# 135-01 35th Avenue Rezoning

# Revised Environmental Assessment Statement<sup>1</sup>

July 21, 2017

CEQR Number: 17DCP143Q

<sup>1</sup> This revised EAS supersedes the original EAS, dated May 5, 2017, that was prepared for the original ULURP application certified on May 8 2017, which sought a rezoning from M1-1 to R7A/C2-3. Since Certification of the proposal on May 8, 2017, the Applicant has submitted an (A) Application (ULURP # C 170180A ZMQ) for a rezoning to R7A, with no commercial overlay. This revised EAS is reflective of the proposed revision, as reflected in Appendix 2 to the EAS.



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

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

Part I: GENERAL INFORMATION
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1. Does the Action Exceed Any 1977, as amended)?	<b>Type I Threshold</b> YES	in 6 NYCRR Pa NO	rt 617.4 or 43 RCNY §6-15	(A) (Executive	Order 91 of	
If "yes," STOP and complete the	FULL EAS FORM					
2. Project Name 135-01 35 <sup>th</sup> Av	venue Rezoning					
3. Reference Numbers						
CEQR REFERENCE NUMBER (to be assig 17DCP143Q		BSA REFERENCE NUMBER (if	applicable)			
ULURP REFERENCE NUMBER (if applica		OTHER REFERENCE NUMBER(S) (if applicable)				
170180ZMQ, N170181ZRQ		(e.g., legislative intro, CAPA)				
4a. Lead Agency Information		4b. Applicant Information				
NAME OF LEAD AGENCY			NAME OF APPLICANT			
NYC City Planning Commission			Stenmax Realty Inc.			
NAME OF LEAD AGENCY CONTACT PERS	SON		NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON			
Robert Dobruskin, Director, EAR	D		Hiram Rothkrug, EPDSCO			
ADDRESS 120 Broadway, 31st floo	or		ADDRESS 55 Water Mill Road			
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021	
TELEPHONE 212-720-3423	EMAIL		TELEPHONE 718-343-	EMAIL		
rdobrus@planning.nyc.gov 0026 hrothkrug@epdsco.co						
E Drojact Description	•		•	•		

#### 5. Project Description

The Applicant, Stenmax Realty Inc., seeks a zoning map amendment to create a new R7A/C2-3 district on Block 4950, Lots 1, 7 (p/o), and 103, within the Flushing neighborhood of Queens CD 7, now zoned M1-1, and a zoning text amendment to designate the rezoning area an MIH area in which Option 2 is required. The proposed action would facilitate the redevelopment of Lot 1 with an eight-story mixed-use building (UG 6 commercial/UG 2 residential) with 111,312 gsf of floor area (19,329 commercial (12,609 retail and 6,720 office) and 91,983 residential) and 76 dwelling units (22 (30%) income-restricted and 54 (70%) market rate, in accordance with MIH Option 2). An estimated 15 (20%) of the units would be affordable to low- and moderate-income households.

**Note**: The original 135-01 35th Avenue Rezoning EAS, dated May 5, 2017, and prepared in connection with the original ULURP application certified on May 8, 2017, described and analyzed a proposal to rezone a 37,500 square foot area on Block 4950 in Flushing, Queens, from M1-1 to R7A/C2-3 and to designate it as a Mandatory Inclusionary Housing (MIH) area. The proposed actions would have facilitated the redevelopment of the project site, now occupied by a one-story commercial building, with a mixed-use building containing residential apartments, retail space, and office space (described in the preceding paragraph). It was also projected that an adjacent lot, now occupied by a one-story warehouse, would be redeveloped with a similar mixed-use building.

The Applicant has since submitted an (A) Application (ULURP # C 170180A ZMQ), changing the rezoning proposal to one from M1-1 to R7A, with no commercial overlay. This proposal is addressed in this revised EAS, dated July 21, 2017.

The May 5, 2017, EAS (the form, graphics, a supplemental report, and an appendix) appear here, beginning with this page. These documents have not been revised, except for the addition of tis note and a similar explanatory note on the first page of the supplemental report.

A new Appendix 2 follows these documents. It describes the actions proposed in the (A) Application and the developments (two residential apartment buildings) expected to result from those actions and analyzes the environmental implications of the revised actions. Appendix 2 addresses all of the technical areas analyzed in the original EAS and determines whether the conclusions reached in that EAS remain valid for the current proposed actions.

Project Location		
BOROUGH Queens	COMMUNITY DISTRICT(S) 7	STREET ADDRESS 135-01 and 135-19 35 <sup>th</sup> Avenue and 33- 65 Farrington Street
TAX BLOCK(S) AND LOT(S) Block 495	0. Lots 1. 7. and 103	ZIP CODE 11354
		f 35 <sup>th</sup> Ave. from Farrington St. to Linden Pl.
EXISTING ZONING DISTRICT, INCLUDING		
6. Required Actions or Approva		SN, IT ANT MILL ZONING SECTONAL MAP NOWBER 100
City Planning Commission:		UNIFORM LAND USE REVIEW PROCEDURE (ULURP)
		UNIFORM LAND USE REVIEW PROCEDURE (ULURP)
SITE SELECTION—PUBLIC FACILITY		ERTY FRANCHISE
	OTHER, explain:	
SPECIAL PERMIT (if appropriate, sp		wal; other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZO		
Board of Standards and Appeals	s: 🗌 yes 🛛 NO	
VARIANCE (use)		
VARIANCE (bulk)		
SPECIAL PERMIT (if appropriate, sp	pecify type: 🔄 modification; 📃 rene	wal; other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZO		
Department of Environmental P		If "yes," specify:
Other City Approvals Subject to	CEQR (check all that apply)	
LEGISLATION		FUNDING OF CONSTRUCTION, specify:
RULEMAKING		POLICY OR PLAN, specify:
CONSTRUCTION OF PUBLIC FACILI	TIES	FUNDING OF PROGRAMS, specify:
384(b)(4) APPROVAL		PERMITS, specify:
OTHER, explain:		
Other City Approvals Not Subject	ct to CEQR (check all that apply)	
PERMITS FROM DOT'S OFFICE OF O		LANDMARKS PRESERVATION COMMISSION APPROVAL
COORDINATION (OCMC)		OTHER, explain: building permit from DOB
State or Federal Actions/Approv	<b>vals/Funding:</b> YES	NO If "yes," specify:
7. Site Description: The directly afj	fected area consists of the project site a	nd the area subject to any change in regulatory controls. Except
where otherwise indicated, provide the	following information with regard to the	e directly affected area.
Graphics: The following graphics mu	st be attached and each box must be ch	ecked off before the EAS is complete. Each map must clearly depict
		dius drawn from the outer boundaries of the project site. Maps may
not exceed 11 x 17 inches in size and, fo		
SITE LOCATION MAP	ZONING MAP	SANBORN OR OTHER LAND USE MAP
Χ ΤΑΧ ΜΑΡ	FOR LARGE AREAS OR MUL	TIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
PHOTOGRAPHS OF THE PROJECT S	ITE TAKEN WITHIN 6 MONTHS OF EAS S	UBMISSION AND KEYED TO THE SITE LOCATION MAP
Physical Setting (both developed ar	nd undeveloped areas)	
Total directly affected area (sq. ft.): 37	,500	Waterbody area (sq. ft) and type: $0$
Roads, buildings, and other paved surfa	ces (sq. ft.): 0	Other, describe (sq. ft.):
8. Physical Dimensions and Scal	e of Project (if the project affects mu	Itiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gr	oss square feet): 133,712	
NUMBER OF BUILDINGS: 2	GROSS	5 FLOOR AREA OF EACH BUILDING (sq. ft.): 111,312/22,400
HEIGHT OF EACH BUILDING (ft.): 95	NUMB	BER OF STORIES OF EACH BUILDING: 8
Does the proposed project involve char	nges in zoning on one or more sites? 🔀	YES NO
If "yes," specify: The total square feet of	wned or controlled by the applicant: $1$	5,750
	not owned or controlled by the applican	
· · · · · · · · · · · · · · · · · · ·		nce, including, but not limited to foundation work, pilings, utility
lines, or grading? XES	NO	

If "yes," indicate the estimation of the estimat	ated area and volume dimens	sions of subsurface permaner	nt and temporary disturbance	e (if known):
AREA OF TEMPORARY DIST	URBANCE: <b>19,750</b> sq. ft. (v	vidth x length) VOLUM	e of disturbance: 372,7	50 cubic ft. (width x length x
		depth)		
AREA OF PERMANENT DIST	URBANCE: <b>19,750</b> sq. ft. (v	width x length)		
Description of Propos	ed Uses (please complete t	he following information as a	ppropriate)	
	Residential	Commercial	Community Facility	Industrial/Manufacturing
<b>Size</b> (in gross sq. ft.)	112,383	25,329	0	0
<b>Type</b> (e.g., retail, office,	91 units	retail (18,606) and		
school)		office (6,720)		
Does the proposed project	increase the population of re	esidents and/or on-site worke	ers? 🛛 YES 🗌 N	0
If "yes," please specify:	NUMBER	R OF ADDITIONAL RESIDENTS:	265 NUMBER OF	ADDITIONAL WORKERS: 88
Provide a brief explanation	of how these numbers were	determined: Residents: 2	.91 persons per househ	old (average household size
in census tract 869). V	/orkers: 3 per 1,000 sf c	of retail space (56), 4 per	r 1,000 sf of office space	e (28), plus one building
worker per 22 dwellin	g units (4).			
Does the proposed project	create new open space?	YES 🛛 NO If "	yes," specify size of project-	created open space: sq. ft.
Has a No-Action scenario b	een defined for this project t	hat differs from the existing of	condition? 🗌 YES	NO NO
If "yes," see <u>Chapter 2</u> , "Est	tablishing the Analysis Frame	work" and describe briefly:		
9. Analysis Year CEQR	Technical Manual Chapter 2			
ANTICIPATED BUILD YEAR (	date the project would be co	ompleted and operational): 2	2020	
ANTICIPATED PERIOD OF C	ONSTRUCTION IN MONTHS:	12		
WOULD THE PROJECT BE IN	IPLEMENTED IN A SINGLE PH	IASE? 🛛 YES 🗌 NC	) IF MULTIPLE PHASE	S, HOW MANY?
BRIEFLY DESCRIBE PHASES	AND CONSTRUCTION SCHED	ULE:		
10. Predominant Land	l Use in the Vicinity of t	<b>he Project</b> (check all that a	pply)	
RESIDENTIAL	MANUFACTURING 🛛 🖂	COMMERCIAL	PARK/FOREST/OPEN SPACE	OTHER, specify:

#### Part II: TECHNICAL ANALYSIS

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

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

	YES	NO
1. LAND USE, ZONING, AND PUBLIC POLICY: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	$\square$	
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	$\square$	
(c) Is there the potential to affect an applicable public policy?	$\square$	
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See the attached.		
(e) Is the project a large, publicly sponsored project?		$\boxtimes$
<ul> <li>If "yes," complete a PlaNYC assessment and attach.</li> </ul>		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?		$\boxtimes$
o If "yes," complete the <u>Consistency Assessment Form</u> .		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
<ul> <li>Generate a net increase of 200 or more residential units?</li> </ul>		$\boxtimes$
<ul> <li>Generate a net increase of 200,000 or more square feet of commercial space?</li> </ul>		$\square$
<ul> <li>Directly displace more than 500 residents?</li> </ul>		$\square$
<ul> <li>Directly displace more than 100 employees?</li> </ul>		$\overline{\boxtimes}$
<ul> <li>Affect conditions in a specific industry?</li> </ul>		$\square$
3. COMMUNITY FACILITIES: CEQR Technical Manual Chapter 6	<u> </u>	
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational		$\square$
facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?		
(b) Indirect Effects		
<ul> <li>Child Care Centers: Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in <u>Chapter 6</u>)</li> </ul>		$\square$
• Libraries: Would the project result in a 5 percent or more increase in the ratio of residential units to library branches?		$\square$
(See Table 6-1 in <u>Chapter 6</u> )		
<ul> <li>Public Schools: Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in <u>Chapter 6</u>)</li> </ul>		$\square$
o Health Care Facilities and Fire/Police Protection: Would the project result in the introduction of a sizeable new		$\square$
neighborhood? <b>4. OPEN SPACE</b> : <u>CEQR Technical Manual Chapter 7</u>		
(a) Would the proposed project change or eliminate existing open space?		
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?		
<ul> <li>If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?</li> </ul>		
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	<u>       </u>	
<ul> <li>If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?</li> </ul>	$ \square $	
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	$\square$	

	YES	NO
5. SHADOWS: <u>CEQR Technical Manual Chapter 8</u>		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	$\square$	
(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?		$\square$
6. HISTORIC AND CULTURAL RESOURCES: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the <u>GIS System for</u> <u>Archaeology and National Register</u> to confirm)		
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	$\square$	
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting informat		
whether the proposed project would potentially affect any architectural or archeological resources. See the attached rep	ort.	
7. URBAN DESIGN AND VISUAL RESOURCES: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?		
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by		$\square$
existing zoning? 8. NATURAL RESOURCES: <u>CEQR Technical Manual Chapter 11</u>		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of		
Chapter 11?		
<ul> <li>If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these re</li> </ul>	sources.	
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?		$\square$
<ul> <li>If "yes," complete the <u>Jamaica Bay Watershed Form</u>, and submit according to its <u>instructions</u>.</li> </ul>		
9. HAZARDOUS MATERIALS: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	$\square$	
(b) Does the proposed project site have existing institutional controls ( <i>e.g.</i> , (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?		$\square$
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in <u>Appendix 1</u> (including nonconforming uses)?	$\square$	
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	$\square$	
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks	$\square$	
<ul> <li>(e.g., gas stations, oil storage facilities, heating oil storage)?</li> <li>(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality;</li> </ul>		
vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint? (g) Would the project result in development on or near a site with potential hazardous materials issues such as government-		
listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?		$\square$
(h) Has a Phase I Environmental Site Assessment been performed for the site?	$\square$	
<ul> <li>If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: past onsite auto repair,</li> </ul>		
possible onsite buried petroleum storage tanks that may not have been properly closed, possible	$\square$	
groundwater contamination from offsite uses	L	
10. WATER AND SEWER INFRASTRUCTURE: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?		$\square$
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?		$\square$
<ul> <li>(c) If the proposed project located in a <u>separately sewered area</u>, would it result in the same or greater development than the amounts listed in Table 13-1 in <u>Chapter 13</u>?</li> </ul>		
<ul><li>(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?</li></ul>		$\square$
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney		

	YES	NO
Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it		
involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		$\square$
<ul><li>(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?</li><li>(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater</li></ul>		$\boxtimes$
Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system? (h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?		
11. SOLID WASTE AND SANITATION SERVICES: CEQR Technical Manual Chapter 14		
	-1.). 0.4	07
<ul> <li>(a) Using Table 14-1 in <u>Chapter 14</u>, the project's projected operational solid waste generation is estimated to be (pounds per week)</li> <li>O Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?</li> </ul>	зк): 8,40	
(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?		$\square$
12. ENERGY: CEQR Technical Manual Chapter 15		
<ul> <li>(a) Using energy modeling or Table 15-1 in <u>Chapter 15</u>, the project's projected energy use is estimated to be (annual BTUs): 19,717,589,000</li> </ul>		
(b) Would the proposed project affect the transmission or generation of energy?		$\square$
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in <u>Chapter 16</u> ?		$\square$
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following q	uestions	:
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?		
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? **It should be noted that the lead agency may require further analysis of intersections of concern even when a project		
generates fewer than 50 vehicles in the peak hour. See Subsection 313 of <u>Chapter 16</u> for more information.		
<ul> <li>Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?</li> <li>If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one</li> </ul>		
direction) or 200 subway trips per station or line?		
<ul> <li>Would the proposed project result in more than 200 pedestrian trips per project peak hour?</li> </ul>		
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?		
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) Mobile Sources: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?		$\square$
(b) Stationary Sources: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?		
<ul> <li>If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <u>Chapter 17</u>? (Attach graph as needed)</li> </ul>		$\square$
(c) Does the proposed project involve multiple buildings on the project site?		$\boxtimes$
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?		$\square$
(e) Does the proposed project site have existing institutional controls ( <i>e.g.</i> , (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?		
15. GREENHOUSE GAS EMISSIONS: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?		$\boxtimes$
(b) Would the proposed project fundamentally change the City's solid waste management system?		$\square$
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?		
16. NOISE: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	$\square$	
(b) Would the proposed project introduce new or additional receptors (see Section 124 in <u>Chapter 19</u> ) 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?		$\square$
(d) Does the proposed project site have existing institutional controls ( <i>e.g.</i> , (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?		$\square$

	YES	NO
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?		$\square$
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public He	alth." Atta	ch a
preliminary analysis, if necessary.		
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?		$\square$
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <u>Chapter 21</u>	. "Neighbor	hood
Character." Attach a preliminary analysis, if necessary.	,	
19. CONSTRUCTION: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
<ul> <li>Construction activities lasting longer than two years?</li> </ul>		$\square$
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?		$\square$
<ul> <li>Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?</li> </ul>		$\square$
<ul> <li>Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the fir build-out?</li> </ul>	al 🗌	$\square$
<ul> <li>The operation of several pieces of diesel equipment in a single location at peak construction?</li> </ul>		$\square$
<ul> <li>Closure of a community facility or disruption in its services?</li> </ul>		$\square$
<ul> <li>Activities within 400 feet of a historic or cultural resource?</li> </ul>		$\square$
<ul> <li>Disturbance of a site containing or adjacent to a site containing natural resources?</li> </ul>		$\square$
<ul> <li>Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?</li> </ul>		$\square$
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guid		
<u>22</u> , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technolog equipment or Best Management Practices for construction activities should be considered when making this determination		lction
20. APPLICANT'S CERTIFICATION		
I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environme	ntal Assess	ment
Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge ar		
with the information described herein and after examination of the pertinent books and records and/or after inquiry	of person	s who
have personal knowledge of such information or who have examined pertinent books and records.		
Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.	of the ent	tity
APPLICANT/REPRESENTATIVE NAME DATE		
Brian Kintish May 5, 2017		
SIGNATURE Brian Kintish		
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.

<ol> <li>For each of the impact categories listed below, consider adverse effect on the environment, taking into account in duration; (d) irreversibility; (e) geographic scope; and (f)</li> </ol>	ts (a) location; (b) probability of occurring; (c)	Signi	ntially ificant e Impac
IMPACT CATEGORY		YES	NO
Land Use, Zoning, and Public Policy			
Socioeconomic Conditions			
Community Facilities and Services			
Open Space			
Shadows			
Historic and Cultural Resources			
Urban Design/Visual Resources			
Natural Resources			
Hazardous Materials			
Water and Sewer Infrastructure			
Solid Waste and Sanitation Services			
Energy			
Transportation			
Air Quality			
Greenhouse Gas Emissions			
Noise			
Public Health			
Neighborhood Character	· · · · · · · · · · · · · · · · · · ·		
Construction			
2. Are there any aspects of the project relevant to the detersignificant impact on the environment, such as combined covered by other responses and supporting materials?	d or cumulative impacts, that were not fully		
<ul> <li>If there are such impacts, attach an explanation stating w have a significant impact on the environment.</li> <li>3. Check determination to be issued by the lead agence</li> </ul>			
<ul> <li>Positive Declaration: If the lead agency has determined that and if a Conditional Negative Declaration is not appropriate a draft Scope of Work for the Environmental Impact State</li> <li>Conditional Negative Declaration: A Conditional Negative applicant for an Unlisted action AND when conditions im no significant adverse environmental impacts would result.</li> </ul>	at the project may have a significant impact on t ate, then the lead agency issues a <i>Positive Decla</i> ement (EIS). <i>e Declaration</i> (CND) may be appropriate if there posed by the lead agency will modify the propo	is a privat sed projec	l prepare e tt so that
<ul> <li>the requirements of 6 NYCRR Part 617.</li> <li>Negative Declaration: If the lead agency has determined th environmental impacts, then the lead agency issues a <i>Ne</i> separate document (see <u>template</u>) or using the embedder</li> <li>LEAD AGENCY'S CERTIFICATION</li> </ul>	gative Declaration. The Negative Declaration m		
4. LEAD AGENCY'S CERTIFICATION			
puty Director, Environmental Assessment and Review	LEAD AGENCY The New York City Department of City Pla	anning (D	CP)
vision ME	DATE		



Urban Cartographics





Urban Cartographics





# Zoning Change Map

N 34 m ALL AVE 1200 R6 BLVD NORTHERN PRINCE BRIDGE WM. C4-4

Current Zoning Map (Map 10a)

<b>U</b> 1 1	0.1	0.0	<b>U</b> 1 1	C1-5	02 1	01 0	01	01 0
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Proposed Zoning Map (10a) Rezoning from M1-1 to R7A/C2-3





### Urban Cartographics



1. View of Linden Place facing north from 35th Avenue.



3. View of the sidewalk along the north side of 35th Avenue facing west (Site ahead at right).





2. View of the side of 35th Avenue facing southeast from Linden Place.



4. View of the side of 35th Avenue facing northwest.



6. View of 35th Avenue facing west (Site at right).



5. View of the Site facing northwest from 35th Avenue.





7. View of the Site facing north from 35th Avenue.



9. View of 35th Avenue facing east from Farrington Street (Site at left).



8. View of the Site facing northeast from the intersection of 35th Avenue and Farrington Street.





10. View of Farrington Street facing south from 35th Avenue.



12. View of 35th Avenue facing west from Farrington Street.



11. View of the side of 35th Avenue facing northwest from Farrington Street.





13. View of the Site facing northeast from Farrington Street.



15. View of the side of Farrington Street facing northeast.



14. View of the Site facing east from Farrington Street.





16. View of the side of Farrington Street facing northwest.



18. View of the sidewalk along the east side of Farrington Street facing south (Site at left).



17. View of Farrington Street facing south (Site at left).





19. View of the Site facing southeast from Farrington Street.



21. View of the side of 35th Avenue facing southwest from Farrington Street.



20. View of the side of Farrington Street facing northwest from the Site.





22. View of the side of 35th Avenue facing southeast from the Site.



24. View of the interior of the lot east of the Site facing northeast from 35th Avenue.



23. View of the side of 35th Avenue facing southeast from the Site.









No. DATE DESCRIPTION





MIXED USE DEVELOPMENT 135-01 35TH AVENUE, FLUSHING, NY

-

# 135-01 35<sup>TH</sup> AVENUE REZONING

Note: This report, including both Part I and Part II, is from the original 135-01 35<sup>th</sup> Avenue Rezoning EAS, dated May 5, 2017, and prepared in connection with the original ULURP application certified on May 8, 2017, which described and analyzed a proposal to rezone the affected area from M1-1 to R7A/C2-3 and to designate it as a Mandatory Inclusionary Housing (MIH) area. Although the Applicant has since filed an (A) Application (C 170180A ZMQ) seeking a rezoning from M1-1 to R7A, with no commercial overlay, this report has not been revised. A new Appendix 2 describes the actions proposed in the (A) Application and the developments expected to result from those actions and analyzes the environmental implications of the revised actions.

# **PROJECT DESCRIPTION**

#### **PROPOSED ACTIONS**

The Applicant, Stenmax Realty Inc., is seeking an amendment to zoning sectional map 10a to rezone Block 4950, Lots 1, 7 (p/o), and 103 (the "proposed rezoning area"), in the neighborhood of Flushing, Queens, Community District 7, from M1-1 to R7A/C2-3. The Applicant is also seeking a Zoning Text Amendment to Appendix F to establish a Mandatory Inclusionary Housing (MIH) area coterminous with the rezoning area in accordance with the City's Mandatory Inclusionary Housing policy (N 160051 ZRY), in which Option 2 would be required.

Block 4950 is now entirely within an M1-1 zoning district. The block is bounded by 32<sup>nd</sup> Avenue to the north, Linden Place to the east, 35<sup>th</sup> Avenue to the south, and Farrington Street to the west. The proposed Zoning Map Amendment would rezone the southern part of the block, to a depth of 150 feet from 35<sup>th</sup> Avenue.

The proposed actions are intended to facilitate the redevelopment of Block 4950, Lot 1 (the "development site"), with an eight-story mixed-use building (Use Group 6 commercial and Use Group 2 residential) with 111,312 gross square feet (gsf) of floor area (19,329 commercial, including both retail and office space, and 91,983 residential) and 76 dwelling units. In accordance with Inclusionary Housing Program Option 2, under which 30 percent of residential floor area must be associated with income-restricted housing units for qualifying households within prescribed income bands, 22 units (30 percent) would be income-restricted, and 54 units (70 percent) would be market rate. The development would have a floor area ratio (FAR) of 4.60.

#### ZONING COMPARISON

The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A/C2-3 district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 paired with a local commercial overlay district that permits commercial uses listed in Use Groups 5, 6, 7, 8, 9, and 14.

The two districts also differ in terms of bulk regulations. The maximum permitted floor area ratio (FAR) under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A/C2-3 is 2.00 for commercial uses, 4.00 for community facility

uses, and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. The proposed rezoning area would be coterminous with an MIH area in which under any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings.

The maximum street wall height under M1-1 is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. Above that height the M1-1 regulations do not impose a maximum building height but instead require that the building not penetrate a sky exposure plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle. In an R7A/C2-3 district, the regulations prescribe maximum street wall and building heights. For community facility development, the maximum permitted base (street wall) height is 65 feet, and the maximum permitted building height is 80 feet. For a residential building or a mixed use building that combines residential use with either community facility or commercial use, the maximums are also 65 feet and 80 feet if it does not include affordable housing or qualifying ground floor, 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program but does not include a qualifying ground floor, 75 feet and 95 feet if it satisfies the provisions of the Inclusionary Housing program and includes a qualifying ground floor.

No lot coverage restrictions apply under M1-1. Under R7A/C2-3 the maximum permitted lot coverage is 65 percent on an interior or through lot (such as the project site) and 80 percent on a corner lot.

#### **PROJECT SITE**

The project site is identified as Block 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue. It is at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street. The dimensions of the irregularly shaped parcel are as follows: From the intersection of the two streets, the lot extends 120 feet northward along Farrington Street, then 100 feet eastward, then 30 feet northward, then 25 feet eastward, then 150 feet southward, then 125 feet westward along 35<sup>th</sup> Avenue. The site measures 15,750 square feet.

The project site is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers the entire site and has 15,658 square feet above grade, for a 0.99 FAR, which is just below the maximum of 1.00 permitted in the M1-1 district. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store.

#### PROPOSED REZONING AREA

In addition to the project site, two other parcels are wholly or partly within the proposed rezoning area.

Block 4950, Lot 103 (135-19 35<sup>th</sup> Avenue), to the immediate east of the project site, is entirely within the proposed rezoning area. It measures 18,750 square feet and is rectangular in shape, with 125 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Linden Place. Lot 103 currently contains an attended parking facility constructed around 1957 with 2,550 square feet of floor area, for a total built FAR of 0.14. The Department of Cultural Affairs (DCA) has ownership of the lot. It was recently renovated for parking use in conjunction with Flushing Town Hall.

Block 4950, Lot 7 (33-65 Farrington Street) is located to the north and west of the project site. The 4,000 square foot rectangular lot has 40 feet of frontage along Farrington Street and a depth of 100 feet. The boundary between the existing M1-1 district and the new R7A/C2-3 district would be located ten feet south of the parcel's northern lot line; 3,000 of the lot's 4,000 square feet would be within the proposed rezoning area. Because the majority of the lot would be within the new zoning district and, on the portion of the lot remaining in the M1-1 district, the linear dimension between the zoning district boundary and the zoning lot boundary would be less than 25 feet in all places, the R7A/C2-3 use and bulk regulations could be applied to the entire lot. Lot 7 is developed with a one-story warehouse that covers the entire lot, for an FAR of 1.00.

In its entirety, the proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

#### PROPOSED DEVELOPMENT

The Applicant proposes to redevelop the project site with a mixed-use building (Use Group 6 commercial and Use Group 2 residential) with eight stories, a cellar, and a sub-cellar. The building would contain 111,312 gsf (19,329 commercial and 91,983 residential). Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60 (12,609 square feet of commercial floor area, for a commercial FAR of 0.80, and 59,833 square feet of residential floor area, for a residential FAR of 3.80). The commercial component would include both retail and office space. The residential portion would have 76 dwelling units (22 income-restricted Inclusionary Housing units and 54 market rate units). A 68-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and 6,720 square feet of office space. The ground floor would contain 12,609 square feet of retail space, the residential apartments would occupy the upper floors, in addition to 1,495 square feet of indoor recreation space on the eighth floor. The building would have a rooftop height of 95 feet, with setbacks after the sixth and seventh floors.<sup>1</sup>

#### PURPOSE AND NEED

The proposed action would facilitate the redevelopment of what is now an unutilized property. The proposed action would also facilitate the development of housing, of which 30 percent would be affordable.

#### ANALYSIS FRAMEWORK

#### **Existing Conditions**

As is discussed above, the project site is currently improved with a single-story, 13-foot-tall retail building that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers the entire site and has approximately 15,750 square feet above grade, for a 1.00 FAR, and a partial cellar with unknown square footage.

Lot 7 is developed with a one-story warehouse that covers the entire lot, for an FAR of 1.00.

City-owned Lot 103 contains an attended parking facility with 2,550 square feet of floor area, for an FAR of 0.14. It is used for parking in conjunction with Flushing Town Hall.

<sup>1</sup> The Land Use Application states merely that the development would be "up to" 95 feet in height and includes architectural plans showing a 94-foot-tall building.

#### The Future without the Proposed Actions

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces and the one-story warehouse would remain.

#### The Future with the Proposed Actions

In the future with the proposed actions, the project site would be redeveloped in accordance with the regulations applicable to an R7A/C2-3 zoning district and an MIH area in which MIH program Option 2 is required. The existing one-story retail building would be replaced by a new mixed-use building (Use Group 6 commercial and Use Group 2 residential). The with-action scenario is the same as the Applicant's proposed development.

Under the reasonable worst case development scenario, the new development on the project site would have eight stories, a cellar, and a sub-cellar. The building would contain 111,312 gsf (19,329 commercial and 91,983 residential). Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60 (12,609 square feet of commercial floor area, for a commercial FAR of 0.80, and 59,833 square feet of residential floor area, for a residential FAR of 3.80). The commercial component would include both retail and office space. The residential portion would have 76 dwelling units. A 68-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and subcellar. The cellar would also contain utilities and 6,720 square feet of office space. The ground floor would contain 12,609 square feet of retail space, the residential and office lobbies (both entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors, in addition to 1,495 square feet of indoor recreation space on the top floor. The building would have a rooftop height of 95 feet, with setbacks after the sixth and seventh floors. The ground floor would be approximately 15 feet tall, and the upper floors would each be just over 11 feet tall.

In compliance with MIH program Option 2, 22 of the dwelling units (30 percent) would be incomerestricted residential units marketed exclusively to qualifying households, all of which would have incomes not exceeding 130 percent of the income index cited in ZR Section 23-911, and with the weighted average of the income bands for the income-restricted units not exceeding 80 percent of the index, and 54 (70 percent) would be market rate. This does not mean, however, that 22 units would be "affordable." For CEQR purposes, dwelling units are considered "affordable" if they are available exclusively to low- and moderate-income households with income not exceeding 80 percent of the Area Median Income (AMI). Because the income-restricted Inclusionary Housing units may include ones available to middle-income households with incomes up to approximately 130 percent of AMI, not all of the income-restricted units would be considered affordable housing. It is conservatively assumed that 15 (20 percent) of the 76 units would be affordable.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar mixed use building satisfying the requirements of MIH program Option 2. It would have eight stories and a cellar and would contain 22,400 gsf (6,000 Use Group 6 retail and 16,400 Use Group 2 residential). Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60 (3,000 square feet of commercial floor area, for a commercial FAR of 0.75, and 15,400 square feet of residential floor area, for a residential portion would have 15 dwelling units (4 of them income-restricted, including 3 affordable for households with incomes not exceeding 80 percent of AMI, and 11 of them market rate). The building would have a rooftop height of 95 feet, with a setback after

the sixth floor. The ground floor would be approximately 15 feet tall, and the upper floors would each be just over 11 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 131,712 gsf, comprising 108,383 residential gsf containing 91 dwelling units (64 market rate units and 27 incomerestricted Inclusionary Housing units, including 18 units affordable to low- and moderate-income households), 18,609 retail gsf, and 6,720 office gsf. Compared with future no-action conditions, the future with-action scenario would have 91 more dwelling units, 2,951 gsf more retail space, 6,720 gsf more office space, and 4,000 gsf less warehouse space.

The difference between the no-action and with-action scenarios is presented in the table below.

#### **REQUIRED APPROVALS**

The proposed project would require an amendment to zoning sectional map 10a to rezone a 37,500 square foot area from M1-1 to R7A/C2-3 and a Zoning Text Amendment to Appendix F to establish an MIH area coterminous with the rezoning area. The actions would be subject to the Uniform Land Use Review Procedure (ULURP).

#### **BUILD YEAR**

Based on an estimated 16-month approval process and a 12-month construction period, it is estimated that the project would be completed in 2020. This is the assumed "build year," which is used throughout this EAS for all future conditions, and which is the analysis year for the purpose of all assessments.

## DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS (RWCDS)

Development Sites 1 & 2 (Block 4950, Lots 1, 7)

		ISTING NDITION		ACTION DITION		H-ACTION NDITION	INCREMENT
LAND USE	001						
Residential	YES	NO	YES	NO	YES	NO	
If "yes," specify the following:							
Describe type of residential structures					Multi-	family Buildings	
No. of dwelling units					91	ianing Danaings	+91
No. of low- to moderate-income units					18		+18
Gross floor area (sq. ft.)					108,	383	+108,383
Commercial	YES	NO	YES	NO	YES	NO	,
If "yes," specify the following:							
Describe type (retail, office, other)	Ret	ail/Warehouse	Reta	il/Warehouse	Reta	il/Office	
Gross floor area (sq. ft.)	19,6		19,6		25,3		+5,671
Manufacturing/Industrial	YES	NO	YES	NO	YES	NO	,
If "yes," specify the following:							
Type of use							
Gross floor area (sq. ft.)							
Open storage area (sq. ft.)							
If any unenclosed activities, specify:							
Community Facility	YES	NO	YES	NO	YES	NO	
If "yes," specify the following:							
Туре							
Gross floor area (sq. ft.)							
Vacant Land	YES	NO	YES	NO	YES	NO	
If "yes," describe:							
Other Land Uses	YES	NO	YES	NO	YES	NO	
If "yes," describe:	120	110	125	110	125	110	
ii yes, desende.							
Garages	YES	NO	YES	NO	YES	NO	
If "yes," specify the following:	12.5	110	120	110	125	110	
No. of public spaces							
No. of accessory spaces					68		+68
Lots	YES	NO	YES	NO	YES	NO	100
If "yes," specify the following:			- 10				
No. of public spaces							
No. of accessory spaces	1						
ZONING	L		1				<u> </u>
Zoning classification	M1-	.1	M1-	1	R7A	/a	-M1-1
Maximum amount of floor area that can be		FAR	1.0 F			MIH)	+4.6 (RES)
developed		FAR (CF)		FAR (CF)		RES/CF)	14.0 (RES)
r				(01)		Comm)	
Predominant land use and zoning	Comn	nercial,	Comme	rcial,	Comm		-Warehouse Use
classifications within land use study area(s)		facturing,	Manufa			acturing,	(Approximately
or a 400 ft. radius of proposed project	Resid	ential	Resider	esidential Residential		ential	4,000 gsf)
# PART II: TECHNICAL ANALYSES

# INTRODUCTION

Based on the criteria in Part II of the Environmental Assessment Statement Full Form, the following technical areas require further analysis: land use, zoning, and public policy; open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; air quality; and noise. These analyses, which follow the guidance in the *CEQR Technical Manual*, are presented below. The heading numbers correlate with the relevant chapters of the *CEQR Technical Manual*.

# 4. LAND USE, ZONING, AND PUBLIC POLICY

# Introduction

A land use analysis characterizes the uses and development trends in the area that may be affected by an action and determines whether a proposed project is compatible with those conditions or whether it may adversely affect them. The analysis also considers the proposed project's compliance with, and effect on, the area's zoning and other applicable public policies.

According to the *CEQR Technical Manual*, a preliminary assessment that includes a basic description of existing and future land uses, as well as basic zoning information, is provided for most projects, regardless of their anticipated effects. Regarding public policy, the *CEQR Technical Manual* states, "Large, publicly-sponsored projects are assessed for their consistency with PlaNYC, the City's sustainability plan." An assessment of an action's consistency with the Waterfront Revitalization Program is required if an action would occur within the designated Coastal Zone. Public policy assessments are also appropriate if an action would occur within an area covered by an Urban Renewal Plan or a 197-A Plan.

# **Study Area**

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning, and public policy is related to the type and size of the proposed project, as well as the location and context of the area that could be affected by the project. Study area radii vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a very large project.

Because of the modest size of the proposed project, the land use and zoning assessment for the proposed action considers a study area extending 400 feet around the proposed rezoning area. As shown in the Land Use Map, the study area extends northward to approximately the middle of the block between 35<sup>th</sup> and 32<sup>nd</sup> Avenues, eastward to 137<sup>th</sup> Street, southward to Northern Boulevard, and westward to Prince Street.

# Need for a Preliminary Assessment

A land use and zoning assessment is appropriate for the proposed actions, which include a zoning map amendment.

The proposed project is neither large nor publicly sponsored. No portion of the proposed rezoning area is within an urban renewal area, an area covered by a 197-a Plan, or the Coastal Zone. The proposed action would, however, involve the stated City policy that any zoning map amendment that would result in increased residential development should be accompanied by the designation of a Mandatory Inclusionary Housing (MIH) area, in which new residential development must include units that will

be permanently affordable to lower income households, as part of an effort to ensure an adequate citywide inventory of housing that is affordable to a range of income levels and to ensure socioeconomic diversity within particular neighborhoods. A public policy consistency assessment is therefore warranted.

# Land Use

#### Existing Conditions within the Proposed Rezoning Area

The project site (identified as Block, 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue, and located at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street) is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers virtually the entire site and has 15,658 square feet above grade. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store.

Lot 7 (to the immediate north of the project site along Farrington Street) is developed with a one-story warehouse that covers the entire lot.

Lot 103 (located to the immediate east of the project site and at the block's southeast corner, with frontage along 35<sup>th</sup> Avenue and Linden Place) is City-owned and under the jurisdiction of the Department of Cultural Affairs (DCA), which recently renovated the lot for parking use in conjunction with Flushing Town Hall.

#### Existing Conditions in the 400-Foot Study Area

Land uses within the study area are mixed. They include one- and two-family homes, multifamily walkups, elevator apartment buildings, local retail and service establishments, hotels, houses of worship, warehouses, light manufacturing, automotive repair shops, and parking lots.

On Block 4950, a one-story warehouse abuts Lot 7 on Farrington Street. Further north along Farrington Street are a two-story building with offices above an automotive and truck repair shop, a two-family home, a three-story hotel that opened in 2005, a two-story banquet hall (extending to Linden Place), a parking lot, a two-story building containing a contractor's office and storage, and a one-story building used for truck storage and machinery repair. On the Linden Place side of the block, a three-story hotel abuts the proposed rezoning area, followed by an auto repair shop, the through-block banquet hall, and a billiard parlor.

To the west, on Block 4949 (bounded by 35<sup>th</sup> Avenue, Farrington Street 33<sup>rd</sup> Avenue, and Prince Street), the uses along Farrington Street, from south to north, are a construction site, a three-story building with wholesale offices and showrooms above first floor warehouse use, three two-family homes, a three-story office building, a three-story industrial building with hardware manufacturing and metal finishing operations, a four-story warehouse with accessory offices, a multifamily walkup, and a two-family home. A two-story building with wholesale/retail establishments and accessory offices occupies the corner of 35<sup>th</sup> Avenue and Prince Street. To the north along Prince Street are four three-story multifamily walkups, two auto repair shops, and six two-family homes.

To the east, Block 4951 (bounded by 35<sup>th</sup> Avenue, Linden Place, Latimer Place, and 137<sup>th</sup> Street) is predominantly residential. The only nonresidential buildings are a one-story retail building at the corner of 35<sup>th</sup> Avenue and Linden Place and a house of worship fronting on 35<sup>th</sup> Avenue. Residential

rowhouses occupy the rest of the southern part of the block, and a New York City Housing Authority complex of four ten-story apartment buildings occupies the northern part of the block.

In the southern part of the study area, Block 4960 (bounded by 35<sup>th</sup> Avenue, Linden Place, Northern Boulevard, and Leavitt Street) consists of two physical blocks separated by Carleton Place, which is a narrow, one-block-long east-west street. Thirteen two- to five-story residential walkups, eight one- and two-family homes, and two seven-story mixed use buildings occupy the northern physical block. The two mixed use buildings, completed in 2004 and 2007, contain residential apartments above medical offices and residential apartments above retail stores. Two four-story multifamily walkups, a one-family home, a City-owned parking lot under DCA control, the Flushing Municipal Courthouse, and a supermarket with an accessory parking lot occupy the southern physical block.

On Block 4959 (bounded by 35<sup>th</sup> Avenue, Farrington Street, Northern Boulevard, and Linden Place), a two-story office and retail building, a seven-story building with residential apartments above ground floor retail units (completed in 2008), and a house of worship and its accessory parking lot occupy the 35<sup>th</sup> Avenue frontage. An eight-story 2009 building with residential apartments over ground floor retail, a four-story building with apartments above retail, a two-story building with offices above a bank, and two other two-story commercial buildings occupy the midblock along Farrington Street. An eight-story hotel, low-rise commercial buildings, and a parking lot occupy the Northern Boulevard frontage. A three-story building with offices above a glazier and a house of worship occupy the midblock along Linden Place.

On Block 4958 (bounded by 35<sup>th</sup> Avenue, Farrington Street, Northern Boulevard, and Prince Street), a five-story residential building, a seven-story hotel, and four three-story multifamily walkups are located along 35<sup>th</sup> Avenue. A house of worship, a community center, and a row of two-story commercial buildings occupy the Farrington Street frontage. A six-story building with dwellings above commercial space, a low-rise commercial building, and a house of worship are located on Northern Boulevard.

#### Future Conditions without the Proposed Action

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces, the one-story warehouse, and the parking for Flushing Town Hall would remain.

Within the study area, one land use change is anticipated. The construction on the lot at the northwest corner of Farrington Street and 35<sup>th</sup> Avenue will be completed, and the lot will be occupied by a 15-story building with eight floors of residential units above a seven-floor hotel.

#### Future Conditions with the Proposed Action

If the proposed actions are taken, the project site would be redeveloped in accordance with the regulations applicable to an R7A/C2-3 zoning district and an MIH area in which MIH program Options 1 and 2 are available. The existing one-story retail building would be replaced by a new mixed-use building (Use Group 6 commercial and Use Group 2 residential). Under the reasonable worst case development scenario, the new development on the project site would have eight stories, a cellar, and a sub-cellar. The building would contain 111,312 gsf (19,329 commercial and 91,983 residential). Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60 (12,609 square feet of commercial floor area, for a commercial FAR of 0.80, and 59,833 square feet of residential floor area, for a residential FAR of 3.80). The commercial component would include both retail and office space. The

residential portion would have 76 dwelling units (22 income-restricted Inclusionary Housing units, including 15 affordable for households with incomes not exceeding 80 percent of the Area Median Income (AMI), and 54 market rate units). A 68-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and 6,720 square feet of office space. The ground floor would contain 12,609 square feet of retail space, the residential and office lobbies (both entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors, in addition to 1,495 square feet of indoor recreation space on the top floor. The building would have a rooftop height of 95 feet, with setbacks after the sixth and seventh floors. The ground floor would be 15 feet tall, and the upper floors would each be just over 11 feet tall.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar mixed use building. It would have eight stories and a cellar and would contain 22,400 gsf (6,000 Use Group 6 retail and 16,400 Use Group 2 residential). Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60 (3,000 square feet of commercial floor area, for a commercial FAR of 0.75, and 15,400 square feet of residential floor area, for a residential FAR of 3.85). The residential portion would have 15 dwelling units (4 income-restricted including 3 affordable for households with incomes not exceeding 80 percent of AMI, and 11 market rate). The building would have a rooftop height of 95 feet, with a setback after the sixth floor. The ground floor would be 15 feet tall, and the upper floors would each be just over 11 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 131,712 gsf, comprising 108,383 residential gsf containing 91 dwelling units (64 market rate units and 27 incomerestricted Inclusionary Housing units, including 18 units affordable to low- and moderate-income households), 18,609 retail gsf, and 6,720 office gsf. Compared with future no-action conditions, the future with-action scenario would have 91 more dwelling units, 2,951 gsf more retail space, 6,720 gsf more office space, and 4,000 gsf less warehouse space.

Residential and commercial development within the proposed rezoning area would be consistent with existing land use patterns. The proposed project would also be consistent with current land use trends in the study area; during the past dozen years, several similar mixed-use residential and commercial buildings have been constructed, and a mixed residential and hotel development has been approved for a lot directly across Farrington Street from the project site. The proposed action would therefore not have a significant adverse impact on land use.

# Zoning

# **Existing Conditions**

The project site is currently within an M1-1 light manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. The maximum permitted floor area ratio (FAR) is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses. The maximum street wall height is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. On a narrow street such as Farrington Street, the minimum required setback is 20 feet; on a wide street such as 35<sup>th</sup> Avenue, the minimum required setback is 15 feet. The M1-1 regulations do not impose a maximum building height but instead require that the building not

penetrate a sky exposure plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle.

The M1-1 district is mapped north of 35<sup>th</sup> Avenue between Farrington Street and Linden Place. It extends northward beyond the proposed rezoning area to cover all of Block 4950.

An R6 medium density residential district abuts the proposed rezoning area on the east, south, and west, covering the majority of the study area. The R6 district permits all residential and community facility uses. The district does not permit manufacturing uses or, except where a commercial overlay is also mapped, commercial uses. The portion of the study area located east of Linden Place is zoned R6 without a commercial overlay. The portion located between Farrington Street and Linden Place south of 35<sup>th</sup> Avenue is zoned R6/C2-4. The southwestern part of the study area (that is, west of Farrington Street, the portion from the southern edge of the study area to a line 250 feet north of 35<sup>th</sup> Avenue) is zoned R6/C2-2. The C2-2 and C2-4 overlay districts, which differ from one another only in their off-street accessory parking requirements, permit office, hotel, and local retail and service uses.

The maximum permitted floor area ratios under R6, R6/C2-2, and R6/C2-4 are 2.00 for commercial use (applicable only in the areas zoned R6/C2-2 and R6/C2-4) and 4.80 for community facility use. The maximum permitted residential floor area depends on which set of regulations is used. Under the R6 district's basic regulations, permitted FAR and required open space vary according to "height factor," which is the number obtained by dividing floor area by lot coverage. The maximum on the sliding scale is 2.43, but this is achievable only for buildings of about 13 or 14 stories occupying very small percentages of large lots. Under the optional Quality Housing regulations, the maximum residential FAR is 2.20 for a location on a narrow street more than 100 feet from its intersection with a wide street (or 2.42 for a development under the Inclusionary Housing Program) and 3.00 for a location within 100 feet of a wide street (or 3.60 for a development under the Inclusionary Housing Program). Under the Quality Housing regulations, for a residential or partially residential mixed use building, the height and setback regulations establish a maximum permitted base (street wall) height, at which point a setback is required (10 feet deep on a wide street and 15 feet deep on a narrow street), and a maximum permitted building height. On a narrow street more than 100 feet from its intersection with a wide street, the maximum permitted base height is 45 feet, and the maximum permitted building height is 55 feet. On a wide street, or on a narrow street but within 100 feet of a wide street, the maximum permitted base height is 65 feet, and the maximum permitted building height is 70 feet (or 80 feet for a development under the Inclusionary Housing Program). For a community facility building or a residential or mixed use building under the basic regulations, the maximum permitted street wall height is 60 feet or six stories (whichever is less), at which point a 15- or 20-foot setback is required, and above that height the building may not penetrate a sky exposure plane that extends upwards and rearwards over the lot from a line 60 feet above the front property line at a ratio of 2.7 vertical feet to each horizontal foot on a narrow street or 5.6 vertical feet to each horizontal foot on a wide street . Accessory off-street parking spaces must be provided for either 70 percent of the residential units (if the basic regulations are used) or 50 percent of the residential units (if the Quality Housing regulations are used), but in either case no parking requirements apply to income-restricted affordable units in a Transit Zone. Accessory off-street parking requirements for nonresidential uses depend on the nature of the use.

The remaining portion of the study area, located west of Farrington Street and more than 250 feet north of 35<sup>th</sup> Avenue, is in an M2-1 medium manufacturing district. The permitted uses and bulk regulations are the same as under M1-1, but in the M2-1 district the uses need not be fully enclosed, and lower performance standards apply.

#### Future Conditions without the Proposed Action

No zoning map changes are anticipated in the study area in the future without the proposed action.

# Future Conditions with the Proposed Action

The proposed action would rezone a 37,500 sf area from M1-1 to R7A/C2-3 and would establish the area as a Mandatory Inclusionary Housing (MIH) area in which any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings. The proposed R7A/C2-3 district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 paired with a local commercial overlay district that permits commercial uses listed in Use Groups 5, 6, 7, 8, 9, and 14. The maximum permitted FAR under R7A/C2-3 is 2.00 for commercial uses, 4.00 for community facility uses, and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. For community facility development, the maximum permitted base (street wall) height is 65 feet, and the maximum permitted building height is 80 feet. For a residential building or a mixed use building that combines residential use with either community facility or commercial use, the maximums are also 65 feet and 80 feet if it does not include affordable housing or qualifying ground floor, 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program but does not include a qualifying ground floor, 75 feet and 85 feet if it includes a qualifying ground floor but not affordable housing, or 75 feet and 95 feet if it satisfies the provisions of the Inclusionary Housing program and includes a qualifying ground floor. Permitted lot coverage is 65 percent on an interior or through lot and 80 percent on a corner lot.

The proposed zoning map amendment would result in greater continuity of the zoning along 35<sup>th</sup> Avenue within the study area. Except for the proposed rezoning area, medium density residential districts (with or without commercial overlays) are mapped over both sides of the avenue. A residential district with a commercial overlay is better suited to the land uses along the avenue (residential apartment buildings, ground floor retail, hotels, offices, and houses of worship) than is a manufacturing district. Although the proposed R7A district permits greater bulk than the R6 district that is mapped elsewhere, R7A is a contextual district that limits height more strictly than R6; indeed, the approved hotel and residential building that will be constructed across Farrington Street from the project site will be larger and taller than the new development that would result from the proposed action. The proposed action would not have a significant adverse impact related to zoning.

# Public Policy (Mandatory Inclusionary Housing)

City policy is that any zoning map amendment that would result in increased residential development should be accompanied by the designation of a Mandatory Inclusionary Housing (MIH) area, in which new residential development must include units that will be permanently reserved for occupancy by qualifying low-, moderate-, and middle-income households, as part of an effort to ensure an adequate citywide inventory of housing that is affordable to a range of income levels and to ensure socioeconomic diversity within particular neighborhoods. As part of the proposed action, the rezoning area would be designated an MIH area in which Option2 would be required. Under Option 2 at least 30 percent of the residential floor area must be associated with income-restricted residential units marketed exclusively to qualifying households, all of whom would have incomes not exceeding 130 percent of the income

index cited in ZR Section 23-911, and with the weighted average of the income bands for the incomerestricted units not exceeding 80 percent of the index.

The proposed action would legally mandate that the proposed project comply with the pertinent Inclusionary Housing Program requirements. In accordance with Option 2, the development would contain 76 dwelling units, of which 70 percent (54) would be market rate and 30 percent (22) would be set aside for qualifying households. The proposed action would be consistent with MIH policy.

# 7. OPEN SPACE

# Introduction

This section assesses the proposed action's potential to affect the ability of open space resources to serve the population in the vicinity of the proposed rezoning area. A project may have a direct impact on public open spaces resulting from the elimination or alteration of open spaces in the study area or may have an indirect open space impact resulting from overtaxing available public open space resources. According to the *CEQR Technical Manual*, a public open space is accessible to the public on a constant and regular basis, including for designated daily periods. Public open spaces may be under public (government) or private ownership, and includes resources such as parks managed by the City, State, or Federal governments; public plazas; outdoor schoolyards that are accessible to the public outside of school hours; landscaped medians with seating; public housing grounds; and gardens and nature preserves, if publicly accessible. Private open spaces are not considered in the quantitative analysis of open space but may be considered in the qualitative assessment. Private open spaces include private-access fee-charging spaces; recreational facilities used by community facilities, where the open space is accessible only to the institution-related population; natural areas or wetlands without public access; stoops; vacant lots; and front and rear yards.

Open spaces may be used for "active" or "passive" uses. Active open space is used for sports, exercise, or active play, and can consist of facilities such as playgrounds with play equipment, playing fields, beach areas (swimming, running), greenways and esplanades, and multi-purpose play areas. Passive open space is used for relaxation, such as sitting or strolling, and can consist of facilities such as plazas or medians with seating, a percentage of beach areas (sunbathing), picnicking areas, greenways and esplanades (sitting, strolling), restricted-use lawns, and gardens. Often, an open space can be used for both active and passive uses. The residential population of an area uses active and passive open spaces, while the worker population tends to place demands on passive open space.

# Potential for a Direct Impact

The proposed rezoning area does not include open space resources, nor is it located in close proximity to any open space resources. A shadows analysis determined that shadows cast by potential new buildings in the rezoning area would not intrude on open space. The proposed action would not have a direct impact on open space resources.

# Potential for an Indirect Impact

# Determination of Whether an Assessment Is Appropriate

According to the 2014 *CEQR Technical Manual*, this area of Queens Community District 7 is neither a "well-served" nor an "under-served" area. The threshold for an open space analysis for such an area is the addition of 200 new residents or 500 new employees.

The proposed project and another anticipated development would contain a combined total of 91 residential apartments. The project site is located within Queens census tract 869, in which the average household size was 2.91 persons in 2010. The two developments would add 91 new households, with an estimated 265 persons, to the area. Since that exceeds the 200-person threshold, an assessment of the project's potential impact on the ability of the open space network to serve the area's residential population is appropriate. The buildings would also contain 18,606 gsf of ground floor retail space and 6,720 gsf of office space, and the residential portions of the buildings would also require staff. Using rules of thumb of three workers per thousand square feet of retail space, four workers per thousand square feet of office space, and one building staff worker per each 22 apartments, it is estimated that the developments would add 88 workers to the area (56 retail workers, 28 office workers, and 4 building staff workers). Since that is below the 500-person threshold, an assessment of open space serving the area's daytime worker population would not be appropriate.

### Study Area

For a residential or predominantly residential development project, the CEQR Technical Manual suggests a study area with a radius of a half-mile, which is considered to be the maximum distance that an average person would walk to reach a park or playground, adjusted for census tract boundaries. If at least half of a census tract is located within the half-mile radius, the entire tract is included in the study area, and if less than half the tract is within a half-mile of the site, the entire tract is excluded.

The open space study area would consist of five census tracts: tracts 865, 869, 871, 889.01, and 1161. The study area's boundaries would be rather jagged but would extend north to 20th Avenue, east to Parsons Boulevard, south to Roosevelt Avenue in the east and 41st Avenue in the west, and west to the Van Wyck and Whitestone Expressways. (This is shown on the Open Space Facilities and Census Tracts map.)

### **Current** Population

The table below shows the study area population as of the 2010 census. The area then had 23.252 enumerated residents.

Study Area Population in 2010				
Census	Resi-			
Tract	<u>dents</u>			
865	4,514			
869	2,131			
871	1,752			
889.01	10,266			
1161	<u>4,589</u>			
Total	23,252			

Between the 2010 census and July 2016, the population of Queens increased by approximately 4.6 percent, according to estimates by the Census Bureau, as reported by the New York City Department of City Planning.<sup>2</sup> By applying that percentage increase to the study area, it is estimated that the current study area population is 24,319.3

<sup>2</sup> http://www1.nyc.gov/site/planning/data-maps/nyc-population/current-future-populations.page.

<sup>3</sup> The calculation is not based on the rounded figure of 4.6%, but rather on the percentage increase in the borough's population from 2,230,722 in April 2010 to 2,233,054 in July 2016.



North

### Current Open Space Inventory

The Open Space Inventory table lists the six open space resources in the study area, and the Open Space Facilities and Census Tracts map shows their locations. They are described below.

				Acreage	
Map #	Identification	Description	Total	Active	Passive
1	Leavitt Park	Landscaping and seating	0.37	0.00	0.37
2	Weeping Beech Park	Tot lot, handball, green space	2.60	1.00	1.60
3	Colden Playground	Sports facilities, green space	1.47	1.20	0.27
4	Bland Playground	Sports facilities, tot lot	0.55	0.55	0.00
5	Flushing Greens	Landscaped malls	0.42	0.00	0.42
6	Daniel Carter Beard Mall	Landscaped mall	<u>0.66</u>	<u>0.00</u>	<u>0.66</u>
			6.07	2.75	3.32

#### **Open Space Inventory**

The first open space resource that is listed in the table is part of a complex bounded by 32<sup>nd</sup> Avenue, 137<sup>th</sup> Street, and Leavitt Street. Although the entire complex contains 7.46 acres, most of it consists of a fenced athletic field that is controlled by the Department of Education and that is not generally open to the public, and the southernmost part is occupied by a historic home. Only the northeastern portion of the complex, 0.37-acre Leavitt Park, consists of publicly accessible recreational open space, and it is only this portion that is included in the inventory. It is a passive open space with landscaping and seating.

A second open space is Weeping Beech Park, which is located on the east side of Bowne Street between Northern Boulevard and 38<sup>th</sup> Avenue. Carman Green, a passive open space with trees and shrubbery and grass, occupies the larger part of the 2.6-acre park, but the park also contains a tot lot and two handball courts.

The study area contains two playgrounds. Colden Playground occupies the eastern half of the block bounded by 31<sup>st</sup> Drive, Union Street, 31<sup>st</sup> Road, and 140<sup>th</sup> Street. It contains a ballfield and handball courts, as well as a smaller area with trees and walkways. Bland Playground, on the south side of 40<sup>th</sup> Road at Prince Street, contains basketball courts, handball courts, and a tot lot. The two playgrounds have a combined area of just over two acres.

The study area also contains slightly more than an acre of passive open space in the form of landscaped malls in the center of Northern Boulevard. The ones between Main Street and Linden Place are known as Flushing Greens, and the open space between Linden Place and Leavitt Street is called Daniel Carter Beard Mall.

Altogether, the study area contains 6.07 acres of publicly accessible open space, of which 2.75 acres are programmed for active recreation and 3.32 acres provide passive recreation.

# Current Open Space Ratios

The study area contains 6.07 acres of recreational open space and is home to 24,319 residents. That works out to 0.25 acres of recreational open space per thousand residents, including 0.11 acres devoted to active recreation and 0.14 acres devoted to passive recreation. These numbers fall well below the City's planning goal of 2.5 acres of open space per thousand residents and the median community district open space ratio of 1.5 acres per thousand residents.

#### **Existing Open Space Ratios**

	Acreage			Acreage		
Population	Total	Active	Passive	Total	Active	Passive
24,319	6.07	2.75	3.32	0.25	0.11	0.14

#### Future Conditions with the Proposed Action

Developments resulting from the proposed rezoning would add 91 residential apartments and an estimated 265 residents to the study area (calculated using the average household size in 2010 in the census tract in which the project site is located, which was 2.91 persons). That would increase the study area population to 24,584 persons. The increase would not be large enough to alter the existing open space ratios. The proposed action would therefore not significantly exacerbate the shortage of open space in the study area and would not cause a significant adverse indirect open space impact.

#### **Future With-Action Open Space Ratios**

	Acreage				Acreage	
Population	Total	Active	Passive	Total	Active	Passive
24,584	6.07	2.75	3.32	0.25	0.11	0.14

#### Conclusion

The proposed action would not cause a significant adverse impact on the ability of the area's open space resources to serve the area's population.

### 8. SHADOWS

#### Introduction

A detailed shadow analysis is generally required only if a proposed action would result in one or more buildings that would be (a) at least 50 feet in height and close enough to a sunlight-sensitive resource of concern to cast a shadow on it or (b) less than 50 feet in height but directly adjacent to or across from a sunlight-sensitive use. Such resources of concern are public open spaces, greenstreets, natural resources if the introduction of shadows might alter their condition or microclimate, and historic resources that depend on direct sunlight for their appreciation by the public.

The development resulting from the proposed action would be 95 feet in height.

#### Tier 1 Assessment

Shadow lengths vary by time of day, being longest in the early morning and late afternoon and shortest at noon, and by time of year, being longest at the winter solstice and shortest at the summer solstice. According to the *CEQR Technical Manual*, the longest shadow cast by a building is 4.3 times the building's height. The development resulting from the proposed action would consist of two buildings with rooftop heights of 95 feet. The longest shadow cast by the proposed project would therefore be 408.5 feet in length.

The Tier 1 Screening Assessment figure shows the area within a 408.5 foot radius of the project site. No public open spaces or natural resources are located wholly or partly within the radius, but two designated landmarks are. One is an interior landmark, the windowless auditorium of the former RKO Keith Theater, which is not sunlight sensitive. The other is Flushing Municipal Courthouse, at the northeastern corner of Linden Place and Northern Boulevard.

#### **Tier 2 Assessment**

The next step is to determine whether the sunlight-sensitive resources are within the arc in which shadows can be cast. That arc excludes the triangular area to the south of the action-induced development that extends from +108 degrees to -108 degrees from true north. As the Tier 2 Screening Assessment figure shows, the courthouse is located outside of the arc in which action-induced development would cast shadows.

No additional assessment is required. The proposed action would not have a significant adverse shadows impact.





# 9. HISTORIC AND CULTURAL RESOURCES

#### Introduction

This section considers the proposed action's potential impact on archaeological and architectural resources. Archaeological resources are artifacts or other remains, from either the prehistoric (Native American) or the historic (colonial or post-colonial) period that might provide information about the period from which they date or the society that produced them. Architectural resources include designated New York City landmarks and buildings within a designated New York City historic district, properties calendared for consideration by the New York City Landmarks Preservation Commission (LPC), properties listed on or determined to be eligible for listing on the State or National Register of Historic Places, National Historic Landmarks, and other properties that meet the eligibility criteria for such designations.

The proposed rezoning area (Block 4950, Lots 1, 7, and 103, with the addresses 135-01 35<sup>th</sup> Avenue, 33-65 Farrington Street, and 135-19 35<sup>th</sup> Avenue) contains utilitarian one-story retail, warehouse, and parking structures. The proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

#### Archaeological Resources

If the proposed action is taken, the Applicant would redevelop the project site (Lot 1) with a new building that would contain a cellar and a sub-cellar. For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a building having a cellar. Lot 103 is under the control of the New York City Department of Cultural Affairs and would not be redeveloped.

In correspondence dated January 3, 2017, LPC staff stated that the proposed rezoning area has "no archaeological significance." The redevelopment of Lots 1 and 7 would therefore not have an adverse impact on archaeological resources.

#### **Architectural Resources**

As noted above, the proposed rezoning area contains utilitarian one-story retail, warehouse, and parking structures and does not contain architectural resources. In correspondence dated January 3, 2017, LPC staff stated that the site has "no Architectural significance." (The correspondence is appended to this report.)

There are two designated landmarks within a 400-foot radius of the proposed rezoning area: Flushing Municipal Courthouse, at the northeastern corner of Linden Place and Northern Boulevard; and the interior of the former RKO Keith's Flushing Theater on Northern Boulevard between Farrington Street and Linden Place. (See the Architectural Resources map.)

The Romanesque Revival courthouse was built in 1862 as the town hall of the Town of Flushing. After Flushing and the rest of Queens County were merged into the City of New York in 1898, the building was converted into a courthouse. In its designation of the building as a landmark, the LPC offered the following description:

"The impressive front facade is divided into three parts, separated by tall, thin buttresses which rise above the walls. All the walls are finished at the roof line with a continuous band of



diminutive arched corbels and a plain cornice. The arched windows are paired under large round arches, and those on the second floor are quite high. Dominating the front entrance, and standing on a raised platform five steps above the sidewalk, is a striking triple-arched portico, crowned by a classic entablature with low balustrade. The entablature is supported by massive pilasters and the arches by half round. engaged columns."

### **Flushing Municipal Courthouse**



There are no direct sight lines between the courthouse and the rezoning area, and new development within the rezoning area would not cast shadows on the courthouse. The proposed action would therefore not alter the setting of the landmark.

Designed by Thomas Lamb, a prolific theater architect who more than anyone else was responsible for the look of the great movie palaces of the 1910s and 1920s, the RKO Keith's Flushing Theater was built in 1927-1928 to present both vaudeville and films. The two-story building's exterior is commonplace, and it has been stripped of its marquis and ornamentation. The interior alone has been given landmark status. The following is an excerpt from the LPC's designation statement:

"The RKO Keith's Flushing theater is one of a small number surviving in New York City, of the uniquely American institution of the movie palace. 1 Part of the vaudeville circuit founded by B.F. Keith, later the "Radio-Keith-Orpheum" circuit ("RKO"), the Keith's opened in 1928 to an audience of subscription holders. Thomas lamb, who designed the theater, was one of the country's most prolific theater architects, having several hundred to his credit. The Keith's, however, is one of the handful which lamb designed in the "atmospheric" style, a type of theater design which aimed to produce an illusion of open outdoor space. The walls of the Keith's were built up as stage sets showing a Spanish-style townscape in the Churrigueresque style while the ceiling was painted blue and given electric 'stars'; a special machine projected "clouds" moving across the ceiling, completing the illusion that the audience was sitting outside in a Spanish town on a warm evening."



Former RKO Keith's Flushing Theater: Exterior

# Former RKO Keith's Flushing Theater: Auditorium



The proposed project would not affect the interior of a windowless theater building located a block away.

# Conclusion

For the reasons presented above, the proposed action would not have a significant adverse impact on either archaeological or architectural resources.

# **10. URBAN DESIGN AND VISUAL RESOURCES**

# Introduction

An assessment of urban design is needed when a project may have effects on any of the elements that contribute to the pedestrian experience of public space. A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

A preliminary urban design and visual resources assessment is required because the proposed action would include a zoning map change that would alter the rules regulating development within the proposed rezoning area, allowing the construction of buildings that are different in use and scale from those that would be allowed under existing zoning regulations. The proposed action would rezone a 37,500 sf area from M1-1 to R7A/C2-3 and would establish the area as a Mandatory Inclusionary Housing (MIH) area. The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A/C2-3 district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4, paired with a commercial overlay that permits local retail and service uses and hotels (Use Groups 5, 6, 7, 8, 9, and 14). The proposed district precludes manufacturing uses. The maximum permitted floor area ratio (FAR) under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A/C2-3 within an MIH area is 2.00 for commercial uses, 4.00 for community facility uses, and 4.60 for residential uses. The maximum permitted street wall height would increase from 30 feet to 60 feet, and a maximum permitted building height of 95 feet would replace sky exposure plane regulations. If the proposed action is taken, the Applicant intends to demolish the one-story retail building that now occupies the entire project site and to construct a mixed use building with residential apartments above ground floor and cellar commercial space. Under the reasonable worst-case development scenario, the building would be eight stories (95 feet) tall and would contain 79,812 square feet of above grade floor area. It is also assumed that the one-story warehouse that occupies an adjacent lot would be replaced by an eightstory (95 feet) tall mixed use building with residential apartments above ground floor retail space and 18,400 square feet of above grade floor area.

# **Pedestrian Wind Conditions**

The *CEQR Technical Manual* calls for a separate preliminary assessment to determine whether an analysis of pedestrian wind conditions is appropriate, since the construction of large buildings at locations that experience high wind conditions may result in channelization or downwash effects that could affect pedestrian safety.

The proposed rezoning area is not subject to unusual wind conditions. It is not in an exposed area fronting on the waterfront, and it is not on high ground or on the upper portion of an exposed slope. It is within a fully developed inland area.

The action-induced development would consist of nine-story buildings with the high lot coverage characteristic of contextual zoning districts. They would be built to the street line and would span the width of the zoning lots along both 35<sup>th</sup> Avenue and Farrington Street. There would therefore not be a freestanding tower that could cause pedestrian level vortex effects.

For these reasons, the proposed action would not have a significant adverse impact on pedestrian wind conditions, and a detailed wind conditions assessment is not required.

# **Existing Conditions**

### The Proposed Rezoning Area

The project site (identified as Block, 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue, and located at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street) is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers virtually the entire site and has 15,658 square feet above grade. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store. (See photos 5, 7, 8, 9, 13, and 14.)

Lot 7 (to the immediate north of the project site along Farrington Street) is developed with a one-story warehouse that covers the entire lot. (See photo 18.)

Lot 103 (located to the immediate east of the project site and at the block's southeast corner, with frontage along 35<sup>th</sup> Avenue and Linden Place) is City-owned and under the jurisdiction of the Department of Cultural Affairs (DCA), which has recently renovated the lot for parking use in conjunction with Flushing Town Hall. (See photo 4.)

#### Urban Design in the Vicinity of the Rezoning Area

The area surrounding the proposed rezoning area, within the Flushing neighborhood, is a well developed urban area. It is a mixed use area with a variety of land uses and building types, including one- and two-family homes (photos 15 and 16), three- to five-story multifamily walkups (photo 2), five- to ten-story elevator apartment buildings (photos 2, 3, 21, and 22), local retail and service establishments in low-rise commercial buildings (photos 6 and 10) and the ground floors of apartment buildings (photo 22), three- to eight-story hotels (photos 12, 15, and 21), houses of worship (photo 23), one- and two-story warehouses, light manufacturing, automotive repair shops, and parking lots. (See the building heights map.) Very different building types are sometimes juxtaposed; for example, photo 16 shows a blocky three-story red brick building with a truck entrance that contains wholesale offices and showrooms above first floor warehouse use, two-family homes set back from the street line, and two other red brick buildings, one a three-story office building and the other a four-story warehouse with accessory offices.

The more specific context of the proposed rezoning area, and particularly the project site and the other projected development site, consists of the south side of 35<sup>th</sup> Avenue between Linden Place and Prince Street; the large development site at the northwest corner of 35<sup>th</sup> Avenue and Farrington Street, the properties along the east side of Farrington Street to the immediate north of the rezoning area, and the east side of Linden Place as seen across the parking lot on Lot 103. The southern frontage of 35<sup>th</sup> Avenue between Linden Place to Farrington Street consists of a two-story (31-foot-tall) church, its accessory parking lot, a seven-story (70-foot-tall) residential apartment building with a slight setback above the

sixth floor, and a two-story (24-foot-tall) commercial building. With the buildings' very different heights, uses, façade materials, and designs, and with the parking lot between two of the buildings, the block does not present a consistent sense of place or scale. To the west of Farrington Street, along the southern side of 35<sup>th</sup> Avenue, are a blocky five-story (approximately 55-foot-tall) apartment building with a high ground floor and no setbacks from the street line, a seven-story (69-foot-tall) hotel that sets back above the lower stories, and lower-rise residential buildings to the west. On this block, also, there is no unified streetscape or consistent sense of place or scale. The construction site, with 255 feet of frontage along Farrington Street and 165 feet of frontage along 35<sup>th</sup> Avenue, is the location that dominates the visual context in the immediate vicinity of the proposed rezoning area, but it cannot be discussed under Existing Conditions. On the east side of Farrington Street, a one-story warehouse abuts the rezoning area, and further north are a two-story building with offices above an automotive and truck repair shop, a two-family home, a three-story hotel, a two-story banquet hall, and a parking lot. East of Linden Place, a one-story retail building and 3½- to 4½-story residential buildings front on the north side of 35<sup>th</sup> Avenue, but New York City Housing Authority ten-story (96-foot-tall) slab apartment buildings to the north are also seen across the parking lot.

There are no significant topographic features. The topography is fairly flat.

The street grid is irregular. Block dimensions vary, with east-west dimensions ranging from 250 to 400 feet and north-south dimensions from 360 to 1,090 feet. Most but not all streets are perpendicular to one another. East-west avenues are 75 feet wide, and north-south through streets (such as Farrington Street) are 70 feet wide, but there are also shorter, narrower streets that weave through the grid, some only one block in length. (See the Aerial Map.)

#### Visual Resources

According to the *CEQR Technical Manual*, "A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources." The one significant visual resource in the vicinity of the proposed rezoning area is the Flushing Municipal Courthouse (also known as Flushing Town Hall) at the corner of Linden Place and Northern Boulevard. The 1862 building is a designated New York City landmark. An early example of the Romanesque Revival style, it is a brick building that is two stories tall. Its front and side facades are tripartite in design, with two flat-roofed sections flanking a peaked central section, and with thin buttresses separating the sections. The entrance on Northern Boulevard is approached by a short flight of steps and covered by a triple-arched portico topped by a classical entablature. The building fits within the street grid and is not afforded any view corridors. There are no significant view corridors in the vicinity of the proposed rezoning area.



Urban Cartographics



# Urban Cartographics



1. View of Linden Place facing north from 35th Avenue.



3. View of the sidewalk along the north side of 35th Avenue facing west (Site ahead at right).





2. View of the side of 35th Avenue facing southeast from Linden Place.



4. View of the side of 35th Avenue facing northwest.



6. View of 35th Avenue facing west (Site at right).



5. View of the Site facing northwest from 35th Avenue.





7. View of the Site facing north from 35th Avenue.



9. View of 35th Avenue facing east from Farrington Street (Site at left).



8. View of the Site facing northeast from the intersection of 35th Avenue and Farrington Street.





10. View of Farrington Street facing south from 35th Avenue.



12. View of 35th Avenue facing west from Farrington Street.



11. View of the side of 35th Avenue facing northwest from Farrington Street.





13. View of the Site facing northeast from Farrington Street.



15. View of the side of Farrington Street facing northeast.



14. View of the Site facing east from Farrington Street.





16. View of the side of Farrington Street facing northwest.



18. View of the sidewalk along the east side of Farrington Street facing south (Site at left).



17. View of Farrington Street facing south (Site at left).





19. View of the Site facing southeast from Farrington Street.



21. View of the side of 35th Avenue facing southwest from Farrington Street.





20. View of the side of Farrington Street facing northwest from the Site.



22. View of the side of 35th Avenue facing southeast from the Site.



24. View of the interior of the lot east of the Site facing northeast from 35th Avenue.



23. View of the side of 35th Avenue facing southeast from the Site.



### Future Conditions without the Proposed Action

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces, the one-story warehouse, and the parking for Flushing Town Hall would remain.

Construction would be completed on the lot directly across Farrington Street from the project site and Lot 7, at the northwest corner of Farrington Street and 35<sup>th</sup> Avenue (Block 4949, Lot 31). A 15-story, 354,032 sf building with eight floors of residential apartments above a seven-floor hotel would occupy the lot. The building, known both as Farrington Center and Farrington Tower, would be 154 feet tall. The building would have 165 feet of frontage along 35<sup>th</sup> Avenue and would be set back 18 feet from the street line, but the street wall would rise a full 154 feet along the majority of the avenue frontage. The building would have 255 feet of frontage along Farrington Street, where one-, two-, and four-story building sections would be constructed to the street line, with the 154-foot-tall wall set back 44 feet from the street. This development, will have a major effect on the urban design character of this part of 35<sup>th</sup> Avenue.

No other changes that would affect urban design and visual resources are anticipated.

### Future Conditions with the Proposed Action

### Zoning Map Amendment

The proposed zoning map amendment would replace part of an M1-1 district with an R7A/C2-3 district, which would be coterminous with a Mandatory Inclusionary Housing (MIH) area. The proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A/C2-3 district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 paired with a local commercial overlay district that permits commercial uses listed in Use Groups 5, 6, 7, 8, 9, and 14.

The two districts also differ in terms of bulk regulations. The maximum permitted floor area ratio (FAR) under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A/C2-3 is 2.00 for commercial uses, 4.00 for community facility uses, and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. The proposed rezoning area would be coterminous with an MIH area in which under any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings.

The maximum street wall height under M1-1 is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. Above that height the M1-1 regulations do not impose a maximum building height but instead require that the building not penetrate a sky exposure

plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle. In an R7A/C2-3 district, the regulations prescribe maximum street wall and building heights. For community facility development, the maximum permitted base height is 65 feet, and the maximum permitted building height is 80 feet. For a completely residential building, the maximums are also 65 feet and 80 feet if it does not include affordable housing, or 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program. For a mixed use building that combines residential use with either community facility or commercial use and includes a qualifying ground floor, the maximums are 75 feet and 85 feet without affordable housing, or 75 feet and 95 feet if it satisfies the provisions of the Inclusions of the Inclusionary Housing program.

No lot coverage restrictions apply under M1-1. Under R7A/C2-3 the maximum permitted lot coverage is 65 percent on an interior or through lot (such as the project site) and 80 percent on a corner lot.

### Development Scenario

In the future with the proposed actions, the project site would be redeveloped in accordance with the regulations applicable to an R7A/C2-3 zoning district and an MIH area. The existing one-story retail building would be replaced by a new mixed-use building (Use Group 6 commercial and Use Group 2 residential). Under the reasonable worst case development scenario, the new development on the project site would have eight stories, a cellar, and a sub-cellar. The building would contain 111,312 gsf (19,329 commercial and 91,983 residential). Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60 (12,609 square feet of commercial floor area, for a commercial FAR of 0.80, and 59,833 square feet of residential floor area, for a residential FAR of 3.80). The commercial component would include both retail and office space. The residential portion would have 76 dwelling units. A 68space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and 6,720 square feet of office space. The ground floor would contain 12,609 square feet of retail space, the residential and office lobbies (both entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors, in addition to 1,495 square feet of indoor recreation space on the top floor. The building would have a rooftop height of 95 feet, with setbacks after the sixth and seventh floors. The ground floor would be approximately 15 feet tall, and the upper floors would each be just over 11 feet tall.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar mixed use building. It would have eight stories and a cellar and would contain 22,400 gsf (6,000 Use Group 6 retail and 16,400 Use Group 2 residential). Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60 (3,000 square feet of commercial floor area, for a commercial FAR of 0.75, and 15,400 square feet of residential floor area, for a residential FAR of 3.85). The residential portion would have 15 dwelling units. The building would have a rooftop height of 95 feet, with a setback after the sixth floor. The ground floor would be 15 feet tall, and the upper floors would each be just over 11 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 131,712 gsf, comprising 108,383 residential gsf containing 91 dwelling units, 18,609 retail gsf, and 6,720 office gsf. Compared with future no-action conditions, the future with-action scenario would have 91 more dwelling units, 2,951 gsf more retail space, 6,720 gsf more office space, and 4,000 gsf less warehouse space.

Table 10-1 compares the development characteristics of Lots 1 and 7 under existing, future no-action, and future with-action conditions.

Comparison of Existing, No-Action, and With-Action Conditions					
Item	Existing	No-Action Conditions	With-Action Conditions		
	Conditions				
Development	Retail building	Retail building (15,658 sf) and	Two mixed-use buildings with		
Scenario	(15,658 sf) and	warehouse (4,000 sf)	91 DUs, 18,609 sf retail, 6,720 sf		
	warehouse (4,000		office		
	sf)				
Gross/(Net) Bldg.	19,658 gsf/(19,658	19,658 gsf/(19,658 zsf, 1.00	133,712 gsf/(90,842 zsf, 4.60		
Floor Area	zsf, 1.00 FAR)	FAR)	FAR)		
Lot Coverage	19,658 sf (100&)	19,658 sf (100%)	19,479 sf (99%)		
Building Height	One story (13 feet)	One story (13 feet)	8 stories (95 feet)		

 Table 10-1

 Comparison of Existing, No-Action, and With-Action Conditions

# <u>Urban Design</u>

As discussed above under Existing Conditions, the principal urban design study area contains a diverse mix of building types, heights, and styles, including low-rise retail buildings and warehouses of the type that now occupy the two redevelopment sites in the proposed rezoning area, but also apartment buildings and hotels of up to ten stories, some with ground floor retail space. As is also discussed under Existing Conditions, the development along the south side of 35<sup>th</sup> Avenue in the immediate vicinity of the project site lack a consistent sense of place or scale. The new development resulting from the proposed action would thus not contrast with a consistent urban design character.

Furthermore, the proposed and projected developments' urban design context will have been considerably altered by the 2020 Build Year and will then be dominated by Farrington Tower. Because the proposed rezoning would be to a contextual district with prescribed maximum base and building heights, whereas Farrington Tower is within a non-contextual R6 district, the new developments would be almost 60 feet shorter than the Farrington. The new developments would present less of a contrast with the hotel-condo building than would the two existing one-story buildings that now occupy Lots 1 and 7 and will face the Farrington when it is completed. The new developments would, in fact, create a more cohesive streetscape along the avenue by forming part of a transition of building heights, from buildings as short as two stories to buildings of from 55 to 70 feet in height to the adjacent 95-foot-tall developments within the proposed rezoning area to the 154-foot-tall Farrington Tower.

The proposed action would not affect the topography, street system, block forms, or building arrangements within the area including and surrounding the proposed rezoning area.

The proposed action would not result in a significant adverse urban design impact, and further analysis is not warranted.

# Visual Resources

There are no direct sight lines between the Flushing Municipal Courthouse and the rezoning area, and new development within the rezoning area would not cast shadows on the courthouse. The proposed action would therefore not alter the setting of the landmark and would not result in a significant adverse impact to visual resources.
#### 35th Avenue facing east (Site at left)



# 35th Avenue facing east (Site at left)



# With Action

#### Legend

# Projected Development Site

##' Height

##' Width

No Action

95'

#### 35th Avenue facing west (Site at right)



# 

35th Avenue facing west (Site at right)

Legend
# Projected Development Site
##'. Height

With Action

##' Width

No Action

#### Urban Cartographics

Farrington Street facing south (Site at left)



#### Farrington Street facing south (Site at left)



# With Action

Legend

# Projected Development Site

##' Height

##' Width

No Action

#### **12. HAZARDOUS MATERIALS**

#### Phase I ESA

#### Introduction

Environmental Project Data Statements Company (EPDSCO, Inc.) has performed a Phase I Environmental Site Assessment (ESA) for the project site. The ESA, dated September 2016, was prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13).

The purpose of the ESA is to identify, to the extent feasible in accordance with ASTM E 1527-13, recognized environmental conditions in connection with the site with regard to hazardous materials as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and petroleum products. Additionally, several ASTM "Non-Scope" items including asbestos-containing materials, lead-based paints, and radon are also discussed. Recognized Environmental Conditions are identified through research into the history and uses of the site and surrounding area, an inspection of the subject property and a survey of adjoining and nearby uses, and a review of available regulatory agency records and environmental databases.

The following summarizes the findings, conclusions, and recommendations of the Phase I ESA.

#### Site Description

The project site at 135-01 35<sup>th</sup> Avenue is fully occupied by a one-story (plus partial cellar), masonry and wood frame commercial building. At the time of the site visit the building was occupied by the following retail businesses; Kato Café at 135-01 35<sup>th</sup> Avenue, Flushing Paint Co., Inc. at 135-03 35<sup>th</sup> Avenue, Meiling Nail Supply at 135-07 35<sup>th</sup> Avenue, Wu Rice Cake (bakery) at 135-09 35<sup>th</sup> Avenue, New Sunrise Japanese Restaurant Supplies, Inc. at 135-11 35<sup>th</sup> Avenue, DBSK Restaurant at 33-67 Farrington Street and Meiling Nail Supply at 33-69 35<sup>th</sup> Avenue. The partial cellar contains building utilities (e.g., gas meters, sprinkler mains, etc.) and general storage space. Heating and air conditioning for the building are provided by gas-fired, rooftop HVAC units.

#### Site History

Research into the history of the property indicates that the project site was occupied by a 2-story residential dwelling from at least 1892 to circa 1924. The current building was constructed circa 1924. From 1924 to circa 2000, the operations in the building included auto repair garages, truck repair and storage garages, auto body shops, and automobile machine shops. Auto and truck repair garages, auto body shops, and automobile machine shops. Auto and truck repair garages, auto body shops, and automobile machine shops typically involve the storage and use of hazardous materials and petroleum products. Any past spills, leaks, or discharges of such materials at the project site would have been potential sources of contamination to the property. Additional investigations would need to be performed to determine if the site has been contaminated by these past uses. From circa 2000 to the present time, the building has been occupied by various retail stores, none of which have been a type of establishment that typically stores or uses significant quantities of hazardous materials.

#### Site Inspection

Typical lavatory drainage structures such as toilets and sinks were present in the building. These structures discharge to the municipal sewer system. In addition, floor drains were observed at several locations in the building. The drainage destination of these structures is not known; however, no staining

or other indications of past spills or discharges of hazardous materials or petroleum products were observed around any of the floor drains.

No aboveground storage tanks were observed in either the main floor or the partial cellar of the building.

A fuel oil tank fill port was observed in the sidewalk along Farrington Street adjacent to the building, and a fuel oil tank vent line was observed along the west wall of the building immediately adjacent to the fill port. The presence of these structures indicates the possible presence of a buried fuel oil tank at the site. In addition, two buried gasoline tank vent lines were observed protruding from above the roof of the building during the site visit, along the south side of the building. Sanborn historical maps show the presence of three buried gasoline tanks at the site. No documentation regarding the closures or removal of underground storage tanks from the project site was provided to or obtained by EPDSCO. Therefore, it is possible that there are out-of-service, underground petroleum storage tanks at the site. Out-of-service petroleum storage tanks are required to be properly closed or removed in accordance with all applicable New York State Department of Environmental Conservation (NYSDEC) and New York City Fire Department (FDNY) requirements. Any past spills or leaks from buried petroleum storage tanks at the site site would be potential sources of contamination to the property. Additional investigation would be required to determine if the property has been contaminated by on-site underground petroleum storage tanks.

Given the age of the subject building, it may contain asbestos building materials and lead-based paints. Potential asbestos-containing building materials observed include floor tiles, ceiling tiles, surfacing materials, and roofing materials. Painted surfaces in the building were observed to be generally in good condition with no large areas of chipped or peeling paint noted.

#### Regulatory Agency Database Findings

The project site does not appear in any of the Federal or State environmental databases reviewed, including the USEPA's Superfund, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, PBS database, Solid Waste Facilities database, or the Registry of Inactive Hazardous Waste Disposal Sites.

#### Off-Site Findings

A review of Sanborn historical maps shows that there have historically been three gasoline filling stations and a large fleet repair garage located within less than 300 feet of the project site. The property adjacent to the east of the project site (135-19 35<sup>th</sup> Avenue) was occupied by a gasoline filling station from at least 1963 to 1993. From at least 1941 to 2006, the property to the west of the site (134-25 35<sup>th</sup> Avenue, across Farrington Street) was occupied by a large fleet repair garage with numerous underground petroleum storage tanks. The properties at 135-02 35<sup>th</sup> Avenue (70 feet south of the site) and 134-03 35<sup>th</sup> Avenue (250 feet west) were occupied by gasoline filling stations from at least 1941 to 1963.

There is a spill incident identified at the former New York City Department of Sanitation garage at 134-25 35<sup>th</sup> Avenue, which is located approximately 70 feet west of the project site, across Farrington Street. According to information in the database report, this site formerly contained numerous under-

ground storage tanks over the years. Investigation revealed elevated levels of contaminants, including chlorinated solvents. The remediation of this spill incident is on-going by the responsible party under the regulatory oversight of the NYSDEC, which has not closed this spill incident.

In addition, there was a NYSDEC investigation of chlorinated solvents in the groundwater around the intersection of Farrington Street and 32<sup>nd</sup> Avenue, approximately 1,100 feet north of the project site. This investigation discovered chlorinated solvents in the groundwater in the area but did not locate the source of the contamination. The investigation also determined that the groundwater flow in the area was generally in a southerly direction, towards the project site. At the time of the site visit, several groundwater monitoring wells were observed in the sidewalk within 200 feet of the subject property.

Given the groundwater investigations in the vicinity of the project site, and the historical presence of the gasoline filling stations and repair garage within 300 feet of the property, there is potential for groundwater contamination below the project site as a result of off-site sources of contamination. Additional investigation would need to be performed to determine if the groundwater below the project site has been contaminated.

#### **Conclusions**

The Phase I report concludes that the ESA has revealed the following:

- Possible contamination of the project site from past auto and truck repair and auto body operations at the site.
- Possible contamination from buried petroleum storage tanks at the site.
- The possible presence of buried petroleum storage tanks at the site that have not been properly closed or removed in accordance with NYSDEC and FDNY requirements.
- The possible presence of asbestos-containing building materials and lead-based paints in the subject building.
- Possible groundwater contamination below the site from potential off-site sources.

#### (E) Designation

Because a Phase II investigation and possibly remediation are needed, an (E) designation will be placed on the project site. (E) designations will also be placed on the one other potential development site within the rezoning area (Lot 7). The (E) designation (E-424) requires that the following actions be taken before construction activities take place.

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

Remediation Determination: After completion of the testing phase and laboratory analysis a written report with findings and a summary of the data will be submitted to OER for review and approval. Based upon its review of the results, OER will determine whether the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

Health and Safety Plan: A construction-related health and safety plan will be submitted to OER and implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan will be submitted to OER prior to implementation.

#### Conclusion

With the (E) designations in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

# 17. AIR QUALITY INTRODUCTION

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis frame work, as mandated by the State Environmental Review Act, follows the *New York City Environmental Quality Review 2014 Technical Manual (CEQR TM)*. The potential air quality impacts of the following emissions are estimated following the procedures and methodologies prescribed in the *CEQR TM*:

- The potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts.
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the proposed development to significantly impact nearby existing land uses.
- The potential for air toxic emissions released from existing industrial facilities to significantly impact the proposed development.
- The potential for significant air quality impacts from the emissions of "major" existing emission sources (i.e., HVAC systems with 20 or more million Btu/hour heat input) located within 400 feet of the proposed development as well as large (e.g., power generating) facilities located within 1,000 feet of the proposed development.

#### The Affected Area

The Affected Area is located in the Flushing neighborhood of Queens, Community District #7. Three lots are effected by the proposed action: The Development Site 1 at 135-01 35<sup>th</sup> Avenue (Block 4950, Lot 1), the Lot 7 Site at 33-65 Farrington Street (Block 4950, Lot 7), and the City's owned property at 135-19 35<sup>th</sup> Avenue (Block 4950, Lot 103).

Lot 103 under control of the City's Department of Cultural Affairs is currently utilized as parking for Flushing Town Hall. As such, this parcel is anticipated to remain in the future with the proposed action and therefore not included in the air quality analysis.

#### The Project Site (Block 4950, Lot 1)

The Project Site would facilitate a mixed-use, predominantly residential, eight-story building with multiple tiers. The building would rise to a height of 95 feet with 111,312 gross square feet (gsf) of floor area. The cellar and sub-cellar levels would accommodate office space, utility space, and 68 accessory parking spaces accessible via a car elevator. The first floor would accommodate a commercial retail space and a lobby for the residential units located on the second to eight floors.

#### The Lot 7 Site (Block 4950, Lot 7)

The Lot 7 Site would be redeveloped with an eight-story mixed-use, predominantly residential, building containing 22,400 gsf of floor area. The building would rise to a height of 95feet, where the seventh and eight floors would have a 15-foot setback from the lot line facing Farrington Avenue. The first floor would contain 4,000 gsf of commercial space, while the cellar would contain another 4,000 square feet of commercial space.

### **Principal Conclusion**

A screening analyses for carbon monoxide and particulate matter associated with on-street traffic showed that a detailed analysis is not warranted. The Proposed Action's incremental vehicular trip generation would be below the 170 vehicular trip threshold. Therefore, no significant air quality impacts are expected as a result of the Proposed Actions.

A screening analysis for the parking garage showed that a detailed analysis is not warranted. According to the *CEQR TM*, Table 16-1 in conjunction with the *CEQR TM* Map 16-1, the threshold criteria level that would trigger a detailed analysis is 80 parking spaces. The 68 parking spaces of the Project Site pass the screening analysis and the Lot 7 Site would not contain any parking or parking garage. Therefore, no significant air quality impacts are expected as a result of the Proposed Actions.

The Proposed Action impacts associated with the boiler stack emissions (HVAC), both project-on-existing land uses and project-on-project, required a detailed analysis. A detailed analysis using AERMOD modeling was conducted using a Tier 3 - Plume Volume Molar Ratio Method (PVMRM) – module for the project-on-existing scenario. The HVAC analysis concluded that fuel would need to be restricted to the exclusive use of natural gas in the HVAC systems of both the Project Site building and the Lot 7 Site building and the minimum stack heights of both buildings would need to be specified. In addition, the Lot 7 Site would require specifying the stack's location due to the building's irregular shape.

No major sources or odor producing facilities were identified within 1,000 feet of the Affected Area, and online searches found no active manufacturing or commercial uses that could potentially require New York City Department of Environmental Protection (NYCDEP) operational permits. Therefore, no significant air quality impacts are predicted from major and industrial sources emissions to the Affected Area.

### AIR POLLUTANTS AND APPLICABLE STANDARDS/GUIDELINES

#### National Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO<sub>2</sub>) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO<sub>2</sub> in a chemical reaction that is effected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO<sub>2</sub> impact.

- Ozone (O<sub>3</sub>) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.
- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM<sub>10</sub>) and Fine Particulate Matter (PM<sub>2.5</sub>), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO<sub>2</sub>) emission is principally associated with stationary sources that burn oil or coal.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The current standards together with their health-related averaging periods are presented in Table 17-1.

Pollutant	Averaging Period	National and State Standards
NO <sub>2</sub>	Maximum 1-Hour Concentration	0.10 ppm (188 μg/m³)
$NO_2$	Annual Arithmetic Average	0.053 ppm (100 μg/m³)
PM <sub>2.5</sub>	24-Hour Concentration	35 μg/m <sup>3</sup>
1 1012.5	Average of 3 Consecutive Annual Means	$12 \mu g/m^3$
PM10	Maximum 24-Hour Concentration	150 μg/m <sup>3</sup>
Lead	Rolling 3-month Average	0.15 μg/m <sup>3</sup>
Ozone	8-Hour Maximum	0.075 ppm
СО	Maximum 8-Hour	9 ppm
0	Maximum 1-Hour	35 ppm
	Maximum 1-Hour Concentration	0.070 ppm (196 μg/m³)
SO <sub>2</sub>	Maximum 3-Hour Concentration	0.050 ppm (1,300 μg/m³)
	Maximum 24-Hour Concentration	0.14 ppm (365 μg/m³)
	Annual Arithmetic Means	0.03 ppm (80 μg/m³)

#### Table 17-1. National AND New York States Ambient Air Quality

#### NO<sub>2</sub> NAAQS

Nitrogen oxide (NO<sub>x</sub>) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NO<sub>x</sub> in these emissions are then gradually converted to NO<sub>2</sub>, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO<sub>2</sub> NAAQS standard of 0.100 ppm (188  $ug/m^3$ ) is the 3-year average of the 98<sup>th</sup> percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this stand-

ard, the EPA has developed a modeling approach for estimating 1-hour NO<sub>2</sub> concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO<sub>x</sub> to NO<sub>2</sub>; Tier 2 applies a conservative ambient NO<sub>x</sub>/NO<sub>2</sub> ratio of 80% to the NO<sub>x</sub> estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO<sub>2</sub> within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8<sup>th</sup> highest daily maximum 1-hour NO<sub>2</sub> concentrations or total 1-hour NO<sub>2</sub> concentrations if hourly NO<sub>2</sub> background concentrations are added within the model.

Per the *CEQR TM*, a Tier 1 approach is initially applied, followed by a Tier 2 application of  $NOx/NO_2$  ratio of 80% to the NOx modeled concentration to determine whether violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour  $NO_2$  NAAQS were estimated.

The annual NO<sub>2</sub> standard is 0.053 ppm (100 ug/m<sup>3</sup>). In order to conservatively estimate annual NO<sub>2</sub> impacts, a NO<sub>2</sub> to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO<sub>2</sub> analysis, was applied.

#### New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on July 14, 2016.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

#### NYC Interim Guidelines

In addition to the NAAQS, the *CEQR TM* requires that projects subject to CEQR apply a PM<sub>2.5</sub> and CO significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. As outlined in the *CEQR TM*, CO significant impacts are evaluated as follow:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the 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.

Per the *CEQR TM*, significant adverse PM<sub>2.5</sub> concentration is determined by:

- Predicted 24-hour maximum PM<sub>2.5</sub> concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average PM<sub>2.5</sub> concentration increments greater than 0.1 µg/m<sup>3</sup> at ground level on a neighborhood scale (*i.e.*, the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, 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  $0.3 \mu g/m^3$  at any receptor location for stationary sources.

#### **Background Concentrations**

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the project area.

Background concentrations of relevant criteria pollutants were obtained from the NYSDEC's annual report for 2015 at the Queens College monitoring station.

Table 17-2. Background Concentration	at the Queens College Monitoring	Station (NYSDEC 2015 Report)
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Pollutant	Averaging Period	Background Concen- tration	Monitoring Station
NO	Maximum 1-Hour Concentration	119.2 μg/m <sup>3</sup>	
NO <sub>2</sub> Annual Arithmetic Average		40.8 μg/m <sup>3</sup>	Owener Caller
DM	24-Hour Concentration	22.5 μg/m <sup>3</sup>	Queens College
PM <sub>2.5</sub>	Average of 3 Consecutive Annual Means	8.1 μg/m <sup>3</sup>	
Ozone	8-Hour Maximum	0.069 ppm	Queens College

The *de minimis* criteria for CO and PM<sub>2.5</sub> were evaluated as described in the NYC Interim Guidelines and are presented below:

- 24-hour PM<sub>2.5</sub>6.25 μg/m<sup>3</sup>
- Annual PM<sub>2.5</sub>0.3 μg/m<sup>3</sup>

#### MOBILE SOURCE ANALYSIS

The potential impact of vehicular emissions associated with the Proposed Development Site was considered as the action would introduce new residential buildings and a parking garage to the area. These actions would induce local traffic, which are associated with CO and PM pollutants.

#### **Traffic Air Quality Screen**

Under *CEQR TM*, in this part of New York City, projects generating fewer than 170 vehicular trips in any given hour are not expected to have significant adverse air quality impact, and a detailed analysis, using MOVES2014 and CAL3QHC/R, is required if more than 170 vehicular trips are predicted in any given hour. The trips generation numbers are the predicted difference in the Future With No-Action and the Future With Action scenarios.

As outlined in the Transportation section, the maximum trip generation increment between the Future With No-Action and the Future With Action does not exceeds the threshold of 170 vehicular trip generation. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of the Proposed Project.

#### Parking Garage Screen

Based on CEQR recommendations, the maximum capacities of parking garages are evaluated with a threshold criteria to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, sited in the *CEQR TM* Table 16-1 in conjunction with the *CEQR TM* Map 16-1, is based on the location of the project. If the threshold is met or exceeded, a detailed analysis is warranted.

The Lot 7 Site at 33-65 Farrington Street (Block 4950, Lot 7) would not contain any parking garage. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of these actions.

The Project Site, would contain a 68 spaces parking garage. The *CEQR TM* situate the Affected Area in Zone 3, as it is within 0.5 mile of a subway station. The threshold criteria that would trigger a detailed analysis in Zone 3 is 80 parking spaces. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of these actions.

#### STATIONARY SOURCE ANALYSIS

As outlined in the *CEQR TM*, stationary sources, which are analyzed below, are defined as HVAC systems, industrial sources, odor producing facilities, and major sources. The analysis considers the potential impact of the projected developments' HVAC systems and the potential impact of existing industrial sources within 400 feet of the Affected Area, and odor producing facilities and major sources within 1,000 feet of the Affected Area. Figure 17-1 displays the Affected Area with 400-foot and 1,000-foot buffer zones.

Figure 17-1. The Affected Area with a 400 and a 1,000 foot buffer zones



#### HVAC Systems Screening Analysis

Based on CEQR recommendations, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

The Project Site and the Lot 7 Site are abutting, therefore the screening analysis is not applicable and a detailed dispersion analysis is required to estimate the impact of the Project Site on the Lot 7 Site and vice versa.

Both the Project Site and the Lot 7 Site are expected to use natural gas for their heat and hot water systems, therefore a screening analysis was performed for natural gas use and environmental designations added to specify use of natural gas only.

Per the *CEQR TM*, the total square footage of the projected development – the combined square footage of the Project Site and the Lot 7 Site - was used in the analysis and the CEQR natural gas nomograph depicted on Figure 17-7 of the *CEQR TM* Appendix for a 30-foot stack height was applied (as the 30 feet

curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires). This nomograph depicts the size of the development versus distance below which the potential impact can occur, and provides a conservative estimate of the threshold distance.

If the actual distance between a stack and the affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact and a detailed analysis would be required.

Figure 17-2 depict the screening analysis of the projected development on existing land uses, where the combined square footage of the projected development is 133,712 gsf.



Figure 17-2. The Affected Area Minimum Distance - HVAC Screen Nomograph for Natural Gas Use

The screening analysis nomograph shows that a detailed analysis would be required for any existing land uses that is 95 feet or higher and within 85 feet of the Project Site or the Lot 7 Site.

A review of existing land uses within 400 feet of the Affected Area via the New York City Open Accessible Space Information System (OASIS) Land Use interactive mapping application and Google imaging map shows that there is one existing building similar to or greater in height within a radius of 85 feet of the Project Site or the Lot 7 Site. This is the 148 feet high residential building at 134-37 35<sup>TH</sup> Avenue (Block 4949, Lot 31), located on the west side of Farrington Avenue and directly across the street from the Affected Area.

#### HVAC Detailed Analysis

A dispersion modeling analyses were conducted to estimate impacts from the stacks emissions of the Project Site and the Lot 7 Site using the latest version of EPA's AERMOD dispersion model 9.3.0 (EPA version 14134). In accordance with CEQR guidance, these analyses were conducted assuming stack tip downwash, urban dispersion surface roughness length of 1.0 meter, elimination of calms, and with and

without downwash effect on plume dispersion. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the 1-hour NO<sub>2</sub> analysis --to account for NOx to NO<sub>2</sub> conversion.

#### HVAC Emissions

Emission rates were estimated as follows:

- Both developments are expected to be heated by natural gas, emission rates of NOx and PM<sub>2.5</sub> were calculated based on annual natural gas usage corresponding to the gross floor area of the buildings, EPA AP-42 emission factors for natural gas combustion in small boilers, and gross heating values of natural gas (1,020 Btu per million cubic feet).
- PM<sub>2.5</sub> emissions from natural gas combustion accounted for both filterable and condensable particulate matter.
- The natural gas fuel usage factor (59.1 cubic foot per square foot per year) was used to estimate annual natural gas usage for residential use and was calculated by dividing the energy consumption rate of 60.3 thousand Btu/ft<sup>2</sup> by natural gas heating value of 1020 Btu/ft<sup>3</sup>.

Table 17-3 provides NO<sub>2</sub> and PM<sub>2.5</sub> emission rates, both short-term and annual, for the Project Site and the Lot 7 Site. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from the NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour). Boiler sizes were estimated based on the assumption that all fuel was consumed during the 100 day (or 2,400 hour) heating season. The stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Site ID	Floor Area	NO <sub>2</sub> Emiss	ion factor <sup>(2)</sup>	PM <sub>2.5</sub> Emission factor <sup>(1)</sup>		
Site ID	FIOOI Alea	g/s	sec	g/sec		
	ft²	1-hour	Annual	24-hour	Annual	
Project Site	111,312	3.45E-02	9.46E-03	2.62E-03	7.19E-04	
Lot 7 Site	22,400	6.95E-03	1.90E-03	5.28E-04	1.45E-04	

Table 17-3. Estimated Short-term and Annual Emission Rates of The Project Site and The Lot 7 Site

Notes:

1. PM2.5 emission factor for natural gas combustion of 7.6 lb/106 cubic feet included filterable and condensable particulate matter, filterable PM2.5=1.9 lb/100 cubic feet and condensable PM2.5=5.7 lb/106 cubic feet (AP-42, Table 1.4-2).

- 2. NOx emission factor for natural gas of 100 lb/100 cubic feet for uncontrolled boilers with <100MMBtu/hr (AP-42, Table 1.4-1).
- 3. Boiler size was estimated based on a fuel consumption rate of 1,020 Btu/ft3 and the assumption that all fuel is consumed in a 100 day (2,400 hours) heating season using the following equation: MMBtu/hr = X ft3/yr / 2,400hrs/yr \* 1020 Btu/ft3/106 MMBtu/Btu.

#### HVAC Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2012-2016). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. Data was processed by Lakes Environmental Software, Inc. using the current EPA

AERMET version (16216) and EPA procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs and Anemometer height of 9.4 meters was specified per Lakes Environmental Software Inc.

Per Lakes Environmental Inc.,  $PM_{2.5}$  special procedure which is incorporated into AERMOD calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

### HVAC Background Concentrations

The hourly  $NO_2$  and hourly ozone background concentrations were procured from the NYSDEC Queens College monitoring station for 5 consecutive years (2012-2016).

The NO<sub>2</sub> hourly background concentration was added as a source in AERMOD. This produces three outputs: (1) the individual impact of the building stack's emission; (2) the individual impact of the background concentration; and (3) the combined impact of both the building stack's emission and the background concentration at corresponding hours.

#### HVAC AERMOD Setting

AERMOD calculates concentrations according to the dispersion option, pollutant and averaging time, and output specified in the model. All models specified flat terrain, the default urban roughness coefficient of 1.0 meter with a population of 2,000,000. The other parameters of each pollutant corresponding to the scenario modeled were:

#### Project-on-Existing

1-hour NO<sub>2</sub>: NAAQS option enabled, Tier 3 conversion method and 8<sup>th</sup> highest value output. The stack's equilibrium ratio and in-stack ratio were set to 0.3 and 0.5 respectively.

Annual NO<sub>2</sub>: NO<sub>2</sub> pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

24-hour PM<sub>2.5</sub> NAAQS: Based on a multi-year average of ranked maximum daily values enabled and 1<sup>st</sup> highest value output.

Annual PM<sub>2.5</sub>: PM<sub>2.5</sub> pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

#### Project-on-Project

1-hour NO2: NAAQS option enabled, Tier 1 method and 8th highest value output.

Annual averaging time (NO<sub>2</sub> and PM<sub>2.5</sub>): OTHER pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

24-hour  $PM_{2.5}$  NAAQS: Based on a multi-year average of ranked maximum daily values enabled and  $1^{st}$  highest value output.

#### HVAC Stack and Receptor Locations

The New York City Building Code (Building Code) requires that a rooftop stack should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. As such, the HVAC stacks on the Project Site and the Lot 7 Site buildings were located on the buildings' highest tiers, 10 feet from the edge of the roof, and as close as possible to the receiving building. If exceedances of the PM<sub>2.5</sub> or NO<sub>2</sub> significant impact criteria were predicted at this stack location, set-back distances were increased, in five foot increments, until the threshold distance at which the projected building would pass the analysis was found.

Figure 17-2 displays AERMOD's buildings configuration plotted in Google Earth to illustrate the stacks' locations of the project-on-existing model, where the Lot 7 Site is shaded in green, the Lot 7 Site in light blue, and the residential building at 134-37 35<sup>TH</sup> Avenue building is shaded in dark blue. The stacks were reasonably located on the building's highest tiers, and an E-designations specify these locations and heights.



Figure 17-3. AERMOD's Project Site input plotted in Google earth and viewed from the north.

- Short-term dispersion analysis (1-hour and 24-hour) used the calculated emission factors.
- Annual dispersion analyses for the project-on-project models of both NO<sub>2</sub> and PM<sub>2.5</sub> were run with a generic 1 gram per second emission factor, and the results of the annual dispersion were multiplied by the calculated emission factors to model the concentrations.
- Annual dispersion analyses for the project-on-existing models of both NO<sub>2</sub> and PM<sub>2.5</sub> used the calculated emission factors.

• Building Profile Input Program (BPIP) was run with the downwash effect enabled.

Receptors on the receiving buildings were placed at 10 foot increments on all floor levels, and conservatively at 5 feet below the roof line. In addition, receptors were placed on the 7<sup>th</sup> floor roof terrace of the Project Site and on the 4<sup>th</sup> floor roof terrace of the residential building at 134-37 35<sup>TH</sup> Avenue.

#### HVAC Results of Dispersion Analyses

Result of the project-on-project and project-on-existing HVAC  $NO_2$  and  $PM_{2.5}$  analyses are shown in Table 17-4.

Project Site ID	Projected Devel- opment Receptor	24-hr PM <sub>2.5</sub> Impacts	Annual PM <sub>2.5</sub> Im- pacts	1-hr NO <sub>2</sub> Im- pacts <sup>(1)</sup>	Annual NO <sub>2</sub> Impacts <sup>(1)</sup>
	Sites	μg/m³	μg/m³	μg/m³	μg/m³
Project Site	Lot 7 Site	1.6	0.01	159.6	41.0
Lot 7 Site	Project Site	0.4	0.02	134.4	41.0
Combined Develop-	Existing	4.1	0.13	120.1 <sup>(2)</sup>	42.4
Threshold Criteria µg/m <sup>3</sup>		4.6	0.3	188	100

Table 17-4.	Detailed	HVAC	Analyses	Results
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Notes:

1. Total 1-hour and annual concentrations of  $NO_2$  include background concentrations values 119.2  $\mu$ g/m<sup>3</sup> and 40.8 respectively.

2. Tier 3 approach background concentration added as a source (AERMOD output included background concentration).

The results are compared with the 24-hour/annual  $PM_{2.5}$  significant impact criteria, and the 1-hour/annual  $NO_2$  NAAQS.

The PM<sub>2.5</sub> impacts are less than the significant impact criteria for PM<sub>2.5</sub> of 6.25  $\mu$ g/m<sup>3</sup> and 0.3  $\mu$ g/m<sup>3</sup>, respectively, and both the 1-hour and annual NO<sub>2</sub> concentrations estimated are less than the 1-hour and annual NO<sub>2</sub> NAAQS of 188  $\mu$ g/m<sup>3</sup> and 100  $\mu$ g/m<sup>3</sup>, respectively.

Therefore, with (E) Designations in place, the emissions from each Site would not significantly impact any of the other Site or the existing land use.

#### (E) Designation

The HVAC analysis, for both the Projected and Lot 7 Site s, concluded that fuel would need to be restricted to the exclusive use of natural gas in their HVAC systems and the minimum stack heights would need to be specified. In addition, the Lot 7 Site would require specifying the stack's location.

With regard to air quality, the (E) Designation (E-424) language is as follows:

<u>Block 4950, Lot 1 (the Project Site)</u>: Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at the highest tier, or at a minimum of 98 feet above grade to avoid any potential significant adverse air quality impact. <u>Block 4950, Lot 7 (the Lot 7 Site)</u>: Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at the highest tier, or at a minimum of 98 feet above grade, and at least 25 from the lot line facing Farrington Avenue to avoid any potential significant adverse air quality impact.

#### Toxic Air Emissions from Industrial Facilities

Information regarding potential emissions of toxic air pollutants from existing industrial sources was developed using the following procedure:

A study area was developed that includes all industrial facilities with potential air toxic emissions located within 400 feet of the Affected Area using Zoning and Land Use application (ZoLa);

New York City's Open Accessible Space Information System Cooperative (OASIS), Google Street View, on-line searches, and land surveys were used to identify and categorize facilities;

A search was performed to identify permits listed in the EPA Envirofacts database in this study area; and

A formal request with blocks and lot numbers necessary to identify industrial source permits within 400 feet of the Affected Area was submitted to NYCDEP;

According to DEP, the only address for which a permit had been issued is 134-03 35<sup>th</sup> Avenue, for a spray booth operated by Auto Rama Body Work. The permit expired in 1995, and Auto Rama is no longer in business at that location. The automotive repair shop has been demolished, and a two-story building with wholesale/retail establishments and accessory offices now occupies 134-03 35<sup>th</sup> Avenue, at the corner of 35<sup>th</sup> Avenue and Prince Street. Therefore, no significant air quality impacts are predicted from industrial source emissions to the Affected Area.

#### Major Sources and Odor

The *CEQR TM* recommends analysis for projects that would result in new uses (particularly schools, hospitals, parks, and residences) located near a major or large emission source. Large emission sources are identified as sources located at facilities which require a State facility permit, such as solid waste or medical waste incinerators, co-generation facilities, asphalt and concrete plants, or power generating plants. Major emission sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits.

No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within 1,000 feet of the Affected Area were identified. As such, no analysis was warranted and no significant air quality impacts are predicted from odor producing facilities and major sources with a Tile V certificate of operation.

#### CONCLUSION

Air quality analyses addressed mobile sources, stationary HVAC systems, and air toxics. The results of the analyses are summarized below.

- Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale;
- Emission from the parking garage of the New Market Rate building would not cause significant air quality impacts to receptors at the local scale;
- As no existing large or major sources are located within 1,000 feet of the Affected Area, emissions from existing stationary HVAC sources would not cause a significant air quality impact to the proposed project;
- No significant air quality impacts to the proposed project are anticipated from air toxics;
- Emissions from project-related heating, ventilation, and air conditioning systems (HVACs) would not cause significant air quality impacts to receptors at the local scale with (E) Designations in place.

#### **19. NOISE**

#### Introduction

The purpose of a noise assessment under CEQR is to determine whether an action would (1) raise noise levels significantly at existing or anticipated sensitive noise receptors (such as residences or schools) or (2) introduce new sensitive uses (such residential buildings or schools) at locations subject to unacceptably high ambient noise levels.

The assessment is concerned with both mobile and stationary noise sources. Mobile sources are those that move in relation to a noise-sensitive receptor. They include automobiles, buses, trucks, aircraft, and trains. Stationary sources of noise do not move in relation to a noise-sensitive receptor. Typical stationary noise sources of concern include machinery or mechanical equipment associated with industrial and manufacturing operations; building heating, ventilating, and air conditioning (HVAC) systems; speakers for public address and concert systems; playground noise; and spectators at concerts or sporting events. An action could raise noise levels either by introducing new stationary noise sources (such as outdoor playgrounds or rooftop air conditioning compressors) or by increasing mobile source noise (generally by generating additional traffic). Similarly, an action could introduce new residences or other sensitive receptors that would be subject to noise from either stationary or mobile sources.

The proposed action would be a zoning map amendment to extend an existing R6B zoning district onto the project site, which is now zoned M1-1. The action would affect only the project site, which is now a surface parking lot that will be redeveloped with a residential apartment building whether or not the proposed action is taken, but the new building would be larger under the proposed zoning. The proposed action would thus result in new development, which could potentially generate either stationary or mobile source noise, and that would include noise-sensitive residences.

#### **Noise Fundamentals**

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. Table 19-1 lists some noise levels for typical daily activities.

#### **Table 19-1**

#### Noise Levels of Common Sources

Sound Source	SPL (dB(A))				
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				
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A)					
Is perceived as a doubling or halving in SPL.					
Source: 2014 CEQR Technical Manual					

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common weighting networks used are the A- and C-weighting networks. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighted network is the most commonly used, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting

The following is typical of human response to relative changes in noise level:

- 3-dB(A) change is the threshold of change detectable by the human ear;
- 5-dB(A) change is readily noticeable; and
- 10-dB(A) change is perceived as a doubling or halving of the noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L<sub>eq</sub> is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L<sub>eq</sub> than low noise levels. L<sub>eq</sub> has an advantage over other descriptors because L<sub>eq</sub> values from various noise sources can be added and subtracted to determine cumulative noise levels.
- L<sub>eq(24)</sub> is the continuous equivalent sound level over a 24-hour time period.

The sound level exceeded during a given percentage of a measurement period is the percentileexceeded sound level ( $L_x$ ). Examples include  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$ .  $L_{10}$  is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source). In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For "line" sources, such as vehicles on a street, the SPL drops off at a rate of 3 dB(A) with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

#### Impact Determination and Noise Standards and Guidelines

In 1983 the New York City Department of Environmental Protection (DEP) adopted the City Environmental Protection Order-City Environmental Quality Review (CEQR) noise standards for exterior noise levels. These standards are the basis for classifying noise exposure into four categories based on the  $L_{10}$ : Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable, as shown in Table 19-2.

For sensitive receptors introduced by the proposed action, with-action condition noise levels in dB(A)  $L_{10(1)}$  are compared with the values contained in the Noise Exposure Guidelines. If these noise levels would exceed the Marginally Acceptable levels, a significant impact would occur unless the building design provides a composite building attenuation that would be sufficient to reduce these levels to an acceptable interior noise level. These values are shown in Table 19-3.

For noise increases caused by project-induced traffic, or for stationary noise sources introduced by the proposed action, if the no-action levels are less than 60 dB(A)  $L_{eq(1)}$  and the analysis period is not at nighttime, an increase of 5 dB(A)  $L_{eq(1)}$  or more in the future with the project would be considered a significant impact. In order for the 5 dB(A) threshold to be valid, the resultant action condition noise level would have to be equal to or less than 65 dB(A). If the No-Action noise level is equal to or greater than 62 dB(A)  $L_{eq(1)}$ , or if the analysis period is a nighttime analysis period, the incremental significant impact threshold would be 3 dB(A)  $L_{eq(1)}$ . If the No-Action noise level is 61dB(A)  $L_{eq(1)}$ , the maximum incremental increase would be 4 dB(A), since an increase higher than this would result in a noise level higher than the 65 dB(A)  $L_{eq(1)}$  threshold and be considered significant.

Table 19-2CEQR Noise Exposure Guidelines for use in City Environmental Impact Review1

Receptor Type	Time Period	Acceptable General External Exposure	Airport <sup>3</sup> Exposure	Marginally Acceptable General External Exposure	Airport <sup>3</sup> Exposure	Marginally Unacceptable General External Exposure	Airport <sup>3</sup> Exposure	Clearly Unacceptable General External Exposure	Airport <sup>3</sup> Exposure
1.Outdoor area requiring serenity and quiet <sup>2</sup>		$L_{10} \le 55 \text{ dBA}$							
2. Hospital, Nursing Home		$L_{10}{\leq}55\;dBA$		$55 < L_{10} \leq 65 \ dBA$		$\begin{array}{l} 65 \ < \ L_{10} \ \le \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
3. Residence, residential hotel or	7 am to 10 pm	$L_{10}{\leq}65 dBA$		$65 < L_{10} \leq 70 dBA$		$\begin{array}{l} 70 \ < \ L_{10} \ \le \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
motel	10 pm to 7 am	$L_{10}{\leq}55dBA$		$55 < L_{10} \leq 70 dBA$		$\begin{array}{l} 70 \ < \ L_{10} \ \le \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)		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)	≤ 60 dBA	Same as Residential Day (7 AM-10 PM)	<u>&lt;</u> 60 dBA	Same as Residential Day (7 AM -10 PM)	≤ 60 dBA	Same as Residential Day (7 AM-10 PM)	≤ 75 dBA
6. Industrial, public areas only <sup>4</sup>	Note 4	Note 4	$L_{dn} \leq$	Note 4	$L_{dn} \le$	Note 4	$L_{dn} \le$	Note 4	L <sub>dn</sub> <

Notes:

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 nursing homes.

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

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 19-3Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacco	Clearly Unacceptable			
Noise level with proposed action	$70 < L_{10} \le 73$	73 <l<sub>10 <u>&lt;</u> 76</l<sub>	76 < L <sub>10</sub> <u>&lt;</u> 78	78 < L <sub>10</sub> <u>&lt;</u> 80	80 < L <sub>10</sub>
Attenuation <sup>A</sup>	(I) 28 dBA	(II) 31 dBA	< / /	(IV) 35 dBA	$36 + (L_{10} - 80)^B dBA$

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

<sup>B</sup>Required attenuation values increase by 1 dBA increments for  $L_{10}$  values greater than 80 dBA.

Source: New York City Department of Environmental Protection, 2012.

#### Potential for Additional Stationary Source Noise

The proposed action would result in new development with residential, retail, and office space. Unlike playgrounds, truck loading docks, loudspeaker systems, car washes, stationary diesel engines, or similar uses, residential apartment buildings and enclosed retail and office space are not substantial stationary noise sources. All rooftop mechanical equipment, including air conditioner compressors, would be enclosed and would comply with New York City Noise Code requirements, which limit noise levels generated by such equipment to 65 dBA during the daytime (7AM to 10 PM) and 55 dBA during the nighttime. The proposed action would therefore not have the potential to cause a significant adverse stationary source noise impact.

#### Potential for Additional Mobile Source Noise

The anticipated action-induced development is below the CEQR threshold for a traffic impact assessment. It can therefore be assumed that the additional traffic volumes would be too low to cause a 3 dBA increase in  $L_{eq(1)}$  noise levels, which would require a doubling of PCE traffic volumes along an adjacent street. The proposed action would therefore not have the potential to cause a significant adverse mobile source noise impact.

#### Potential for Existing Noise Levels to Adversely Affect New Residents

Because the predominant noise source in the area of the proposed rezoning is vehicular traffic, noise monitoring was conducted during peak vehicular travel periods, 8:30 – 9:10 am, 12:20 -1:00 pm, and 5:15-6:00 pm. Pursuant to *CEQR Technical Manual* methodology, readings were conducted for 20-minute periods during each peak time interval to account for vehicular noise. Noise monitoring was conducted using a Type 1 Casella CEL-633 sound meter, with wind screen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Monitoring was conducted at two locations adjacent to the proposed rezoning area: on the sidewalk at the corner of 35<sup>th</sup> Avenue and Farrington Street and on the sidewalk at the corner of 35<sup>th</sup> Avenue and Linden Place.

Monitoring was conducted during typical midweek conditions, on Tuesday, November 1, 2016. The weather was sunny and dry throughout the day, and wind speeds were low to moderate. Neighboring

properties were not significant sources of ambient noise. Traffic volumes and vehicle classification were documented during the noise monitoring.

Tables 19-4 and 19-5 show the noise monitoring results. Tables 19-6 through 19-8 show the vehicle counts and classifications for the three monitoring periods.

#### Tuesday, November 1, 2016 12:42 – 1:02 pm 5:37 – 5:57 pm 8:50 - 9:10 am 89.6 83.6 89.2 $L_{max} \\$ 74.5 73.0 70.0 L<sub>10</sub> L<sub>eq</sub> 71.9 69.5 67.9 63.5 L<sub>50</sub> 65.0 66.0 60.5 L<sub>90</sub> 61.5 59.5 56.5 56.1 56.1 L<sub>min</sub>

### **Table 19-4**

#### Noise Levels at 35th Avenue and Farrington Street

#### **Table 19-5**

#### Noise Levels at 35<sup>th</sup> Avenue and Linden Place

	Tuesday, November 1, 2016					
	8:28 – 8:49 am	12:20 – 12:40 pm	5:15 – 5:35 pm			
L <sub>max</sub>	85.8	87.3	86.0			
L <sub>10</sub>	73.5	75.0	73.5			
L <sub>eq</sub>	70.1	71.4	70.6			
$L_{50}$	66.0	65.5	66.0			
L <sub>90</sub>	61.5	59.0	60.5			
L <sub>min</sub>	55.6	55.1	55.3			

#### Table 19-6

#### Morning Vehicle Counts and Classifications

	Farrington Street	Linden Place
Car/ Taxi	45	92
Van/ Light Truck/SUV	62	101
Heavy Truck	57	27
Mini Bus	8	13
Bus	1	14
Airplane	3	6

#### **Table 19-7**

	<b>Farrington Street</b>	Linden Place
Car/ Taxi	65	91
Van/ Light Truck/SUV	92	110
Heavy Truck	7	3
Mini Bus	10	10
Bus	2	0
Airplane	12	8

#### Midday Vehicle Counts and Classifications

#### **Table 19-8**

#### **Evening Vehicle Counts and Classifications**

	Farrington Street	Linden Place
Car/ Taxi	63	72
Van/Light Truck/SUV	102	124
Heavy Truck	9	13
Mini Bus	18	4
Bus	0	18
Airplane	6	9

The highest measured  $L_{10}$  noise levels were 74.5 dB(A) at the Farrington Street corner (during the morning monitoring period) and 75.0 dB(A) at the Linden Street corner (during the midday monitoring period). These noise levels are in the Marginally Unacceptable Category (between 70 and 80 dB(A)).

Window-wall noise attenuation would therefore be required to ensure an acceptable indoor noise level. Based on Table 19-3 of the *CEQR Technical Manual*, the required Outdoor Indoor Transmission Class (OITC) attenuation values to achieve acceptable interior noise levels are 31 dB(A) for the residential portions of the buildings and 26 dB(A) for the commercial components. Provision of this level of window-wall attenuation would ensure that no adverse impacts related to noise occur.

To ensure that the required noise attenuation is provided, (E) designations would be placed on the project site and the other potential development site in the proposed rezoning area (Block 4950, Lots 1 and 7). With regard to noise, the text of the (E) designation (E-424) will state the following:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31dB(A) window/wall attenuation on all building's facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

#### Conclusion

For the reasons cited above, the proposed actions would not result in a significant adverse noise impact.

Appendix 1

AGENCY CORRESPONDENCE



# **ENVIRONMENTAL REVIEW**

Project number:DEPARTMENT OF CITY PLANNING / 17DCP143QProject:135-01 35th Ave RezoningDate received:3/25/2017

Properties with no architectural significance and no archaeological significance:

- 1) ADDRESS: 33-65 FARRINGTON STREET, BBL: 4049500007
- 2) ADDRESS: 135-19 35 AVENUE, BBL: 4049500103

3) ADDRESS: 135-01 35 AVENUE, BBL: 4049500001

In the radius: IN RADIUS: RKO KEITH INTERIOR LM AND FLUSHING TOWN HALL - LPC AND NR LISTED.

LPC is in receipt of the EAS dated 3/13/17. The text is acceptable for historic and cultural resources and shadow impacts.

Gina SanTucci

4/7/17

DATE

SIGNATURE Gina Santucci, Environmental Review Coordinator

tor

File Name: 32025\_FSO\_DNP\_03282017.doc

Appendix 2

# **REVISED PROJECT DESCRIPTION AND TECHNICAL ANALYSES**

# **REVISED PROJECT DESCRIPTION AND TECHNICAL ANALYSES**

## INTRODUCTION

The original 135-01 35<sup>th</sup> Avenue Rezoning EAS, dated May 5, 2017, and prepared in connection with the original ULURP application certified on May 8, 2017, described and analyzed a proposal to rezone the affected area from M1-1 to R7A/C2-3 and to designate it as a Mandatory Inclusionary Housing (MIH) area. The proposed actions would have facilitated the redevelopment of the site, now occupied by a one-story commercial building, with a mixed-use building containing residential apartments, retail space, and office space. The EAS also projected that an adjacent lot, now occupied by a one-story warehouse, would be redeveloped with a similar mixed-use building.

The Applicant has since filed an (A) Application (C 170180A ZMQ) that changed the rezoning proposal to one from M1-1 to R7A, with no commercial overlay. This appendix describes the current proposed actions (which still include the designation of the rezoning area as an MIH area) and the developments expected to result from those actions (two residential apartment buildings) and analyzes the environmental implications of the revised actions. The appendix addresses all of the technical areas analyzed in the original EAS and determines whether the conclusions reached in that EAS remain valid for the current proposed actions.

# 135-01 35<sup>TH</sup> AVENUE REZONING

# **PROJECT DESCRIPTION**

#### **PROPOSED ACTIONS**

The Applicant, Stenmax Realty Inc., is seeking an amendment to zoning sectional map 10a to rezone Block 4950, Lots 1, 7 (p/o), and 103 (the "proposed rezoning area"), in the neighborhood of Flushing, Queens, Community District 7, from M1-1 to R7A. The Applicant is also seeking a Zoning Text Amendment to Appendix F to establish a Mandatory Inclusionary Housing (MIH) area coterminous with the rezoning area in accordance with the City's Mandatory Inclusionary Housing policy (N 160051 ZRY), in which Option 2 would be required.

Block 4950 is now entirely within an M1-1 zoning district. The block is bounded by 32<sup>nd</sup> Avenue to the north, Linden Place to the east, 35<sup>th</sup> Avenue to the south, and Farrington Street to the west. The proposed Zoning Map Amendment would rezone the southern part of the block, to a depth of 150 feet from 35<sup>th</sup> Avenue.

The proposed actions are intended to facilitate the redevelopment of Block 4950, Lot 1 (the "development site"), with a nine-story Use Group 2 residential building with 110,086 gross square feet (gsf) of floor area and 93 dwelling units. In accordance with Inclusionary Housing Program Option 2, under which 30 percent of residential floor area must be associated with income-restricted housing units for qualifying households within prescribed income bands, 27 units (30 percent) would be income-restricted, 65 units (70 percent) would be market rate, and one would be a superintendent's unit. The development would have a floor area ratio (FAR) of 4.60.

#### ZONING COMPARISON

The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 but prohibits commercial and manufacturing development.

The two districts also differ in terms of bulk regulations. The maximum permitted FAR under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A is 4.00 for community facility uses and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. The proposed rezoning area would be coterminous with an MIH area in which under any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings.



# Zoning Change Map



Current Zoning Map (10a)

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5



Proposed Zoning Map (10a) - Project Area is outlined with dotted lines Rezoning from M1-1 to R7A
The maximum street wall height under M1-1 is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. Above that height the M1-1 regulations do not impose a maximum building height but instead require that the building not penetrate a sky exposure plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle. In an R7A district, the regulations prescribe maximum street wall and building heights. For community facility development, the maximum permitted base (street wall) height is 65 feet, and the maximum permitted building height is 80 feet. For a residential building or a mixed use building that combines residential use with community facility, the maximums are also 65 feet and 80 feet if it does not include affordable housing or qualifying ground floor, 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program but does not include a qualifying ground floor, 75 feet and 95 feet if it satisfies the provisions of the provisions of the Inclusionary Housing program and includes a qualifying ground floor.

No lot coverage restrictions apply under M1-1. Under R7A the maximum permitted lot coverage is 65 percent on an interior or through lot and 80 percent on a corner lot.

# PROJECT SITE

The project site is identified as Block 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue. It is at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street. The dimensions of the irregularly shaped parcel are as follows: From the intersection of the two streets, the lot extends 120 feet northward along Farrington Street, then 100 feet eastward, then 30 feet northward, then 25 feet eastward, then 150 feet southward, then 125 feet westward along 35<sup>th</sup> Avenue. The site measures 15,750 square feet.

The project site is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers the entire site and has 15,658 square feet above grade, for a 0.99 FAR, which is just below the maximum of 1.00 permitted in the M1-1 district. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store.

# PROPOSED REZONING AREA

In addition to the project site, two other parcels are wholly or partly within the proposed rezoning area.

Block 4950, Lot 103 (135-19 35<sup>th</sup> Avenue), to the immediate east of the project site, is entirely within the proposed rezoning area. It measures 18,750 square feet and is rectangular in shape, with 125 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Linden Place. Lot 103 currently contains an attended parking facility constructed around 1957 with 2,550 square feet of floor area, for a total built FAR of 0.14. The Department of Cultural Affairs (DCA) has ownership of the lot. It was recently renovated for parking use in conjunction with Flushing Town Hall.

Block 4950, Lot 7 (33-65 Farrington Street) is located to the north and west of the project site. The 4,000 square foot rectangular lot has 40 feet of frontage along Farrington Street and a depth of 100 feet. The boundary between the existing M1-1 district and the new R7A district would be located ten feet south of the parcel's northern lot line; 3,000 of the lot's 4,000 square feet would be within the proposed rezoning area. Because the majority of the lot would be within the new zoning district and, on the portion of the lot remaining in the M1-1 district, the linear dimension between the zoning district boundary and the zoning lot boundary would be less than 25 feet in all places, the R7A use and bulk

regulations could be applied to the entire lot. Lot 7 is developed with a one-story warehouse that covers the entire lot, for an FAR of 1.00.

In its entirety, the proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

# PROPOSED DEVELOPMENT

The Applicant proposes to redevelop the project site with a residential building Use Group 2) with nine stories, a cellar, and a sub-cellar. The building would contain 110,086 gsf. Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 93 dwelling units (27 income-restricted Inclusionary Housing units,65 market rate units, and a superintendent's unit). A 52-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and storage space. The ground floor would contain residential apartments, 1,130 square feet of indoor recreation space, the lobby (entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors. The building would have a rooftop height of 94 feet 3 inches, with setbacks after the seventh and eighth floors.

### PURPOSE AND NEED

The proposed action would facilitate the redevelopment of what is now an unutilized property. The proposed action would also facilitate the development of housing, of which 30 percent would be affordable.

#### ANALYSIS FRAMEWORK

#### **Existing Conditions**

As is discussed above, the project site is currently improved with a single-story, 13-foot-tall retail building that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers the entire site and has approximately 15,750 square feet above grade, for a 1.00 FAR, and a partial cellar with unknown square footage.

Lot 7 is developed with a one-story warehouse that covers the entire lot, for an FAR of 1.00.

City-owned Lot 103 contains an attended parking facility with 2,550 square feet of floor area, for an FAR of 0.14. It is used for parking in conjunction with Flushing Town Hall.

#### The Future without the Proposed Actions

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces and the one-story warehouse would remain.

#### The Future with the Proposed Actions

In the future with the proposed actions, the project site would be redeveloped in accordance with the regulations applicable to an R7A zoning district and an MIH area in which MIH program Option 2 is required. The existing one-story retail building would be replaced by a new residential building Use Group 2). The with-action scenario is the same as the Applicant's proposed development, with the exception that the height would be 95 feet, the maximum permitted under the zoning, rather than 94 feet 3 inches.

Under the reasonable worst case development scenario, the new development on the project site would have nine stories, a cellar, and a sub-cellar. The building would contain 110,086 gsf. Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60 The development would have 93 dwelling units. A 52-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and storage space. The ground floor would contain residential apartments, 1,130 square feet of indoor recreation space, the lobby (entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors. The building would have a rooftop height of 95 feet, with setbacks after the seventh and eighth floors. The ground floor would be approximately 15 feet tall, and the upper floors would each be 10 feet tall.

In compliance with MIH program Option 2, 27 of the dwelling units (30 percent) would be incomerestricted residential units marketed exclusively to qualifying households, all of which would have incomes not exceeding 130 percent of the income index cited in ZR Section 23-911, and with the weighted average of the income bands for the income-restricted units not exceeding 80 percent of the index, and 65 (70 percent) would be market rate; there would also be a superintendent's unit. This does not mean, however, that 27 units would be "affordable." For CEQR purposes, dwelling units are considered "affordable" if they are available exclusively to low- and moderate-income households with income not exceeding 80 percent of the Area Median Income (AMI). Because the income-restricted Inclusionary Housing units may include ones available to middle-income households with incomes up to approximately 130 percent of AMI, not all of the income-restricted units would be considered affordable housing. It is conservatively assumed that 19 (20 percent) of the 93 units would be affordable.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar Use Group 2 residential building satisfying the requirements of MIH program Option 2. It would have nine stories and a cellar and would contain 22,400 gsf. Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 18 dwelling units (5 of them incomerestricted, including 4 affordable for households with incomes not exceeding 80 percent of AMI, and 14 of them market rate). The building would have a rooftop height of 95 feet, with a setback after the seventh floor. The ground floor would be approximately 15 feet tall, and the upper floors would each be 10 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 132,486 gsf of residential space containing 111 dwelling units (78 market rate units, a superintendent's unit, and 32 income-restricted Inclusionary Housing units, including 23 units affordable to low- and moderate-income households). Compared with future no-action conditions, the future with-action scenario would have 111 more dwelling units, 15,658 gsf less retail space, and 4,000 gsf less warehouse space.

The difference between the no-action and with-action scenarios is presented in the table below.

# **REQUIRED APPROVALS**

The proposed project would require an amendment to zoning sectional map 10a to rezone a 37,500 square foot area from M1-1 to R7A and a Zoning Text Amendment to Appendix F to establish an MIH area coterminous with the rezoning area. The actions would be subject to the Uniform Land Use Review Procedure (ULURP).

#### **BUILD YEAR**

Based on an estimated 16-month approval process and a 12-month construction period, it is estimated that the project would be completed in 2020. This is the assumed "build year," which is used throughout this EAS for all future conditions, and which is the analysis year for the purpose of all assessments.

# DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS (RWCDS)

Development Sites 1 & 2 (Block 4950, Lots 1, 7)

			WITH-ACTION CONDITION	INCREMENT	
LAND USE					
Residential	NO	NO	YES		
If "yes," specify the following:					
Describe type of residential structures			Multi-family Buildings		
No. of dwelling units			111	+111	
No. of low- to moderate-income units			23	+23	
Gross floor area (sq. ft.)			132486	+132,486	
Commercial	YES	YES	NO		
If "yes," specify the following:					
Describe type (retail, office, other)	Retail/Warehouse	Retail/Warehouse			
Gross floor area (sq. ft.)	19,658	19,658		-19,658	
Manufacturing/Industrial	NO	NO	NO		
If "yes," specify the following:					
Type of use					
Gross floor area (sq. ft.)					
Open storage area (sq. ft.)					
If any unenclosed activities, specify:					
Community Facility	NO	NO	NO		
If "yes," specify the following:					
Туре					
Gross floor area (sq. ft.)					
Vacant Land	NO	NO	NO		
If "yes," describe:					
Other Land Uses	NO	NO	NO		
If "yes," describe:					
Garages	NO	NO	YES		
If "yes," specify the following:					
No. of public spaces					
No. of accessory spaces			52	+52	
Lots	NO	NO	NO		
If "yes," specify the following:					
No. of public spaces					
No. of accessory spaces					
ZONING					
Zoning classification	M1-1	M1-1	R7A	-	
Maximum amount of floor area that can be	1.0 FAR (C or M)	1.0 FAR (C or M)	4.6 (MIH)	- +4.6 RES	
developed	2.4 FAR (CF)	2.4 FAR (CF)	4.0 (RES/CF)	+1.6 CF	
ae . cropou	2	2.11111(()1)		-1.0 C	
				-1.0 M	
Predominant land use and zoning	Commercial,	Commercial,	Commercial,		
classifications within land use study area(s)		Manufacturing,	Manufacturing,		
or a 400 ft. radius of proposed project	Residential	Residential	Residential		

# PART II: TECHNICAL ANALYSES

# INTRODUCTION

Based on the criteria in Part II of the Environmental Assessment Statement Full Form, the following technical areas require further analysis: land use, zoning, and public policy; open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; air quality; and noise. These analyses, which follow the guidance in the *CEQR Technical Manual*, are presented below. The heading numbers correlate with the relevant chapters of the *CEQR Technical Manual*.

# 4. LAND USE, ZONING, AND PUBLIC POLICY

# Introduction

A land use analysis characterizes the uses and development trends in the area that may be affected by an action and determines whether a proposed project is compatible with those conditions or whether it may adversely affect them. The analysis also considers the proposed project's compliance with, and effect on, the area's zoning and other applicable public policies.

According to the *CEQR Technical Manual*, a preliminary assessment that includes a basic description of existing and future land uses, as well as basic zoning information, is provided for most projects, regardless of their anticipated effects. Regarding public policy, the *CEQR Technical Manual* states, "Large, publicly-sponsored projects are assessed for their consistency with PlaNYC, the City's sustainability plan." An assessment of an action's consistency with the Waterfront Revitalization Program is required if an action would occur within the designated Coastal Zone. Public policy assessments are also appropriate if an action would occur within an area covered by an Urban Renewal Plan or a 197-A Plan.

# **Study Area**

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning, and public policy is related to the type and size of the proposed project, as well as the location and context of the area that could be affected by the project. Study area radii vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a very large project.

Because of the modest size of the proposed project, the land use and zoning assessment for the proposed action considers a study area extending 400 feet around the proposed rezoning area. As shown in the Land Use Map, the study area extends northward to approximately the middle of the block between 35<sup>th</sup> and 32<sup>nd</sup> Avenues, eastward to 137<sup>th</sup> Street, southward to Northern Boulevard, and westward to Prince Street.

# Need for a Preliminary Assessment

A land use and zoning assessment is appropriate for the proposed actions, which include a zoning map amendment.

The proposed project is neither large nor publicly sponsored. No portion of the proposed rezoning area is within an urban renewal area, an area covered by a 197-a Plan, or the Coastal Zone. The proposed action would, however, involve the stated City policy that any zoning map amendment that would result in increased residential development should be accompanied by the designation of a Mandatory Inclusionary Housing (MIH) area, in which new residential development must include units that will

be permanently affordable to lower income households, as part of an effort to ensure an adequate citywide inventory of housing that is affordable to a range of income levels and to ensure socioeconomic diversity within particular neighborhoods. A public policy consistency assessment is therefore warranted.

# Land Use

# Existing Conditions within the Proposed Rezoning Area

The project site (identified as Block, 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue, and located at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street) is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers virtually the entire site and has 15,658 square feet above grade. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store.

Lot 7 (to the immediate north of the project site along Farrington Street) is developed with a one-story warehouse that covers the entire lot.

Lot 103 (located to the immediate east of the project site and at the block's southeast corner, with frontage along 35<sup>th</sup> Avenue and Linden Place) is City-owned and under the jurisdiction of the Department of Cultural Affairs (DCA), which recently renovated the lot for parking use in conjunction with Flushing Town Hall.

### Existing Conditions in the 400-Foot Study Area

Land uses within the study area are mixed. They include one- and two-family homes, multifamily walkups, elevator apartment buildings, local retail and service establishments, hotels, houses of worship, warehouses, light manufacturing, automotive repair shops, and parking lots.

On Block 4950, a one-story warehouse abuts Lot 7 on Farrington Street. Further north along Farrington Street are a two-story building with offices above an automotive and truck repair shop, a two-family home, a three-story hotel that opened in 2005, a two-story banquet hall (extending to Linden Place), a parking lot, a two-story building containing a contractor's office and storage, and a one-story building used for truck storage and machinery repair. On the Linden Place side of the block, a three-story hotel abuts the proposed rezoning area, followed by an auto repair shop, the through-block banquet hall, and a billiard parlor.

To the west, on Block 4949 (bounded by 35<sup>th</sup> Avenue, Farrington Street 33<sup>rd</sup> Avenue, and Prince Street), the uses along Farrington Street, from south to north, are a construction site, a three-story building with wholesale offices and showrooms above first floor warehouse use, three two-family homes, a three-story office building, a three-story industrial building with hardware manufacturing and metal finishing operations, a four-story warehouse with accessory offices, a multifamily walkup, and a two-family home. A two-story building with wholesale/retail establishments and accessory offices occupies the corner of 35<sup>th</sup> Avenue and Prince Street. To the north along Prince Street are four three-story multifamily walkups, two auto repair shops, and six two-family homes.

To the east, Block 4951 (bounded by 35<sup>th</sup> Avenue, Linden Place, Latimer Place, and 137<sup>th</sup> Street) is predominantly residential. The only nonresidential buildings are a one-story retail building at the corner of 35<sup>th</sup> Avenue and Linden Place and a house of worship fronting on 35<sup>th</sup> Avenue. Residential

rowhouses occupy the rest of the southern part of the block, and a New York City Housing Authority complex of four ten-story apartment buildings occupies the northern part of the block.

In the southern part of the study area, Block 4960 (bounded by 35<sup>th</sup> Avenue, Linden Place, Northern Boulevard, and Leavitt Street) consists of two physical blocks separated by Carleton Place, which is a narrow, one-block-long east-west street. Thirteen two- to five-story residential walkups, eight one- and two-family homes, and two seven-story mixed use buildings occupy the northern physical block. The two mixed use buildings, completed in 2004 and 2007, contain residential apartments above medical offices and residential apartments above retail stores. Two four-story multifamily walkups, a one-family home, a City-owned parking lot under DCA control, the Flushing Municipal Courthouse, and a supermarket with an accessory parking lot occupy the southern physical block.

On Block 4959 (bounded by 35<sup>th</sup> Avenue, Farrington Street, Northern Boulevard, and Linden Place), a two-story office and retail building, a seven-story building with residential apartments above ground floor retail units (completed in 2008), and a house of worship and its accessory parking lot occupy the 35<sup>th</sup> Avenue frontage. An eight-story 2009 building with residential apartments over ground floor retail, a four-story building with apartments above retail, a two-story building with offices above a bank, and two other two-story commercial buildings occupy the midblock along Farrington Street. An eight-story hotel, low-rise commercial buildings, and a parking lot occupy the Northern Boulevard frontage. A three-story building with offices above a glazier and a house of worship occupy the midblock along Linden Place.

On Block 4958 (bounded by 35<sup>th</sup> Avenue, Farrington Street, Northern Boulevard, and Prince Street), a five-story residential building, a seven-story hotel, and four three-story multifamily walkups are located along 35<sup>th</sup> Avenue. A house of worship, a community center, and a row of two-story commercial buildings occupy the Farrington Street frontage. A six-story building with dwellings above commercial space, a low-rise commercial building, and a house of worship are located on Northern Boulevard.

#### Future Conditions without the Proposed Action

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces, the one-story warehouse, and the parking for Flushing Town Hall would remain.

Within the study area, one land use change is anticipated. The construction on the lot at the northwest corner of Farrington Street and 35<sup>th</sup> Avenue will be completed, and the lot will be occupied by a 14-story building with seven floors of residential units above a seven-floor hotel.

# Future Conditions with the Proposed Action

If the proposed actions are taken, the project site would be redeveloped in accordance with the regulations applicable to an R7A zoning district and an MIH area in which MIH program Option 2 is mandated. The existing one-story retail building would be replaced by a new residential building (Use Group 2). Under the reasonable worst case development scenario, the new development on the project site would have nine stories, a cellar, and a sub-cellar. The building would contain 110,086 gsf. Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 93 dwelling units (27 income-restricted Inclusionary Housing units, including 19 affordable for households with incomes not exceeding 80 percent of the Area Median Income (AMI), 65 market rate units, and a superintendent's unit). A 52-space accessory parking garage, accessible via a curb cut onto

Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and storage space. The ground floor would contain residential apartments, 1,130 square feet of indoor recreation space, the lobby (entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors. The building would have a rooftop height of 95 feet, with setbacks after the seventh and eighth floors. The ground floor would be approximately 15 feet tall, and the upper floors would each be 10 feet tall.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar residential building. It would have nine stories and a cellar and would contain 22,400 gsf. Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 18 dwelling units (5 income-restricted including 4 affordable for households with incomes not exceeding 80 percent of AMI, and 13 market rate). The building would have a rooftop height of 95 feet, with a setback after the seventh floor. The ground floor would be 15 feet tall, and the upper floors would each be 10 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 132,486 gsf, with 111 dwelling units (78 market rate units, 32 income-restricted Inclusionary Housing units, including 23 units affordable to low- and moderate-income households, and a superintendent's unit). Compared with future no-action conditions, the future with-action scenario would have 111 more dwelling units, 15,658 gsf less retail space, and 4,000 gsf less warehouse space.

Residential development within the proposed rezoning area would be consistent with existing land use patterns. (See the Land Use Map.) The proposed project would also be consistent with current land use trends in the study area; during the past decade, several predominantly residential buildings have been constructed (at 35-10 35<sup>th</sup> Avenue, 36-16 35<sup>th</sup> Avenue, and 35-15 Farrington Street), adding 102 residential units within the study area; and the development now under construction at 134-37 35<sup>th</sup> Avenue, directly across Farrington Street from the project site, will add another 91 residential units. The proposed action would therefore not have a significant adverse impact on land use.

# Zoning

# **Existing Conditions**

The project site is currently within an M1-1 light manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. The maximum permitted floor area ratio (FAR) is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses. The maximum street wall height is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. On a narrow street such as Farrington Street, the minimum required setback is 20 feet; on a wide street such as 35<sup>th</sup> Avenue, the minimum required setback is 15 feet. The M1-1 regulations do not impose a maximum building height but instead require that the building not penetrate a sky exposure plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle.

The M1-1 district is mapped north of 35<sup>th</sup> Avenue between Farrington Street and Linden Place. It extends northward beyond the proposed rezoning area to cover all of Block 4950.

An R6 medium density residential district abuts the proposed rezoning area on the east, south, and west, covering the majority of the study area. The R6 district permits all residential and community facility uses. The district does not permit manufacturing uses or, except where a commercial overlay is also mapped, commercial uses. The portion of the study area located east of Linden Place is zoned R6 without a commercial overlay. The portion located between Farrington Street and Linden Place south of 35<sup>th</sup> Avenue is zoned R6/C2-4. The southwestern part of the study area (that is, west of Farrington Street, the portion from the southern edge of the study area to a line 250 feet north of 35<sup>th</sup> Avenue) is zoned R6/C2-2. The C2-2 and C2-4 overlay districts, which differ from one another only in their off-street accessory parking requirements, permit office, hotel, and local retail and service uses.

The maximum permitted floor area ratios under R6, R6/C2-2, and R6/C2-4 are 2.00 for commercial use (applicable only in the areas zoned R6/C2-2 and R6/C2-4) and 4.80 for community facility use. The maximum permitted residential floor area depends on which set of regulations is used. Under the R6 district's basic regulations, permitted FAR and required open space vary according to "height factor," which is the number obtained by dividing floor area by lot coverage. The maximum on the sliding scale is 2.43, but this is achievable only for buildings of about 13 or 14 stories occupying very small percentages of large lots. Under the optional Quality Housing regulations, the maximum residential FAR is 2.20 for a location on a narrow street more than 100 feet from its intersection with a wide street (or 2.42 for a development under the Inclusionary Housing Program) and 3.00 for a location within 100 feet of a wide street (or 3.60 for a development under the Inclusionary Housing Program). Under the Quality Housing regulations, for a residential or partially residential mixed use building, the height and setback regulations establish a maximum permitted base (street wall) height, at which point a setback is required (10 feet deep on a wide street and 15 feet deep on a narrow street), and a maximum permitted building height. On a narrow street more than 100 feet from its intersection with a wide street, the maximum permitted base height is 45 feet, and the maximum permitted building height is 55 feet. On a wide street, or on a narrow street but within 100 feet of a wide street, the maximum permitted base height is 65 feet, and the maximum permitted building height is 70 feet (or 80 feet for a development under the Inclusionary Housing Program). For a community facility building or a residential or mixed use building under the basic regulations, the maximum permitted street wall height is 60 feet or six stories (whichever is less), at which point a 15- or 20-foot setback is required, and above that height the building may not penetrate a sky exposure plane that extends upwards and rearwards over the lot from a line 60 feet above the front property line at a ratio of 2.7 vertical feet to each horizontal foot on a narrow street or 5.6 vertical feet to each horizontal foot on a wide street. Accessory off-street parking spaces must be provided for either 70 percent of the residential units (if the basic regulations are used) or 50 percent of the residential units (if the Quality Housing regulations are used), but in either case no parking requirements apply to income-restricted affordable units in a Transit Zone. Accessory off-street parking requirements for nonresidential uses depend on the nature of the use.

The remaining portion of the study area, located west of Farrington Street and more than 250 feet north of 35<sup>th</sup> Avenue, is in an M2-1 medium manufacturing district. The permitted uses and bulk regulations are the same as under M1-1, but in the M2-1 district the uses need not be fully enclosed, and lower performance standards apply.

#### Future Conditions without the Proposed Action

No zoning map changes are anticipated in the study area in the future without the proposed action.

### Future Conditions with the Proposed Action

The proposed action would rezone a 37,500 sf area from M1-1 to R7A and would establish the area as a Mandatory Inclusionary Housing (MIH) area in which any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings. The proposed R7A district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 but precludes commercial or manufacturing development. The maximum permitted FAR under R7A is 4.00 for community facility uses and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. For community facility development, the maximum permitted base (street wall) height is 65 feet, and the maximum permitted building height is 80 feet. For a residential building or a mixed use building that combines residential use with community facility use, the maximums are also 65 feet and 80 feet if it does not include affordable housing or qualifying ground floor, 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program but does not include a qualifying ground floor, 75 feet and 85 feet if it includes a qualifying ground floor but not affordable housing, or 75 feet and 95 feet if it satisfies the provisions of the Inclusionary Housing program and includes a qualifying ground floor. Permitted lot coverage is 65 percent on an interior or through lot and 80 percent on a corner lot.

The proposed zoning map amendment would result in greater continuity of the zoning along 35<sup>th</sup> Avenue within the study area. Except for the proposed rezoning area, medium density residential districts (with or without commercial overlays) are mapped over both sides of the avenue. (See the Zoning Map.) A residential district is better suited to the land uses along the avenue (which include residential apartment buildings, homes, and houses of worship but no industrial uses) than is a manufacturing district. The proposed action would not have a significant adverse impact related to zoning.

#### Public Policy (Mandatory Inclusionary Housing)

City policy is that any zoning map amendment that would result in increased residential development should be accompanied by the designation of a Mandatory Inclusionary Housing (MIH) area, in which new residential development must include units that will be permanently reserved for occupancy by qualifying low-, moderate-, and middle-income households, as part of an effort to ensure an adequate citywide inventory of housing that is affordable to a range of income levels and to ensure socioeconomic diversity within particular neighborhoods. As part of the proposed action, the rezoning area would be designated an MIH area in which Option2 would be required. Under Option 2 at least 30 percent of the residential floor area must be associated with income-restricted residential units marketed exclusively to qualifying households, all of whom would have incomes not exceeding 130 percent of the income index cited in ZR Section 23-911, and with the weighted average of the income bands for the income restricted units not exceeding 80 percent of the index.

The proposed action would legally mandate that the proposed project comply with the pertinent Inclusionary Housing Program requirements. In accordance with Option 2, the projected development would contain 111 dwelling units, of which 32 would be set aside for qualifying households. The proposed action would be consistent with MIH policy.

# 7. OPEN SPACE

# Introduction

This section assesses the proposed action's potential to affect the ability of open space resources to serve the population in the vicinity of the proposed rezoning area. A project may have a direct impact on public open spaces resulting from the elimination or alteration of open spaces in the study area or may have an indirect open space impact resulting from overtaxing available public open space resources. According to the *CEQR Technical Manual*, a public open space is accessible to the public on a constant and regular basis, including for designated daily periods. Public open spaces may be under public (government) or private ownership, and includes resources such as parks managed by the City, State, or Federal governments; public plazas; outdoor schoolyards that are accessible to the public outside of school hours; landscaped medians with seating; public housing grounds; and gardens and nature preserves, if publicly accessible. Private open spaces are not considered in the quantitative analysis of open space but may be considered in the qualitative assessment. Private open spaces include private-access fee-charging spaces; recreational facilities used by community facilities, where the open space is accessible only to the institution-related population; natural areas or wetlands without public access; stoops; vacant lots; and front and rear yards.

Open spaces may be used for "active" or "passive" uses. Active open space is used for sports, exercise, or active play, and can consist of facilities such as playgrounds with play equipment, playing fields, beach areas (swimming, running), greenways and esplanades, and multi-purpose play areas. Passive open space is used for relaxation, such as sitting or strolling, and can consist of facilities such as plazas or medians with seating, a percentage of beach areas (sunbathing), picnicking areas, greenways and esplanades (sitting, strolling), restricted-use lawns, and gardens. Often, an open space can be used for both active and passive uses. The residential population of an area uses active and passive open spaces, while the worker population tends to place demands on passive open space.

# Potential for a Direct Impact

The proposed rezoning area does not include open space resources, nor is it located in close proximity to any open space resources. A shadows analysis determined that shadows cast by potential new buildings in the rezoning area would not intrude on open space. The proposed action would not have a direct impact on open space resources.

# Potential for an Indirect Impact

# Determination of Whether an Assessment Is Appropriate

According to the 2014 *CEQR Technical Manual*, this area of Queens Community District 7 is neither a "well-served" nor an "under-served" area. The threshold for an open space analysis for such an area is the addition of 200 new residents or 500 new employees.

The proposed project and another anticipated development would contain a combined total of 111 residential apartments. The project site is located within Queens census tract 869, in which the average household size was 2.91 persons in 2010. The two developments would add 91 new households, with an estimated 323 persons, to the area. Since that exceeds the 200-person threshold, an assessment of the project's potential impact on the ability of the open space network to serve the area's residential population is appropriate.

The buildings would not contain any nonresidential uses. Using a rule of thumb of one building staff worker per each 22 apartments, it is estimated that the developments would add five workers to the area. Since that is below the 500-person threshold, an assessment of open space serving the area's daytime worker population would not be appropriate.

### Study Area

For a residential or predominantly residential development project, the CEQR Technical Manual suggests a study area with a radius of a half-mile, which is considered to be the maximum distance that an average person would walk to reach a park or playground, adjusted for census tract boundaries. If at least half of a census tract is located within the half-mile radius, the entire tract is included in the study area, and if less than half the tract is within a half-mile of the site, the entire tract is excluded.

The open space study area would consist of five census tracts: tracts 865, 869, 871, 889.01, and 1161. The study area's boundaries would be rather jagged but would extend north to 20th Avenue, east to Parsons Boulevard, south to Roosevelt Avenue in the east and 41st Avenue in the west, and west to the Van Wyck and Whitestone Expressways. (This is shown on the Open Space Facilities and Census Tracts map.)

#### **Current Population**

The table below shows the study area population as of the 2010 census. The area then had 23.252 enumerated residents.

Study Area Population in 2010				
<u>Census</u>	<u>Resi-</u>			
<u>Tract</u>	<u>dents</u>			
865	4,514			
869	2,131			
871	1,752			
889.01	10,266			
1161	<u>4,589</u>			
Total	23,252			

Between the 2010 census and July 2016, the population of Queens increased by approximately 4.6 percent, according to estimates by the Census Bureau, as reported by the New York City Department of City Planning.<sup>1</sup> By applying that percentage increase to the study area, it is estimated that the current study area population is 24,319.<sup>2</sup>

#### Current Open Space Inventory

The Open Space Inventory table lists the six open space resources in the study area, and the Open Space Facilities and Census Tracts map shows their locations. They are described below.

<sup>1</sup> http://www1.nyc.gov/site/planning/data-maps/nyc-population/current-future-populations.page.

<sup>2</sup> The calculation is not based on the rounded figure of 4.6%, but rather on the percentage increase in the borough's population from 2,230,722 in April 2010 to 2,233,054 in July 2016.



North

				Acreage	
Map #	Identification	Description	Total	Active	Passive
1	Leavitt Park	Landscaping and seating	0.37	0.00	0.37
2	Weeping Beech Park	Tot lot, handball, green space	2.60	1.00	1.60
3	Colden Playground	Sports facilities, green space	1.47	1.20	0.27
4	Bland Playground	Sports facilities, tot lot	0.55	0.55	0.00
5	Flushing Greens	Landscaped malls	0.42	0.00	0.42
6	Daniel Carter Beard Mall	Landscaped mall	0.66	<u>0.00</u>	<u>0.66</u>
			6.07	2.75	3.32

# **Open Space Inventory**

The first open space resource that is listed in the table is part of a complex bounded by 32<sup>nd</sup> Avenue, 137<sup>th</sup> Street, and Leavitt Street. Although the entire complex contains 7.46 acres, most of it consists of a fenced athletic field that is controlled by the Department of Education and that is not generally open to the public, and the southernmost part is occupied by a historic home. Only the northeastern portion of the complex, 0.37-acre Leavitt Park, consists of publicly accessible recreational open space, and it is only this portion that is included in the inventory. It is a passive open space with landscaping and seating.

A second open space is Weeping Beech Park, which is located on the east side of Bowne Street between Northern Boulevard and 38<sup>th</sup> Avenue. Carman Green, a passive open space with trees and shrubbery and grass, occupies the larger part of the 2.6-acre park, but the park also contains a tot lot and two handball courts.

The study area contains two playgrounds. Colden Playground occupies the eastern half of the block bounded by 31<sup>st</sup> Drive, Union Street, 31<sup>st</sup> Road, and 140<sup>th</sup> Street. It contains a ballfield and handball courts, as well as a smaller area with trees and walkways. Bland Playground, on the south side of 40<sup>th</sup> Road at Prince Street, contains basketball courts, handball courts, and a tot lot. The two playgrounds have a combined area of just over two acres.

The study area also contains slightly more than an acre of passive open space in the form of landscaped malls in the center of Northern Boulevard. The ones between Main Street and Linden Place are known as Flushing Greens, and the open space between Linden Place and Leavitt Street is called Daniel Carter Beard Mall.

Altogether, the study area contains 6.07 acres of publicly accessible open space, of which 2.75 acres are programmed for active recreation and 3.32 acres provide passive recreation.

# Current Open Space Ratios

The study area contains 6.07 acres of recreational open space and is home to 24,319 residents. That works out to 0.25 acres of recreational open space per thousand residents, including 0.11 acres devoted to active recreation and 0.14 acres devoted to passive recreation. These numbers fall well below the City's planning goal of 2.5 acres of open space per thousand residents and the median community district open space ratio of 1.5 acres per thousand residents.

#### **Existing Open Space Ratios**

	Acreage			Acreage		
Population	Total	Active	Passive	Total	Active	Passive
24,319	6.07	2.75	3.32	0.25	0.11	0.14

#### Future Conditions with the Proposed Action

Developments resulting from the proposed rezoning would add 111 residential apartments and an estimated 323 residents to the study area (calculated using the average household size in 2010 in the census tract in which the project site is located, which was 2.91 persons). That would increase the study area population to 24,642 persons. The increase would not be large enough to alter the existing total open space ratio or active open space ratio, and it would lower the passive open space ratio by just one percent. The proposed action would therefore not significantly exacerbate the shortage of open space in the study area and would not cause a significant adverse indirect open space impact.

#### **Future With-Action Open Space Ratios**

	Acreage			Acreage		
Population	Total	Active	Passive	Total	Active	Passive
24,642	6.07	2.75	3.32	0.25	0.11	0.13

#### Conclusion

The proposed action would not cause a significant adverse impact on the ability of the area's open space resources to serve the area's population.

### 8. SHADOWS

#### Introduction

A detailed shadow analysis is generally required only if a proposed action would result in one or more buildings that would be (a) at least 50 feet in height and close enough to a sunlight-sensitive resource of concern to cast a shadow on it or (b) less than 50 feet in height but directly adjacent to or across from a sunlight-sensitive use. Such resources of concern are public open spaces, greenstreets, natural resources if the introduction of shadows might alter their condition or microclimate, and historic resources that depend on direct sunlight for their appreciation by the public.

The development resulting from the proposed action would be 95 feet in height.

#### **Tier 1 Assessment**

Shadow lengths vary by time of day, being longest in the early morning and late afternoon and shortest at noon, and by time of year, being longest at the winter solstice and shortest at the summer solstice. According to the *CEQR Technical Manual*, the longest shadow cast by a building is 4.3 times the building's height. The development resulting from the proposed action would consist of two buildings with rooftop heights of 95 feet. The longest shadow cast by the proposed project would therefore be 408.5 feet in length.

The Tier 1 Screening Assessment figure shows the area within a 408.5 foot radius of the project site. No public open spaces or natural resources are located wholly or partly within the radius, but two designated landmarks are. One is an interior landmark, the windowless auditorium of the former RKO Keith Theater, which is not sunlight sensitive. The other is Flushing Municipal Courthouse, at the northeastern corner of Linden Place and Northern Boulevard.

#### **Tier 2 Assessment**

The next step is to determine whether the sunlight-sensitive resources are within the arc in which shadows can be cast. That arc excludes the triangular area to the south of the action-induced development that extends from +108 degrees to -108 degrees from true north. As the Tier 2 Screening Assessment figure shows, the courthouse is located outside of the arc in which action-induced development would cast shadows.

No additional assessment is required. The proposed action would not have a significant adverse shadows impact.





# 9. HISTORIC AND CULTURAL RESOURCES

#### Introduction

This section considers the proposed action's potential impact on archaeological and architectural resources. Archaeological resources are artifacts or other remains, from either the prehistoric (Native American) or the historic (colonial or post-colonial) period that might provide information about the period from which they date or the society that produced them. Architectural resources include designated New York City landmarks and buildings within a designated New York City historic district, properties calendared for consideration by the New York City Landmarks Preservation Commission (LPC), properties listed on or determined to be eligible for listing on the State or National Register of Historic Places, National Historic Landmarks, and other properties that meet the eligibility criteria for such designations.

The proposed rezoning area (Block 4950, Lots 1, 7, and 103, with the addresses 135-01 35<sup>th</sup> Avenue, 33-65 Farrington Street, and 135-19 35<sup>th</sup> Avenue) contains utilitarian one-story retail, warehouse, and parking structures. The proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

#### Archaeological Resources

If the proposed action is taken, the Applicant would redevelop the project site (Lot 1) with a new building that would contain a cellar and a sub-cellar. For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a building having a cellar. Lot 103 is under the control of the New York City Department of Cultural Affairs and would not be redeveloped.

In correspondence dated January 3, 2017, LPC staff stated that the proposed rezoning area has "no archaeological significance." The redevelopment of Lots 1 and 7 would therefore not have an adverse impact on archaeological resources.

#### **Architectural Resources**

As noted above, the proposed rezoning area contains utilitarian one-story retail, warehouse, and parking structures and does not contain architectural resources. In correspondence dated January 3, 2017, LPC staff stated that the site has "no Architectural significance." (The correspondence is appended to this report.)

There are two designated landmarks within a 400-foot radius of the proposed rezoning area: Flushing Municipal Courthouse, at the northeastern corner of Linden Place and Northern Boulevard; and the interior of the former RKO Keith's Flushing Theater on Northern Boulevard between Farrington Street and Linden Place. (See the Architectural Resources map.)

The Romanesque Revival courthouse was built in 1862 as the town hall of the Town of Flushing. After Flushing and the rest of Queens County were merged into the City of New York in 1898, the building was converted into a courthouse. In its designation of the building as a landmark, the LPC offered the following description:

"The impressive front facade is divided into three parts, separated by tall, thin buttresses which rise above the walls. All the walls are finished at the roof line with a continuous band of



diminutive arched corbels and a plain cornice. The arched windows are paired under large round arches, and those on the second floor are quite high. Dominating the front entrance, and standing on a raised platform five steps above the sidewalk, is a striking triple-arched portico, crowned by a classic entablature with low balustrade. The entablature is supported by massive pilasters and the arches by half round. engaged columns."

### **Flushing Municipal Courthouse**



There are no direct sight lines between the courthouse and the rezoning area, and new development within the rezoning area would not cast shadows on the courthouse. The proposed action would therefore not alter the setting of the landmark.

Designed by Thomas Lamb, a prolific theater architect who more than anyone else was responsible for the look of the great movie palaces of the 1910s and 1920s, the RKO Keith's Flushing Theater was built in 1927-1928 to present both vaudeville and films. The two-story building's exterior is commonplace, and it has been stripped of its marquis and ornamentation. The interior alone has been given landmark status. The following is an excerpt from the LPC's designation statement:

"The RKO Keith's Flushing theater is one of a small number surviving in New York City, of the uniquely American institution of the movie palace. 1 Part of the vaudeville circuit founded by B.F. Keith, later the "Radio-Keith-Orpheum" circuit ("RKO"), the Keith's opened in 1928 to an audience of subscription holders. Thomas lamb, who designed the theater, was one of the country's most prolific theater architects, having several hundred to his credit. The Keith's, however, is one of the handful which lamb designed in the "atmospheric" style, a type of theater design which aimed to produce an illusion of open outdoor space. The walls of the Keith's were built up as stage sets showing a Spanish-style townscape in the Churrigueresque style while the ceiling was painted blue and given electric 'stars'; a special machine projected "clouds" moving across the ceiling, completing the illusion that the audience was sitting outside in a Spanish town on a warm evening."



Former RKO Keith's Flushing Theater: Exterior

# Former RKO Keith's Flushing Theater: Auditorium



The proposed project would not affect the interior of a windowless theater building located a block away.

### Conclusion

For the reasons presented above, the proposed action would not have a significant adverse impact on either archaeological or architectural resources.

# **10. URBAN DESIGN AND VISUAL RESOURCES**

# Introduction

An assessment of urban design is needed when a project may have effects on any of the elements that contribute to the pedestrian experience of public space. A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

A preliminary urban design and visual resources assessment is required because the proposed action would include a zoning map change that would alter the rules regulating development within the proposed rezoning area, allowing the construction of buildings that are different in use and scale from those that would be allowed under existing zoning regulations. The proposed action would rezone a 37,500 sf area from M1-1 to R7A and would establish the area as a Mandatory Inclusionary Housing (MIH) area. The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 but precludes commercial or industrial development. The maximum permitted floor area ratio (FAR) under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A within an MIH area is 4.00 for community facility uses and 4.60 for residential uses. The maximum permitted street wall height would increase from 30 feet to 75 feet, and a maximum permitted building height of 95 feet would replace sky exposure plane regulations. If the proposed action is taken, the Applicant intends to demolish the one-story retail building that now occupies the entire project site and to construct a residential building with residential apartment building. Under the reasonable worst-case development scenario, the building would be nine stories (95 feet) tall and would contain 80,086 square feet of above grade floor area. It is also assumed that the one-story warehouse that occupies an adjacent lot would be replaced by a nine-story (95 feet) tall residential building with 18,400 square feet of above grade floor area.

# **Pedestrian Wind Conditions**

The *CEQR Technical Manual* calls for a separate preliminary assessment to determine whether an analysis of pedestrian wind conditions is appropriate, since the construction of large buildings at locations that experience high wind conditions may result in channelization or downwash effects that could affect pedestrian safety.

The proposed rezoning area is not subject to unusual wind conditions. It is not in an exposed area fronting on the waterfront, and it is not on high ground or on the upper portion of an exposed slope. It is within a fully developed inland area.

The action-induced development would consist of nine-story buildings with the high lot coverage characteristic of contextual zoning districts. They would be built to the street line and would span the width of the zoning lots along both 35<sup>th</sup> Avenue and Farrington Street. There would therefore not be a freestanding tower that could cause pedestrian level vortex effects.

For these reasons, the proposed action would not have a significant adverse impact on pedestrian wind conditions, and a detailed wind conditions assessment is not required.

# **Existing Conditions**

### The Proposed Rezoning Area

The project site (identified as Block, 4950 Lot 1, and as 135-01 35<sup>th</sup> Avenue, and located at the block's southwest corner, with frontage along both 35<sup>th</sup> Avenue and Farrington Street) is currently improved with a single-story, 13-foot-tall retail building, constructed during the 1920s, that is divided into numerous small commercial spaces fronting on both 35<sup>th</sup> Avenue and Farrington Street. The building covers virtually the entire site and has 15,658 square feet above grade. There is also a partial cellar, but there is no available estimate of the square footage. The current occupants include two restaurants, a bakery, a restaurant supplies store, a beauty products supply store, a nail salon, and a paint store. (See photos 5, 7, 8, 9, 13, and 14.)

Lot 7 (to the immediate north of the project site along Farrington Street) is developed with a one-story warehouse that covers the entire lot. (See photo 18.)

Lot 103 (located to the immediate east of the project site and at the block's southeast corner, with frontage along 35<sup>th</sup> Avenue and Linden Place) is City-owned and under the jurisdiction of the Department of Cultural Affairs (DCA), which has recently renovated the lot for parking use in conjunction with Flushing Town Hall. (See photo 4.)

#### Urban Design in the Vicinity of the Rezoning Area

The area surrounding the proposed rezoning area, within the Flushing neighborhood, is a well developed urban area. It is a mixed use area with a variety of land uses and building types, including one- and two-family homes (photos 15 and 16), three- to five-story multifamily walkups (photo 2), five- to ten-story elevator apartment buildings (photos 2, 3, 21, and 22), local retail and service establishments in low-rise commercial buildings (photos 6 and 10) and the ground floors of apartment buildings (photo 22), three- to eight-story hotels (photos 12, 15, and 21), houses of worship (photo 23), one- and two-story warehouses, light manufacturing, automotive repair shops, and parking lots. (See the building heights map.) Very different building types are sometimes juxtaposed; for example, photo 16 shows a blocky three-story red brick building with a truck entrance that contains wholesale offices and showrooms above first floor warehouse use, two-family homes set back from the street line, and two other red brick buildings, one a three-story office building and the other a four-story warehouse with accessory offices.

The more specific context of the proposed rezoning area, and particularly the project site and the other projected development site, consists of the south side of 35<sup>th</sup> Avenue between Linden Place and Prince Street; the large development site at the northwest corner of 35<sup>th</sup> Avenue and Farrington Street, the properties along the east side of Farrington Street to the immediate north of the rezoning area, and the east side of Linden Place as seen across the parking lot on Lot 103. The southern frontage of 35<sup>th</sup> Avenue between Linden Place to Farrington Street consists of a two-story (31-foot-tall) church, its accessory parking lot, a seven-story (70-foot-tall) residential apartment building with a slight setback above the sixth floor, and a two-story (24-foot-tall) commercial building. With the buildings' very different heights, uses, façade materials, and designs, and with the parking lot between two of the buildings, the block does not present a consistent sense of place or scale. To the west of Farrington Street, along the southern side of 35<sup>th</sup> Avenue, are a blocky five-story (approximately 55-foot-tall) apartment building with a high ground floor and no setbacks from the street line, a seven-story (69-foot-tall) hotel that sets

back above the lower stories, and lower-rise residential buildings to the west. On this block, also, there is no unified streetscape or consistent sense of place or scale. The construction site, with 255 feet of frontage along Farrington Street and 165 feet of frontage along 35<sup>th</sup> Avenue, is the location that dominates the visual context in the immediate vicinity of the proposed rezoning area, but it cannot be discussed under Existing Conditions. On the east side of Farrington Street, a one-story warehouse abuts the rezoning area, and further north are a two-story building with offices above an automotive and truck repair shop, a two-family home, a three-story hotel, a two-story banquet hall, and a parking lot. East of Linden Place, a one-story retail building and 3½- to 4½-story residential buildings front on the north side of 35<sup>th</sup> Avenue, but New York City Housing Authority ten-story (96-foot-tall) slab apartment buildings to the north are also seen across the parking lot.

There are no significant topographic features. The topography is fairly flat.

The street grid is irregular. Block dimensions vary, with east-west dimensions ranging from 250 to 400 feet and north-south dimensions from 360 to 1,090 feet. Most but not all streets are perpendicular to one another. East-west avenues are 75 feet wide, and north-south through streets (such as Farrington Street) are 70 feet wide, but there are also shorter, narrower streets that weave through the grid, some only one block in length. (See the Aerial Map.)

#### Visual Resources

According to the *CEQR Technical Manual*, "A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources." The one significant visual resource in the vicinity of the proposed rezoning area is the Flushing Municipal Courthouse (also known as Flushing Town Hall) at the corner of Linden Place and Northern Boulevard. The 1862 building is a designated New York City landmark. An early example of the Romanesque Revival style, it is a brick building that is two stories tall. Its front and side facades are tripartite in design, with two flat-roofed sections flanking a peaked central section, and with thin buttresses separating the sections. The entrance on Northern Boulevard is approached by a short flight of steps and covered by a triple-arched portico topped by a classical entablature. The building fits within the street grid and is not afforded any view corridors. There are no significant view corridors in the vicinity of the proposed rezoning area.



Urban Cartographics



# Urban Cartographics



1. View of Linden Place facing north from 35th Avenue.



3. View of the sidewalk along the north side of 35th Avenue facing west (Site ahead at right).





2. View of the side of 35th Avenue facing southeast from Linden Place.



4. View of the side of 35th Avenue facing northwest.



6. View of 35th Avenue facing west (Site at right).



5. View of the Site facing northwest from 35th Avenue.





7. View of the Site facing north from 35th Avenue.



9. View of 35th Avenue facing east from Farrington Street (Site at left).



8. View of the Site facing northeast from the intersection of 35th Avenue and Farrington Street.





10. View of Farrington Street facing south from 35th Avenue.



12. View of 35th Avenue facing west from Farrington Street.



11. View of the side of 35th Avenue facing northwest from Farrington Street.





13. View of the Site facing northeast from Farrington Street.



15. View of the side of Farrington Street facing northeast.



14. View of the Site facing east from Farrington Street.





16. View of the side of Farrington Street facing northwest.



18. View of the sidewalk along the east side of Farrington Street facing south (Site at left).



17. View of Farrington Street facing south (Site at left).





19. View of the Site facing southeast from Farrington Street.



21. View of the side of 35th Avenue facing southwest from Farrington Street.





20. View of the side of Farrington Street facing northwest from the Site.


22. View of the side of 35th Avenue facing southeast from the Site.



24. View of the interior of the lot east of the Site facing northeast from 35th Avenue.



23. View of the side of 35th Avenue facing southeast from the Site.



135-01 35th Avenue, Queens

#### Future Conditions without the Proposed Action

In the absence of the proposed actions, it is assumed that no reuse or redevelopment of the project site or Lots 7 and 103 would occur. The one-story commercial building divided into small retail, personal service, and restaurant spaces, the one-story warehouse, and the parking for Flushing Town Hall would remain.

Construction would be completed on the lot directly across Farrington Street from the project site and Lot 7, at the northwest corner of Farrington Street and 35<sup>th</sup> Avenue (Block 4949, Lot 31). A 15-story, 354,032 sf building with eight floors of residential apartments above a seven-floor hotel would occupy the lot. The building, known both as Farrington Center and Farrington Tower, would be 154 feet tall. The building would have 165 feet of frontage along 35<sup>th</sup> Avenue and would be set back 18 feet from the street line, but the street wall would rise a full 154 feet along the majority of the avenue frontage. The building would have 255 feet of frontage along Farrington Street, where one-, two-, and four-story building sections would be constructed to the street line, with the 154-foot-tall wall set back 44 feet from the street. This development, will have a major effect on the urban design character of this part of 35<sup>th</sup> Avenue.

No other changes that would affect urban design and visual resources are anticipated.

#### Future Conditions with the Proposed Action

#### Zoning Map Amendment

The proposed zoning map amendment would replace part of an M1-1 district with an R7A district, which would be coterminous with a Mandatory Inclusionary Housing (MIH) area. The proposed rezoning area measures 37,500 square feet and is rectangular in shape, with 250 feet of frontage along 35<sup>th</sup> Avenue and 150 feet of frontage along Farrington Street and Linden Place.

The existing M1-1 district is a manufacturing district that permits most but not all commercial uses, light manufacturing uses listed in Use Group 17, and certain specified community facility uses but precludes all residential and most community facility uses. In contrast, the proposed R7A district is a residential zone that permits the full range of residential and community facility uses listed in Use Groups 1, 2, 3, and 4 but that precludes commercial or industrial development.

The two districts also differ in terms of bulk regulations. The maximum permitted floor area ratio (FAR) under M1-1 is 1.00 for commercial or manufacturing uses and 2.40 for community facility uses, and the maximum FAR under R7A is 4.00 for community facility uses and generally 4.00 for residential development, but 4.60 for residential development within an MIH area or Inclusionary Housing designated area that satisfies the applicable Inclusionary Housing Program requirements. The proposed rezoning area would be coterminous with an MIH area in which under any development of more than ten dwelling units or more than 12,500 sf of residential floor area must comply with Option 2 as set forth in ZR Section 23-154(d), which provides the minimum percentage (30 percent) of the residential square footage that must be associated with income-restricted affordable dwelling units and the income ranges applicable to those dwellings.

The maximum street wall height under M1-1 is 30 feet or two stories, whichever is less. At that height a setback from the street line is required. Above that height the M1-1 regulations do not impose a maximum building height but instead require that the building not penetrate a sky exposure plane that begins at 30 feet above the front lot line and slopes upwards and rearwards at a 45 degree angle. In an

R7A district, the regulations prescribe maximum street wall and building heights. For community facility development, the maximum permitted base height is 65 feet, and the maximum permitted building height is 80 feet. For a residential building or mixed residential and community facility building, the maximums are also 65 feet and 80 feet if it does not include affordable housing or a qualifying ground floor, 75 feet and 90 feet if it satisfies the provisions of the Inclusionary Housing program but does not contain a qualifying ground floor, 75 feet and 95 feet if it satisfies the provisions of the Inclusionary Housing floor but not affordable housing, or 75 feet and 95 feet if it satisfies the provisions of the Inclusionary Housing program and has a qualifying ground floor.

No lot coverage restrictions apply under M1-1. Under R7A the maximum permitted lot coverage is 65 percent on an interior or through lot (such as the project site) and 80 percent on a corner lot.

#### Development Scenario

In the future with the proposed actions, the project site would be redeveloped in accordance with the regulations applicable to an R7A zoning district and an MIH area. The existing one-story retail building would be replaced by a new residential apartment building. Under the reasonable worst case development scenario, the new development on the project site would have nine stories, a cellar, and a sub-cellar. The building would contain 110,086 gsf. Of this total, 72,442 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 93 dwelling units. A 52-space accessory parking garage, accessible via a curb cut onto Farrington Street, would be located in the cellar and sub-cellar. The cellar would also contain utilities and storage space. The ground floor would contain residential apartments, 1,130 square feet of indoor recreation space, the lobby (entered from Farrington Street), and the garage entrance ramp. Residential apartments would occupy the upper floors. The building would have a rooftop height of 95 feet, with setbacks after the seventh and eighth floors. The ground floor would be approximately 15 feet tall, and the upper floors would each be 10 feet tall.

For the purposes of a conservative analysis, it is assumed that Lot 7 would also be redeveloped with a similar residential building. It would have nine stories and a cellar and would contain 22,400 gsf. Of this total, 18,400 square feet would count as zoning floor area, for an FAR of 4.60. The building would have 18 dwelling units. The building would have a rooftop height of 95 feet, with a setback after the seventh floor. The ground floor would be approximately 15 feet tall, and the upper floors would each be 10 feet tall.

Lot 103 is under the control of the City's Department of Cultural Affairs. It is therefore assumed that the lot would continue to be used for parking for Flushing Town Hall.

The total anticipated development within the proposed rezoning area would consist of 132,486 gsf, with 111 dwelling units. Compared with future no-action conditions, the future with-action scenario would have 111 more dwelling units, 15,658 gsf less retail space, and 4,000 gsf less warehouse space.

Table 10-1 compares the development characteristics of Lots 1 and 7 under existing, future no-action, and future with-action conditions.

Con	iparison of Existing	z, No-Action, and With-Action	Conditions
Item	Existing	<b>No-Action Conditions</b>	With-Action Conditions
	Conditions		
Development	Retail building	Retail building (15,658 sf) and	Two residential buildings with
Scenario	(15,658 sf) and	warehouse (4,000 sf)	111 DUs
	warehouse (4,000		
	sf)		
Gross/(Net) Bldg.	19,658 gsf/(19,658	19,658 gsf/(19,658 zsf, 1.00	132,466 gsf/(90,842 zsf, 4.60
Floor Area	zsf, 1.00 FAR)	FAR)	FAR)
Lot Coverage	19,658 sf (100&)	19,658 sf (100%)	12,932 sf (66%)
Building Height	One story (13 feet)	One story (13 feet)	9 stories (95 feet)

 Table 10-1

 Comparison of Existing, No-Action, and With-Action Conditions

#### <u>Urban Design</u>

As discussed above under Existing Conditions, the principal urban design study area contains a diverse mix of building types, heights, and styles, including low-rise retail buildings and warehouses of the type that now occupy the two redevelopment sites in the proposed rezoning area, but also apartment buildings and hotels of up to ten stories, some with ground floor retail space. As is also discussed under Existing Conditions, the development along the south side of 35<sup>th</sup> Avenue in the immediate vicinity of the project site lack a consistent sense of place or scale. The new development resulting from the proposed action would thus not contrast with a consistent urban design character.

Furthermore, the proposed and projected developments' urban design context will have been considerably altered by the 2020 Build Year and will then be dominated by Farrington Tower. Because the proposed rezoning would be to a contextual district with prescribed maximum base and building heights, whereas Farrington Tower is within a non-contextual R6 district, the new developments would be almost 60 feet shorter than the Farrington. The new developments would present less of a contrast with the hotel-condo building than would the two existing one-story buildings that now occupy Lots 1 and 7 and will face the Farrington when it is completed. The new developments would, in fact, create a more cohesive streetscape along the avenue by forming part of a transition of building heights, from buildings as short as two stories to buildings of from 55 to 70 feet in height to the adjacent 95-foot-tall developments within the proposed rezoning area to the 154-foot-tall Farrington Tower.

The proposed action would not affect the topography, street system, block forms, or building arrangements within the area including and surrounding the proposed rezoning area.

The proposed action would not result in a significant adverse urban design impact, and further analysis is not warranted.

#### Visual Resources

There are no direct sight lines between the Flushing Municipal Courthouse and the rezoning area, and new development within the rezoning area would not cast shadows on the courthouse. The proposed action would therefore not alter the setting of the landmark and would not result in a significant adverse impact to visual resources.

#### 35th Avenue facing east (Site at left)



# 35th Avenue facing east (Site at left)



# With Action

#### Legend

# Projected Development Site

##' Height

##' Width

No Action

95'

#### 35th Avenue facing west (Site at right)



# 

35th Avenue facing west (Site at right)

Legend
# Projected Development Site
##'. Height

With Action

##' Width

No Action

#### Urban Cartographics

Farrington Street facing south (Site at left)



#### Farrington Street facing south (Site at left)



# With Action

Legend

# Projected Development Site

##' Height

##' Width

No Action

#### **12. HAZARDOUS MATERIALS**

#### Phase I ESA

#### **Introduction**

Environmental Project Data Statements Company (EPDSCO, Inc.) has performed a Phase I Environmental Site Assessment (ESA) for the project site. The ESA, dated September 2016, was prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13).

The purpose of the ESA is to identify, to the extent feasible in accordance with ASTM E 1527-13, recognized environmental conditions in connection with the site with regard to hazardous materials as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and petroleum products. Additionally, several ASTM "Non-Scope" items including asbestos-containing materials, lead-based paints, and radon are also discussed. Recognized Environmental Conditions are identified through research into the history and uses of the site and surrounding area, an inspection of the subject property and a survey of adjoining and nearby uses, and a review of available regulatory agency records and environmental databases.

The following summarizes the findings, conclusions, and recommendations of the Phase I ESA.

#### Site Description

The project site at 135-01 35<sup>th</sup> Avenue is fully occupied by a one-story (plus partial cellar), masonry and wood frame commercial building. At the time of the site visit the building was occupied by the following retail businesses; Kato Café at 135-01 35<sup>th</sup> Avenue, Flushing Paint Co., Inc. at 135-03 35<sup>th</sup> Avenue, Meiling Nail Supply at 135-07 35<sup>th</sup> Avenue, Wu Rice Cake (bakery) at 135-09 35<sup>th</sup> Avenue, New Sunrise Japanese Restaurant Supplies, Inc. at 135-11 35<sup>th</sup> Avenue, DBSK Restaurant at 33-67 Farrington Street and Meiling Nail Supply at 33-69 35<sup>th</sup> Avenue. The partial cellar contains building utilities (e.g., gas meters, sprinkler mains, etc.) and general storage space. Heating and air conditioning for the building are provided by gas-fired, rooftop HVAC units.

#### Site History

Research into the history of the property indicates that the project site was occupied by a 2-story residential dwelling from at least 1892 to circa 1924. The current building was constructed circa 1924. From 1924 to circa 2000, the operations in the building included auto repair garages, truck repair and storage garages, auto body shops, and automobile machine shops. Auto and truck repair garages, auto body shops, and automobile machine shops. Auto and truck repair garages, auto body shops, and automobile machine shops typically involve the storage and use of hazardous materials and petroleum products. Any past spills, leaks, or discharges of such materials at the project site would have been potential sources of contamination to the property. Additional investigations would need to be performed to determine if the site has been contaminated by these past uses. From circa 2000 to the present time, the building has been occupied by various retail stores, none of which have been a type of establishment that typically stores or uses significant quantities of hazardous materials.

#### Site Inspection

Typical lavatory drainage structures such as toilets and sinks were present in the building. These structures discharge to the municipal sewer system. In addition, floor drains were observed at several locations in the building. The drainage destination of these structures is not known; however, no staining or other indications of past spills or discharges of hazardous materials or petroleum products were observed around any of the floor drains.

No aboveground storage tanks were observed in either the main floor or the partial cellar of the building.

A fuel oil tank fill port was observed in the sidewalk along Farrington Street adjacent to the building, and a fuel oil tank vent line was observed along the west wall of the building immediately adjacent to the fill port. The presence of these structures indicates the possible presence of a buried fuel oil tank at the site. In addition, two buried gasoline tank vent lines were observed protruding from above the roof of the building during the site visit, along the south side of the building. Sanborn historical maps show the presence of three buried gasoline tanks at the site. No documentation regarding the closures or removal of underground storage tanks from the project site was provided to or obtained by EPDSCO. Therefore, it is possible that there are out-of-service, underground petroleum storage tanks at the site. Out-of-service petroleum storage tanks are required to be properly closed or removed in accordance with all applicable New York State Department of Environmental Conservation (NYSDEC) and New York City Fire Department (FDNY) requirements. Any past spills or leaks from buried petroleum storage tanks at the site site would be potential sources of contamination to the property. Additional investigation would be required to determine if the property has been contaminated by on-site underground petroleum storage tanks.

Given the age of the subject building, it may contain asbestos building materials and lead-based paints. Potential asbestos-containing building materials observed include floor tiles, ceiling tiles, surfacing materials, and roofing materials. Painted surfaces in the building were observed to be generally in good condition with no large areas of chipped or peeling paint noted.

#### Regulatory Agency Database Findings

The project site does not appear in any of the Federal or State environmental databases reviewed, including the USEPA's Superfund, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, PBS database, Solid Waste Facilities database, or the Registry of Inactive Hazardous Waste Disposal Sites.

#### Off-Site Findings

A review of Sanborn historical maps shows that there have historically been three gasoline filling stations and a large fleet repair garage located within less than 300 feet of the project site. The property adjacent to the east of the project site (135-19 35<sup>th</sup> Avenue) was occupied by a gasoline filling station from at least 1963 to 1993. From at least 1941 to 2006, the property to the west of the site (134-25 35<sup>th</sup> Avenue, across Farrington Street) was occupied by a large fleet repair garage with numerous underground petroleum storage tanks. The properties at 135-02 35<sup>th</sup> Avenue (70 feet south of the site) and 134-03 35<sup>th</sup> Avenue (250 feet west) were occupied by gasoline filling stations from at least 1941 to 1963.

There is a spill incident identified at the former New York City Department of Sanitation garage at 134-25 35<sup>th</sup> Avenue, which is located approximately 70 feet west of the project site, across Farrington Street. According to information in the database report, this site formerly contained numerous under-

ground storage tanks over the years. Investigation revealed elevated levels of contaminants, including chlorinated solvents. The remediation of this spill incident is on-going by the responsible party under the regulatory oversight of the NYSDEC, which has not closed this spill incident.

In addition, there was a NYSDEC investigation of chlorinated solvents in the groundwater around the intersection of Farrington Street and 32<sup>nd</sup> Avenue, approximately 1,100 feet north of the project site. This investigation discovered chlorinated solvents in the groundwater in the area but did not locate the source of the contamination. The investigation also determined that the groundwater flow in the area was generally in a southerly direction, towards the project site. At the time of the site visit, several groundwater monitoring wells were observed in the sidewalk within 200 feet of the subject property.

Given the groundwater investigations in the vicinity of the project site, and the historical presence of the gasoline filling stations and repair garage within 300 feet of the property, there is potential for groundwater contamination below the project site as a result of off-site sources of contamination. Additional investigation would need to be performed to determine if the groundwater below the project site has been contaminated.

#### **Conclusions**

The Phase I report concludes that the ESA has revealed the following:

- Possible contamination of the project site from past auto and truck repair and auto body operations at the site.
- Possible contamination from buried petroleum storage tanks at the site.
- The possible presence of buried petroleum storage tanks at the site that have not been properly closed or removed in accordance with NYSDEC and FDNY requirements.
- The possible presence of asbestos-containing building materials and lead-based paints in the subject building.
- Possible groundwater contamination below the site from potential off-site sources.

#### (E) Designation

Because a Phase II investigation and possibly remediation are needed, an (E) designation will be placed on the project site. (E) designations will also be placed on the one other potential development site within the rezoning area (Lot 7). The (E) designation (E-424) requires that the following actions be taken before construction activities take place.

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

Remediation Determination: After completion of the testing phase and laboratory analysis a written report with findings and a summary of the data will be submitted to OER for review and approval. Based upon its review of the results, OER will determine whether the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

Health and Safety Plan: A construction-related health and safety plan will be submitted to OER and implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan will be submitted to OER prior to implementation.

#### Conclusion

With the (E) designations in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

# 17. AIR QUALITY INTRODUCTION

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis frame work, as mandated by the State Environmental Review Act, follows the *New York City Environmental Quality Review 2014 Technical Manual (CEQR TECHNICAL MANUAL)*. The potential air quality impacts of the following emissions are estimated following the procedures and methodologies prescribed in the *CEQR TECHNICAL MANUAL*:

- The potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts.
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the proposed development to significantly impact nearby existing land uses.
- The potential for air toxic emissions released from existing industrial facilities to significantly impact the proposed development.
- The potential for significant air quality impacts from the emissions of "major" existing emission sources (i.e., HVAC systems with 20 or more million Btu/hour heat input) located within 400 feet of the proposed development as well as large (e.g., power generating) facilities located within 1,000 feet of the proposed development.

#### The Affected Area

The Affected Area is located in the Flushing neighborhood of Queens, Community District #7. Three lots are effected by the proposed action: The Development Site 1 at 135-01 35<sup>th</sup> Avenue (Block 4950, Lot 1), the Lot 7 Site at 33-65 Farrington Street (Block 4950, Lot 7), and the City's owned property at 135-19 35<sup>th</sup> Avenue (Block 4950, Lot 103).

Lot 103 under control of the City's Department of Cultural Affairs is currently utilized as parking for Flushing Town Hall. As such, this parcel is anticipated to remain in the future with the proposed action and therefore not included in the air quality analysis.

#### The Project Site (Block 4950, Lot 1)

If the proposed actions are taken, the Project Site would be redeveloped with a residential, nine-story building with multiple tiers. The building would rise to a height of 95 feet with 110,086 gross square feet (gsf) of floor area. The cellar and sub-cellar levels would accommodate storage space, utility space, and 52 accessory parking spaces accessible via a car elevator. The first floor would accommodate residential units, indoor recreation space, and a lobby. Residential units would be located on the second to ninth floors.

#### The Lot 7 Site (Block 4950, Lot 7)

The Lot 7 Site would be redeveloped with a nine-story residential, building containing 22,400 gsf of floor area. The building would rise to a height of 95 feet, where the seventh and eight floors would have a 15-foot setback from the lot line facing Farrington Avenue.

#### AIR POLLUTANTS AND APPLICABLE STANDARDS/GUIDELINES

#### National Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO<sub>2</sub>) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO<sub>2</sub> in a chemical reaction that is effected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO<sub>2</sub> impact.
- Ozone (O<sub>3</sub>) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.
- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM<sub>10</sub>) and Fine Particulate Matter (PM<sub>2.5</sub>), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO<sub>2</sub>) emission is principally associated with stationary sources that burn oil or coal.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The current standards together with their health-related averaging periods are presented in Table 17-1.

Pollutant	Averaging Period	National and State Standards
NO	Maximum 1-Hour Concentration	0.10 ppm (188 μg/m³)
NO <sub>2</sub>	Annual Arithmetic Average	0.053 ppm (100 μg/m³)
DM	24-Hour Concentration	35 μg/m <sup>3</sup>
PM <sub>2.5</sub>	Average of 3 Consecutive Annual Means	$12  \mu g/m^3$
$PM_{10}$	Maximum 24-Hour Concentration	150 μg/m <sup>3</sup>
Lead	Rolling 3-month Average	0.15 μg/m <sup>3</sup>
Ozone	8-Hour Maximum	0.075 ppm
СО	Maximum 8-Hour	9 ppm
0	Maximum 1-Hour	35 ppm
	Maximum 1-Hour Concentration	0.070 ppm (196 μg/m³)
SO <sub>2</sub>	Maximum 3-Hour Concentration	0.050 ppm (1,300 μg/m³)
	Maximum 24-Hour Concentration	0.14 ppm (365 μg/m³)
	Annual Arithmetic Means	0.03 ppm (80 μg/m³)

Table 17-1. National AND New York States Ambient Air Quality

#### NO<sub>2</sub> NAAQS

Nitrogen oxide  $(NO_x)$  emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The  $NO_x$  in these emissions are then gradually converted to  $NO_2$ , which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO<sub>2</sub> NAAQS standard of 0.100 ppm (188 ug/m<sup>3</sup>) is the 3-year average of the 98<sup>th</sup> percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO<sub>2</sub> concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO<sub>x</sub> to NO<sub>2</sub>; Tier 2 applies a conservative ambient NOx/NO<sub>2</sub> ratio of 80% to the NO<sub>x</sub> estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO<sub>2</sub> within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8<sup>th</sup> highest daily maximum 1-hour NO<sub>2</sub> concentrations or total 1-hour NO<sub>2</sub> concentrations if hourly NO<sub>2</sub> background concentrations are added within the model.

Per the *CEQR TECHNICAL MANUAL*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NOx/NO<sub>2</sub> ratio of 80% to the NOx modeled concentration to determine whether violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO<sub>2</sub> NAAQS were estimated.

The annual NO<sub>2</sub> standard is 0.053 ppm (100 ug/m<sup>3</sup>). In order to conservatively estimate annual NO<sub>2</sub> impacts, a NO<sub>2</sub> to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO<sub>2</sub> analysis, was applied.

#### New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on July 14, 2016.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

#### NYC Interim Guidelines

In addition to the NAAQS, the *CEQR TECHNICAL MANUAL* requires that projects subject to CEQR apply a PM<sub>2.5</sub> and CO significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. As outlined in the *CEQR TECHNICAL MANUAL*, CO significant impacts are evaluated as follow:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the 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.

Per the CEQR TECHNICAL MANUAL, significant adverse PM<sub>2.5</sub> concentration is determined by:

- Predicted 24-hour maximum PM<sub>2.5</sub> concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average PM<sub>2.5</sub> concentration increments greater than 0.1 µg/m<sup>3</sup> at ground level on a neighborhood scale (*i.e.*, the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, 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  $0.3 \mu g/m^3$  at any receptor location for stationary sources.

#### **Background Concentrations**

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the project area.

Background concentrations of relevant criteria pollutants were obtained from the NYSDEC's annual report for 2015 at the Queens College monitoring station.

#### Table 17-2. Background Concentrations at the Queens College Monitoring Station (NYSDEC 2015 Report)

Pollutant	Averaging Period	Background Concen- tration	Monitoring Station
NO <sub>2</sub>	Maximum 1-Hour Concentration	119.2 μg/m <sup>3</sup>	
$NO_2$	Annual Arithmetic Average	40.8 μg/m <sup>3</sup>	Owener Caller
DM	24-Hour Concentration	22.5 μg/m <sup>3</sup>	Queens College
PM <sub>2.5</sub>	Average of 3 Consecutive Annual Means	8.1 μg/m <sup>3</sup>	
Ozone	8-Hour Maximum	0.069 ppm	Queens College

The *de minimis* criteria for CO and PM<sub>2.5</sub> were evaluated as described in the NYC Interim Guidelines and are presented below:

- 24-hour  $PM_{2.5}6.25 \ \mu g/m^3$
- Annual PM<sub>2.5</sub>0.3 μg/m<sup>3</sup>

#### MOBILE SOURCE ANALYSIS

The potential impact of vehicular emissions associated with the Proposed Development Site was considered as the action would introduce new residential buildings and a parking garage to the area. These actions would induce local traffic, which are associated with CO and PM pollutants.

#### **Traffic Air Quality Screen**

Under *CEQR TECHNICAL MANUAL*, in this part of New York City, projects generating fewer than 170 vehicular trips in any given hour are not expected to have significant adverse air quality impact, and a detailed analysis, using MOVES2014 and CAL3QHC/R, is required if more than 170 vehicular trips are predicted in any given hour. The trips generation numbers are the predicted difference in the Future No-Action and the Future With-Action scenarios.

The maximum trip generation increment between the Future No-Action and the Future With-Action does not exceeds the threshold of 170 vehicular trip generation. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of the Proposed Project.

#### Parking Garage Screen

Based on CEQR recommendations, the maximum capacities of parking garages are evaluated with a threshold criteria to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, sited in the *CEQR TECHNICAL MANUAL* Table 16-1 in conjunction with the *CEQR TECHNICAL MANUAL* Map 16-1, is based on the location of the project. If the threshold is met or exceeded, a detailed analysis is warranted.

The Lot 7 Site at 33-65 Farrington Street (Block 4950, Lot 7) would not contain any parking garage. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of these actions.

The Project Site, would contain a 52-space parking garage. The *CEQR TECHNICAL MANUAL* situate the Affected Area in Zone 3, as it is within 0.5 mile of a subway station. The threshold criteria that would trigger a detailed analysis in Zone 3 is 80 parking spaces. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of these actions.

#### STATIONARY SOURCE ANALYSIS

As outlined in the *CEQR TECHNICAL MANUAL*, stationary sources, which are analyzed below, are defined as HVAC systems, industrial sources, odor producing facilities, and major sources. The analysis considers the potential impact of the projected developments' HVAC systems and the potential impact of existing industrial sources within 400 feet of the Affected Area, and odor producing facilities and major sources within 1,000 feet of the Affected Area. Figure 17-1 displays the Affected Area with 400-foot and 1,000-foot buffer zones.



Figure 17-1. The Affected Area with a 400 and a 1,000 foot buffer zones

#### **HVAC Systems Screening Analysis**

Based on CEQR recommendations, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

The Project Site and the Lot 7 Site are abutting, therefore the screening analysis is not applicable and a detailed dispersion analysis is required to estimate the impact of the Project Site on the Lot 7 Site and vice versa.

Both the Project Site and the Lot 7 Site are expected to use natural gas for their heat and hot water systems, therefore a screening analysis was performed for natural gas use and environmental designations added to specify use of natural gas only.

Per the *CEQR TECHNICAL MANUAL*, the total square footage of the projected development – the combined square footage of the Project Site and the Lot 7 Site - was used in the analysis and the CEQR natural gas nomograph depicted on Figure 17-7 of the *CEQR TECHNICAL MANUAL* Appendix for a 30-foot stack height was applied (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires). This nomograph depicts the size of the development versus distance below which the potential impact can occur, and provides a conservative estimate of the threshold distance.

If the actual distance between a stack and the affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact and a detailed analysis would be required.

Figure 17-2 depicts the screening analysis of the projected development on existing land uses, where the combined square footage of the projected development is 132,486 gsf.

#### Figure 17-2. The Affected Area Minimum Distance - HVAC Screen Nomograph for Natural Gas Use



The screening analysis nomograph shows that a detailed analysis would be required for any existing land use that is 95 feet or higher and within 85 feet of the Project Site or the Lot 7 Site.

A review of existing land uses within 400 feet of the Affected Area via the New York City Open Accessible Space Information System (OASIS) Land Use interactive mapping application and Google imaging map shows that there is one existing building similar to or greater in height within a radius of 85 feet of the Project Site or the Lot 7 Site. This is the 148 feet high residential and hotel building under construction at 134-37 35<sup>TH</sup> Avenue (Block 4949, Lot 31), located on the west side of Farrington Avenue and directly across the street from the Affected Area.

#### HVAC Detailed Analysis

A dispersion modeling analyses were conducted to estimate impacts from the stacks emissions of the Project Site and the Lot 7 Site using the latest version of EPA's AERMOD dispersion model 9.3.0 (EPA version 14134). In accordance with CEQR guidance, these analyses were conducted assuming stack tip downwash, urban dispersion surface roughness length of 1.0 meter, elimination of calms, and with and

without downwash effect on plume dispersion. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the 1-hour NO<sub>2</sub> analysis --to account for NOx to NO<sub>2</sub> conversion.

#### HVAC Emissions

Emission rates were estimated as follows:

- Both developments are expected to be heated by natural gas, emission rates of NOx and PM<sub>2.5</sub> were calculated based on annual natural gas usage corresponding to the gross floor area of the buildings, EPA AP-42 emission factors for natural gas combustion in small boilers, and gross heating values of natural gas (1,020 Btu per million cubic feet).
- PM<sub>2.5</sub> emissions from natural gas combustion accounted for both filterable and condensable particulate matter.
- The natural gas fuel usage factor (59.1 cubic foot per square foot per year) was used to estimate annual natural gas usage for residential use and was calculated by dividing the energy consumption rate of 60.3 thousand Btu/ft<sup>2</sup> by natural gas heating value of 1020 Btu/ft<sup>3</sup>.

Table 17-3 provides NO<sub>2</sub> and PM<sub>2.5</sub> emission rates, both short-term and annual, for the Project Site and the Lot 7 Site. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from the NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour). Boiler sizes were estimated based on the assumption that all fuel was consumed during the 100 day (or 2,400 hour) heating season. The stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Site ID	Floor Area	NO <sub>2</sub> Emission factor <sup>(2)</sup> g/sec		ector <sup>(2)</sup> PM <sub>2.5</sub> Emission factor <sup>(2)</sup> g/sec	
	ft <sup>2</sup>	1-hour Annual		24-hour	Annual
Project Site	110,086	3.42E-02	9.36E-03	2.60E-03	7.11E-04
Lot 7 Site	22,400	6.95E-03	1.90E-03	5.28E-04	1.45E-04

#### Table 17-3. Estimated Short-term and Annual Emission Rates of the Project Site and the Lot 7 Site

Notes:

1. PM2.5 emission factor for natural gas combustion of 7.6 lb/106 cubic feet included filterable and condensable particulate matter, filterable PM2.5=1.9 lb/100 cubic feet and condensable PM2.5=5.7 lb/106 cubic feet (AP-42, Table 1.4-2).

2. NOx emission factor for natural gas of 100 lb/100 cubic feet for uncontrolled boilers with <100MMBtu/hr (AP-42, Table 1.4-1).

 Boiler size was estimated based on a fuel consumption rate of 1,020 Btu/ft3 and the assumption that all fuel is consumed in a 100 day (2,400 hours) heating season using the following equation: MMBtu/hr = X ft3/yr / 2,400hrs/yr \* 1020 Btu/ft3/106 MMBtu/Btu.

#### HVAC Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2012-2016). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. Data was processed by Lakes Environmental Software, Inc. using the current EPA AERMET version (16216) and EPA procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs and Anemometer height of 9.4 meters was specified per Lakes Environmental Software Inc.

Per Lakes Environmental Inc.,  $PM_{2.5}$  special procedure which is incorporated into AERMOD calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

#### **HVAC Background Concentrations**

The hourly  $NO_2$  and hourly ozone background concentrations were procured from the NYSDEC Queens College monitoring station for 5 consecutive years (2012-2016).

The  $NO_2$  hourly background concentration was added as a source in AERMOD. This produces three outputs: (1) the individual impact of the building stack's emission; (2) the individual impact of the background concentration; and (3) the combined impact of both the building stack's emission and the background concentration at corresponding hours.

#### HVAC AERMOD Setting

AERMOD calculates concentrations according to the dispersion option, pollutant and averaging time, and output specified in the model. All models specified flat terrain, the default urban roughness coefficient of 1.0 meter with a population of 2,000,000. The other parameters of each pollutant corresponding to the scenario modeled were:

#### Project-on-Existing

1-hour NO<sub>2</sub>: NAAQS option enabled, Tier 3 conversion method and 8<sup>th</sup> highest value output. The stack's equilibrium ratio and in-stack ratio were set to 0.3 and 0.5 respectively.

Annual NO<sub>2</sub>: NO<sub>2</sub> pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

24-hour PM<sub>2.5</sub> NAAQS: Based on a multi-year average of ranked maximum daily values enabled and 1<sup>st</sup> highest value output.

Annual PM<sub>2.5</sub>: PM<sub>2.5</sub> pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

#### Project-on-Project

1-hour NO<sub>2</sub>: NAAQS option enabled, Tier 1 method and 8<sup>th</sup> highest value output.

Annual averaging time (NO<sub>2</sub> and PM<sub>2.5</sub>): OTHER pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

24-hour  $PM_{2.5}$  NAAQS: Based on a multi-year average of ranked maximum daily values enabled and  $1^{st}$  highest value output.

#### HVAC Stack and Receptor Locations

The New York City Building Code (Building Code) requires that a rooftop stack should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. As such, the HVAC stacks on the Project Site and the Lot 7 Site buildings were located on the buildings' highest tiers, 10 feet from the edge of the roof, and as close as possible to the receiving building. If exceedances of the PM<sub>2.5</sub> or NO<sub>2</sub> significant impact criteria were predicted at this stack location, set-back distances were increased, in five foot increments, until the threshold distance at which the projected building would pass the analysis was found.

Figure 17-3 displays AERMOD's buildings configuration plotted in Google Earth to illustrate the stacks' locations of the project-on-existing model, where the Lot 7 Site is shaded in green, the Lot 7 Site in light blue, and the residential building at 134-37 35<sup>TH</sup> Avenue building is shaded in dark blue. The stacks were reasonably located on the building's highest tiers, and an E-designations specify these locations and heights.



Figure 17-3. AERMOD's Project Site input plotted in Google earth and viewed from the north.

- Short-term dispersion analysis (1-hour and 24-hour) used the calculated emission factors.
- Annual dispersion analyses for the project-on-project models of both NO<sub>2</sub> and PM<sub>2.5</sub> were run with a generic 1 gram per second emission factor, and the results of the annual dispersion were multiplied by the calculated emission factors to model the concentrations.
- Annual dispersion analyses for the project-on-existing models of both NO<sub>2</sub> and PM<sub>2.5</sub> used the calculated emission factors.
- Building Profile Input Program (BPIP) was run with the downwash effect enabled.

Receptors on the receiving buildings were placed at 10 foot increments on all floor levels, and conservatively at 5 feet below the roof line. In addition, receptors were placed on the 7<sup>th</sup> floor roof terrace of the Project Site and on the 4<sup>th</sup> floor roof terrace of the residential building at 134-37 35<sup>TH</sup> Avenue.

#### HVAC Results of Dispersion Analyses

Result of the project-on-project and project-on-existing HVAC  $NO_2$  and  $PM_{2.5}$  analyses are shown in Table 17-4.

Project Site ID	Projected Devel- opment Receptor	24-hr PM2.5 ImpactsAnnual PM2.5 Im- pacts		1-hr NO <sub>2</sub> Im- pacts <sup>(1)</sup>	Annual NO <sub>2</sub> Impacts <sup>(1)</sup>	
	Sites	μg/m³	μg/m³	μg/m <sup>3</sup>	μg/m³	
Project Site	Lot 7 Site	1.6	0.01	159.6	41.0	
Lot 7 Site	Project Site	0.4	0.02	134.4	41.0	
Combined Develop-	Existing	4.1	0.13	120.1 <sup>(2)</sup>	42.4	
Threshold Criteria µg/m <sup>3</sup>		4.6	0.3	188	100	

#### Table 17-4. Detailed HVAC Analyses Results

Notes:

1. Total 1-hour and annual concentrations of  $NO_2$  include background concentrations values 119.2  $\mu g/m^3$  and 40.8 respectively.

2. Tier 3 approach background concentration added as a source (AERMOD output included background concentration).

The results are compared with the 24-hour/annual  $PM_{2.5}$  significant impact criteria, and the 1-hour/annual  $NO_2$  NAAQS.

The PM<sub>2.5</sub> impacts are less than the significant impact criteria for PM<sub>2.5</sub> of 6.25  $\mu$ g/m<sup>3</sup> and 0.3  $\mu$ g/m<sup>3</sup>, respectively, and both the 1-hour and annual NO<sub>2</sub> concentrations estimated are less than the 1-hour and annual NO<sub>2</sub> NAAQS of 188  $\mu$ g/m<sup>3</sup> and 100  $\mu$ g/m<sup>3</sup>, respectively.

Therefore, with (E) Designations in place, the emissions from each Site would not significantly impact any of the other Site or the existing land use.

### (E) Designation

The HVAC analysis, for both the Projected and Lot 7 Site s, concluded that fuel would need to be restricted to the exclusive use of natural gas in their HVAC systems and the minimum stack heights would need to be specified. In addition, the Lot 7 Site would require specifying the stack's location.

The (E) Designation (E-424) language is as follows:

<u>Block 4950, Lot 1 (the Project Site)</u>: Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at the highest tier, or at a minimum of 98 feet above grade to avoid any potential significant adverse air quality impact.

<u>Block 4950, Lot 7 (the Lot 7 Site)</u>: Any new residential or community facility development on the abovereferenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at the highest tier, or at a minimum of 98 feet above grade, and at least 25 from the lot line facing Farrington Avenue to avoid any potential significant adverse air quality impact.

#### **Toxic Air Emissions from Industrial Facilities**

Information regarding potential emissions of toxic air pollutants from existing industrial sources was developed using the following procedure:

A study area was developed that includes all industrial facilities with potential air toxic emissions located within 400 feet of the Affected Area using Zoning and Land Use application (ZoLa);

New York City's Open Accessible Space Information System Cooperative (OASIS), Google Street View, on-line searches, and land surveys were used to identify and categorize facilities;

A search was performed to identify permits listed in the EPA Envirofacts database in this study area; and

A formal request with blocks and lot numbers necessary to identify industrial source permits within 400 feet of the Affected Area was submitted to NYCDEP;

According to DEP, the only address for which a permit had been issued is 134-03 35<sup>th</sup> Avenue, for a spray booth operated by Auto Rama Body Work. The permit expired in 1995, and Auto Rama is no longer in business at that location. The automotive repair shop has been demolished, and a two-story building with wholesale/retail establishments and accessory offices now occupies 134-03 35<sup>th</sup> Avenue, at the corner of 35<sup>th</sup> Avenue and Prince Street. Therefore, no significant air quality impacts are predicted from industrial source emissions to the Affected Area.

#### Major Sources and Odor

The *CEQR TECHNICAL MANUAL* recommends analysis for projects that would result in new uses (particularly schools, hospitals, parks, and residences) located near a major or large emission source. Large emission sources are identified as sources located at facilities which require a State facility permit, such as solid waste or medical waste incinerators, co-generation facilities, asphalt and concrete plants, or power generating plants. Major emission sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits.

No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within 1,000 feet of the Affected Area were identified. As such, no analysis was warranted and no significant air quality impacts are predicted from odor producing facilities and major sources with a Tile V certificate of operation.

#### CONCLUSION

Air quality analyses addressed mobile sources, stationary HVAC systems, and air toxics. The results of the analyses are summarized below.

- Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale;
- Emission from the parking garage of the Project Site building would not cause significant air quality impacts to receptors at the local scale;
- As no existing large or major sources are located within 1,000 feet of the Affected Area, emissions from existing stationary HVAC sources would not cause a significant air quality impact to the proposed project;
- No significant air quality impacts to the proposed project are anticipated from air toxics;
- Emissions from project-related heating, ventilation, and air conditioning systems (HVACs) would not cause significant air quality impacts to receptors at the local scale with (E) Designations in place.

#### **19. NOISE**

#### Introduction

The purpose of a noise assessment under CEQR is to determine whether an action would (1) raise noise levels significantly at existing or anticipated sensitive noise receptors (such as residences or schools) or (2) introduce new sensitive uses (such residential buildings or schools) at locations subject to unacceptably high ambient noise levels.

The assessment is concerned with both mobile and stationary noise sources. Mobile sources are those that move in relation to a noise-sensitive receptor. They include automobiles, buses, trucks, aircraft, and trains. Stationary sources of noise do not move in relation to a noise-sensitive receptor. Typical stationary noise sources of concern include machinery or mechanical equipment associated with industrial and manufacturing operations; building heating, ventilating, and air conditioning (HVAC) systems; speakers for public address and concert systems; playground noise; and spectators at concerts or sporting events. An action could raise noise levels either by introducing new stationary noise sources (such as outdoor playgrounds or rooftop air conditioning compressors) or by increasing mobile source noise (generally by generating additional traffic). Similarly, an action could introduce new residences or other sensitive receptors that would be subject to noise from either stationary or mobile sources.

The proposed actions would include a zoning map amendment to replace part of an M1-1 light manufacturing district with an R7A residential district to facilitate the redevelopment of the project site, now occupied by a one-story retail building, with a 93-unit, nine-story residential apartment building. Under the reasonable worst case development scenario, the proposed actions would also result in the redevelopment of an adjacent lot, on which an 18-unit residential apartment building would replace a 4,000 square foot warehouse. The proposed actions would thus result in new development, which could potentially generate either stationary or mobile source noise, and that would include noise-sensitive residences.

#### **Noise Fundamentals**

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. Table 19-1 lists some noise levels for typical daily activities.

Sound Source	SPL (dB(A))					
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					
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A) Is perceived as a doubling or halving in SPL.						
Source: 2014 CEQR Technical Manual						

#### Table 19-1 Noise Levels of Common Sources

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common weighting networks used are the A- and C-weighting networks. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighted network is the most commonly used, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting

The following is typical of human response to relative changes in noise level:

- 3-dB(A) change is the threshold of change detectable by the human ear;
- 5-dB(A) change is readily noticeable; and
- 10-dB(A) change is perceived as a doubling or halving of the noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L<sub>eq</sub> is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L<sub>eq</sub> than low noise levels. L<sub>eq</sub> has an advantage over other descriptors because L<sub>eq</sub> values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq(24)}$  is the continuous equivalent sound level over a 24-hour time period.

The sound level exceeded during a given percentage of a measurement period is the percentileexceeded sound level ( $L_x$ ). Examples include  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$ .  $L_{10}$  is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source). In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For "line" sources, such as vehicles on a street, the SPL drops off at a rate of 3 dB(A) with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

#### Impact Determination and Noise Standards and Guidelines

In 1983 the New York City Department of Environmental Protection (DEP) adopted the City Environmental Protection Order-City Environmental Quality Review (CEQR) noise standards for exterior noise levels. These standards are the basis for classifying noise exposure into four categories based on the L<sub>10</sub>: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable, as shown in Table 19-2.

For sensitive receptors introduced by the proposed action, with-action condition noise levels in dB(A)  $L_{10(1)}$  are compared with the values contained in the Noise Exposure Guidelines. If these noise levels would exceed the Marginally Acceptable levels, a significant impact would occur unless the building design provides a composite building attenuation that would be sufficient to reduce these levels to an acceptable interior noise level. These values are shown in Table 19-3.

For noise increases caused by project-induced traffic, or for stationary noise sources introduced by the proposed action, if the no-action levels are less than 60 dB(A)  $L_{eq(1)}$  and the analysis period is not at nighttime, an increase of 5 dB(A)  $L_{eq(1)}$  or more in the future with the project would be considered a significant impact. In order for the 5 dB(A) threshold to be valid, the resultant action condition noise level would have to be equal to or less than 65 dB(A). If the No-Action noise level is equal to or greater than 62 dB(A)  $L_{eq(1)}$ , or if the analysis period is a nighttime analysis period, the incremental significant impact threshold would be 3 dB(A)  $L_{eq(1)}$ . If the No-Action noise level is 61dB(A)  $L_{eq(1)}$ , the maximum incremental increase would be 4 dB(A), since an increase higher than this would result in a noise level higher than the 65 dB(A)  $L_{eq(1)}$  threshold and be considered significant.

<b>Table 19-2</b>
<b>CEQR</b> Noise Exposure Guidelines for use in City Environmental Impact Review <sup>1</sup>

Receptor Type	Time Period	Acceptable General External Exposure	Airport <sup>3</sup> Exposure	Marginally Acceptable General External Exposure	Airport <sup>3</sup> Exposure	Marginally Unacceptable General External Exposure	Airport <sup>3</sup> Exposure	Clearly Unacceptable General External Exposure	Airport <sup>3</sup> Exposure
1.Outdoor area requiring serenity and quiet <sup>2</sup>		$L_{10}{\leq}55\;dBA$							
2. Hospital, Nursing Home		$L_{10}{\leq}55\;dBA$		$55 < L_{10} \leq 65 \ dBA$		$\begin{array}{l} 65 \ < \ L_{10} \ \le \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
3. Residence, residential hotel or	7 am to 10 pm	$L_{10}{\leq}65 dBA$		$65 < L_{10} \leq 70 dBA$		$\begin{array}{rrr} 70 \ < \ L_{10} \ \le \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
motel	10 pm to 7 am	$L_{10}{\leq}55 dBA$		$55 < L_{10} \leq 70 dBA$		$\begin{array}{rrr} 70 \ < \ L_{10} \ \leq \ 80 \\ dBA \end{array}$		$L_{10} > 80 \text{ dBA}$	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)		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)	<u>&lt;</u> 60 dBA	Same as Residential Day (7 AM-10 PM)	<u>&lt;</u> 60 dBA	Same as Residential Day (7 AM –10 PM)	≤ 60 dBA	Same as Residential Day (7 AM-10 PM)	≤75 dBA
6. Industrial, public areas only <sup>4</sup>	Note 4	Note 4	L <sub>dn</sub> <	Note 4	L <sub>dn</sub> <	Note 4	L <sub>dn</sub> <	Note 4	L <sub>dn</sub> <

Notes:

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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 nursing homes.

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

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 19-3Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacco	Clearly Unacceptable			
Noise level with proposed action	$70 < L_{10} \le 73$	73 <l<sub>10 <u>≤</u> 76</l<sub>	76 < L <sub>10</sub> <u>&lt;</u> 78	$78 < L_{10} \le 80$	80 < L <sub>10</sub>
Attenuation <sup>A</sup>	(I) 28 dBA	· /	(III) 33 dBA	(IV) 35 dBA	$36 + (L_{10} - 80)^B dBA$

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

<sup>B</sup>Required attenuation values increase by 1 dBA increments for  $L_{10}$  values greater than 80 dBA.

Source: New York City Department of Environmental Protection, 2012.

#### Potential for Additional Stationary Source Noise

The proposed action would result in new development with residential, retail, and office space. Unlike playgrounds, truck loading docks, loudspeaker systems, car washes, stationary diesel engines, or similar uses, residential apartment buildings and enclosed retail and office space are not substantial stationary noise sources. All rooftop mechanical equipment, including air conditioner compressors, would be enclosed and would comply with New York City Noise Code requirements, which limit noise levels generated by such equipment to 65 dBA during the daytime (7AM to 10 PM) and 55 dBA during the nighttime. The proposed action would therefore not have the potential to cause a significant adverse stationary source noise impact.

#### Potential for Additional Mobile Source Noise

The anticipated action-induced development is below the CEQR threshold for a traffic impact assessment. It can therefore be assumed that the additional traffic volumes would be too low to cause a 3 dBA increase in  $L_{eq(1)}$  noise levels, which would require a doubling of PCE traffic volumes along an adjacent street. The proposed action would therefore not have the potential to cause a significant adverse mobile source noise impact.

#### Potential for Existing Noise Levels to Adversely Affect New Residents

Because the predominant noise source in the area of the proposed rezoning is vehicular traffic, noise monitoring was conducted during peak vehicular travel periods, 8:30 – 9:10 am, 12:20 -1:00 pm, and 5:15-6:00 pm. Pursuant to *CEQR Technical Manual* methodology, readings were conducted for 20-minute periods during each peak time interval to account for vehicular noise. Noise monitoring was conducted using a Type 1 Casella CEL-633 sound meter, with wind screen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Monitoring was conducted at two locations adjacent to the proposed rezoning area: on the sidewalk at the corner of 35<sup>th</sup> Avenue and Farrington Street and on the sidewalk at the corner of 35<sup>th</sup> Avenue and Linden Place.

Monitoring was conducted during typical midweek conditions, on Tuesday, November 1, 2016. The weather was sunny and dry throughout the day, and wind speeds were low to moderate. Neighboring properties were not significant sources of ambient noise. Traffic volumes and vehicle classification were documented during the noise monitoring.

Tables 19-4 and 19-5 show the noise monitoring results. Tables 19-6 through 19-8 show the vehicle counts and classifications for the three monitoring periods.

#### **Table 19-4**

	Tuesday, November 1, 2016						
	8:50 – 9:10 am	5:37 – 5:57 pm					
L <sub>max</sub>	89.6	83.6	89.2				
L <sub>10</sub>	74.5	73.0	70.0				
L <sub>eq</sub>	71.9	69.5	67.9				
L <sub>50</sub>	65.0	66.0	63.5				
L <sub>90</sub>	60.5	61.5	59.5				
L <sub>min</sub>	56.1	56.5	56.1				

#### Table 19-5

#### Noise Levels at 35<sup>th</sup> Avenue and Linden Place

	Tuesday, November 1, 2016						
	8:28 – 8:49 am	5:15 – 5:35 pm					
L <sub>max</sub>	85.8	87.3	86.0				
L <sub>10</sub>	73.5	75.0	73.5				
Leq	70.1	71.4	70.6				
L <sub>50</sub>	66.0	65.5	66.0				
L <sub>90</sub>	61.5	59.0	60.5				
L <sub>min</sub>	55.6	55.1	55.3				

#### Table 19-6

#### Morning Vehicle Counts and Classifications

	Farrington Street	Linden Place
Car/ Taxi	45	92
Van/ Light Truck/SUV	62	101
Heavy Truck	57	27
Mini Bus	8	13
Bus	1	14
Airplane	3	6

#### **Table 19-7**

#### Midday Vehicle Counts and Classifications

	Farrington Street	Linden Place
Car/ Taxi	65	91
Van/ Light Truck/SUV	92	110
Heavy Truck	7	3
Mini Bus	10	10
Bus	2	0
Airplane	12	8

#### **Table 19-8**

#### **Evening Vehicle Counts and Classifications**

	Farrington Street	Linden Place	
Car/ Taxi	63	72	
Van/ Light Truck/SUV	102	124	
Heavy Truck	9	13	
Mini Bus	18	4	
Bus	0	18	
Airplane	6	9	

The highest measured  $L_{10}$  noise levels were 74.5 dB(A) at the Farrington Street corner (during the morning monitoring period) and 75.0 dB(A) at the Linden Street corner (during the midday monitoring period). These noise levels are in the Marginally Unacceptable Category (between 70 and 80 dB(A)).

Window-wall noise attenuation would therefore be required to ensure an acceptable indoor noise level. Based on Table 19-3 of the *CEQR Technical Manual*, the required Outdoor Indoor Transmission Class (OITC) attenuation values to achieve acceptable interior noise levels are 31 dB(A) for the buildings and 26 dB(A) for the commercial components. Provision of this level of window-wall attenuation would ensure that no adverse impacts related to noise occur.

To ensure that the required noise attenuation is provided, (E) designations would be placed on the project site and the other potential development site in the proposed rezoning area (Block 4950, Lots 1 and 7). With regard to noise, the text of the (E) designation (E-424) will state the following:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31dB(A) window/wall attenuation on all building's facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

### Conclusion

For the reasons cited above, the proposed actions would not result in a significant adverse noise impact.

Attachment to Appendix 2

Architectural Plans (For Illustrative Purposes Only)





FARRINGTON STREET







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16' SCALE: 1/8" = 1'-0"

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(ASSUME NARROW)



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NG ANALYSIS FOR R7A POSED)	Web:         www.raymondchanarchitect.com           DATE:         06/07/17           PROJECT No:         21414           PROJECT MANAGER:         PRO-102.00           DRAWN BY:         DRO-102.00           CADD FILE No:         OF -           21414-BSA-         OF -

No. DATE DESCRIPTION







(ASSUME NARROW)







MEP ENGINEER:

STRUCTURAL ENGINEER

SCHEMATIC SECOND FLOOR PLAN

135-01 35TH AVE, FLUSHING, NY

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLOGS ON ZONING AND BUILDING CODES: PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES ALL OF ITS PREDECESSOR AGENCIES.

BUILDING OUTLINE IS SUBJECT TO CHANGE ONCE THE INTERIOR LAYOUTS AND PROGRAM ARE FINALIZED.



SCALE: 1/8" = 1'-0"

SCHEMATIC THIRD~SIXTH FLR PLAN 1 SCHEMAIN SCALE: 1/8"=1'-0"

(ASSUME NARROW)







MEP ENGINEER:

STRUCTURAL ENGINEER:

SCHEMATIC THIRD~SIXTH FLR PLAN

135-01 35TH AVE, FLUSHING, NY DRAWING TITLE:

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLOGS ON ZONING AND BUILDING CODES: PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES ALL OF ITS PREDECESSOR AGENCIES.

BUILDING OUTLINE IS SUBJECT TO CHANGE ONCE THE INTERIOR LAYOUTS AND PROGRAM ARE FINALIZED.











MEP ENGINEER:

STRUCTURAL ENGINEER:

SCHEMATIC 7TH FLOOR PLAN

135-01 35TH AVE, FLUSHING, NY DRAWING TITLE:

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLOGS ON ZONING AND BUILDING CODES: PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES ALL OF ITS PREDECESSOR AGENCIES.

BUILDING OUTLINE IS SUBJECT TO CHANGE ONCE THE INTERIOR LAYOUTS AND PROGRAM ARE FINALIZED.

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STRUCTURAL ENGINEER:

SCHEMATIC 8TH FLOOR PLAN

135-01 35TH AVE, FLUSHING, NY DRAWING TITLE:

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLDGS ON ZONING AND BUILDING CODES; PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES.

BUILDING OUTLINE IS SUBJECT TO CHANGE ONCE THE INTERIOR LAYOUTS AND PROGRAM ARE FINALIZED.





(ASSUME NARROW)









MEP ENGINEER:

STRUCTURAL ENGINEER:

SCHEMATIC 9TH FLOOR PLAN

135-01 35TH AVE, FLUSHING, NY DRAWING TITLE:

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLDGS ON ZONING AND BUILDING CODES; PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES.

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## ZONING ANALYSIS FOR R7A (PROPOSED)

DEPARTMENT OF BUILDINGS



MEP ENGINEER:

SEAL & SIGNATURE:

STRUCTURAL ENGINEER

PROPOSED BLDG SECTION

135-01 35TH AVE, FLUSHING, NY DRAWING TITLE:

#### 35TH AVE MIXED USE

PROJECT:

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLDGS ON ZONING AND BUILDING CODES; PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES.

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DEPART	MENT	OF	BUIL	DINGS

# ZONING ANALYSIS FOR R7A (PROPOSED)

SEAL & SIGNATURE: A YMON Ton 
 ARCHITECTS
 • PLANNERS

 136-40 30TH AVENUE
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 Mathematical Advances

 DATE: 06/07/17
 PROJECT No.: 2114

 PROJECT MANAGER: RCA
 DWG. No.:

 DRAWN BY:
 OCADDE HE No.:
 CADD FILE No.: 21414-BSA-

MEP ENGINEER:

STRUCTURAL ENGINEER

PROPOSED BLDG SECTION

DRAWING TITLE:

#### 35TH AVE MIXED USE

NOTE: THIS IS A SCHEMATIC DESIGN & SHALL SUBJECT TO REVIEW & INTERPRETATION BY NYC DEPT. OF BLDGS ON ZONING AND BUILDING CODES; PLANS SHALL ALSO SUBJECT TO REVIEW & COMMENTS BY DEPT. OF HOUSING PRESERVATION AND DEVELOPMENT AND ALL OF ITS PREDECESSOR AGENCIES.

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135-01 35TH AVE, FLUSHING, NY

PROJECT:

No. DATE DESCRIPTION