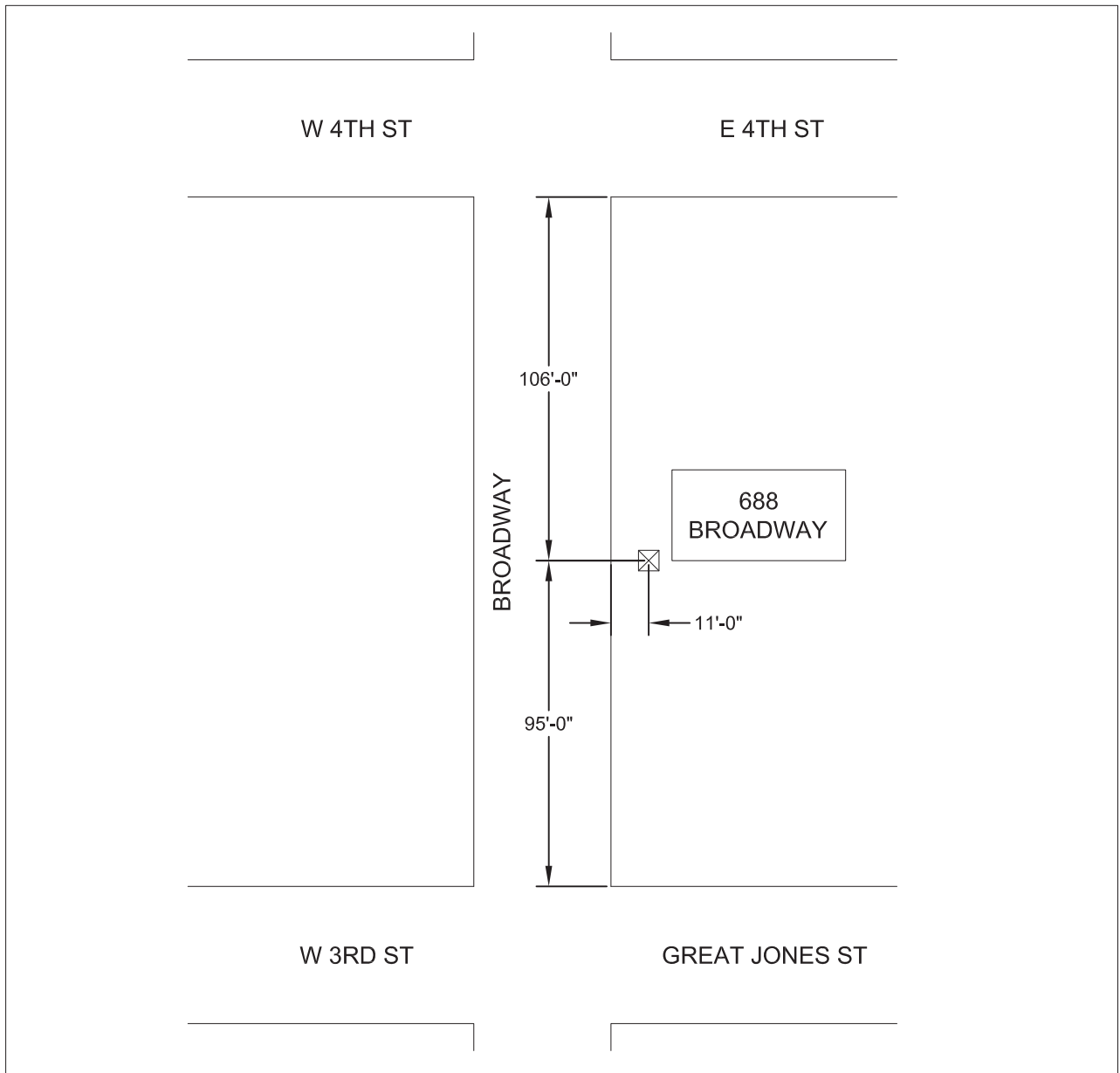
Noise Site Diagrams and Photo Log



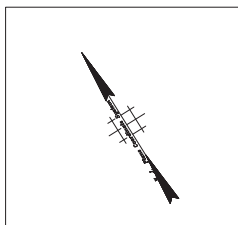
Paul Carpenter Associates, Inc.

Δ Certified Women-Owned Business

23 Vreeland Road, Suite 204
Florham Park, New Jersey 07932
Phone: (973) 822-8221
pcairnoise.com



☒ REPRESENTS EXACT NOISE MONITORING LOCATION



PROJECT NORTH

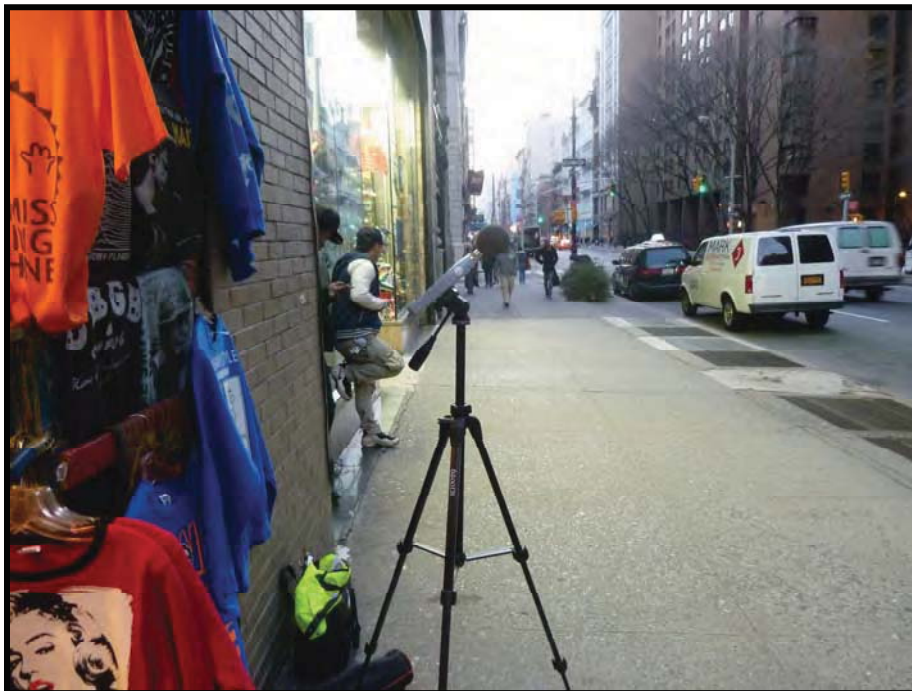
Figure 1
688 Broadway

SKETCH DRAWN BY: Garth Druckenmiller

**688 Broadway
Noise Monitoring Photos**



View # 1: (Facing North)



View # 2: (Facing South)

Appendix J

Technical Memorandum

AC Accommodation to the Silk Building

Technical Memorandum

To: New York City Department of City Planning, Environmental Review and Assessment Division

From: Sam Schwartz Engineering

Date: February 14, 2014

Re: 688 Broadway EAS, Potential Accommodation to Silk Building Clarification, 13DCP091M

Project No: 10-01-4270

In order to provide an accommodation to the adjacent Silk Building (14 East 4th Street), Downtown RE Holdings, LLC (the "Applicant") has agreed to make accommodations and assist in the payment for the Silk Building's south facing in-wall air conditioning (AC) units with a split system AC unit configuration. To allow for this proposal, shallow setbacks would be provided along the north sidewall of the Applicant's proposed building at 688 Broadway. This setback would provide space for the Silk Building to run piping between roof top condensers and in-unit air handlers so that the Silk Building's affected units could continue to benefit from AC. The Applicant has offered up to \$250,000 for the expense of this construction and for the provision of new HVAC equipment.

Specifically, the Proposed Action with proposed accommodation would not result in any significant impacts not identified within the EAS with respect to the following impact areas and do not require further explanation or any analysis in the Technical Memorandum: land use, open space, shadows, hazardous materials, transportation, noise, neighborhood quality or construction. Due to the nature of the proposed accommodation by the Applicant, there are no potential modifications needed to the analysis aside from air quality and historic resources. This Technical Memorandum addresses the following impact analysis areas due to the proposed accommodation: historic resources (for potential future Landmarks Preservation Commission approvals associated with rooftop condensers on the Silk Building) and air quality (effect of the Silk Building's potential AC system on 688 Broadway). The analysis concludes that the Proposed Action with the proposed accommodation would not result in a change from what was already identified in the EAS.

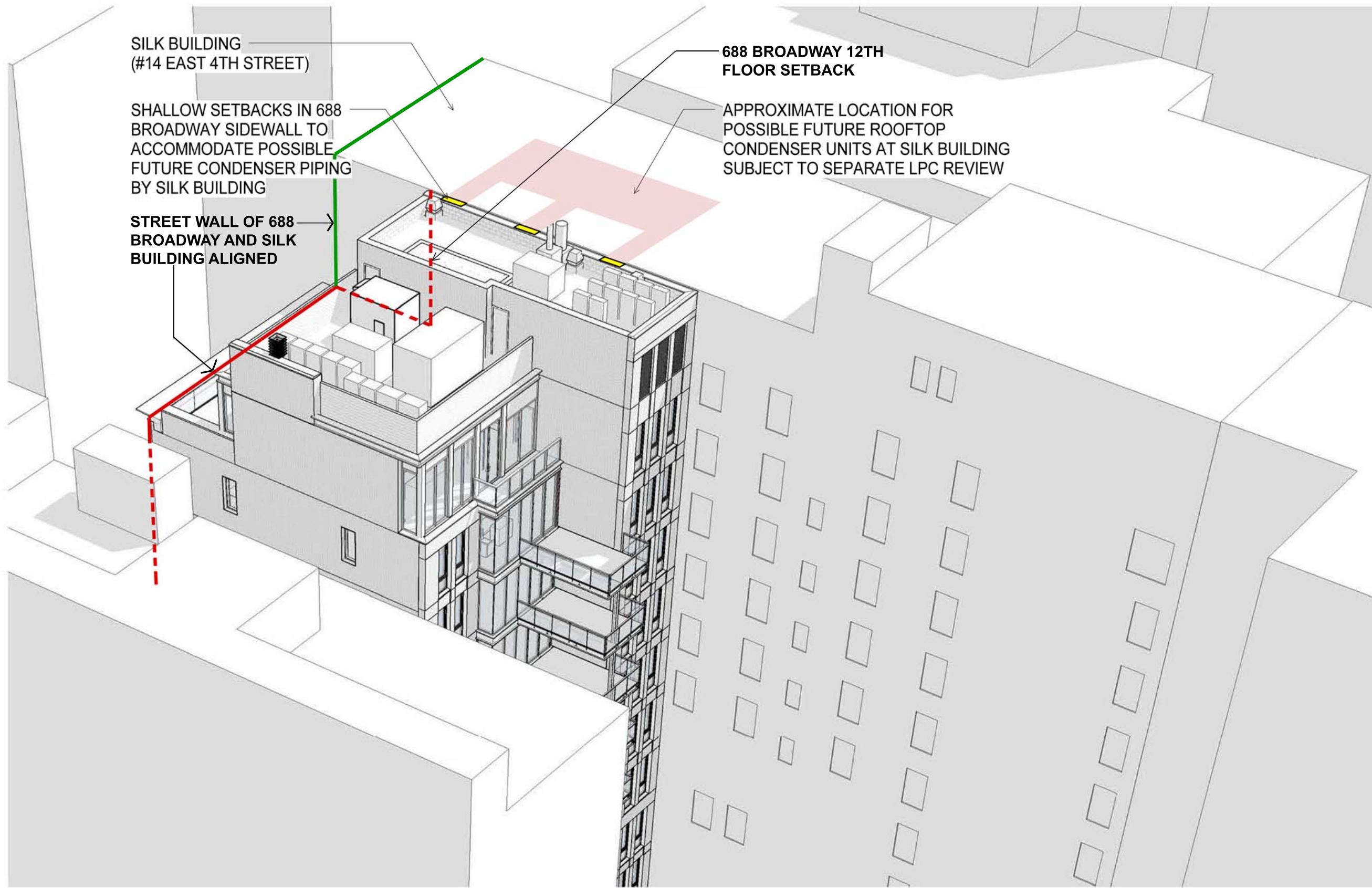
As shown in the attached drawing, this accommodation would in no way affect the proposed building at 688 Broadway. The AC equipment would not touch or be located on or within the building at 688 Broadway. A seismic separation is required between 688 Broadway and the Silk Building (*per New York City Department of Building's Building Code Section 1617.3.2. Structural separations ... All structures shall be separated from adjacent structures. When a structure adjoins a property line not common to a public way ... that structure shall also be set back from the property line by at least 1 inch (25 mm) for each 50 feet (15 240) of height.*) Shallow setbacks would be provided along the north facing side wall of the 688 Broadway building to accommodate the possible condenser piping for the Silk Building; these setbacks would not be visible from street level.

This proposed system would be independent of the HVAC and boiler system for the 688 Building; the Silk Building's potential AC vent system would be an electrically driven unit and would not generate

emissions. Therefore, the proposed accommodation would not change or impact the HVAC and Hot Water Boiler Emissions Screening presented in the stationary source air quality analysis.

In addition, the potential rooftop condensers installed on the roof of the Silk Building would not likely be visible by the Landmarks Preservation Commission (LPC) standards (see attached drawing). However, the mechanical equipment on the Silk Building's roof would be subject to LPC review. Should the proposed modification of the AC system to the Silk Building move forward, the Applicant anticipates consulting with LPC regarding approval requirements. The proposed accommodation would not change or impact the historic and cultural resources assessment presented in the EAS as the AC system to the Silk Building would not affect 688 Broadway's Certificate of Appropriateness or Construction Protection Plan. The proposed accommodation would only result in setting back the slab edge and sidewall at a few points at 688 Broadway, which the Applicant has stated will not require LPC review.

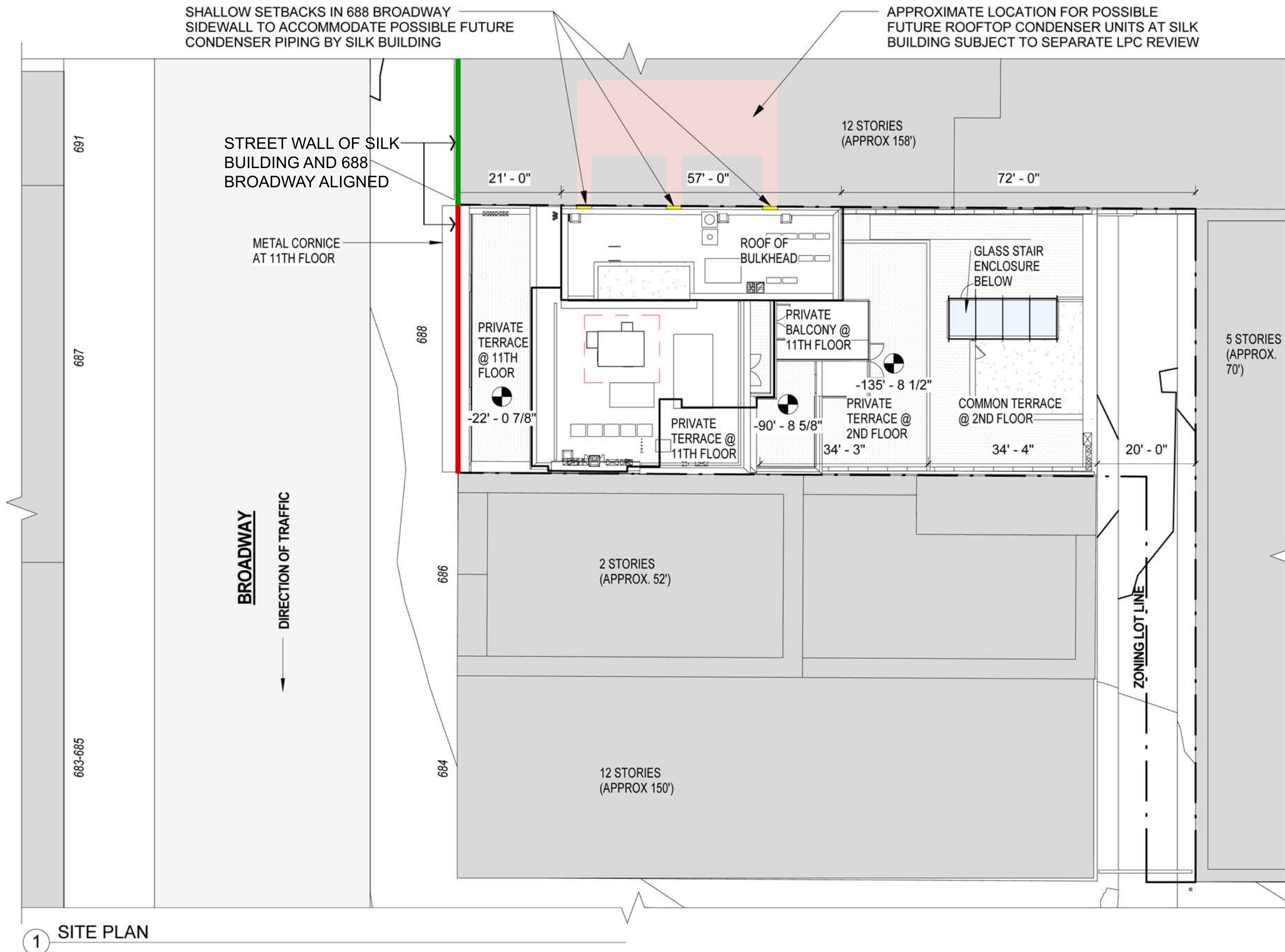
In conclusion, the proposed accommodation is an independent AC system that could be installed at the Silk Building and would not affect the building at 688 Broadway. Therefore, this proposed accommodation would not change any of the analyses or E-designation presented in the 688 Broadway Environmental Assessment Statement, including the air quality or historic and cultural resources sections.



SILK BUILDING - POSSIBLE ROOFTOP EQUIPMENT LOCATION

688 BROADWAY
NEW YORK, NEW YORK, 10012

Project No.: 1034
02/10/14



1 SITE PLAN

SILK BUILDING - POSSIBLE ROOFTOP EQUIPMENT LOCATION

688 BROADWAY
 NEW YORK, NEW YORK, 10012

Project No.: 1034
 02/10/14