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ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) AND SUPPLEMENTAL STUDIES TO THE EAS

Lead Agency:
Department of City Planning
120 Broadway, 31St Floor
New York, NY, 10271

Prepared for:
Brisa Builders
2009 Flatbush Avenue
Brooklyn, NY, 11234

Prepared by:
Equity Environmental Engineering
500 International Drive, Suite 150
Mount Olive, NJ 07828

February 26, 2021

Beach 67th Street Rezoning

Queens, NY 11692
Block 16040, Lots 12, 14, 16, 18, 20, 22, 24
Block 16041, Lot 6

Queens Community District 14

CEQR Reference No: 21DCP048Q

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

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

Part I: GENERAL INFORMATION

PROJECT NAME Beach 67th Street Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
21DCP048Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
200230ZMQ & N200231ZRQ	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT Brisa Builders		
NAME OF LEAD AGENCY CONTACT PERSON Olga Abinader, Director, Environmental Assessment and Review			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Ericka Keller		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 2009 Flatbush Ave		
CITY New York	STATE NY	ZIP 10271	CITY Brooklyn	STATE NY	ZIP 11234
TELEPHONE 212-720-3493	EMAIL oabinad@planning.nyc.gov		TELEPHONE 718-774-6103	EMAIL HammadGraham@brisabuilders.com	

3. *Action Classification and Type*

SEQRA Classification

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

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

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

4. *Project Description*

Brisa Builders Development, LLC (the "Applicant") and God's Battalion of Prayer Properties, Inc. (the "Co-Applicant") seek a zoning map amendment to rezone 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6, in the Arverne neighborhood within Queens Community District 14, on the Rockaway Peninsula, from an R4A zoning district to an R6 zoning district.

The proposed zoning map amendment would facilitate the development of two new buildings on one 31,000 square foot zoning lot (Lots 12, 14, 16, 18, 20, 22 and 24). The proposed buildings include: (1) a Use Group ("UG") 2 nine-story affordable independent residence for seniors (AIRS) building on Lots 22, 20 and 18 with approximately 57,456 square feet of zoning floor area (1.85 FAR) and 84 housing units, and (2) a UG 3 eleven-story community facility building, intended for use as a charter school, on Lots 16, 14 and 12 with approximately 71,996 square feet of zoning floor area (2.32 FAR).

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 14	STREET ADDRESS 426-444 Beach 67th Street;450 Beach 67th Street; and 430 Beach 68th Street
TAX BLOCK(S) AND LOT(S) Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6		ZIP CODE 11692

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The proposed Rezoning Area is a portion of the blocks bound by Beach Channel Drive to the south, Beach 68th Street to the west, Thursby Avenue to the north and Beach 66th Street to the east.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R4A	ZONING SECTIONAL MAP NUMBER 30c

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

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

☐ CITY MAP AMENDMENT ☐ ZONING CERTIFICATION ☐ CONCESSION
☒ ZONING MAP AMENDMENT ☐ ZONING AUTHORIZATION ☐ UDAAP
☒ ZONING TEXT AMENDMENT ☐ ACQUISITION—REAL PROPERTY ☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☐ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 87,000 Waterbody area (sq. ft.) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 87,000 Other, describe (sq. ft.): 0

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 370,638

NUMBER OF BUILDINGS: 2

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 66,074 and 82,795 on Projected Development Site 1, 221,769 on Projected Development Site 2

HEIGHT OF EACH BUILDING (ft.): 80 Feet and 128 Feet on Projected Development SIte 1; 75 Feet on Projected Development Site 2

NUMBER OF STORIES OF EACH BUILDING: 9 stories and 11 stories on Projected Development Site 1,

Does the proposed project involve changes in zoning on one or more sites? ☐ YES ☒ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 31,000
The total square feet not owned or controlled by the applicant: 56,000

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 79,000 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 79,000 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2			
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2022			
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 16-20			
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES	☐ NO	IF MULTIPLE PHASES, HOW MANY?	
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Design, Financing, Construction, Occupation			

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

☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Public Facilities & Institutions

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	US 2 Residential	US 2 Residential	UG 2 and AIRS Units	
No. of dwelling units	2	2	84 AIRS Units on Projected SIte 1 and 221 UG2 units on Projected Site 2	84 AIRS Units, 219 UG 2 Units, totaling 303 Units
No. of low- to moderate-income units	0	0	84 on Projected SIte 1; 44 on Projected Site 2	84 on Projected SIte 1; 44 on Projected Site 2, totaling 128
Gross floor area (sq. ft.)			Projected Site 1- 60,480 Projected Site 2- 221,760	Projected Site 1- 60,480 Projected Site 2- 221,760; totaling 282,240
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type (retail, office, other)				
Gross floor area (sq. ft.)				
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	Place of Worship; Nursing Home	Place of Worship; Nursing Home	Charter School	+Charter School (Place of Woship and Nursing Home)
Gross floor area (sq. ft.)	76,692 gsf nursing home; 8,064 gsf place of worship	76,692 gsf nursing home; 8,064 gsf place of worship	76,241 gsf Charter School	76,241 gsf Charter School (76,692 gsf nursing home; 8,064 gsf place of worship)
Vacant Land	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," describe:	Vacant land	vacant land		(vacant land)
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces			0	
No. of accessory spaces			24- Projected Development Site 1	24- Projected Development Site 1

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
			100- Projected Development Site 2	100- Projected Development Site 2; totaling 124
Operating hours			TBD	
Attended or non-attended			TBD	
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	Approx 40	Approx 40		(Approx 40)
Operating hours				
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
POPULATION				
Residents	☒ YES ☐ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:	280 Seniors in Nursing Home	280 Seniors in Nursing Home	168 on Project Site 1 654 in Projected Site 2	168 on Project Site 1 654 in Projected Site 2; totaling 822 (280 Nursing Home under RWCDS)
Briefly explain how the number of residents was calculated:	2.96 persons per DU and a max of 2 people per AIRS unit			
Businesses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. and type				
No. and type of workers by business				
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:				
Other (students, visitors, concert-goers, *etc.*)	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If any, specify type and number:			Charter School -950 Students	Charter School -950 Students
Briefly explain how the number was calculated:	Per Applicant plans, this is the maximum capacity for the proposed charter school.			
ZONING				
Zoning classification	R4A	R4A	R6	R6 (R4A)
Maximum amount of floor area that can be developed	0.75 FAR Residential (0.9 with attic allowance) 2.0 FAR Community Facility	0.75 FAR Residential (0.9 with attic allowance) 2.0 FAR Community Facility	3.6 FAR Residential (QH) 4.8 FAR Community Facility	+2.7 FAR Residential +2.8 FAR Community Facility
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, public facility and institutional uses, vacant land, commercial	Residential, public facility and institutional uses, vacant land, commercial	Residential, public facility and institutional uses, vacant land, commercial	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Part II: TECHNICAL ANALYSIS

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

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

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

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

	YES	NO
percent?		
○ If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	☐	☒
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Supp Studies		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Supp Studies		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10. See Supp. Studies		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☒	☐
○ If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions. See Supp Studies		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Supp Studies	☒	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed? See Supp Studies	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☐

	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☒	☐
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation. See Supp Studies		
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 15,851 pounds per week		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 57,225,782 mBTUs		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.***	☒	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Supp Studies	☐	☐
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) Would the proposed project result in the development of 350,000 square feet or more?	☒	☐
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18?	☐	☒

	YES	NO
○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Supp Studies		
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☒	☐
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☒	☐
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. See Supp Studies		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	SIGNATURE	DATE
Max Meltzer, AICP		February, 18th, 2021

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

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

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

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

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

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

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

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

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

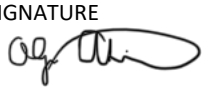
☒ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result.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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	City Planning Commission
NAME	DATE
Olga Abinader	February 26, 2021

SIGNATURE



CITY PLANNING COMMISSION
CITY OF NEW YORK

OFFICE OF THE CHAIR

CONDITIONAL NEGATIVE DECLARATION

Project Identification
CEQR No. 21DCP048Q
APPLICATION No. 200230ZMQ, N200231ZRQ
SEQRA Classification: Unlisted

Lead Agency
City Planning Commission
120 Broadway, 31st Floor
New York, NY 10271
Contact: Olga Abinader
(212) 720-3493

Name, Description and Location of Proposal

Beach 67th Street Rezoning

The Applicant, Brisa Builders Developers, LLC and God's Battalion of Prayer Properties, Inc., requests a zoning map amendment from an R4A to an R6 zoning district and a zoning text amendment to establish an MIH area coterminous with the proposed rezoning area (the "Proposed Actions") to facilitate the development of two new buildings in the Arverne neighborhood of Queens, Community District 14.

The "Rezoning Area" is located at 450, 444, 442, 438, 432, 430, 426 at Beach 67th Street and 430 Beach 68th Street (Block 16040, Tax Lots 12, 14, 16, 18, 20, 22, 24 and Block 16041, Tax Lot 6) on the Rockaway Beach Peninsula. Block 16040, Lots 12, 14, 16, 18, 20 and 22 comprise Projected Development Site 1, which is owned by the Applicant. In the future with the Proposed Actions, Projected Development Site 1 would be developed with two buildings: an approximately 60,480 gross square foot (gsf) Use Group (UG) 2 residential building containing 84 dwelling units (DUs), proposed to be affordable independent residences for seniors (AIRS), with 9 accessory parking spaces, and an approximately 76,241 gsf community facility building, proposed to contain a charter school, with 15 accessory parking spaces.

In addition to the Applicant's proposed development, the environmental analysis conservatively assumed a second projected development on one non-Applicant controlled site, Block 16041, Lot 6 (Projected Development Site 2). Projected Development Site 2 would be developed with a 221,760 gsf UG 2 residential building containing 221 DUs and 100 accessory parking spaces.

Absent the Proposed Actions, the Rezoning Area would remain unchanged. The proposed project is anticipated to be completed by 2022.

Olga Abinader, *Director*
Stephanie Shellooee, AICP, *Deputy Director*
120 Broadway, 31st Floor, New York, NY 10271
(212) 720-3493
oabinad@planning.nyc.gov

To avoid the potential for significant adverse impacts related to hazardous materials, air quality, and noise, an (E) designation, (E-605), has been incorporated into the Proposed Actions as described below.

The (E) designation text related to air quality is as follows:

> **Projected Development Site 1 (Block 16040, Lots 12, 14, 16, 18, 20, 22, 24)**
> **• Projected Development Site 1A (Charter School) - Any new community facility development on the above-referenced property must ensure HVAC stack(s) is located at the highest tier and at least 131 feet above grade, to avoid any significant adverse air quality impacts.**
> **• Projected Site 1B (Affordable Independent Residence for Seniors (AIRS)) - Any new residential development on the above-referenced property must ensure HVAC stack(s) is located at the highest tier and at least 93 feet above grade, the location of any heating, ventilation, air conditioning (HVAC) stack shall be restricted to at most 50 feet from the northern lot line facing Thursby Avenue to avoid any significant adverse air quality impacts.**
>
> **Projected Development Site 2 (Block 16041, Lot 6)**
> **• Projected Development Site 2 - Any new residential development on the above-referenced property must ensure stack(s) is located at the highest tier and at least 78 feet above grade.**

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

> **Block 16040 / Lots 12, 14, 16, 18, 20, 22, 24 (Projected Development Site 1): To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the southern, and western (Beach 67th Street) façades and a 31 dB(A) window/wall attenuation above the fourth floor on the eastern façade to maintain an interior noise level not greater than 45 dB(A). 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.**
>
> **Block 16041 / Lot 6 (Projected Development Site 2): To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the western (Beach 68th Street), eastern (Beach 67th Street) northern, and southern façades to maintain an interior noise level not greater than 45 dB(A). 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.**

The (E) designation text related to hazardous materials would apply to Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24.

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

> **Task 1-Sampling Protocol**
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.**
>
> **Task 2-Remediation Determination and Protocol**
> **A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.**
>
> **If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.**
>
> **A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.**

Statement of No Significant Effect:

The Environmental Assessment and Review Division of the Department of City Planning, on behalf of the City Planning Commission, has completed its technical review of the Environmental Assessment Statement, dated February 26, 2021 prepared in connection with the ULURP Application (Nos. 200230ZMQ, N200231ZRQ). The City Planning Commission has determined that the proposed action will have no significant effect on the quality of the environment, once it is modified as follows:

The Applicant agrees to enter into a Restrictive Declaration (RD) to ensure the implementation of mitigation relating to traffic and pedestrian operations which would avoid the potential for any significant adverse impacts. The mitigation measures are as follows:

1) With regard to traffic mitigation measures, the Applicant agrees to implement the following measures in consultation with DOT:
    a) At Beach Channel Drive and Beach 67th Street:
        i) Reallocate six (6) seconds of green time from the northbound/southbound approach to the eastbound/westbound approach.
    b) At Beach Channel Drive and Beach 62nd Street/Arverne Boulevard:
        i) Create two 11-foot wide eastbound Beach Channel Drive travel lanes (one for left turns and through traffic to Beach Channel Drive and one for through traffic to Arverne Boulevard).
        ii) Maintain an 11-foot wide westbound Beach Channel Drive travel lane between Beach 62nd and Beach 63rd Streets.
        iii) Remove 175 feet of parking on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets. This would eliminate approximately 14 parking spaces (seven on each side of the street).
        iv) Provide "No Stopping Anytime" signs on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.
        v) Shift the Beach Cannel Drive center line 5.5 feet to the north between Beach 62nd and Beach 63rd Streets.
        vi) Create 2.5-foot wide stripped buffers along both curbs of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.
        vii) Shift the five-foot wide eastbound and westbound exclusive bicycle lanes on Beach Channel Drive between the 2.5-foot curb buffers and the 11-foot travel lanes between Beach 62nd and Beach 63rd Streets.
        viii) Shift the eastbound Beach Channel Drive stop bar at the Beach 62nd Street intersection 25-feet to the west and add "Stop Here on Red" sign.
        ix) Add eastbound lane designation and/or guide signs on Beach Channel Drive prior to Beach 62nd Street.
        x) Adjust Phase A by stopping eastbound Beach Channel Drive vehicles to Arverne Boulevard to protect eastbound bicycles/pedestrians.
        xi) Add a stripped crosswalk across southbound Arverne Boulevard east of Beach 62nd Street (between the southeast corner and the island).
        xii) Adjust Phase B by allowing eastbound Beach Channel Drive vehicles to Arverne Boulevard to move with northbound Arverne Boulevard (eastbound Beach Channel Drive bicycles/pedestrians are stopped).
        xiii) Add new or relocate signal heads, poles, and other equipment related to the modified signal phasing and roadway geometry at the intersection of Beach Channel Drive and Arvene Boulevard if/as required by DOT.

The above measures constitute the "Traffic Mitigation Measures."

2) With regard to pedestrian mitigation measures, the Applicant agrees to request NYPD crossing guards at the intersections of Thursby Avenue and Beach 66th Street and Thursby Avenue and Beach 68th Street, along with the Thursby Avenue and Beach 67th Street intersection; and to direct students safely through these intersections during school commencement and dismissal. The Applicant commits to deploying school safety officers during school commencement and dismissal at these three intersections, at the Applicant's expense, until such time that crossing guards can be provided (except at locations where crossing guards are currently deployed during these periods) in consultation with DOT (the "Pedestrian Mitigation Measures").

Supporting Statement:

The above determination is based on an environmental assessment which finds that:

1. A traffic analysis identified the potential for significant adverse impacts at the intersections of Beach Channel Drive and Beach 67th Street, Beach Channel Drive and Beach 66th Street, and Beach Channel Drive and Beach 62nd Street. A pedestrian analysis identified the potential for significant adverse impacts at the intersections of Thursby Avenue and Beach 66th Street and Thursby Avenue and Beach 68th Street. The proposed Traffic Mitigation Measures and Pedestrian Mitigation Measures identified in the Statement of No Significant Effect would fully mitigate the potential significant adverse impacts. Consequently, no significant adverse impacts related to transportation (traffic or pedestrians) would occur as a result of the proposed actions.

2. No other significant effects on the environment which would require an Environmental Impact Statement are foreseeable.

It is fully agreed and understood that if the foregoing conditions, modification, and alterations are not fully incorporated into the proposed action, this Conditional Negative Declaration shall become null and void. In such event, the Applicant shall be required to prepare a Draft Environmental Impact Statement before proceeding further with said proposal.

This Conditional Negative Declaration has been prepared in accordance with Article 8 of the Environmental Conservation Law 6NYCRR part 617.

I, the Undersigned, as the Applicant or authorized representative for this proposal, hereby affix my signature in acceptance of the above conditions to the proposed action.

Ericka Keen

Signature of Applicant or Authorized Representative

Date: February 26, 2021

Ericka Keller, Brisa Builders
Name of Applicant or Authorized Representative

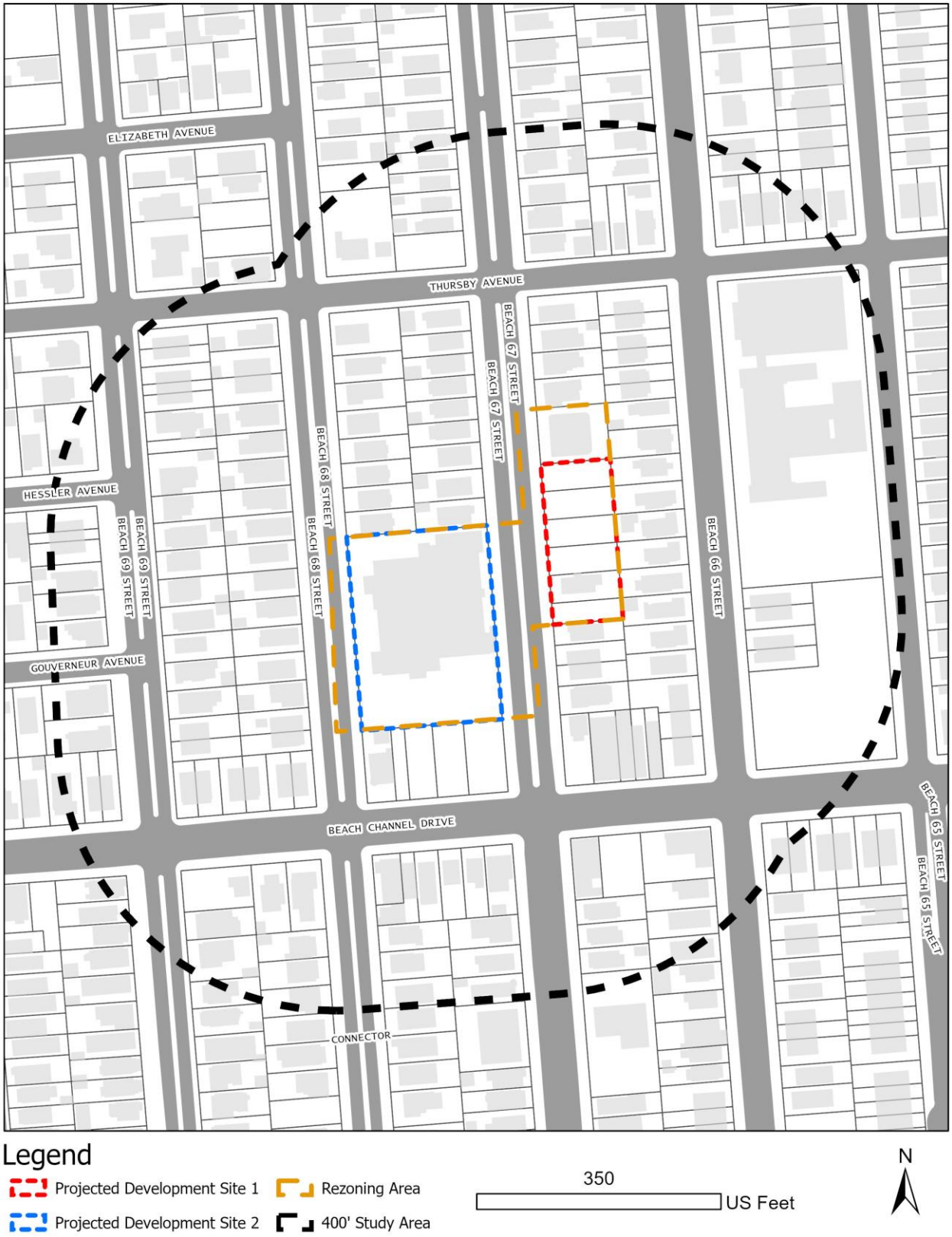
Olga Abinader, Director
Environmental Assessment and Review Division
Department of City Planning

Date: _____

Marisa Lago, Chair
City Planning Commission

Date: _____

Figure 1: Site Location Map



a

Figure 2: Existing Land Use Map



Figure 3: Zoning Map



Figure 4: Zoning Map Change



Current Zoning Map - R4A Zoning District

Proposed Zoning Map - R4A to R6 Zoning District

d

Figure 5: Tax Map



Figure 6-1: Site Photos



a Looking east toward the Projected Site 1 from across Beach 67th St.



b Looking northeast toward Projected Development Site 1 from across Beach 67th St.



c Looking south toward Projected Development Site 1 from across Beach 67th St..

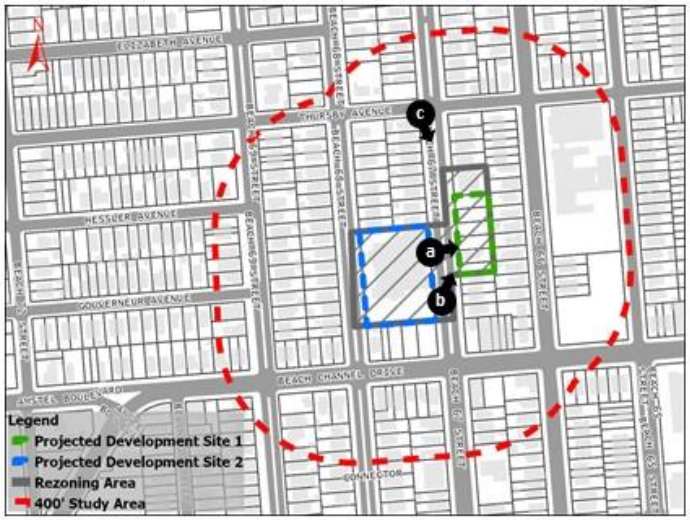


Photo Key

Figure 6-2: Site Photos



d Looking northwest toward Projected Development Site 2 from across Beach 67th St..



e Looking south toward Projected Development Site 2 from across Beach 67th St.



f Looking north toward Projected Development Site 2 from across Beach 68th St..

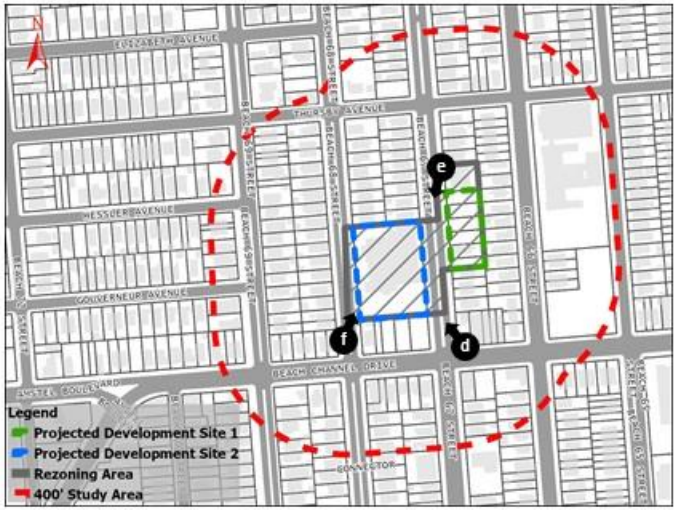
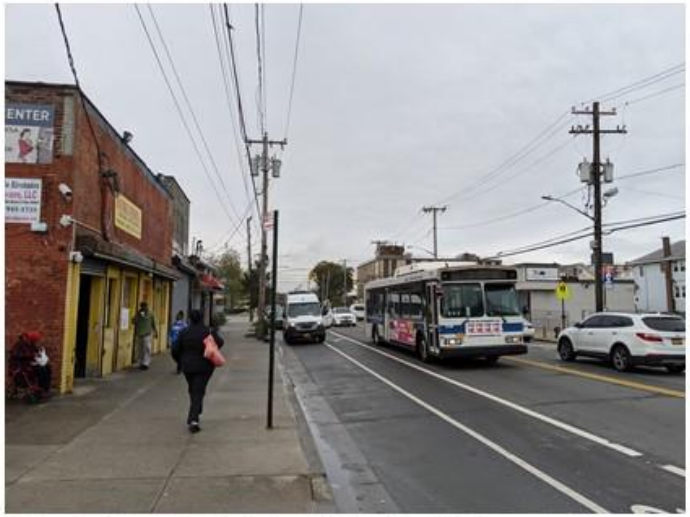


Photo Key

Figure 6-3: Site Photos



g Looking west along Beach Channel Dr. from Beach 67th St.



h Looking east along Beach Channel Dr. from Beach 67th St.



i Looking west along Beach Channel Drive from the eastern side of Beach 67th St.

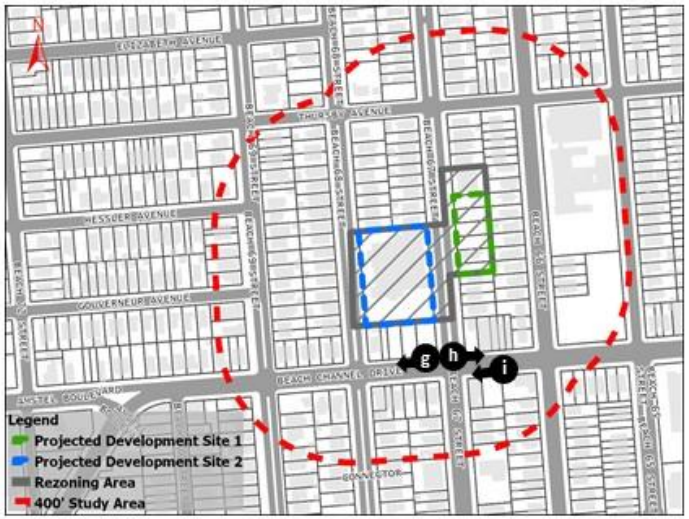


Photo Key

h

Figure 6-4: Site Photos



j Looking west along Thursby Ave. from Beach 67th St.



k Looking north along Beach 67th St. from Thursby Ave.



l Looking east along Thursby Ave. from Beach 67th St.



Photo Key

Figure 6-5: Site Photos



m Looking north along Beach 68th St. from Beach Channel Dr.



n Looking north along Beach 66th St. from Beach Channel Dr.



o Looking south along Beach 68th St from Beach Channel Dr.

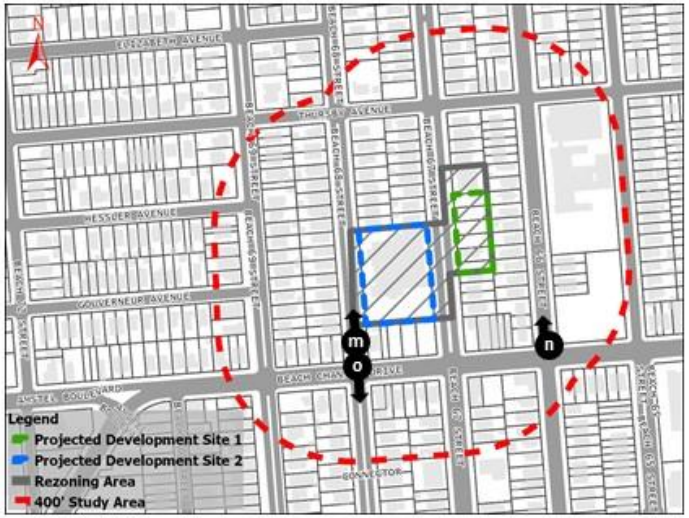


Photo Key

1.0 PROJECT DESCRIPTION

1.1 Introduction

Brisa Builders Development, LLC (the "Applicant") and God's Battalion of Prayer Properties, Inc. (the "Co-Applicant") seek a zoning map amendment to rezone 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6 (the "Proposed Project Area"), in the Arverne neighborhood within Queens Community District 14, on the Rockaway Peninsula, from an R4A zoning district to an R6 zoning district. The proposed zoning map amendment would facilitate the development of two new buildings on one 31,000 square foot zoning lot (Lots 12, 14, 16, 18, 20, 22 and 24). The proposed buildings include: (1) a Use Group ("UG") 2 nine-story affordable independent residence for seniors (AIRS) building on Lots 22, 20 and 18 with approximately 57,456 square feet of zoning floor area (1.85 FAR) and 84 housing units (the "Proposed Residential Site"), and (2) a UG 3 eleven-story community facility building, intended for use as a charter school, on Lots 16, 14 and 12 with approximately 71,996 square feet of zoning floor area (2.32 FAR) (the "Proposed Community Facility Site"), collectively known as the "Proposed Development Site".

The Applicant and Co-Applicant also seek a zoning text amendment to amend Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Queens Community District 14, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The Applicant and Co-Applicant propose mapping MIH Options 1 and 2 over the Proposed Project Area to provide maximum flexibility for non-applicant-controlled sites.

The Proposed Project has the potential for significant adverse impacts with regards to traffic due to the development that could potentially result from the Proposed Actions. In order to mitigate the potential for significant adverse impacts, a Restrictive Declaration, identifying means and measures to ensure that there are no potential impacts with regards to traffic is required.

1.2 Background and Site History

The area surrounding the Proposed Project Area were subject to the Rockaway Neighborhoods Rezoning (C 080371 ZMQ), approved by the City Planning Commission ("CPC") on July 23, 2008, and adopted by the City Council on August 14, 2008, which rezoned 280 blocks of the Rockaway Peninsula to reinforce and protect the special character of the Rockaway neighborhoods and to provide opportunities for new development on underutilized sites. The Proposed Project Area was rezoned from an R3-2 zoning district to the current R4A zoning district.

The Board of Standards and Appeals ("BSA") granted an appeals application for 450 Beach 67th Street (Lot 24). According to a February 1992 Certificate of Occupancy issued for the site, the BSA granted an appeal under BSA Cal. No. 995-87-A, which permitted drywells at the site on condition that the volume of drywells be at a sufficient capacity to contain certain levels of water along various areas on the site.

1.3 Surrounding Area

The Project Area is in the Arverne neighborhood in Queens within Community District 14, on the Rockaway Peninsula.

Zoning

The area within a 400-foot radius of the Proposed Project Area (the "Surrounding Area") is zoned R4-1, R4A, R5, R5A, R5A/C1-3, R5D and R5D/C1-3.

R4-1 districts are contextual residential districts that are designed for neighborhoods with a slightly wider range of housing types than might be found in other contextual neighborhoods. These districts allow slightly larger single- or two-family detached and semi-detached residences than might be found in R3-1 districts. Detached and semi-detached single- and two-family homes are permitted a maximum FAR of 0.75, a maximum perimeter wall height of 25 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached homes are required 1 side yard totaling 8 feet. Semi-detached homes are required 1 side yard at a minimum of 4 feet, totaling 4 feet. Off-street parking is required per dwelling unit, and 50% is require for income-restricted housing units (IRHU).

R4A districts are contextual residential districts often mapped to preserve or establish the character of older neighborhoods with pitched roof homes on smaller zoning lots. R4A districts allow for single- and two-family residences in detached homes. These homes are permitted a maximum FAR of 0.75, a maximum street wall height of 21 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet, a minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off-street parking is required per dwelling unit, and 50% is required for IRHU.

R5 districts are non-contextual residential districts which typically produce three- and four-story attached houses and small apartment buildings. R5 districts are often mapped as transition districts between medium and lower density areas. Within an R5 district, the maximum permitted FAR is 1.25, the maximum permitted street wall height is 30 feet and the maximum permitted building height is 40 feet. Above a height of 30 feet, a setback of 15 feet is required from the street wall. R5 districts require a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached houses must have two side yards that total at least 13 feet, each with a minimum width of 5 feet. Semi-detached houses require one 8-foot-wide side yard. Apartment buildings require two side yards, each at least 8 feet wide. Off-street parking is required for 85% of the dwelling units, and 42.5% is required for IRHU.

R5A districts are contextual residential districts that are often mapped in older neighborhoods characterized by pitched roof homes on smaller zoning lots. R5A districts allow for single- and two-family residences in detached homes. These homes are permitted a maximum FAR of 1.10, a maximum street wall height of 25 feet and a maximum building height of 35 feet. These homes bust have a minimum front yard of 10 feet, a

minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off –street parking is required per dwelling unit.

R5D districts are contextual residential districts characterized by moderate-density, multi-family housing and serve as a transition between lower-density districts and moderate-density districts. R5D districts allow for all types of residences in all building types – detached, semi-detached, attached and zero-lot line residences. Within an R5D district, the maximum permitted FAR is 2.0 and the maximum permitted building height is 40 feet (45 feet with a Qualifying Ground Floor). R5D districts require a minimum front yard of 5 feet and a minimum rear yard of 30 feet. Side yards are not required for lots less than 30 feet wide. For lots at least 30 feet wide, zero lot line buildings require one side yard at least eight feet wide, and a minimum of eight feet is required between buildings on adjacent zoning lots. Off-street parking, which is not permitted in front of the building, is required for 66% of the dwelling units and for 35% of IRHU.

C1-3 are commercial districts mapped within residential neighborhoods along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors. C1-3 districts can be mapped as commercial overlays or as stand-alone districts. These districts are mapped at a depth of 150 feet. When commercial overlays are mapped in R1 through R5 districts, the maximum commercial FAR is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0.

Land Uses and Prevailing Built Form

The land uses within the Surrounding Area consist of a variety of uses including residential, commercial and community facility uses, as well as vacant land.

The Surrounding Area is in the Arverne neighborhood of Queens and is primarily comprised of two- and three-story residences, three- to five-story multi-family residences and two- to eight-story community facility uses scattered throughout. Local commercial uses are located within the vicinity of the Proposed Project Area as single-story buildings along Beach Channel Drive, a main east/west corridor on the Rockaway peninsula.

The prevailing built form in the area north of the Proposed Project Area generally consists of 1- and 2-family detached- and semi-detached residences. Jamaica Bay lies three blocks to the north of the Project Area. Immediately south of the Project Area are 1- and 2-family detached- and semi-detached residences and a mix of locally-oriented commercial uses along Beach Channel Drive. East of the Project Area, on Block 16039, is P.S./M.S. 042 Robert Vernam School - a 5-story 96,991 square foot building on an 88,000 square foot lot.

Mass Transit

An elevated subway line, located south of the Proposed Project Area, is served by the A train at the Beach 60th Street Station. The Proposed Project Area is also located one block west of the Beach 62nd Street and

Reverend Joseph May Drive bus stop serving the Q22 line. The Surrounding Area is also accessible by bus service. The Q22, QM17 and R/E/S lines stop at the Beach Channel Drive & Beach 67th Street stop located five blocks east of the Proposed Project Area, and the Q52-SBS bus stops at the Beach 59th Street & Rockaway Freeway stop located one block southeast of the Proposed Project Area.

1.4 Description of the Affected Area

The Proposed Project Area includes 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6, in the Arverne neighborhood within Queens Community District 14, on the Rockaway Peninsula. The Proposed Project Area is zoned R4A, a low-density contextual residential district with a maximum permitted FAR of 0.75 for residential uses.

450 Beach 67th Street (Lot 24) has a lot area of 8,000 square feet and is improved with a 2-story community facility building (Battalion Pentecostal Assembly Church) with a total floor area of approximately 8,064 square feet (1.08 FAR). Lot 24 controlled by the Co-Applicant.

444 Beach 67th Street (Lot 22), the Proposed Residential Site, is Co-Applicant and Applicant controlled. Lot 22 is a 4,000 square foot lot and is used for parking.

442 Beach 67th Street (Lot 20), the Proposed Residential Site, is Co-applicant and Applicant controlled. Lot 20 is a 4,000 square foot lot and is used for parking.

438 Beach 67th Street (Lot 18), the Proposed Residential Site, is Co-applicant and Applicant controlled. Lot 18 is a 4,000 square foot lot and is used for parking.

432 Beach 67th Street (Lot 16), the Proposed Community Facility Site, is Co-Applicant and Applicant controlled. Lot 16 is a 4,000 square foot vacant lot which is used as a community garden.

430 Beach 67th Street (Lot 14), the Proposed Community Facility Site, is Co-Applicant and Applicant controlled. Lot 14 is a 4,000 square foot lot improved by 2.75-story 1- and 2-family residential building with 2 units and a total floor area of approximately 2,829 square feet (0.71 FAR).

426 Beach 67th Street (Lot 12), the Proposed Community Facility Site, is Co-Applicant and Applicant controlled. Lot 12 is a 3,000 square foot vacant lot.

430 Beach 68th Street (Lot 6) is a through lot with frontages along Beach 67th and Beach 68th streets, with lot area of approximately 56,000 square feet and is improved with an 8-story, 76,692 square foot (1.37 FAR) UG 3 nursing home building, the Resort Nursing Home. The first floor contains offices, dining and recreational facilities, and bedrooms are located on the second through eighth floors. Lot 6 is controlled non-applicant owned.

1.5 Description of the Proposed Project

The proposed rezoning will facilitate the development of two buildings on one zoning lot:

1. A UG 2, nine-story, AIRS building with approximately 57,456 square feet of zoning floor area (1.58 FAR) on the Proposed Residential Site. The building will be 80 feet in height, with a 65-foot base height and a 15-foot setback at the eighth floor. The building will contain 84 housing units, which will include 53 studios, 30 one-bedrooms and 1 two-bedroom for the building manager. The building will consist of storage space, support spaces and a lobby on the ground floor level. The second floor and above will consist of residential, MEP, recreation, and program office spaces (all above the flood plain). There are 9 exterior parking spaces provided at the ground level (AIRS buildings outside of the Transit Zone are required to provide off-street parking for 10% of the units).

2. A UG 3 eleven-story community facility building, intended for use as a charter school, with approximately 71,996 square feet of zoning floor area (2.32 FAR) on the Proposed Community Facility Site. The building will be 110 feet in height, with a 60-foot base height and a 15-foot setback at the seventh floor. Open space is provided at the ground level, running through the exterior of the site. The building would be elevated above the base flood elevation, which would provide space for off-street parking below the first floor. Although R6 districts do not require schools to provide off-street parking, the Applicant proposes to provide 15 spaces for staff use. The proposed charter school facility would be an elementary school with approximately 22 classrooms for grades K-6th and with a maximum capacity of approximately 950 students. The Applicant is working with several charter school providers to plan and operate the school.

Cumulatively, with the development of both the UG 2 and UG 3 buildings, the Proposed Development Site will be improved with a total of approximately 129,452 square feet of zoning floor area (4.8 FAR).

1.6 Action(s) Necessary to Facilitate the Project

The actions necessary to facilitate the proposal are (1) a zoning map amendment to rezone the Proposed Project Area from an R4A zoning district to an R6 zoning district, and (2) a zoning text amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Queens Community District 14, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The Applicant and Co-Applicant propose mapping MIH Options 1 and 2 within the Proposed Project Area to provide maximum flexibility for non-applicant-controlled sites. Option 1 requires 25% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 60% AMI, with a minimum of 10% of housing to be affordable at 40% AMI. Option 2 requires 30% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 80% AMI.

1.7 Purpose and Need

The actions necessary to facilitate the proposal are (1) a zoning map amendment to rezone the Proposed Project Area from an R4A zoning district to an R6 zoning district, and (2) a zoning text amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Queens Community District 14, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The Applicant and Co-Applicant propose mapping MIH Options 1 and 2 within the Proposed Project Area to provide maximum flexibility for non-applicant-controlled sites. Option 1 requires 25% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 60% AMI, with a minimum of 10% of housing to be affordable at 40% AMI. Option 2 requires 30% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 80% AMI.

a. RATIONALE FOR THE R6 ZONING DISTRICT AT THE PROPOSED PROJECT AREA

R6 districts are residential districts which are widely mapped in built-up, medium-density areas. The FAR in R6 districts ranges from 0.78 (for a single-story building) to 2.43. There are no height limits for height factor buildings, although they must be set within a sky exposure plane which begins at a height of 60 feet above the street line and then slopes inward over the zoning lot. The Quality Housing regulations produce high lot coverage buildings set at or near the street line. For buildings on or within 100 feet of a wide street, the maximum FAR is 3.0, the maximum base height before setback is 65 feet with a maximum building height of 70/75 feet. On a narrow street, the maximum FAR is 2.2, the maximum base height before setback is 45 feet with a maximum building height of 55 feet. Within Queens Community District 14, R6 districts are subject to the accessory off-street parking regulations of an R5 district, which generally requires off-street parking for 85% of the dwelling units.

The proposed rezoning to an R6 zoning district will enable the Applicant and Co-Applicant to develop the Proposed Development Site, which is an underutilized site, with a both UG 2 AIRS and UG 3 community facility buildings near mass transit. As discussed above, the Proposed Development Site is well served by mass transit. The neighborhood surrounding the Proposed Development Site consists of a wide range of uses, including several dense residential developments to the south and the east of the Proposed Project Area. As such, the mid-rise apartment house that the proposed rezoning would permit is compatible with the surrounding land uses. Although the Proposed Project Area along Beach Channel Drive was rezoned to an R4A zoning districts in 2008 to promote moderate growth, no development has occurred, resulting in a barren, underutilized block. The modestly higher density permitted by the proposed R6 zoning district would facilitate the long-sought development at the Proposed Development Site consistent with the goal of the Rockaway Neighborhoods Rezoning (C 080371 ZMQ), which included providing opportunities for new development on underutilized sites, such as these.

The proposed R6 zoning district would promote the development of medium-density residential development, including affordable housing to address the City's growing need for additional housing, particularly for seniors. While one- and two-family detached residences are permitted in the existing R4A at a maximum FAR of 0.9,

which includes an attic allowance, AIRS is not permitted. The proposed R6 zoning would permit the development of senior housing with an increased FAR of 3.9 and maximum height of 80 feet. Community facility uses in a R4A zoning would have a maximum FAR of 2.0, but in a R6 zoning the maximum FAR is 4.8. At this density, the Applicant can construct a building with 84 units of senior housing under NYCHPD's Senior Affordable Rental Apartments (SARA) program to meet increasing demand for senior housing in the Rockaways.

The proposed zoning map amendment facilitates the development of the Proposed Development Site with medium-density mixed buildings. The Proposed Project Area is located on Beach 67th and Beach 68th Streets, approximately 100 feet from the intersection with Beach Channel Drive. Beach 67th and 68th Streets are both wide streets which can support the proposed bulk and density. Medium-density development is in the Surrounding Area and within the Proposed Project Area, including the existing 280 bed Resort Nursing Home (Block 16041, Lot 6), an eight-story building currently in an R4A district which allows nursing homes at a maximum FAR of 0.75. The existing nursing home has an approximate FAR of 1.37. R6 districts allow nursing homes a maximum FAR of 2.43. Lot 6 is included in the Proposed Project Area and the proposed rezoning will bring the existing nursing home building into compliance with zoning regulations. The Battalion Pentecostal Assembly Church located on Lot 24, and within the Proposed Project Area, owns the entire Proposed Development Site.

The proposed development is surrounded by mid-rise buildings similar in scale and uniquely situated in midblock locations in the immediate vicinity of the site area. P.S. / M.S. 42 Robert Vernam School and is located one block to the east of the Proposed Project Area on 488 Beach 66th Street. Zoned R4-1, it is a medium density public school facility that supports the residential developments in the area. Daytop Village Treatment Center on Beach 65th Street, zoned R5D, is a six-story building.

b. Rational for the Appendix F: Inclusionary Housing Designated Area Text Map Amendment

Over the last 15 years the demands for housing, both in this community and throughout the City, have steadily increased. This has resulted in rising prices for for-sale residences and rising rents for rental housing. The shortage of affordable housing and housing in general has been highlighted by the current administration as an urgent issue that needs addressing. The administration has released Housing New York, A Five-Borough, Ten-Year Housing Plan, which calls for the production and preservation of 200,000 affordable housing units within a decade. After decades of decline, the Rockaway community has more recently experienced gains in both population and, therefore, the need for housing. According to American Community Survey data for the neighborhood surrounding the Proposed Project Area, census tract 964, the population has increased since 2000 by approximately 25%. In addition, according to American Community Survey data, the medium income for census tract 964 is approximately $60,000. Thus, as the population increased, the need for affordable housing has too.

The proposed text amendment to ZR Appendix F will ensure that any future residential development at the Proposed Project Area will address the need for affordable housing by including permanent affordable housing units. The applicant proposes mapping MIH Options 1 and 2 within the Proposed Project Area.

1.8 Analysis Framework

The analysis framework would compare the incremental difference between the proposed and potential development under the Proposed Actions (With-Action Condition) and the development, which could occur under the existing zoning (No-Action Condition). This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions occurring in a study area of approximately 400 feet around the rezoning area. This environmental assessment considers the potential effects of the Proposed Actions compared to future conditions without the approvals sought by the project sponsor. This analysis framework is described below:

Reasonable Worst-Case Development Scenario

Discretionary actions sometimes permit a range of project characteristics, or development scenarios, to occur even though the action may be sought to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental consequences is chosen for analysis. This is the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario occurs, its impacts would be no worse than those considered in the environmental review. The environmental assessment examines the incremental differences between the RWCDS of the future without the project in place (No-Action Condition) and the future with the project in operation (With-Action Condition).

Build Year

Considering the time required for the environmental review and land use approval process, and assuming a construction period of approximately 16 to 20 months, an analysis year of 2022 will be used to assess the potential for environmental impacts.

Existing Conditions

The Proposed Project Area includes 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24), and 430 Beach 68th Street (Block 16041, Lot 6). The Applicant and Co-Applicant control the Proposed Development Site (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24).

450 Beach 67th Street (Lot 24) has 80 feet of frontage on Beach 67th Street, a lot area of 8,000 square feet and is improved with a two-story house of worship (Battalion Pentecostal Assembly Church) with a total floor area of approximately 7,082 square feet (0.23 FAR). There is one cub cut which provides access to accessory parking located in the rear.

444 Beach 67th Street (Lot 22), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is used for accessory parking to the church on Lot 24. There is one curb cut which accesses this lot.

442 Beach 67th Street (Lot 20), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is used for accessory parking to the church on Lot 24.

438 Beach 67th Street (Lot 18), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet lot and is used for accessory parking to the church on Lot 24.

432 Beach 67th Street (Lot 16), part of the Proposed Community Facility Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is a vacant lot which is used as a community garden.

430 Beach 67th Street (Lot 14), part of the Proposed Community Facility Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is improved with a three-story two-family residential building with a total floor area of approximately 2,829 square feet (0.71 FAR). There is one curb cut which accesses accessory parking.

426 Beach 67th Street (Lot 12), part of the Proposed Community Facility Site, has 30 feet of frontage on Beach 67th Street, a lot area of 3,000 square feet and is a vacant lot.

430 Beach 68th Street (Lot 6) is a through lot with 280 feet of frontage along Beach 67th and Beach 68th Streets, a lot area of approximately 56,000 square feet and is improved with an eight-story, 76,692 square foot (1.37 FAR) UG 3 nursing home, the Resort Nursing Home. Two curb cuts are located on Beach 67th Street, one accesses a loading dock and the other access the accessory parking lot. Another curb cut is located on Beach Channel Drive and accesses the accessory parking lot. The nursing home is currently in a "nonconforming status" as its existing building height of approximately 75 feet is above the R4A zoning district limits for building heights (max. is 35 feet)

Future No-Action Condition

The Proposed Development Site is in the Arverne neighborhood on the Rockaway Peninsula in Queens. As several the lots in the surrounding area have not been developed or enlarged since the 2008 Rockaway Neighborhoods Rezoning, the reasonable worst-case development scenario assumes that the existing conditions would remain on the Proposed Development Site in the Future No-Action scenario.

Future With-Action Condition

The Future With-Action condition under a Reasonable Worst-Case Scenario requires identification of the type, location, and extent of development anticipated as a result of a Proposed Action along with any potential impacts that may arise from that future development. As directed by CEQR, this analysis requires that the Future With-Action Condition considers a scenario that maximizes the permitted FAR allowed under the proposed new zoning.

Under the Future With-Action scenario, the proposed rezoning would amend the zoning map to change the Project Area's existing zoning from R4A to R6, which would facilitate the Applicant's proposed development of a nine-story affordable independent residence for seniors (AIRS) building on Block 16040, Lots 18, 20 and 22; and an eleven-story community facility building, intended for use as a charter school, on Lots 12, 14 and 16. The Future With-Action scenario assumes that the Projected Development Sites would be constructed to the maximum allowable floor area under the proposed R6 zoning. The Future With-Action scenario is the Applicant's and Co-Applicant's proposal, which permits a greater FAR (3.9) because of the proposed AIRS facility.

Based on the criteria described in Section 1.6 above, Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Applicant site) and Block 16041, Lot 6 have been identified as Projected Development Sites. No Potential Development sites have been identified.

No development is expected to occur on Block 16040, Lot 24 for reasons discussed below:

Block 16040, Lot 24

In the Future With-Action Scenario, it is assumed that the existing church would remain on Block 16040, Lot 24. This location is at the center of the community it serves and from here it will extend its community programs to the proposed senior building. The church has a long-standing history of providing the community with a variety of educational and training programs from this location, in addition to a food pantry. Finally, in order to support its mission of providing affordable housing in the Far Rockaway area and to maximize the potential of adding more senior units to the adjacent Projected Site 1, the church has agreed to transfer a portion of its air-rights (8,000 sf) to the adjacent proposed senior building to provide additional FAR for that development. This would make further development on Lot 24 unfeasible

.

Projected Development Site 1: Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Proposed Development Site)

Projected Development Site 1 would be occupied by two new buildings, comprised of – a UG 2 Affordable Independent Residences for Seniors (AIRS) building and a UG 3 community facility building intended for use as a charter school. The senior building would be located on Lots 18, 20 and 22. The community facility building would be located on Lots 12, 14 and 16. The buildings would be elevated to a design flood elevation of 10 feet, which provides space for parking for both uses on the ground floor. There are nine parking spaces proposed for the AIRS building (11% of DUs). Although no off-street parking spaces are required for schools in an R6 district, the Applicant and Co-Applicant intend to provide 15 parking spaces for the charter school.

The proposed senior building is expected to have an FAR of 1.88. It is a proposed 9-story building at a proposed height of 80 feet containing a total of 84 dwelling units. The building's total gross floor area is 60,480 sf and the total zoning floor area is 58,259 sf.

The proposed school is expected to have a FAR of 2.32. It is a proposed 11-story building at a proposed height of 128 feet. The building's total gross floor area is 76,241 sf and total zoning floor area is 71,996 sf.

While not part of the proposed development, the applicant is using development rights from the church on Lot 24 for the Projected Development Site.

Projected Development Site 2: Block 16041, Lot 6

In the With-Action Scenario, it is assumed that Block 16041, Lot 6, with a lot area of approximately 56,000 sf and a built FAR of 1.37, would be developed with a 201,600 zsf (221,760 gsf) UG 2 residential building. This projected development would displace the existing on-site nursing home and would be built at an FAR of 3.6, which represents maximum density in an R6 district. Assuming, 1,000 square feet per dwelling unit, it is assumed that the projected residential development on Projected Site 2 would create 221 dwelling units. Assuming that 20 percent of units would be available at or below 80 percent Area Median Income (AMI), it is assumed that 44 units would be set aside as affordable, pursuant to the MIH program. As the site is located outside of the transit zone, parking must be provided for 50% of market rate dwelling units and 25 percent of income-restricted units, which results in 100 spaces. It is expected to reach a height of 75 feet.

It is critical to note that the nursing home site is not anticipated or projected to redevelop due to the Proposed Rezoning. Block 16041, Lot 5 is analyzed as a Projected Development Site for the sole purpose of providing a conservative analysis as discussed above – to demonstrate that the project would not result in a potential for environmental impact. The nursing home is a long-standing institutional use in the neighborhood. There are no known plans for the nursing home to redevelop or be razed and replaced with a new use.

It is further noted that nursing home land uses are not evaluated in the same manner as Use Group 1 or 2 residential development and are subject to different evaluation criteria under the CEQR Technical Manual. Specifically, nursing home occupants are not considered residential occupants and the use is not evaluated under the same criteria as residents that live in Use Group 1 or 2 residential buildings and dwellings. As such nursing homes are evaluated as institutional uses, and not commercial or residential use, and the nursing home is not expected to be re-developed as a result of the Proposed Actions.

Table 1.8-1: RWCDS Analysis Framework – Existing, No-Action and With-Action Calculations

Block	Lot(s)	Existing FAR	Existing Uses	Existing SF	No-Action FAR	No-Action Uses	No-Action SF	With-Action FAR	With-Action Uses	With-Action SF	Increment
16040	12	0	Vacant	0	0	Vacant	0	UG 3 Charter School – 2.32 FAR UG 2 AIRS – 1.88	UG 3 Charter School and UG 2 Affordable Independent Residences for Seniors (AIRS)	UG 3 Charter School- 76,241 gsf UG2 AIRS- 60,480 gsf	+ 76,241 GSF UG Charter School +84 Dwelling Units (AIRS) (- 2 Dwelling Units, Market Rate)
16040	14	0.7	Residential	2,829 gsf	0.7	Residential	2,829 gsf				
16040	16	0	Vacant	0	0	Vacant	0				
16040	18	0	Vacant	0	0	Vacant	0				
16040	20	0	Vacant	0	0	Vacant	0				
16040	22	0	Vacant	0	0	Vacant	0				
16040	24	1.01	Public Facility and Institution (Place of Worship)	8,064 gsf	1.01	Public Facility and Institution (Place of Worship)	8,064 gsf	1.01	Public Facility and Institution (Place of Worship)	8,064 gsf	0
16041	6	1.37	Public Facility and Institution (Nursing Home)	76,692 gsf	1.37	Public Facility and Institution (Nursing Home)	76,692 gsf	3.6	Residential	221,760 gsf	+221 Dwelling units (-76,692 gsf nursing home)

2.0 ENVIRONMENTAL REVIEW

The following technical sections are provided as supplemental assessments to the Environmental Assessment Statement ("EAS") Short Form. Part II: Technical Analyses of the EAS forms a series of technical thresholds for each analysis area in the respective chapter of the CEQR Technical Manual. If the proposed project was demonstrated not to meet or exceed the threshold, the 'NO' box in that section was checked; thus, additional analyses were not needed. If the proposed project was expected to meet or exceed the threshold, or if this was not able to be determined, the 'YES' box was checked on the EAS Short Form, resulting in a preliminary analysis to determine whether further analyses were needed. For those technical sections, the relevant chapter of the CEQR Technical Manual was consulted for guidance on providing additional analyses (and supporting information, if needed) to determine whether detailed analysis was needed.

A 'YES' answer was provided in the following technical analyses areas on the EAS Short Form:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Community Facilities
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Natural Resources
- Hazardous Materials
- Water and Sewer Infrastructure
- Transportation
- Air Quality
- Noise
- Neighborhood Character
- Construction

2.1 LAND USE, ZONING, AND PUBLIC POLICY

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning, and public policy to ascertain the impacts of a project on the Surrounding Area. Land use, zoning, and public policy are described in detail below. This section considers existing conditions, development trends, zoning, and other public policies in relation to the Projected Development Site and the Surrounding Area as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Action would permit the development of a mixed-use building with a larger bulk and a wider range of uses than what is permitted under the existing zoning regulations, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 20v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of the New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

2.1.1 Land Use

Existing Conditions

Existing land use patterns of city blocks within approximately 400 feet of the Proposed Project Area are presented in **Figure 2.1-1**. The CEQR Technical Manual suggests that a land use, zoning, and public policy study area should extend 400 feet from the site of the Proposed Action. This study area is generally bound by the midpoint between Beach Channel Drive and Rockaway Freeway to the south; Beach 65th Street to the east; Beach 69th Street to the west; and the midpoint between Thursby and Elizabeth Avenues to the north. A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the study area. The primary land use in the surrounding area is two- and three-story residences and one to three-story walk-up multi-family residences. Other land uses in the area include multi-family residences with elevators, commercial uses, public facilities and Institutions, mixed residential and commercial buildings, vacant lots, parking, and open space. The residential uses are located south, southwest, west, north, and east of the project site. Commercial uses are located south of the Proposed Development Site along Beach Channel Drive. Public facility uses are located east and southeast of the project site, notably the Robert Vernam School (P.S./M.S. 42) located on Beach 66th Street. Open space, in the form of the Almeda Playground, is located on Beach Channel Drive between Beach 66th Street and Beach 65th Street. Vacant lots are located throughout the study area.

The general mix of land uses observed in the study area generally reflects the distribution of land uses observed throughout Queens Community District 14, which are summarized below in Table 2.1-1. The most prominent land use within CD 14 is open space and recreation space, followed by one- to two- family residences and vacant land.

Table 2.1-1: Land Use Distribution for Queens Community District 14 (2020)

LAND USES	PERCENT OF TOTAL
Residential Uses	
1-2 Family	25.0
Multi-Family	9.9
Mixed Residential/Commercial	0.8
Subtotal of Residential Uses	35.7
Non-Residential Uses	
Commercial /Office	1.4
Industrial	0.6
Transportation/Utility	3.3
Institutions	4.6
Open Space/Recreation	32.6
Parking Facilities	0.8
Vacant Land	19.1
Miscellaneous	2.2
Subtotal of Non-Residential Uses	64.6
TOTAL	**100.3**

Source: *Community District Profiles, New York City Department of City Planning.*
Note: Percentages may not add up to 100.0 percent due to rounding.

Figure 2.1-1: Area to be Rezoned Overlaid with Existing Land Use Map



Analysis

Future No-Action Condition

As a number of the lots in the surrounding area have not been developed or enlarged since the 2008 Rockaway Neighborhoods Rezoning, it is safe to assume existing conditions will remain the same in the Future No-Action scenario. While retail establishments and other buildings may change, the overall use of these buildings within the study area would remain the same, and any physical changes to buildings in the study area would comply with designated zoning regulations and other surrounding districts. No significant adverse changes to the area's urban character are anticipated

Future With-Action Condition

In the Future With-Action Scenario, the Applicant's and Co-Applicant's proposal assumes that Block 16040, Lots 12, 14, 16, 18, 20 and 22 would be developed with a residential building on the northern portion of the site on Lots 18, 20 and 22 and a community facility building, proposed for use as a charter school, on the southern portion of the site on Lots 12, 14 and 16.

Furthermore, it is assumed that Block 16041, Lot 6, with a lot area of approximately 56,000 sf and a built FAR of 1.37, would be developed with a 201,600 zsf (221,760 gsf) UG 2 residential building. This projected development, for purposes only of a conservative analysis, be built at an FAR of 3.6, which represents maximum density in an R6 district. Assuming, 1,000 square feet per dwelling unit, it is assumed that the projected residential development on Projected Site 2 would create 221 dwelling units. Assuming that 20 percent of units would be available at or below 80 percent Area Median Income (AMI), it is assumed that 44 units would be set aside as affordable, pursuant to the MIH program. As the site is located outside of the transit zone, parking must be provided for 50% of market rate dwelling units and 25 percent of income-restricted units, which results in 100 spaces. It is expected to reach a height of 75 feet.

It is critical to note that the nursing home site is not anticipated or projected redevelop due to the Proposed Rezoning. Block 16041, Lot 5 is analyzed as a Projected Development Site for the sole purpose of providing a conservative analysis as discussed above – to demonstrate that the project would not result in a potential for environmental impact. The nursing home is a long-standing institutional use in the neighborhood. It is further noted that nursing home land uses are not evaluated in the same manner as Use Group 1 or 2 residential development and are subject to different evaluation criteria under the CEQR Technical Manual. Specifically, nursing home occupants are not considered residential occupants and the use is not evaluated under the same criteria as residents that live in Use Group 1 or 2 residential buildings and dwellings. As such nursing homes are evaluated as institutional uses, and not commercial or residential use, and is not expected to be re-developed.

Conclusion

Based on the analysis above, the Applicant believes that the proposed rezoning would allow for the productive redevelopment of the Rezoning with land uses that are similar to the surrounding area and therefore, the Proposed Action would not generate a land use that would be incompatible with surrounding uses. There would be no significant adverse impacts to Land Use as a result of the Proposed Actions, and further analysis is not required.

2.1.2 Zoning

The New York City Zoning Resolution dictates the use, density, and bulk of developments within New York City. Additionally, the Zoning Resolution provides required and permitted accessory parking regulations. The City has three basic zoning district classifications – residential (R), commercial (C), and manufacturing (M). These classifications are further divided into low-, medium-, and high-density districts.

Existing Conditions

The area surrounding the Proposed Project Area was subject to a previous land use approval. The Rockaway Neighborhoods Rezoning (C 080371 ZMK), approved by the City Planning Commission ("CPC") on July 23, 2008, and adopted by the City Council on August 14, 2008, rezoned 280 blocks of the Rockaway Peninsula to contextual zoning districts to reinforce and protect the special character of the Rockaway neighborhoods and to provide opportunities for new development on underutilized sites. The Proposed Project Area was rezoned from an R3-2 zoning district to the current R4A zoning district.

Zoning designations within and around the Proposed Project Area are depicted in **Figure 2.1-2**, while Table 2.1-2 summarizes use, floor area and parking requirements for these zoning districts. The area within a 600-foot radius of the Proposed Project Area is zoned R4A, R4-1, R5, R5A, R5A/C1-3, R5D and R5D/C1-3.

The Proposed Project Area is located within an R4A zoning district. R4A districts are contextual districts that are often mapped to preserve or establish the character of older neighborhoods with pitched roof homes on smaller zoning lots. R4A districts allow for single- and two-family residences in detached homes. These homes are permitted a maximum FAR of 0.75, (plus 20% for attic allowance) a maximum street wall height of 21 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet, a minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off-street parking is required per dwelling unit, and 50% is required for Income Restricted Housing Units.

R4-1 districts are contextual residential district that is designed for neighborhoods with a slightly wider range of housing types than might be found in other contextual neighborhoods. This district allows slightly larger single- or two-family detached and semi-detached residences than might be found in R3-1 districts. Detached and semi-detached single- and two-family homes are permitted a maximum FAR of 0.75, (plus 20% for attic

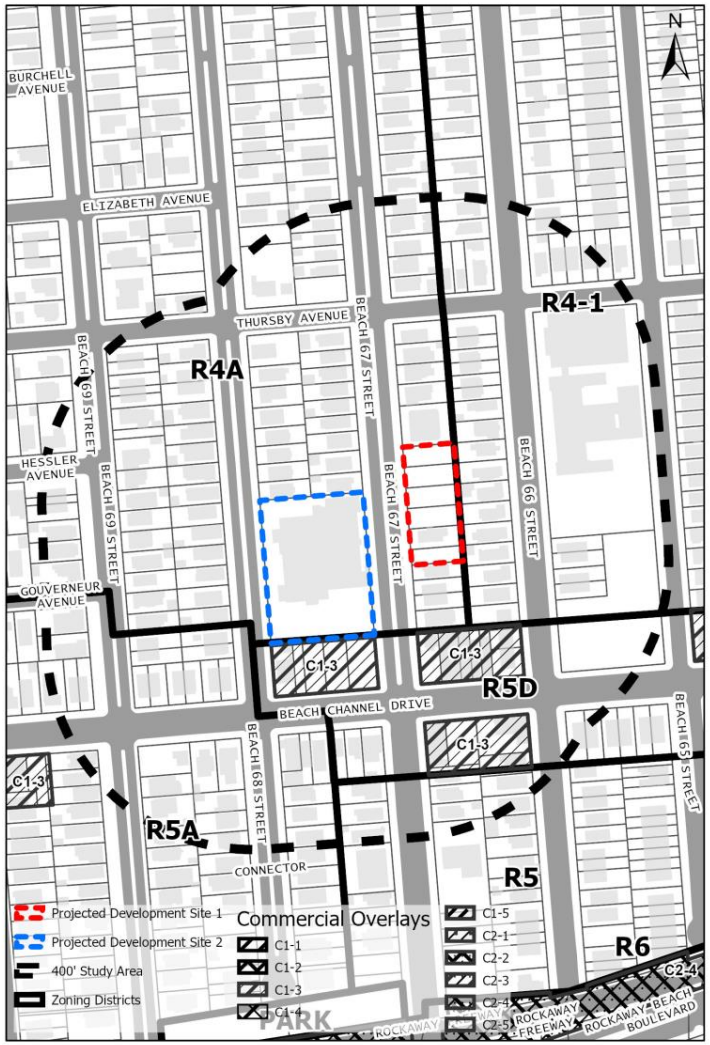
allowance) a maximum perimeter wall height of 25 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached homes are required 1 side yard totaling 8 feet. Semi-detached homes are required 1 side yard at a minimum of 4 feet, totaling 4 feet. Off-street parking is required per dwelling unit, and 50% is require for income-restricted housing units (IRHU).

R5 districts are non-contextual residential districts which typically produce three- and four-story attached houses and small apartment buildings. R5 districts are often mapped as transition districts between medium and lower density areas. Within an R5 district, the maximum permitted FAR is 1.25, the maximum permitted street wall height is 30 feet and the maximum permitted building height is 40 feet. Above a height of 30 feet, a setback of 15 feet is required from the street wall. R5 districts require a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached houses must have two side yards that total at least 13 feet, each with a minimum width of 5 feet. Semi-detached houses require one 8-foot-wide side yard. Apartment buildings require two side yards, each at least 8 feet wide. Off-street parking is required for 85% of the dwelling units, and 42.5% is required for IRHU.

R5A districts are contextual residential districts that are often mapped in older neighborhoods characterized by pitched roof homes on smaller zoning lots. R5A districts allow for single- and two-family residences in detached homes. These homes are permitted a maximum FAR of 1.10, a maximum street wall height of 25 feet and a maximum building height of 35 feet. These homes bust have a minimum front yard of 10 feet, a minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off –street parking is required per dwelling unit.

R5D districts are contextual residential districts characterized by moderate-density, multi-family housing and serve as a transition between lower-density districts and moderate-density districts. R5D districts allow for all types of residences in all building types – detached, semi-detached, attached and zero-lot line residences. Within an R5D district, the maximum permitted FAR is 2.0 and the maximum permitted building height is 40 feet (45 feet with a Qualifying Ground Floor). R5D districts require a minimum front yard of 5 feet and a minimum rear yard of 30 feet. Side yards are not required for lots less than 30 feet wide. For lots at least 30 feet wide, zero lot line buildings require one side yard at least eight feet wide, and a minimum of eight feet is required between buildings on adjacent zoning lots. Off-street parking, which is not permitted in front of the building, is required for 66% of the dwelling units and for 35% of IRHU.

Figure 2.1-2: Zoning of the Affected Area and Zoning Change Maps



Current Zoning Map - R4A Zoning District



Proposed Zoning Map - R4A to R6 Zoning District

Table 2.1-2: Summary of Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
R4A	Residential UGs 1-4	0.75 FAR – Residential 2.0 FAR – Community Facility 1.0 FAR – Commercial	1 per dwelling unit
R4-1	Residential UGs 1-4	0.75 FAR – Residential 2.0 FAR – Community Facility 1.0 FAR – Commercial	1 per dwelling unit
R5	Residential UGs 1-4	1.25 FAR – Residential 2.0 FAR – Community Facility	85% of dwelling units
R5A	Residential UGs 1-4	1.1 FAR – Residential 2.0 FAR – Community Facility 1.0 FAR – Commercial	1 per dwelling unit
R5A/C1-3	Residential UGs 1-4 Local Retail Commercial Overlay UGs 5-6 & 14	1.1 FAR – Residential 2.0 FAR – Community Facility 1.0 FAR – Commercial	1 per dwelling unit
R5D	Residential UGs 1-4	2.0 FAR – Residential 2.0 FAR – Community Facility 2.0 FAR – Commercial	66% of dwelling units
R5D/C1-3	Residential UGs 1-4 Local Retail Commercial Overlay UGs 5-6 & 14	2.0 FAR – Residential 2.0 FAR – Community Facility 2.0 FAR – Commercial	66% of dwelling units

Source: Zoning Handbook, New York City Department of City Planning

C1-3 are commercial districts mapped within residential neighborhoods along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors. C1-3 districts can be mapped as commercial overlays or as stand-alone districts. These districts are typically mapped at a depth of 150 feet. When commercial overlays are mapped in R1 through R5 districts, the maximum commercial FAR is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0.

Analysis

Future No-Action Condition

In the future without the Proposed Action, zoning changes are not expected to occur on the Proposed Development Site or in the surrounding study area. No authorizations, certifications or other approvals would be sought from the CPC relating to the proposed development site. Because the Applicant and Co-Applicant would not pursue the proposed project without the proposed zoning map amendment, it is assumed that the No-Action Scenario would remain consistent with existing conditions.

No rezoning actions are presently being contemplated by the Department of City Planning (DCP), nor have any BSA variance applications been identified for the study area by the project build year of 2022.

Future With-Action Condition

The proposed zoning map amendment would change the existing R4A district to an R6 district over Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6. Absent the Proposed Action, the Applicant and Co-Applicant would be unable to construct the proposed development under the existing floor area and lot coverage requirements of an R4A district. The Proposed Action would not have a significant impact on the extent of conformity with the current zoning in the surrounding area and it would not adversely affect the viability of conforming uses on nearby properties. Therefore, significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.

2.1.3 Public Policy

The Proposed Development Site is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law.

The site is not located within the boundaries of a New York City Department of Housing Preservation and Development Urban Renewal Zone or Area, an Economic Development Corporation Industrial Business Zone, or former In-Place Industrial Park. Nor is the Proposed Action subject to an adopted community-based 197-a Plan. However, the project site is located within the New York City's Coastal Management Zone (CMZ), and thus the Proposed Action is subject to an assessment for consistency with the City's Local Waterfront Revitalization Program (LWRP).

Zoning for Coastal Flood Resiliency

The Project Site is also within an area where Zoning for Coastal Flood Resiliency applies. Zoning for Coastal Flood Resiliency seeks to promote resilient buildings throughout the city's current and future floodplains.

Buildings in the flood zone need to be designed or retrofitted to reduce damage from future flood events and save on insurance costs. For this to happen, zoning needs to allow homeowners, business owners, and builders workable options for their buildings. Based on the Department of City Planning (DCP)'s experience working with communities throughout the floodplain since Hurricane Sandy in 2012, DCP has drafted a proposal to make zoning more supportive of resilient buildings. This proposal is expected to begin the public land use review process in late October 2020.

Waterfront Revitalization Program

In accordance with the guidelines of the 2014 CEQR Technical Manual, a preliminary evaluation of the proposed project's compliance with the new WRP policies was undertaken. Actions located within the City's Coastal Zone generally require submission of the WRP Consistency Assessment Form (CAF). This form is intended to assist an applicant in certifying that a proposed project is consistent with the WRP. The completed CAF and accompanying information are used by City and State agencies to review the applicant's certification of consistency. A copy of the completed CAF has been attached to this document (see Appendix B).

The City's WRP is comprised of 10 principal policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. A proposed project may be deemed consistent with the WRP when it would not substantially hinder and, where possible, would promote one or more of the ten WRP policies dealing with: (1) residential and commercial development; (2) water-dependent and industrial uses; (3) commercial and recreation boating; (4) coastal ecological systems; (5) water quality; (6) flooding and erosion; (7) solid waste and hazardous substances; (8) public access; (9) scenic resources; and (10) historical and cultural resources.

The CAF requires a Proposed Action to be characterized according to a list of 45 sub-policies that fall under the ten major policy objectives. For each sub-policy the action is to be characterized as to whether it will "promote," "hinder," or have no relevance to the policy. "Promote" or "Hinder" answers to any of the questions indicate a particular policy or policies of the WRP may be relevant and would warrant further examination. "N/A" answers indicate the policy is not applicable to the proposed project. Per the CAF, the following sub-policies warranted further assessment: 1.1, 1.3, 1.5, 5.1, 5.2, 6.1, 6.2, 7.1, 7.2, and 7.3. Therefore, these policies are addressed below.

POLICY 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

1.1 Encourage commercial and residential redevelopment in appropriate Coastal Zone Areas.

The proposed project entails the redevelopment of an underutilized assemblage into a charter school and a facility providing 84 housing units that are permanently affordable to senior citizens. The project site does not contain any natural or topographic features that would hinder redevelopment. Therefore, this area is appropriate for the residential development that would be facilitated by the proposed project and is consistent with WRP Policy 1.1.

1.3 Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.

The proposed project encourages the redevelopment of residential and community facility uses in a portion of the coastal zone where infrastructure and public facilities are adequate. The project site is served by the Q22 and X17 express bus routes and is one block north of the Beach 67th Street subway station, which provides access to the "A" subway line.

The project site is connected to the City's sewer system and is served by the Coney Island Wastewater treatment plant (WWTP). The Plant has a capacity of 110 million gallons per day (MGD) and an approximate 15,087-acre drainage area and would be able to accommodate flows from the proposed buildings. Further, the proposed project is not expected to require improvements to existing public infrastructure. As such, the proposed project would encourage redevelopment in an appropriate area within the coastal zone and is supportive of WRP Policy 1.3.

1.5 Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.

As the project site is located within the FEMA 100-year floodplain, the projected rise in sea level and associated effects drove basic elements of the design of each building. The approach to sea-level rise has been to keep core functions raised well above the floodplain. Wherever possible, other accessory functions will be kept up and out of the floodplain. Any electrical or mechanical equipment that could be impacted will be above the floodplain. Flood resiliency measures will be considered when designing both facilities. The Proposed Development would appropriately incorporate building features from the New York City Building Code Appendix G Flood Resistant Construction Standards for flood protection of the building, including elevating residential uses to the second floor and allowing only commercial uses on the ground.

POLICY 5: **Protect and Improve Water Quality in the New York City Coastal Area.**

5.1 Manage direct or indirect discharges to waterbodies.

Policy Considerations:

A. *Minimize the negative impacts to fish and wildlife habitats caused by artificial input of large quantities of freshwater into tidal or brackish waterbodies and enhances freshwater inputs when it can be demonstrated that there will be ecological benefits.*
B. *Minimize the negative impacts to fish and wildlife habitats caused by effluent discharge that result in thermal changes from steam generating, heating, air conditioning, and industrial facilities.*
C. *Limit discharge of vessel wastewaters into waterways by providing adequate pumpout facilities.*

While the Proposed Development would not involve industrial use that would result in a new direct or indirect discharge into water bodies, the Proposed Actions will be required to ensure that the site would not be impacted by hazardous materials. In the event that hazardous materials are identified on the site, the Proposed Actions would require remediation which would prevent further discharge of such contamination into the groundwater and waterways. Therefore, the Proposed Actions would minimize the negative impacts on fish and wildlife habitats caused by effluent discharge.

5.2 Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.

Policy Considerations:

A. *Use sustainable stormwater management strategies, such as green infrastructure, use of permeable surfaces, on-site detention, and the preservation and enhancement of vegetation, wetlands, and ecosystems to minimize nonpoint discharge into coastal waters of excess nutrients, organics, eroded soils, and pollutants, and to control stormwater runoff from roadways and other developed areas.*
B. *Minimize nonpoint source pollution of coastal waters using the following approaches listed in order of priority: (1) avoid pollution by limiting sources; or (2) reduce pollutant loads to recipient waters by managing unavoidable sources.*
C. *Limit sources of atmospheric deposition of pollutants to New York City waterbodies and streams, particularly from nitrogen sources, which may deteriorate water quality or impair aquatic habitats.*
D. *As described in WRP Policy 7.1, use accepted best management practices to prevent the run-off of pollutants and potentially contaminated sediment into waterways.*

Any required remediation of the Project Sites would occur pursuant to applicable City, State, and Federal regulatory guidance. All control measures will comply with the Stormwater Pollution Prevention Plan (SWPPP). Control measures, such as an Erosion and Sediment Control Plan during site remediation and construction, and additional measures shall be implemented if conditions change or warrant additional control

measures. With these stormwater management provisions in place, pollution and discharge into coastal waters will be managed to avoid impact. Accordingly, the Proposed Actions is consistent with Policy 5.2

POLICY 6: **Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**

6.1 *M*inimize losses from flooding and erosion by employing non-structural and structural design measures appropriate to the site, the use of the property to be protected, and the surrounding area

As the Project Site falls within the 1% annual chance floodplain, the proposed buildings would be subject to compliance with NYC Building Code Appendix G. Appendix G requires owners of severely damaged or destroyed buildings in the 1% annual chance floodplain to comply with the flood resistant construction standards of the Building Code when they rebuild. The same requirements are applicable to any new development, or substantially improved properties, whether the development is located in whole or in part within the 1% annual chance floodplain. As further discussed in Policy 6.2 below, development effectuated by the Proposed Action would be required to incorporate flood both wet and dry flood proofing measures that would provide the building-scale resiliency measures to reduce the risks of damage from current and future coastal hazards and would be consistent with Policy 6.1.

6.2 *Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Planel on Climate Chane 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.*

The *WRP Climate Change Adaptation Guidance* document and corresponding *Flood Elevation Worksheet* were used to complete the Policy 6.2 detailed assessment. As illustrated in **Figure 2.1-3**, FEMA's 2015 Preliminary Flood Insurance Rate Map (FIRM) indicates that the Proposed Development Site (Projected Development Site 1) is located within the current 1.0% annual chance floodplain (AE zone, 9 feet). Therefore, the detailed methodology for a site-specific WRP Policy 6.2 assessment was followed. The analysis results are discussed below (Refer to Appendix B for the Flood Elevation Worksheet's two main output charts: Mean Higher High Water + Sea Level Rise and 1% Flood Elevation + Sea Level Rise. These charts depict the elevations of the various features of the proposed building relative to future flood level and MHHW projections).

New York City is highly susceptible to coastal hazards such as flooding, hurricanes, and storm surges as a result of climate change and sea level rise. As indicated below, according to the New York City Panel on Climate Change (NPCC)[1] 2015 projections, sea levels have risen 1.1 feet at the Battery since 1900, and higher sea levels in the future are highly anticipated.

[1] http://onlinelibrary.wiley.com/doi/10.1111/nyas.2015.1336.issue-1/issuetoc

Table 2.1-3

	Low Estimate	Middle Range			High Estimate
	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020s	+ 2 in.	+ 4 in.	+ 6 in.	+8 in.	+10 in.
2050s	+8 in.	+ 11 in.	+16 in.	+21 in.	+30 in.
2080s	+13 in/	+18 in.	+29 in.	+39 in.	+58 in.
2100	+15 in.	+22 in.	+36 in.	+50 in.	+75 in.

Sea level rise projections, relative to the 2000-2004 base period (NPCC, 2015).

Regulatory floodplains are defined by the elevation of the base flood (BFE) in relation to the elevation of the ground. According to datum (NAVD88) obtained from the National Oceanic and Atmospheric Administration (NOAA) website for the nearest NOAA station – Beach Channel Station (Station ID 8517137) - the adjusted mean of the higher high-water height (MHHW) is 2.43 feet. Pursuant to the 2015 PFIRM, the 1% flood height for the AE zone in which the project is located is 9 feet, and the Design Flood Elevation (DFE) is 10 feet.

Based on the proposed buildings' plans, the cellar floor level would be located -10 feet in elevation (NAVD88) and would contain storage space for the proposed UG 3 school. The first floor would be located at an elevation of 0' (NAVD88) and would contain the residential lobby, bike room, trash compactor room, and building storage, and the lobby for the UG 3 school. The second floor level would contain residential electrical, domestic water and fire service rooms, a recreation room, office, and dwellings, as well as a school gymnasium, stage, classrooms, locker rooms, storage and offices.

As shown below in **Figure 2.1-6**, currently, and in the future, the proposed buildings' cellar level and first-floor level have the potential to be impacted by the 1% chance annual floodplain under low Sea Level Rise (SLR) projections. The Proposed Buildings second floor level has the potential to be impacted by the 1% flood elevation under mid SLR projections by the 2050s, under Low-Mid SLR projections by the 2080s, and under LOW SLR projections by 2100. As shown below in **Figure 2.1-7**, currently, and in the future, the proposed buildings' cellar level and first-floor level have the potential to be impacted by MHHW under low SLR projections. According to projections and as illustrated in **Figure 2.1-5** the project site would also be affected by future high tides throughout the project's lifespan.

The project features that are listed as vulnerable on the cellar level include walls, flooring, and electrical within the storage space for the residential use. The project features that are listed as vulnerable on the first floor include walls, flooring, and electrical within the residential lobby and the UG 3 school lobby. The elevation of the surface parking area at the ground-floor level would be below the elevation of the current 1% annual

chance floodplain and would remain so under all sea level rise (SLR) projections. Potential consequences could include damage to vehicles. The project features listed as vulnerable on the second floor level include the residential and school walls, flooring and electrical.

The project site is currently located outside of the Coastal A or V zones. However, future coastal storms could bring high winds in addition to flood hazards described above. The proposed buildings would be required to meet NYC Building Code requirements for flood resistant construction for all space below the DFE or 10'.

Proposed Flood Protection Measures

The following flood protection measures would be incorporated into the proposed development (*See* also **Figure 2.1-8** below):

- Dry floodproofing of the UG 3 school space below the DFE
- Wet floodproofing of the residential space below the DFE with flood vents
- Flood barrier at building openings
- Foundation system designed to resist hydrostatic pressure
- Only building storage and building lobs to be located below the DFE
- Resilient materials used below flood plane

The Proposed Development would contain vulnerable populations. Accordingly, a Flood Emergency Response Plan (FERP) will be prepared to ensure that building occupants are protected from harm in the event of a flood-related emergency. The provisions and operational procedures would serve as guidance for the reduction of risks to human life and safety at the site through pre-planning for facility evacuation in response to an imminent flooding event. The following summarizes the procedures that would be put in place to project building residents:

1) An evacuation plan will be posted on the property with a contact provided if assistance is required. Additionally, an emergency notification sign would be posted in a common area of the building prior to the arrival of a weather emergency.
2) A Tenant Flood Risk Notification Guide would be provided to building occupants to assist residents in planning for potential floods. This Tenant Guide provides information on the potential for utility disruption (e.g. electricity, gas service disruption, etc.) at the facilities which could result from a flood and/or serious storm. The city of New York has a hurricane emergency evacuation and relocation plan.[2] This plan includes the locations of evacuation centers. People with disabilities or other access or functional needs can request transportation assistance to an accessible evacuation center or a hospital outside of the evacuation zone via an ambulance if necessary.

[2] https://www1.nyc.gov/site/em/ready/hurricane-evacuation.page

3) In the event of a mandatory evacuation order issued by the city, building management will go door-to-door to attempt to provide supplemental notification to tenants. Building personnel will be available to assist special needs tenants in leaving the building, if requested.

With the future employment of these operations and procedures, the occupants of the Proposed Development would be protected from risk associated with flood-related events.

The proposed development would not introduce any hazardous features, materials, or substances that, if made insecure, would result in a threat to public health or the environment. In addition, the proposed development would not affect the flood protection of adjacent sites, nor would it be expected to increase flooding on adjacent sites or protect upland areas from coastal hazards.

Because the Project Site is susceptible to the impacts of sea level rise and future flood events, it is recommended that future building scale resiliency measures and flood mitigation strategies be considered. Pursuant to Policy 6.2: Climate Change Adaptation Guidance, consideration of climate change projections for coastal flooding and sea level rise should be incorporated into the design and planning of projects. The proposed project should identify potential vulnerabilities to and consequences of sea level rise and coastal flooding over its lifespan and identify and incorporate design techniques to address these risks.

Recommendations

The Proposed Development would elevate critical features, such as building mechanical, and residential uses to upper levels to protect the normal operation within the building at the future flooding events, and all space below the 10' DFE would be protected from future flood events pursuant to Appendix G of the NYC Building Code. However, the Applicant should consider employing future building-scale resiliency measures for the second-floor level of the Proposed Development (above the DFE) to avoid the potential risks related to future coastal flooding. Site-specific vulnerable or critical features include electrical utilities, flooring, and walls. Based on the flood projections above, measures should be considered to increase second-floor building-scale resilience to future flood conditions.

<u>Flood Damage Reduction Elements/Controls and Building Scale Resilience Measures:</u>

The following are recommendations for second-floor flood resilience techniques and controls that will minimize future damage and vulnerability to the subject building:

- Water-resistant flooring with waterproof adhesive or pressure-treated subfloor;
- Rigid, closed-cell foam insulation;
- Removable or hinged wainscot panels;
- Elevated outlets;
- Chair rail molding over a gap in the wallboard to prevent wicking; and

- Extra-wide snap on baseboard.
- Dry floodproofing of any critical building utilities and mechanical equipment located at the second-floor level.

While not required, these building-scale resiliency controls, if implemented, will protect the second-floor level from water damage to the interior spaces. The Applicant has been educated about flood risks and mitigation measures and may consider the implementation of the above-listed future adaptive flood damage reduction elements.

The Applicant would consider the employment of future building scale resiliency measures based on the future flood projections related to the 1% annual chance flood elevation. These future building-scale resiliency measures and adaptive strategizes would minimize the potential damage to site-specific vulnerable or critical features. Therefore, the Proposed Actions are consistent with Policy 6.2 of the Waterfront Revitalization Program and would not jeopardize the intent of the WRP.

Overall, the proposed development advances Policy 6.2. The buildings would meet the NYC Building Code requires for flood resistant construction; the buildings' critical infrastructure and vulnerable populations would generally remain above the future 1% annual chance floodplain.

POLICY 7: **Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**

7.1 Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.

During construction BMPs would be utilized to prevent runoff and all liquids would be stored in appropriate containment devices. All waste products generated would be disposed of in accordance with federal, state, and municipal regulations.

7.2 Prevent and Remediate discharge of petroleum products.

7.3 Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

If hazardous materials are encountered or are otherwise discovered during construction, the contractor would implement appropriate safety procedures and remediation strategies as needed to protect human health and the environment. Soils from excavation would be tested and disposed of in accordance with state requirements. Possible locations for hazardous material disposal (if needed) include, but are not necessarily limited to, facilities in Bellmawr, Carteret, Secaucus, Teterboro, or South Kearny, in New Jersey. Any

groundwater from possible dewatering activities would also be tested for pollutants, treated (if necessary) in accordance with an individual State Pollutant Discharge Elimination System (SPDES) permit for temporary construction dewatering, and discharged into the city's stormwater system.

Solid waste generated by the proposed project would include trash or garbage from the proposed facility and would be collected for disposal by the city's Department of Sanitation. The recycling program would cover wastes from food and beverage services, such as metal cans and plastic/glass bottles, and paper products, such as high-grade office paper, newspapers, magazines, cardboard, etc., as well as recyclables from guestrooms (e.g., newspaper, paper, bottles, cans).

As discussed above, the proposed project would be consistent with and supportive of Policy 7.1.

Conclusion

Based on the above assessments that analyze the impacts that the Proposed Action would have on land use, zoning, and public policy, no significant adverse impacts are expected, and no further analysis is required.

Furthermore, based on the information submitted, the Waterfront Open Space Division, on behalf of the New York City Coastal Commission, having reviewed the waterfront aspect of this action, found that the actions will not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy and determined the project consistent with the WRP policies. This project has been assigned **WRP#17-005**. This determination was made on February 24th, 2021. See Appendix B for WRP/Coastal Assessment Form and sign off.

Figure 2.1-3: 2015 Floodplain

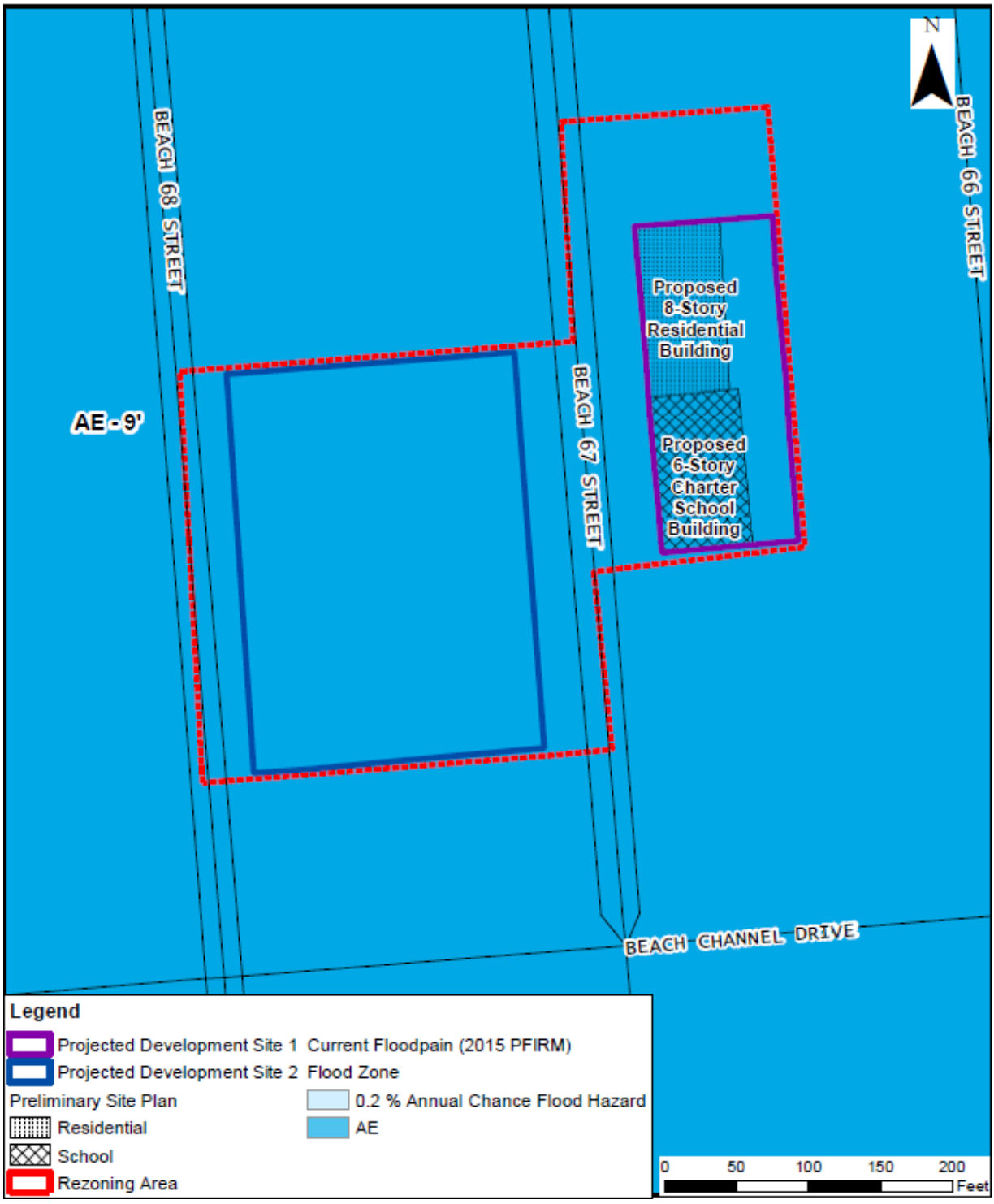


Figure 2.1-4: Future Floodplain

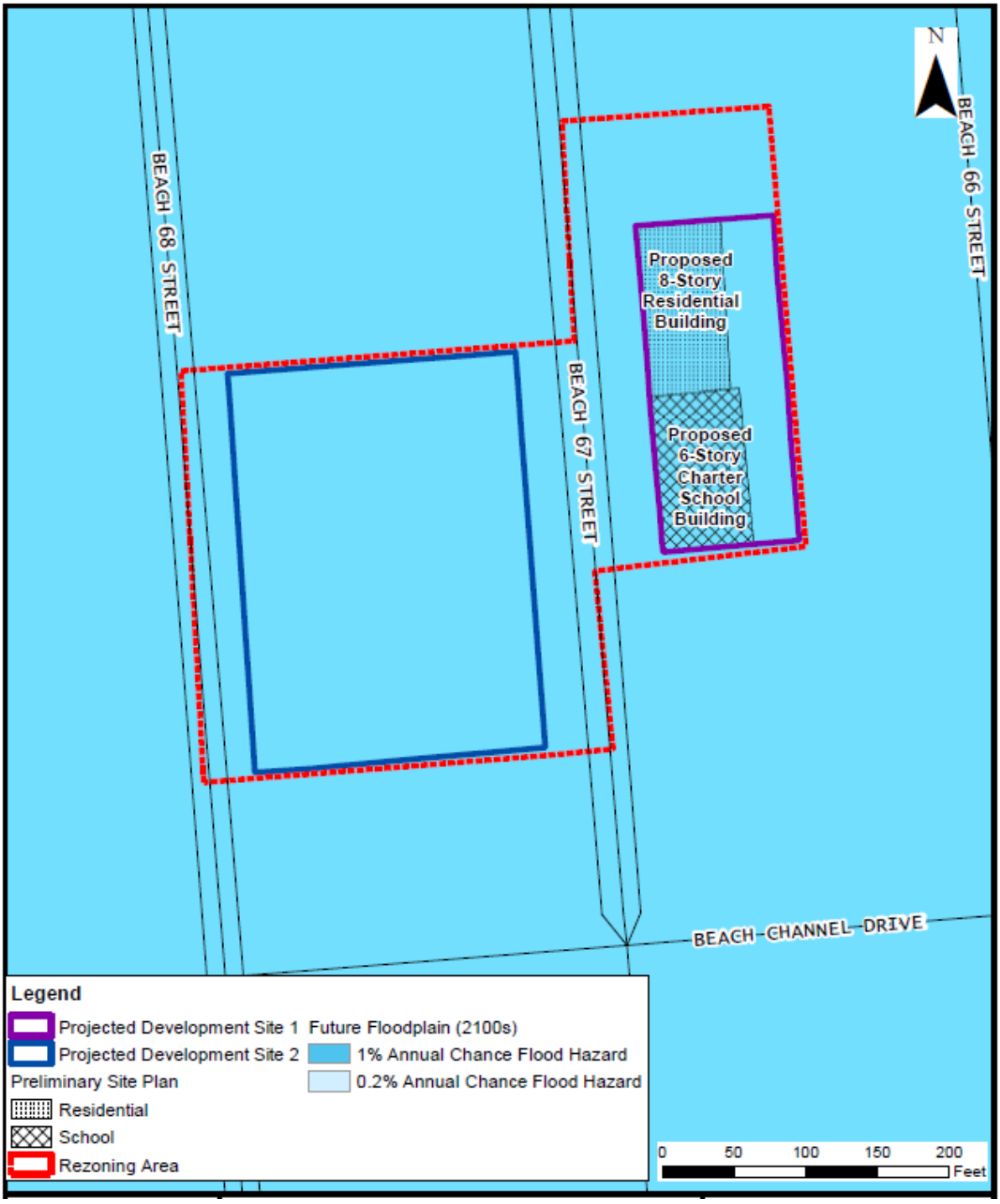


Figure 2.1-5: Future Tides

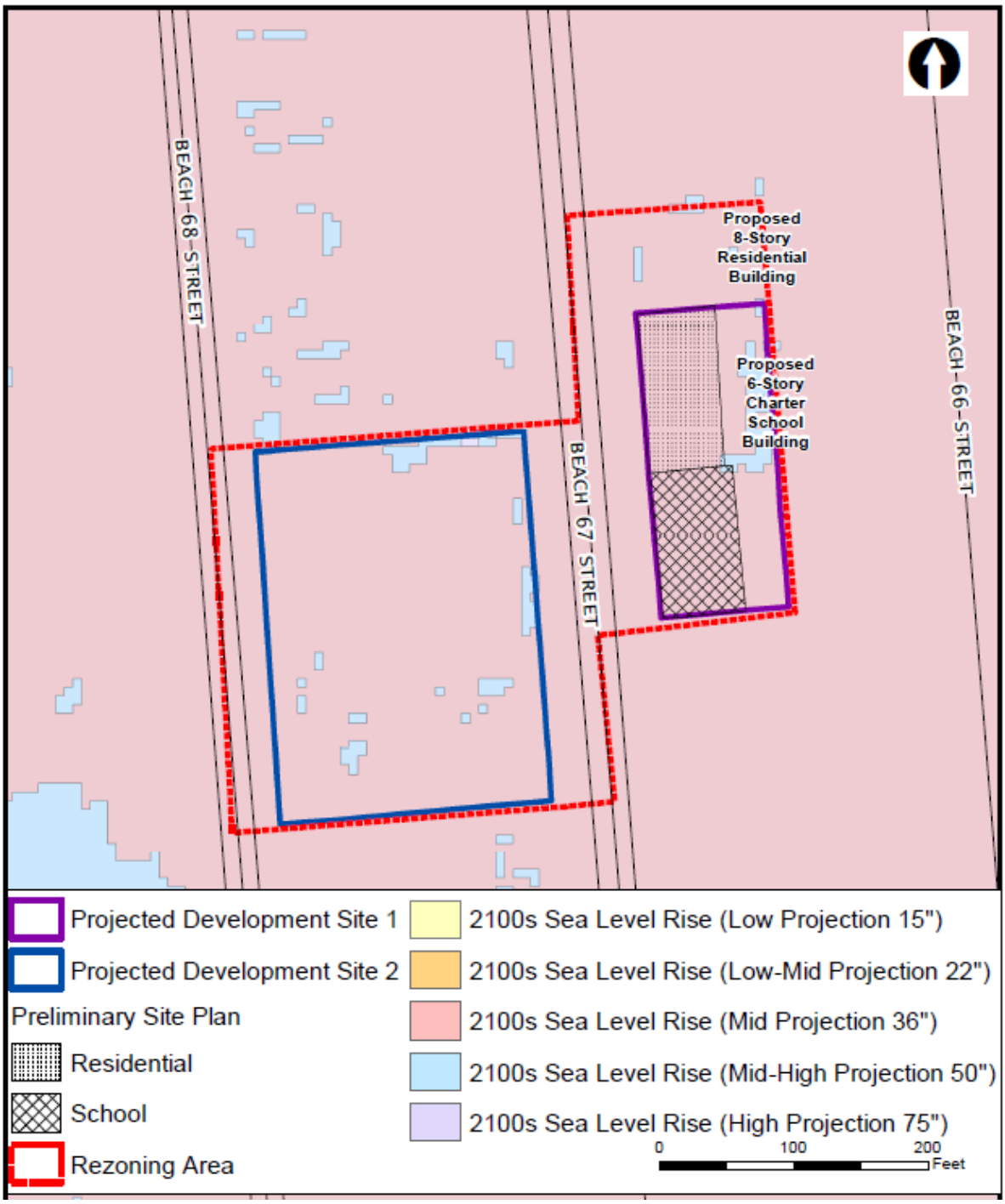


Figure 2.1-6: 1% Flood + Sea Level Rise Projections

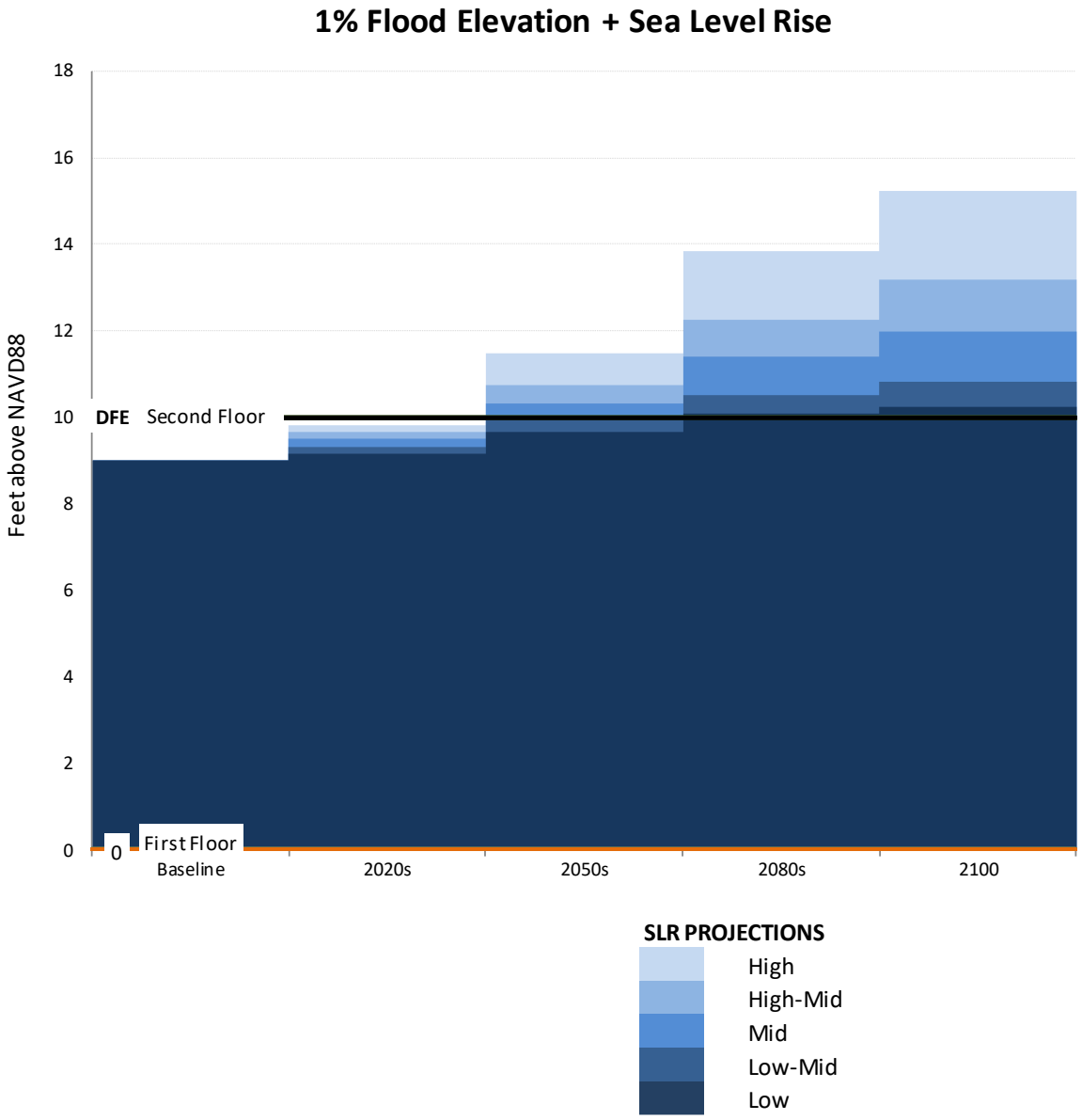


Figure 2.1-7: MHHW + Sea Level Rise Projections

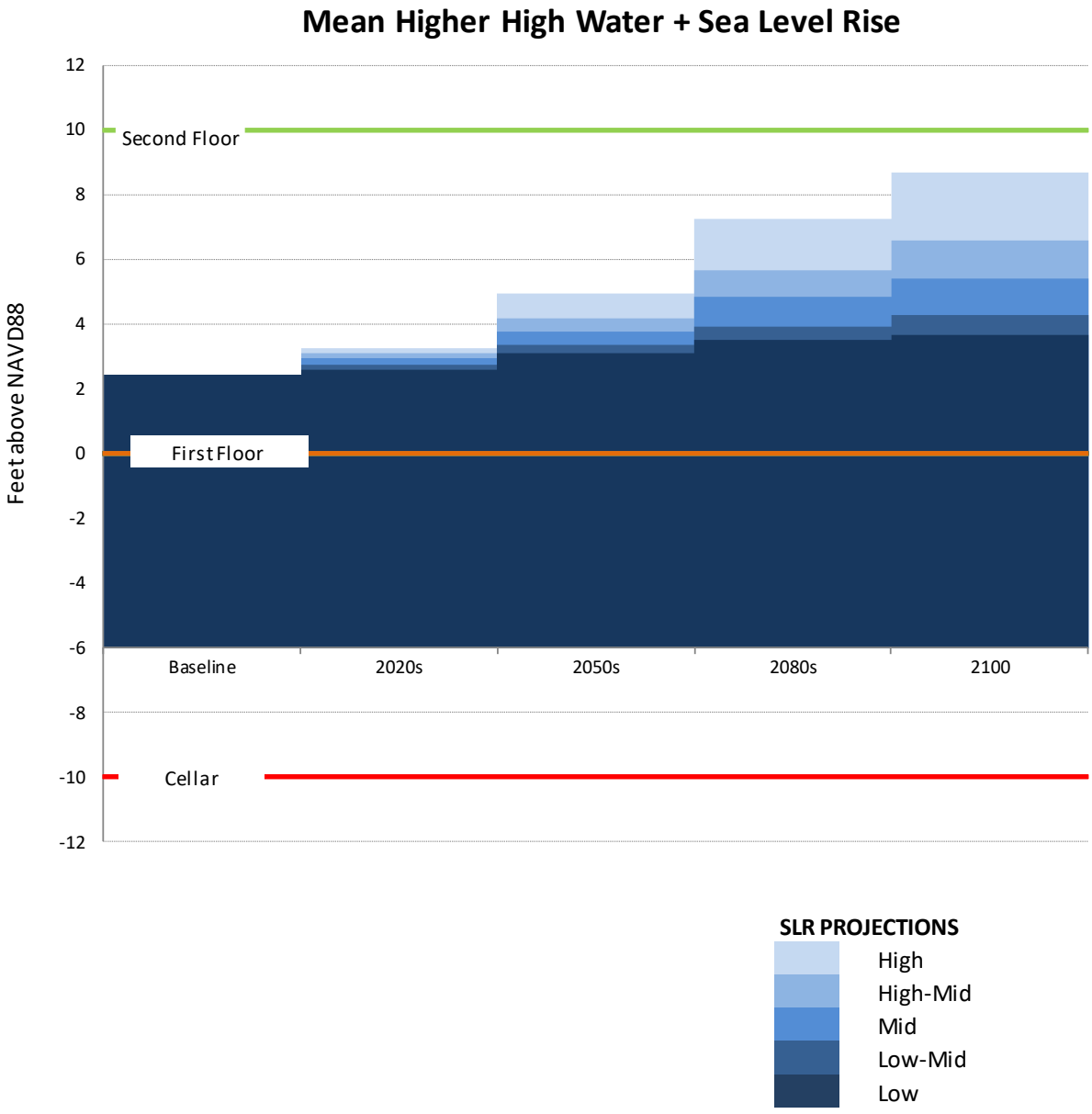
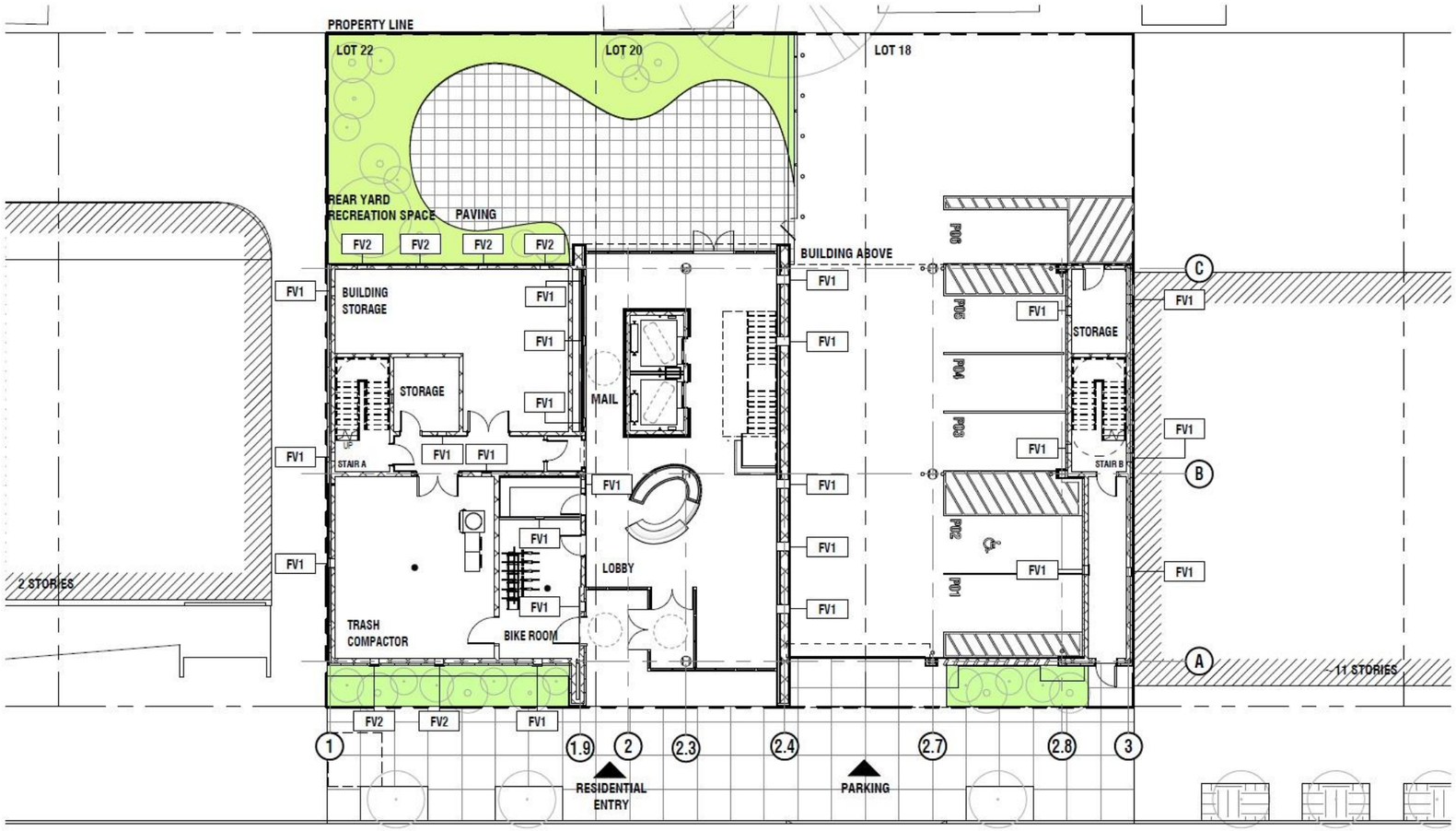


Figure 2.1-8: Proposed Flood Protection



1 RESILIENCY PLAN
1/16" = 1'-0"

FLOOD VENT LEGEND

FV1	200SF CLEAR AREA FLOOD VENT
FV2	400SF CLEAR AREA FLOOD VENT

GENERAL NOTES

- ONLY BUILDING STORAGE AND BUILDING ENTRY LOCATED ON GROUND FLOOR BELOW FLOOD PLANE 9 AS SHOWN
- FLOOD PLANE STARTS AT 9, ABOVE GROUND LEVEL SHOWN
- WET FLOOD PROOFING PROVIDED WITH FLOOD VENTS AS SHOWN
- RESILIENT MATERIALS USED BELOW FLOOD PLANE

THINK

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

Title
RESILIENCY PLAN

646.688.5898
info@think-arc.com

2.2 SOCIOECONOMIC CONDITIONS

According to the 2020 CEQR Technical Manual, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following circumstances would typically require a socioeconomic assessment:

- The project would directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered. Displacement of less than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood. For projects exceeding this threshold, assessments of the direct residential displacement, indirect residential displacement, and indirect business displacement are appropriate.

- The project would directly displace more than 100 employees. For projects exceeding this threshold, assessments of direct business displacement and indirect business displacement are appropriate.

- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or publicly adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location. Information provided in the, "Land Use, Zoning, and Public Policy," may be useful in determining whether an assessment is appropriate. If any of these conditions is considered likely, assessments of direct business displacement and indirect business displacement are appropriate.

- The project would result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such a project may lead to indirect displacement. Typically, projects that are small to moderate in size would not have significant socioeconomic effects unless they are likely to generate socioeconomic conditions that are very different from existing conditions in the area. Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.

- The project would add to, or create, a retail concentration that may draw a substantial number of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in a potential for disinvestment on local retail streets. Projects resulting in less than 200,000 square feet of retail on a single development site would not typically result in socioeconomic impacts. If the proposed development is located on multiple sites located across an Affected Area, a preliminary analysis

is likely only warranted for retail developments in excess of 200,000 sq. ft. that are considered regional-serving (not the type of retail that primarily serves the local population). For projects exceeding these thresholds, an assessment of the indirect business displacement due to market saturation is appropriate.

- If the project is expected to affect conditions within a specific industry, an assessment is appropriate. For example, a citywide regulatory change that would adversely affect the economic and operational conditions of certain types of businesses or processes may affect socioeconomic conditions in a neighborhood: (1) if a substantial number of residents or workers depend on the goods or services provided by the affected businesses; or (2) if it would result in the loss or substantial diminishment of a particularly important product or service within the city. Since the range of possible types of projects that may require an analysis of specific industries varies, the lead agency, in consultation with the Mayor's Office of Environmental Coordination (MOEC), should provide guidance as to whether an analysis is warranted.

Methodology

Typically, the socioeconomic study area boundaries are similar to those of the land use study area. The study area encompasses the project site and adjacent area within 400 feet, 0.25 mile, or 0.5 mile, depending on project size and area characteristics. The socioeconomic assessment seeks to examine the potential to change socioeconomic character relative to the study area population. For projects that result in an increase in residential population, the scale of the relative change is typically represented as a percent increase in population.

Existing Conditions

The Proposed Project Area includes 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24), and 430 Beach 68th Street (Block 16041, Lot 6). The Applicant and Co-Applicant control the Proposed Development Site (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24).

450 Beach 67th Street (Lot 24) has 80 feet of frontage on Beach 67th Street, a lot area of 8,000 square feet and is improved with a two-story house of worship (Battalion Pentecostal Assembly Church) with a total floor area of approximately 7,082 square feet (0.23 FAR). There is one cub cut which accesses accessory parking located in the rear.

444 Beach 67th Street (Lot 22), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is used for accessory parking to the church on Lot 24. There is one curb cut which accesses this lot.

442 Beach 67th Street (Lot 20), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is used for accessory parking to the church on Lot 24.

438 Beach 67th Street (Lot 18), part of the Proposed Residential Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet lot and is used for accessory parking to the church on Lot 24.

432 Beach 67th Street (Lot 16), part of the Proposed Community Facility Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is a vacant lot which is used as a community garden. 430 Beach 67th Street (Lot 14), part of the Proposed Community Facility Site, has 40 feet of frontage on Beach 67th Street, a lot area of 4,000 square feet and is improved with a three-story two-family residential building with a total floor area of approximately 2,829 square feet (0.71 FAR). There is one curb cut which accesses accessory parking.

426 Beach 67th Street (Lot 12), part of the Proposed Community Facility Site, has 30 feet of frontage on Beach 67th Street, a lot area of 3,000 square feet and is a vacant lot.

430 Beach 68th Street (Lot 6) is a through lot with 280 feet of frontage along Beach 67th and Beach 68th Streets, a lot area of approximately 56,000 square feet and is improved with an eight-story, 76,692 square foot (1.37 FAR) UG 3 nursing home, the Resort Nursing Home. Two curb cuts are located on Beach 67th Street, one accesses a loading dock and the other access the accessory parking lot. Another curb cut is located on Beach Channel Drive and accesses the accessory parking lot. The nursing home is currently in a "nonconforming status" as its existing building height of approximately 75 feet is above the R4A zoning district limits for building heights (max. is 35 feet)

Future No-Action Condition

The Proposed Development Site is located in the Arverne neighborhood on the Rockaway Peninsula in Queens. As a number of the lots in the surrounding area have not been developed or enlarged since the 2008 Rockaway Neighborhoods Rezoning, the reasonable worst-case development scenario assumes that the existing conditions would remain on the Proposed Development Site in the Future No-Action scenario.

Future With-Action Condition

The Future With-Action condition under a Reasonable Worst-Case Scenario requires identification of the type, location, and extent of development anticipated as a result of a Proposed Action along with any potential impacts that may arise from that future development. As directed by CEQR, this analysis requires that the Future With-Action Condition considers a scenario that maximizes the permitted FAR allowed under the proposed new zoning.

Under the Future With-Action scenario, the proposed rezoning would amend the zoning map to change the Project Area's existing zoning from R4A to R6, which would facilitate the Applicant's proposed development of a nine-story affordable independent residence for seniors (AIRS) building on Block 16040, Lots 18, 20 and 22; and an eleven-story community facility building, intended for use as a charter school, on Lots 12, 14 and

16. The Future With-Action scenario assumes that the Projected Development Sites would be constructed to the maximum allowable floor area under the proposed R6 zoning. The Future With-Action scenario is the Applicant's and Co-Applicant's proposal, which permits a greater FAR (3.9) because of the proposed AIRS facility.

Based on the criteria described in Section 1.6 above, Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Applicant site) and Block 16041, Lot 6 have been identified as Projected Development Sites. No Potential Development sites have been identified.

No development is expected to occur on Block 16040, Lot 24 for reasons discussed below:

Block 16040, Lot 24

In the Future With-Action Scenario, it is assumed that the existing church would remain on Block 16040, Lot 24. This location is at the center of the community it serves and from here it will extend its community programs to the proposed senior building. The church has a long-standing history of providing the community with a variety of educational and training programs from this location, in addition to a food pantry. Finally, in order to support its mission of providing affordable housing in the Far Rockaway area and to maximize the potential of adding more senior units to the adjacent Projected Site 1, the church has agreed to transfer a portion of its air-rights (8,000 sf) to the adjacent proposed senior building to provide additional FAR for that development. This would make further development on Lot 24 unfeasible

Projected Development Site 1: Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Proposed Development Site)

Projected Development Site 1 would be occupied by two new buildings, comprised of – a UG 2 Affordable Independent Residences for Seniors (AIRS) building and a UG 3 community facility building intended for use as a charter school. The senior building would be located on Lots 18, 20 and 22. The community facility building would be located on Lots 12, 14 and 16. The buildings would be elevated to a design flood elevation of 10 feet, which provides space for parking for both uses on the ground floor. There are nine parking spaces proposed for the AIRS building (11% of DUs). Although no off-street parking spaces are required for schools in an R6 district, the Applicant and Co-Applicant intend to provide 15 parking spaces for the charter school.

The proposed senior building is expected to have an FAR of 1.88. It is a proposed 9-story building at a proposed height of 80 feet containing a total of 84 dwelling units. The building's total gross floor area is 60,480 sf and the total zoning floor area is 58,259 sf.

The proposed school is expected to have a FAR of 2.32. It is a proposed 11-story building at a proposed height of 128 feet. The building's total gross floor area is 76,241 sf and total zoning floor area is 71,996 sf.

While not part of the proposed development, the applicant is using development rights from the church on Lot 24 for the Projected Development Site.

Projected Development Site 2: Block 16041, Lot 6

In order to demonstrate a conservative analysis, the RWCDS presented in this EAS, assumes that Block 16041, Lot 6, with an existing lot area of approximately 56,000 sf and a built FAR of 1.37, would be developed with a 201,600 zsf (221,760 gsf) UG 2 residential building. This projected development would displace the existing on-site nursing home and would be built at an FAR of 3.6, which represents maximum density in an R6 district. Assuming, 1,000 square feet per dwelling unit, it is assumed that the projected residential development on Projected Site 2 would create 221 dwelling units.

It is critical to note that the nursing home site is not anticipated or projected redevelop due to the Proposed Rezoning. Block 16041, Lot 5 is analyzed as a Projected Development Site for the sole purpose of providing a conservative analysis as discussed above – to demonstrate that the project would not result in a potential for environmental impact. The nursing home is a long-standing institutional use in the neighborhood. It is further noted that nursing home land uses are not evaluated in the same manner as Use Group 1 or 2 residential development and are subject to different evaluation criteria under the CEQR Technical Manual. Specifically, nursing home occupants are not considered residential occupants and the use is not evaluated under the same criteria as residents that live in Use Group 1 or 2 residential buildings and dwellings. As such nursing homes are evaluated as institutional uses, and not commercial or residential use, and is not expected to be re-developed.

Direct Residential Displacement

There are no residential dwelling units within the Affected Area under existing conditions. The Proposed Actions would not lead to the displacement of residents. Therefore, an assessment of direct residential displacement is not warranted.

Direct Business Displacement

There are not current land uses that are classified as businesses within the Rezoning Area. The nursing home is an institutional use and is not planning on redeveloping in the future. Therefore, since the Proposed Actions would not displace any business that is unusually important because its products or services are uniquely dependent on its location, an assessment of direct business displacement is therefore not required.
Indirect Residential Displacement

The Proposed Actions would result in a net induced development of 84 dwelling units, of which, all 84 dwelling units would be AIRS units on Projected Site 1 (the applicant owned site). As previously stated, the nursing home is not expected to be redeveloped, and is expected to remain and institutional use in the With-Action

Scenario. Pursuant to the 2020 CEQR Technical Manual, for projects exceeding 200 dwelling units, assessments of indirect residential displacement are appropriate. Therefore, since only 84 dwelling units are expected to be developed, for purposes of this analysis section, further analysis of the potential for indirect displacement due to increased rents is not warranted and no significant adverse impacts are expected and no further analysis is necessary with regards to indirect residential displacement.

Indirect Business Displacement due to Retail Market Saturation

Pursuant to the 2020 CEQR Technical Manual, for projects exceeding 200,000 square feet of retail spaces, assessments of indirect business displacement due to market saturation are appropriate. No Commercial spaces are being proposed, and therefore further analysis of indirect business displacement is not warranted.

Adverse Effects on Specific Industries

The Proposed Actions would not affect a business that provides goods or services to a substantial number of residents or workers, and would not result in the loss or substantial diminishment of a particularly important product or service within the city. Therefore, no adverse impacts to any industries would occur as a result of the Proposed Actions.

Conclusion

Regarding CEQR thresholds for analysis with respect to Socioeconomic conditions, the above analysis demonstrates that no CEQR thresholds with respect to Socioeconomic conditions will be triggered in the With-Action scenario. 84 dwelling units are projected on Projected Development Site 1 and the nursing home on Lot 6 is expected to remain in its current institutional use and not be re-developed. Therefore, no significant adverse impact is expected on the socioeconomic conditions in the area and no further analysis is warranted.

2.3 COMMUNITY FACILITIES

The CEQR Technical Manual defines community facilities and services as public or publicly funded schools, hospitals, libraries, day care centers and police and fire services. A community facilities analysis examines a Proposed Action's potential effect on the provision of services by those community facilities. Direct effects occur when a particular action physically alters or displaces a community facility; indirect effects result from increases in population, which creates additional demand on service delivery. The Proposed Action would not result in physical alteration or displacement of any community facilities, therefore, no directs effect to existing community facilities are expected as a result of the Proposed Action.

However, the CEQR Technical Manual provides thresholds for analyses of indirect effects on certain types of community facilities (124 dwelling units for elementary/intermediate schools, 1,068 dwelling units for high schools; 139 affordable dwelling units for child care facilities and 622 dwelling units for libraries). The proposed rezoning could result in the construction of 305 total units. Of these, 84 would be age-restricted for senior citizens, while 221 units would not be age-restricted. Based on these thresholds, the addition of 221 dwelling units – of which 44 would be classified as affordable – does not require detailed analyses of high schools, publicly funded day care centers, or libraries. Hospitals and police and fire protection typically do not require analysis unless there is an introduction of a sizeable new neighborhood. Further analysis of the impacts of the proposed rezoning on public elementary and intermediate schools in this area is warranted because the total number of dwelling units is greater than the 124-unit threshold.

Public Schools

Existing Conditions

Elementary and intermediate schools are located in geographically defined school districts, each divided into subdistricts for capital planning purposes. The proposed Rezoning Area falls within Community School District (CSD) 27. The CEQR Technical Manual states that the study area for the analysis of elementary and intermediate schools should be the subdistrict in which the project is located.

Tables 2.3-1 and **2.3-2** show the elementary and middle/intermediate schools within the study area, consisting of those elementary and middle/intermediate schools within CSD 27, Subdistrict 1. As of the 2017-2018 school year, the schools within the study area have an average utilization level of approximately 88 percent for elementary level schools with approximately 694 available elementary school seats, and an average utilization level of approximately 69 percent for middle/intermediate level schools with approximately 903 available intermediate school seats. As these figures demonstrate, public elementary and intermediate schools within the subdistrict are operating well below capacity.

Future No-Action Condition

In the future without the Proposed Action, it is assumed that the existing uses in the Rezoning Area would operate under their present conditions. According to the latest projections made available by the New York City Department of Education (DOE) and the estimated percentages of enrollment by zone, elementary and intermediate school enrollment in CSD 27, Subdistrict 1 is expected to total 4,944 and 1,849 students respectively in 2021-2022.[3] With the addition of an assumed increase in students based on housing projections for CSD 27, Subdistrict 1, these totals increase to 6,094 elementary students and 2,345 intermediate students.[4] Therefore, under the Future No-Action Condition, it is projected that public elementary schools within CSD 27, Subdistrict 1 would operate at 108 percent utilization, and public intermediate schools would operate at 81 percent utilization.

Future With-Action Condition

As stated in the *CEQR Technical Manual*, for analysis purposes, a Future With-Action base utilization rate of 100 percent is the utilization threshold for overcrowding. As such, according to CEQR, a significant adverse impact may result; warranting consideration of potential mitigation, if the Proposed Action would result in both of the following conditions:

- A collective utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the Future With-Action Condition; and

- An increase of five percent or more in the collective utilization rate between the Future No-Action and Future With-Action conditions.

Under the Proposed Action, an additional 221 dwelling units are expected to be developed by 2022. This would generate 69 elementary and 31 intermediate school students by the 2022 analysis year, as shown in **Tables 2.3-3, 2.3-4, and 2.3-5.**

[3] *Enrollment Projections 2017 to 2027: New York City Public Schools* by Statistical Forecasting
[4] *Housing by School District 2016*, provided by the Department of City Planning

Table 2.3-1: Public Elementary Schools in CSD 27, Subdistrict 1: Enrollment, Capacity and Utilization

Facility Name	Facility Address	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
P.S. 42	488 Beach 66 Street	482	660	178	73%
P.S.43	160 Beach 29 Street	626	717	91	87%
P.S.43 Annex	12 Marvin Street	52	83	31	63%
P.S.104	26-01 Mott Avenue	689	633	-56	109%
P.S.105	420 Beach 51 Street	580	520	-60	112%
P.S. 106	180 Beach 35 Street	211	157	-54	134%
P.S. 183	2-45 Beach 79 Street	359	510	151	70%
P.S. 197	825 Hicksville Road	498	582	84	86%
P.S. 253	1307 Central Avenue	562	510	-52	110%
P.S. 333/I.S. 198*	3-65 Beach 56 Street	347	744	397	47%
P.S. 362/P.S. 215	535 Briar Place	554	538	-16	103%
	Total	**4,960**	**5,654**	**694**	**88%**

Source: NYC Department of Education, *Enrollment/Capacity/Utilization Report 2017-2018 School Year*
* P.S. component of P.S./I.S. schools

Table 2.3-2: Public Intermediate Schools in CSD 27, Subdistrict 1: Enrollment, Capacity and Utilization

Facility Name	Facility Address	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
P.S. 42*	488 Beach 66 Street	176	241	65	73%
P.S. 43*	160 Beach 29 Street	206	236	30	87%
P.S.43* Annex	12 Marvin Street	17	27	10	63%
I.S. 53*	10-45 Nameoke Street	267	651	384	41%
I.S. 319	10-45 Nameoke Street	359	543	184	66%
P.S. 105*	420 Beach 51 Street	235	210	-25	112%
P.S. 183*	2-45 Beach 79 Street	166	236	70	70%
M.S. 282	8-21 Bay 25 Street	264	339	75	78%
Academy of Medical Technology	8-21 Bay 25 Street	218	235	17	93%
I.S. 198	3-65 Beach 56 Street	81	174	93	47%
	Total	**1,989**	**2,892**	**903**	**69%**

Source: NYC Department of Education, *Enrollment/Capacity/Utilization Report 2017-2018 School Year*
***** I.S. component of P.S./I.S. schools

Table 2.3-3: Public School Students Generated by the Proposed Rezoning

	Project-Generated DUs	P.S. Students	I.S. Students	Total P.S./I.S. Students
CSD 27 Subdistrict 1	221	69	31	100

Table 2.3-4: Projected Public Elementary School Enrollment, Capacity and Utilization in 2022 with the Proposed Action

Future No-Action Projected Enrollment 2022	Students Generated by Proposed Action	Total Projected Enrollment 2022	Capacity	Seats Available	Utilization	Change in Utilization from No-Action
6,094	69	6,163	5,654	-509	109%	1.22%

Table 2.3-5: Projected Public Intermediate School Enrollment, Capacity and Utilization in 2022 with the Proposed Action

Future No-Action Projected Enrollment 2022	Students Generated by Proposed Action	Total Projected Enrollment 2022	Capacity	Seats Available	Utilization	Change in Utilization from No-Action
2,345	31	2,376	2,892	516	82%	1.07%

In the future with the Proposed Action, elementary schools in the study area are projected to have an average utilization level of approximately 109 percent. The addition of approximately 69 elementary school-aged students to the area would increase the utilization rate by approximately 1.2 percent. The collective utilization rate for the elementary schools in the study area would continue to be over 100 percent under the Future With-Action Condition, and the increase in the collective utilization rate would be less than five percent.

In the future with the Proposed Action, intermediate schools in the study area are projected to have an average utilization level of approximately 82 percent[5]. The addition of approximately 31 intermediate school-aged students to the area would increase the utilization rate by approximately 1.1 percent. The collective utilization rate for the intermediate schools in the study area would continue to be below 100 percent under the Future With-Action Condition, and the increase in the collective utilization rate would be less than five percent.

Therefore, the Proposed Action is not expected to result in significant adverse impacts to elementary or middle/intermediate schools in the study area and further assessment of educational facilities is not warranted.

[5] http://www.nycsca.org/Community/Overview/CapitalPlanManagementReportsData/Pages/EnrollmentCapacityUtilization

2.4 OPEN SPACE

Open space is defined as publicly or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. According to the *CEQR Technical Manual*, an analysis of open space is conducted to determine whether a project would have a direct impact resulting from the elimination or alteration of open space and/or indirect impacts resulting from overtaxing available open space. An open space analysis focuses on officially designated existing or planned public open space. An open space assessment may be necessary if a project potentially has a direct or indirect effect on open space.

The Proposed Project Area is in an area that is neither "underserved" or "well-served" in terms of open space. According to CEQR guidelines, an open space assessment is generally conducted if the Proposed Action would generate more than 200 residents or 500 employees.

The Proposed Actions would introduce 305 dwelling units, 44 of which would be affordable and 84 of which would be categorized as AIRS units. The market rate units and affordable units would have average household sizes of 2.96, while the AIRS units would have an average household size of 2.0 for purposes of a conservative analysis. The 2016 "Zoning for Quality and Affordability Text Amendment Final EIS states that with regards to Projects under the AIRS program would be designed exclusively for seniors or single adults. Therefore, it is very unlikely that any unit constructed under the AIRS program would exceed these 2 people per dwelling unit.

As the number of new residents anticipated as a result of the Proposed Action is above the CEQR preliminary screening threshold level of 200 residents, a preliminary analysis of open space impacts due to new residents is warranted.

2.4.1 Preliminary Open Space Assessment

The open space study area includes the U.S. Census Tracts that have 50 percent or more of the tract within a 0.5-mile radius of the proposed Rezoning Area, as shown in **Figure 2.4-1** and exhibited in **Table 2.4-1**. The Proposed Project Area is located in Queens Census Tracts 954 and 964, as is the 0.5-mile study area.

Table 2.4-1: Census Tracts and Population in the Study Area

Census Tract	2018 Population
954	5,793
964	6,021
Total	**11,814**

Source: 2018 U.S. Census ACS data, provided by New York City Department of City Planning.

Existing Conditions

According to 2018 U.S. Census American Community Survey population data that was compiled by the New York City Department of City Planning, approximately 11,814 residents resided in the study area in 2018. The study area contains a total of approximately 39.75 acres of publicly accessible open space (both active and passive), with the existing open space resources within this study area identified in **Table 2.4-2** and shown in **Figure 2.4-1** as well.

In accordance, with CEQR methodology, the assessment of open space resources in the study area focuses on the calculated open space ratio (OSR), or the ratio of the acres of open space per 1,000 persons. The existing OSR in the study area is approximately 3.36 acres per 1,000 residents, well above the City's target OSR of 1.50 acres per 1,000 residents.

Figure 2.4-1: Open Space Study Area and Open Space Resources



Table 2.4-2 Open Space Resources in the Study Area

Map No.	Resource Name	Location	Size (acres)*		
			Total	Active	Passive
1	Beach 59th Street Playground	Foot of Beach 59th Street	0.65	0.65	0.00
2	Almeda (P.S. 42) Playground	Beach Channel Drive between Beach 65th Street and Beach 66th Street	1.43	1.38	0.05
3	Rockaway Freeway Parks	Foot of Beach 68th Street	0.96	0.00	0.96
4	Rockaway Beach and Boardwalk	Beach 59th Street to Beach 73rd Street	17.16	6.864	10.296
5	Brant Point Wildlife Sanctuary	Beach 72nd Street between Bayfields Avenue and Hillmeyer Avenue	4.28	0.00	4.28
6	Dubos Point Wildlife Sanctuary	DeCosta Avenue	15.27	0.00	15.27
		Total	**39.75**	**8.894**	**30.856**

Source: NYC Open Data, NYC.gov
Note: *Represents partial area of open space within selected study area.

1. *Beach 59th Street Playground*
   This is a 0.65-acre playground contains playground equipment and is located adjacent to the boardwalk at the foot of Beach 59th Street.

2. *Almeda Playground*
   This is a 1.43-acre playground with benches, a spray shower; three full basketball courts, two handball courts, swings, and a large asphalt field located on Beach Channel Drive between Beach 65th and Beach 66th Streets. It is a jointly operated playground between the Department of Parks and the Department of Education.

3. *Rockaway Freeway Parks (Beach 67th to 69th Street Segment)*
   The Rockaway Freeway Parks are intermittent parcels of land that extend from Beach 22nd Street to Beach 108th Street. Located adjacent to the 4.5 miles of freeway, they beautify the roadside in Far Rockaway, Edgemere, Arverne, Hammels, and Seaside. The Beach 67th to 69th Streets and Beach 81st to 83rd Streets segments, respectively, bind the two parcels that are most used.

4. *Rockaway Beach and Boardwalk*
   Approximately 17.16 acres of Rockaway Beach and Boardwalk are located within the study area. This open space is a regional resource that draws visitors from the entire City and consists of 7.5 linear miles of public beach along the Rockaway peninsula between Beach 3rd Street to the east and Beach 149th Street to the west. The approximately 5.5-mile Rockaway Boardwalk extends from Beach 9th Street on the east to Beach 126th Street on the west. Sections of the boardwalk were closed after Superstorm Sandy, but the entire extent of the boardwalk was reopened to the public in June 2016 after extensive reconstruction. The Rockaway Beach and Boardwalk include active facilities such as basketball courts, baseball fields, fitness equipment, playgrounds, skate parks, volleyball courts, roller hockey, handball courts, and spray showers, and activities such as swimming, surfing, jogging, and playing catch. Passive uses include fishing, sunning, and strolling. For purposes of this assessment, it was assumed that 40% of Rockaway Beach and Boardwalk is utilized for active uses while 60% of Rockaway Beach and Boardwalk is utilized for passive uses. This breakdown results in 6.864 acres of active open space and 10.296 acres of passive open space.

5. *Brant Point Wildlife Sanctuary*
   Approximately 4.28 acres of the 19.56-acre Brant Point Wildlife Sanctuary, a wetland area of Jamaica Bay, lie within the study area.

6. *Dubos Point Wildlife Sanctuary*
   Approximately 15.27 acres of the 53.30-acre Dubos Point Wildlife Sanctuary, a wetland area of Jamaica Bay, lie within the study area.

Future No-Action Condition

The No-Action Condition for the 1/2-Mile Study Area, projecting to the 2022 build year, is based on the household size and known developments within the 1/2-Mile Study Area. A review of construction projects, DOB permits,

approved or pending BSA applications, and approved or pending ULURP actions were undertaken to determine known developments in the area.

A total of approximately 29 proposed projects, resulting in 141 proposed dwelling units, were identified. The proposed 141 dwelling units multiplied by the average household size (2.96) per dwelling unit in the census tracts located within the immediate 1/2-mile radius of the Rezoning Area would yield approximately 417 additional residents in the Future No-Action Scenario, absent the Proposed Action. The No-Action population for the Study Area would be the 417 additional residents plus the existing Study Area population of 11,814, for a total No-Action population of 12,231. Therefore, assuming that no additional open space resources are added to the area (Thursby Bay Park, located 1000 feet from the project site has not been included in No-Action but is discussed below. This 71,600-park site is currently in design and scheduled for operation in 2024), the existing OSR of 3.36 acres of open space per 1,000 residents is expected to be reduced to approximately 3.24 acres of open space per 1,000 residents under the Future No-Action Condition.

Table 2.4-3 shows the No-Action OSRs for total open space, active open space, and passive open space.

Table 2.4-3: No-Action Open Space Ratio's

Open Space	No-Action OSR
Total Open Space	3.24
Active Open Space	0.72
Passive Open Space	2.52

Future With-Action Condition

Compared to No-Action Conditions, the Proposed Actions would introduce 305 dwelling units, 44 of which would be affordable and 84 of which would be categorized as AIRS units. The market rate units and affordable units would have average household sizes of 2.96, while the AIRS units would have an average household size of 2.0 for purposes of a conservative analysis. The 2016 "Zoning for Quality and Affordability Text Amendment Final EIS states that Projects under the AIRS program would be designed exclusively for seniors or single adults. Therefore, it is very unlikely that any unit constructed under the AIRS program would exceed 2 people per dwelling unit.

The incremental population increase effectuated by the Proposed Actions would result in 168 residents on Projected Site 1 and 654 residents on Projected Site 2, for a total of 822. However, the Nursing Home that would be located on Projected Site 2 in the No-Action Scenario currently has 280 seniors residing on site. Therefore, the With-Action Scenario would result in a population increase of a total of 542 residents (based on an average of 2.96 persons per unit),[6] as well as approximately 62 employees[7] to the neighborhood who would work in the new buildings.

[6] Based on the average household size for Census Tracts 954 and 964 (2.96 persons/household).
[7] Assuming one employee per 25 dwelling units and a 10:1 student-staff ratio in a 500-seat school.

Therefore, the With Action Scenario Population in the Study Area would be 12,773 and the resulting OSR would be 3.11 acres of open space per 1,000 residents.

Given the above growth in population and assuming no change in open space resources, the With-Action OSR's for total open space, active open space and passive open space are displayed in **Table 2.4-4:**

Table 2.4-4: With-Action Open Space Ratio's

Open Space	With-Action OSR
Total Open Space	3.11
Active Open Space	0.70
Passive Open Space	2.41

It is also important to note that several additional open space resources are located immediately adjacent to the 0.5-mile buffer of the Rezoning Area but are not accounted for in the OSR calculations as they lie outside of the census tract study area. As noted above, these additional resources include areas of Dubos Point Wildlife Preserve, Rockaway Community Park and the Rockaway Beach and Boardwalk that lie outside the buffer area, as well as the remainder of the Brant Point Wildlife Sanctuary. (shown in both **See Figures 2.4-1 above and 2.4-2 below.** The figure also shows the distance in feet to those resources just outside the Study Area.

Although the reduction in the total OSR related to the Proposed Action is four percent, the Proposed Action would not result in a significant adverse open space impact, as it is below the five percent threshold for a detailed analysis and, as such. The resulting OSR of 3.11 is still well above the City's target OSR of 1.50 acres per 1,000 residents.

The reduction in the active OSR related to the Proposed Action is approximately 2.7 percent
The reduction in the passive OSR related to the Proposed Action is approximately 4.3 percent

Table 2.4-5 below shows the percent change between the No-Action and With-Action OSR's for total, active, and passive open space.

Table 2.4-5: Open Space Ratio Percent Change

Open Space	No-Action OSR	With-Action OSR	% Change
Total Open Space	3.24	3.11	4%
Active Open Space	0.72	0.70	2.7%
Passive Open Space	2.52	2.41	4.3%

As **Table 2.4-5** shows, the percent change for the No-Action OSR and the With-Action OSR will not exceed 5% for all open space, and constituent active or passive open spaces.

As discussed, the total open space OSR is 3.11 in the With-Action Scenario, which is well above the City's Target OSR of 1.5 acres per 1,000 residents. This demonstrates that the area is very well served by open space, indicating that no significant adverse impacts related to space would occur in the With-Action Scenario.

Additionally, the passive open space OSR is 2.52 in the With-Action Scenario. This demonstrates that the area is very well served by passive open space, indicating that no significant adverse impacts related to passive space would occur in the With-Action Scenario.

While the active open space With-Action OSR is 0.70, down from 0.72 in the No-Action OSR, this only represents a 2.7% decrease, which is below the 5% threshold which would trigger a CEQR analysis.

As Figure **2.4-2** demonstrates, there is a good mix of passive open space uses and active open spaces uses in the area. The active open space uses total 8.894 acres of open space within the Study Area while passive open space totals 30.856 acres of open spaces within the Study Area.

The active spaces, in addition to the two playgrounds in the Study Area which contain basketball courts, playground equipment, an asphalt field, and handball courts, includes the Rockaway Beach Boardwalk and beach itself. These are widely utilized for active activities like jogging, biking, skating on the boardwalk, and walking, jogging, and playing frisbee, and football on the beach. Passive space uses include portions of the playgrounds, the Rockaway Freeway Parks, as well as two wildlife sanctuaries within the Study Area, and portions of the Rockaway Beach Boardwalk and beach itself.

It is also worth noting that there are several acres of open space, both active and passive uses that are just outside the Study Area but within a half mile of the Rezoning Area, including more portions of the Beach and Boardwalk, Rockaway Community Park, Arverne Playground, and Cardozo Playground, which all include active uses, including the beach and boardwalk for beach activities, bike riding, and jogging, and Cardozo Playground which also includes a running track, tennis courts, a basketball court, and playground equipment. Arverne Playground contains three full-court basketball courts, and Rockaway Community Park also features a jogging path, and tennis and basketball courts.

Finally, it is further noted that Thursby Bay Park, located at 62-02 Beach 63rd St, approximately 1000-feet to the east of the Proposed Rezoning Area is currently in design and in the development pipeline for operation by 2024 (by the build year of the Proposed Development). The 71,600-sf park is to feature a mix of active and passive components, including picnic tables, a ping pong table, drinking fountains, play areas, a water play feature, and access to the beach for fishermen, kayakers, and plane watchers. A comfort station is also planned to be installed in the area once funding was acquired.

Non-Publicly Accessible Open Space

While not publicly available, both the Charter School, and the AIRS building will have open space available for users of the respective buildings. The AIRS building will have passive open space on the ground floor in

the form of an outdoor rear yard with sitting space and landscaping and plantings. While not publicly available, it will help lessen the load on nearby open space resources that AIRS residents may otherwise use.

Furthermore, the charter school will also have open space available for the students of the building. There will be a playground and outdoor space within the school grounds that students will be able to use. Like the AIRS open space, the charter school open space, while not publicly available, will help lessen the load on nearby playgrounds for the school children in the area.

Proposed Thursby Bay Park Plan



Conclusion

Given the abundance of open space, both in the Study Area and just outside the Study Area but within a half mile of the Project Site, and the resulting With-Action Open Space Ratio, the Proposed Action would not result in a potential for significant adverse impacts to open space, either passive an active, in the With-Action Scenario.

Furthermore, the private onsite open spaces available to users of the charter school and residents of the AIRS buildings respectively, will help lessen the load on nearby playgrounds for the school children in the area and it will help lessen the load on nearby open space resources that AIRS residents may otherwise use.

As such, no further analysis is required as no potential for significant adverse impacts are forecasted.

Figure 2.4-2: Open Space Resources in and Proximate to Study Area



2.5 SHADOWS

The CEQR Technical Manual defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. An incremental shadow is the additional or new shadow that a building or other built structure resulting from a proposed project would cast on a sunlight-sensitive resource during the year. The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources, and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details, which make the resources significant.

Shadows also vary according to time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast towards the south than shadows cast in early and late winter months.

The CEQR Technical Manual states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

As noted above, sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or integrity. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved such as handball or basketball courts, contain no seating areas and no vegetation, no unusual or historic plantings, or contain only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of Projected Development Sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the CEQR Technical Manual. The potential impact

of the shadows cast from new development on potentially sensitive resources, such as those described above will be evaluated in the following section.

2.5.1 Preliminary Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis may be warranted in order to determine the extent and duration of the net incremental shadow resulting from the project. The effects of shadows on a sunlight-sensitive resource are site-specific; therefore, as directed in the *CEQR Technical Manual*, the screening assessment was performed for the proposed development site and projected development site to determine whether they fall within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above. In order to determine this, a map was prepared placing NYC Department of Parks Resources as well as Selected Facilities and Program Sites provided on NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. It was determined that only one community resource, the Almeda Playground, could potentially be impacted by a shadow cast from one of the development sites.

Tier 1 and Tier 2 Screening Assessment

The first step in the preliminary shadow screening assessment is a Tier 1 Screening Assessment. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. To determine the longest shadow length, the maximum height of a potential structure (including any rooftop mechanical equipment) is multiplied by the factor of 4.3.

Shadow radii equal to 4.3 times the maximum building heights that could be developed on Projected Development Sites 1 and 2 (128 feet and 75 feet, respectively) were calculated. The resulting shadow radii of approximately 550 feet for Projected Development Site 1 (school building) and 323 feet for Projected Development Site 2, were then used to delineate the Tier 1 maximum shadow analysis area. As shown in **Figure 2.5-1**, the Tier 1 screening assessment results show that the Almeda Playground is situated within the Tier 1 maximum shadow analysis area.

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment should be performed. Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north.

For a Tier 2 screening assessment, sunlight sensitive resources within the triangular area that cannot be shaded by a proposed project site, starting from the southernmost portion of the site covering the area between -108° degrees from true north and +108 degrees from true north, are screened out. The complementing portion to the north within the longest shadow study area is the area that can be shaded by a proposed project.

As also shown in **Figure 2.5-1**, the results of the Tier 2 screening assessment indicate that approximately the northern half of the Almeda Playground is situated within the Tier 2 area, and as such, would still have the potential to be covered by shadows from the Proposed Action. Consequently, a Tier 3 assessment is warranted

Tier 3 Screening Assessment

A Tier 3 screening assessment is used to determine if shadows resulting from the Proposed Action can reach a sunlight-sensitive resource. In order to determine whether the sun-sensitive features of the nearby open space resources would potentially be affected by shadows cast from the proposed building, three-dimensional models were created surrounding the Tier 3 identified resources of concern.

The *CEQR Technical Manual* states that for the New York City area, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month.

Representative days for the growing season are generally the vernal equinox (or the autumnal equinox, which is approximately the same), the summer solstice, and a spring or summer day halfway between the summer solstice and equinox. For the cold-weather months, the winter solstice is usually included to demonstrate conditions during cold-weather when people who do use open spaces rely most heavily on available sunlight for warmth. As representative of the full range of possible shadows, these months and days are used for assessing shadows on historic or sunlight-sensitive resources.

Assessments of the incremental shadows cast during four representative dates were made in accordance with the *CEQR Technical Manual* guidance to encompass the growing season and December, representing a cold-weather month (and the longest shadow of the year), with the following dates: March 21/ September 21; May 6/ August 6; June 21; and December 21. On these dates, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant, and thus were not included in the screening assessment.

The results of the Tier 3 screening, shown in **Figures 2.5-2a through 2.5-2h**, indicate that shadows have the potential to reach into the Almeda Playground on two of the four analysis dates (May 6 and June 21). Therefore, detailed shadow analyses were undertaken.

Figure 2.5-1: Tier 1 Shadow Study

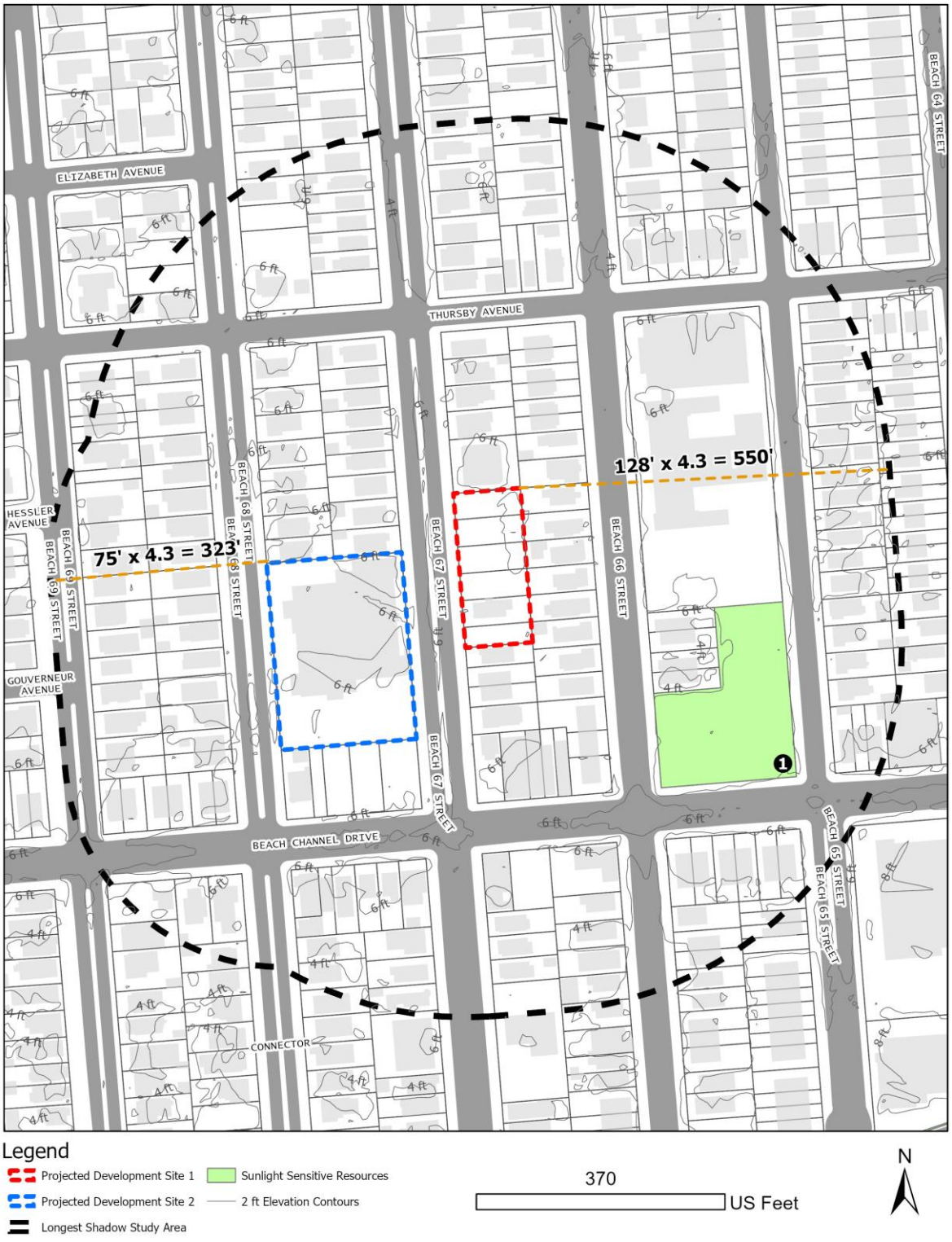
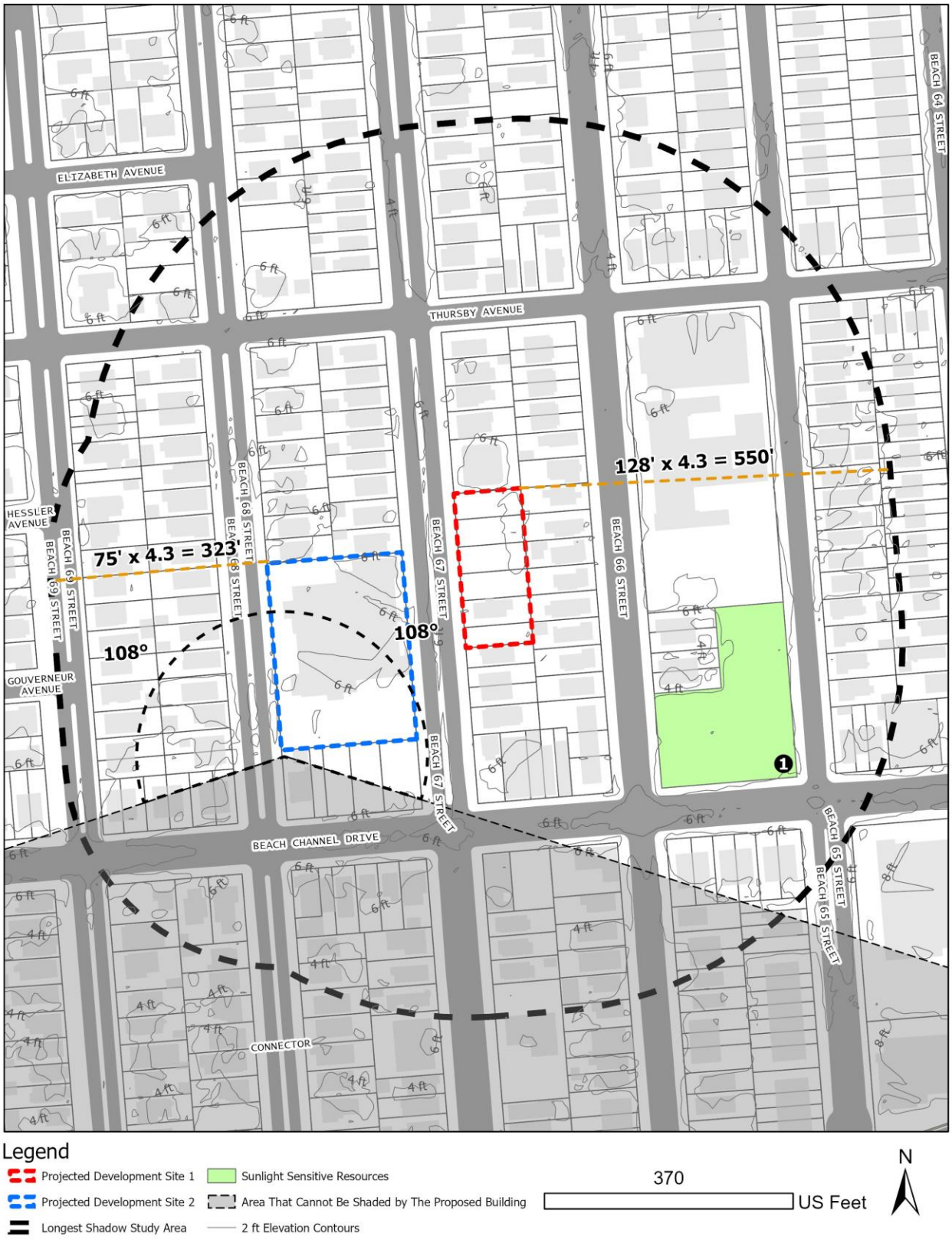


Figure 2.5-2: Tier 2 Shadow Study



Detailed Shadow Analyses

The CEQR Technical Manual states that a detailed shadow analysis is warranted when the screening analysis does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on a sunlight-sensitive resource as a result of the Proposed Action.

To evaluate the extent and duration of a new shadow that would be added to a sunlight-sensitive resource as a result of the Proposed Action, shadows from the site that would exist under the Future No-Action Condition were defined. In the future without the Proposed Action, the existing building, vacant areas, and surface parking lot would remain on the site and shadow conditions would not change, as no new structures would be built on the site. As such, existing shadow conditions would remain the same under the Future No-Action Condition.

The detailed shadow assessment considers those shadows occurring between 1.5 hours after sunrise and 1.5 hours before sunset. Shadows occurring earlier and later are long, move fast, and generally blend with shadows from existing structures. At times outside the timeframe window of analysis, the sun is located near the horizon and the sun's rays reach the Earth at close to tangential angles diminishing the amount of energy delivered by the sun's rays and producing shadows that grow in length exponentially until the sun reaches the horizon and sets. Because of these conditions, the shadows occurring between 1.5 hours before sunset and 1.5 hours after sunrise are not considered significant under CEQR, and their assessment is not required.

The results of the detailed shadow analyses are noted in **Table 2.5-1**. The table presents the times when net new incremental shadows enter Almeda Playground, as well as the duration of the shadow to the end of the required time frame during each analysis date. Results are further described below and are graphically illustrated in **Figures 2.5-3a through 2.5-3b.**

Table 2.5-1: Detailed Shadow Analysis Summary

Analysis Period **Time Frame Window**	**May 6/August 6** **4:55 p.m. – 5:18 p.m.**	**June 21** **5:21 p.m. – 6:01 p.m.**
Net Shadows Enter/Exit Times	4:55 p.m. – 5:18 p.m.	5:21 p.m. – 6:01 p.m.
Net Incremental Shadow Duration	23 minutes	40 minutes

On May 6th, the project-generated shadow would enter the park at 4:55 p.m. and remain in the park through the duration of the time frame window, which ends at 5:18 p.m., a duration of 23 minutes. The shadow cast on the park at 5:18 p.m. represents the maximum extent of the project-generated shadow on the park, after which shadows are no longer significant.

Figure 2.5-2a: Tier 3 Shadows Analysis – March



Figure 2.5-2b: Tier 3 Shadows Analysis – May



Figure 2.5-2c: Tier 3 Shadows Analysis – June



Figure 2.5-2d: Tier 3 Shadows Analysis - December



Figure 2.5-3a: Detailed Shadows Analysis,– June 21, 6:01 p.m.



Figure 2.5-3b: Detailed Shadows Analysis,– May 6, 5:18 p.m.



Conclusions

The CEQR Technical Manual states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. The goal of the assessment is to determine whether the effects of incremental shadows on a sunlight-sensitive resource are significant under CEQR. A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months of interest generally do not affect the growing season of outdoor vegetation; however, effects on other uses and activities should be assessed. This sensitivity is assessed for warm-weather-dependent features (such as wading pools and sand boxes) or vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As discussed above, the Proposed Action would cast incremental shadows on the Almeda Playground on May 6 and June 21, with durations of 23 minutes and 40 minutes to the end of the analysis window respectively. However, no part of the playground would be in constant shadow, as the shadow would sweep across the playground during the day. As a result, the impact to the playground from project-generated shadows is not considered to be significant and further analysis is not required.

2.6 HISTORIC AND CULTURAL RESOURCES

An assessment of historic and cultural resources is usually necessary for projects that are near historic or landmark structures or districts, or for projects that require in-ground disturbance, unless such disturbance occurs in an area that has been formerly excavated, according to the *CEQR Technical Manual*.

The term "historic resources" defines districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, architectural, and archaeological importance. In assessing both historic and cultural resources, the findings of the appropriate city, state, and federal agencies are consulted. Historic resources include: the New York City Landmarks Preservation Commission (LPC) designated landmarks, interior landmarks, scenic landmarks, and historic districts; locations being considered for landmark status by the LPC; properties/districts listed on, or formally determined eligible for, inclusion on the State and/or National Register (S/NR) of Historic Places; locations recommended by the New York State Board for Listings on the State and/or National Register of Historic Places and National Historic Landmarks.

2.6.1 Architectural Resources

According to CEQR Technical Manual guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the proposed Rezoning Area plus a 400-foot radius around the Proposed Action area.

No properties within the Rezoning Area are designated local or S/NR historic resources or properties, nor are they part of any designated historic district.

In order to determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No historic or architectural resources were identified within the 400-foot study area. LPC was contacted for their opinion on the potential impacts of nay architectural resources in the area. A response was received on October 8th, 2020 indicating no properties within the Rezoning Area had any historical significance.

2.6.2 Cultural and Archaeological Resources

Unlike the architectural evaluation of a study area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells, and privies. The CEQR Technical Manual recommends a detailed evaluation of a project's potential effect on the archeological resources if it would potentially result in an in-ground disturbance to an area not previously excavated. The existing Rezoning Area has been previously disturbed and no areas of cultural or

archaeological significance have been attached to this area. Further, utilizing the NYS Office of Parks, Recreation and Historic Preservation's "Cultural Resource Information System" (CRIS) mapper, the Rezoning Area does not fall within an archaeologically sensitive area. LPC was contacted for their opinion on the potential impacts of nay architectural resources in the area. A response was received on October 8th, 2020 indicating no properties within the Rezoning Area had any archaeological significance.

Analysis

Future No-Action Condition

Absent the Proposed Actions, the Projected Development Site would remain in its existing condition. No Alternatives plans have been prepared or filed with the NYC DOB.

Future With-Action Condition

Projected Development Site 1: Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Proposed Development Site)

Projected Development Site 1 would be occupied by two new buildings, comprised of – a UG 2 Affordable Independent Residences for Seniors (AIRS) building and a UG 3 community facility building intended for use as a charter school. The senior building would be located on Lots 18, 20 and 22. The community facility building would be located on Lots 12, 14 and 16. The buildings would be elevated to a design flood elevation of 10 feet, which provides space for parking for both uses on the ground floor. There are nine parking spaces proposed for the AIRS building (11% of DUs). Although no off-street parking spaces are required for schools in an R6 district, the Applicant and Co-Applicant intend to provide 15 parking spaces for the charter school.

The proposed senior building is expected to have an FAR of 1.88. It is a proposed 9-story building at a proposed height of 80 feet containing a total of 84 dwelling units. The building's total gross floor area is 60,480 sf and the total zoning floor area is 58,259 sf.

The proposed school is expected to have a FAR of 2.32. It is a proposed 11-story building at a proposed height of 128 feet. The building's total gross floor area is 76,241 sf and total zoning floor area is 71,996 sf.

While not part of the proposed development, the applicant is using development rights from the church on Lot 24 for the Projected Development Site.

Projected Development Site 2: Block 16041, Lot 6

In the With-Action Scenario, it is assumed that Block 16041, Lot 6, with a lot area of approximately 56,000 sf and a built FAR of 1.37, would be developed with a 201,600 zsf (221,760 gsf) UG 2 residential building. This projected development would displace the existing on-site nursing home and would be built at an FAR of 3.6,

which represents maximum density in an R6 district. Assuming, 1,000 square feet per dwelling unit, it is assumed that the projected residential development on Projected Site 2 would create 221 dwelling units. Assuming that 20 percent of units would be available at or below 80 percent Area Median Income (AMI), it is assumed that 44 units would be set aside as affordable, pursuant to the MIH program. As the site is located outside of the transit zone, parking must be provided for 50% of market rate dwelling units and 25 percent of income-restricted units, which results in 100 spaces. It is expected to reach a height of 75 feet.

Conclusion

The project would result in in-ground disturbance to develop the proposed mixed-use building with cellar space for parking. LPC was contacted for their initial review of the proposed project's potential to impact historic and cultural resources on or near the Affected Area. In a letter dated October 8th, 2020, LPC indicated that the Study Area does not contain any sites or buildings of known architectural or archaeological significance (see Appendix C). Furthermore, a survey was conducted of sites or resources that have been designated as either listed or eligible for listing in the State and National Register (S/NR) of historic places. Thus, the Proposed Project is not anticipated to result in significant adverse impacts to sensitive architectural or archaeological resource

2.7 URBAN DESIGN AND VISUAL RESOURCES

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the 2020 *CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Actions may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

Methodology

Pursuant to the CEQR Technical Manual, an assessment of urban design is appropriate when a project may affect one or more of the elements that contribute to the pedestrian experience of the public realm. This assessment of Urban Design and Visual Resources focuses on those elements of the Proposed Action that may have the potential to impact the use, arrangement, appearance, and functionality of the built environment. The *CEQR Technical Manual* states that a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observer a material alteration beyond what is allowed by existing zoning. This preliminary analysis provides an assessment of the Proposed Action; to determine when comparing existing and future conditions with and without the Proposed Actions whether the project may result in a significant adverse environmental impact.

The following analysis examines each of those elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale as defined by their height and bulk in relation to adjusting built form and arrangement; as well as natural features, open space, and topography. These components are further considered in relation to changes in use and density or use, in so far as it impacts the experience of the pedestrian.

The following preliminary analysis also considers the effects of the Proposed Action on an area's visual resources, or those important public view corridors, vistas, natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geological formations. Based on *CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environmental. The urban design study area consists of both a primary study area (where urban design defects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area is the Affected Area. As with the analysis of land use, zoning, and public policy, the second study area for the urban design assessment is defined as the area within approximately 400 feet of the Rezoning Area (see **Figure 2.7-1**) Due to the size of this rezoning, this assessment also considers the context, access, and relationship with the broader "neighborhood unit" in which the study area sits.

2.7.1 Preliminary Analysis

As stated in the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment and is generally consistent with the study area used for the land use analysis (i.e., 400 feet around the proposed Rezoning Area). For visual resources, existing publicly accessible view corridors within the study area should be identified. The purpose of the preliminary assessment is to determine whether any physical changes proposed by a project may raise the potential to affect elements of urban design significantly and adversely, which would warrant the need for a detailed urban design and visual resources assessment.

Existing Conditions

The study area is in the Averne neighborhood of Queens. A ground level photograph map key is provided in the previously presented **Figure 1-3**, with ground-level photographs of the projected development site and the immediate surrounding area are provided in previously presented **Figure 1-4.**

As noted in Section 2.1-1, the primary land use in the surrounding area is two- and three-story residences and one- to three-story walk-up multi-family residences. Other land uses in the area include multi-family residences with elevators, commercial uses, public facilities and Institutions, mixed residential and commercial buildings, vacant lots, parking, and open space. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement, and many residential buildings are free-standing detached buildings.

There are few streetscape elements within the study area. Along Beach 67th, 68th and 69th Streets between Beach Channel Drive and Jamaica Bay there are medians which contain grass and young trees that lead to the bay on what otherwise is a basic streetscape lined with wide sidewalks, scattered street lighting and little in the way of visual interest. No other notable streetscape elements are located within the study area.

Future No-Action Condition

Under the Future No-Action Condition, significant changes to the study area are not expected by the final analysis year of 2022. While retail establishments and other buildings in the area may change, the overall use of these buildings within the study area would remain the same, and any physical changes to buildings in the study area would comply with designated zoning regulations and other surrounding districts. No significant adverse changes to the area's urban character are anticipated. No changes to the area's views will occur. **Figures 2.7-2 and 2.7-5** highlight the Future No-Action Scenario for the two Projected Development Sites. **Figure 2.7-1** provides a photo key for the urban design figures.

Future With-Action Condition

According to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally

appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of an historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built rare or defining visual resource. Further conditions that merit consideration are when the project changes urban design features so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes, or if a project changes the scale of surrounding buildings so that the context changes. **Figures 2.7-2 and 2.7-4** highlight the Future With-Action Scenario for the two Projected Development Sites.

Projected Development Site 1 would be occupied by two new buildings, comprised of – a UG 2 Affordable Independent Residences for Seniors (AIRS) building and a UG 3 community facility building intended for use as a charter school. The senior building would be located on Lots 18, 20 and 22. The community facility building would be located on Lots 12, 14 and 16. The buildings would be elevated to a design flood elevation of 10 feet, which provides space for parking for both uses on the ground floor. There are nine parking spaces proposed for the AIRS building (11% of DUs). Although no off-street parking spaces are required for schools in an R6 district, the Applicant and Co-Applicant intend to provide 15 parking spaces for the charter school.

The proposed senior building is expected to have a FAR of 1.88. It is a proposed 9-story building at a proposed height of 80 feet containing a total of 84 dwelling units. The building's total gross floor area is 60,480 sf and the total zoning floor area is 58,259 sf.

The proposed school is expected to have a FAR of 2.32. It is a proposed 11-story building at a proposed height of 128 feet. The building's total gross floor area is 76,241 sf and total zoning floor area is 71,996 sf.

Projected Development Site 2: Block 16041, Lot 6

In the With-Action Scenario, it is assumed that Block 16041, Lot 6, with a lot area of approximately 56,000 sf and a built FAR of 1.37, would be developed with a 201,600 zsf (221,760 gsf) UG 2 residential building. This projected development would displace the existing on-site nursing home and would be built at an FAR of 3.6, which represents maximum density in an R6 district. Assuming, 1,000 square feet per dwelling unit, it is assumed that the projected residential development on Projected Site 2 would create 221 dwelling units. Assuming that 20 percent of units would be available at or below 80 percent Area Median Income (AMI), it is assumed that 44 units would be set aside as affordable, pursuant to the MIH program. As the site is located outside of the transit zone, parking must be provided for 50% of market rate dwelling units and 25 percent of income-restricted units, which results in 100 spaces.

As the Proposed Action would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, and as the Proposed Action would not block any view corridors or views to/from any natural areas with rare or defining features, nor would the Proposed Action impact an historical

or culturally sensitive community features, the Proposed Action is not expected to result in any significant adverse urban design or visual resource related impacts.

Additionally, the proposed development under the Future With-Action Scenario would not block or hinder any bay or beach/ocean views as well.

Wind Assessment

Channelized wind pressure from between tall buildings and down washed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety. The construction of projects involving multiple, tall buildings at or near waterfront sites may result in an exacerbation of wind conditions due to 'channelization' or 'downwash' effects that may affect pedestrian comfort and safety. Factors that may be considered in making this determination include, but are not necessarily limited to:

• Whether the location is exposed to high wind conditions, such as along west and northwest-facing waterfronts, or other locations at or near waterfront sites where prevailing winds from the waterfront is not attenuated by buildings or natural features;

• The size of the project (generally only projects of a substantial size have the potential to alter wind conditions);

• The number of proposed buildings to be constructed;
• The size and orientation of the buildings that are proposed to be constructed; and
• The site plan and surrounding pedestrian context of the project.

The Projected Development Sites will not be very tall buildings as only the school building on Projected Site 1 is expected to be taller than 100 feet in height. As stated above and in the *CEQR Technical Manual*, generally only projects of a substantial size have the potential to alter wind conditions. Furthermore, the Projected Development Sites are over 1,500 feet from any body of water.

Conclusion

Based on the above analysis of urban design and wind, no significant adverse impacts with regards to urban design and wind are expected to occur on pedestrians in the With-Action Scenario. Therefore, no further analysis is required.

Figure 2.7-1: Urban Design Photo Key

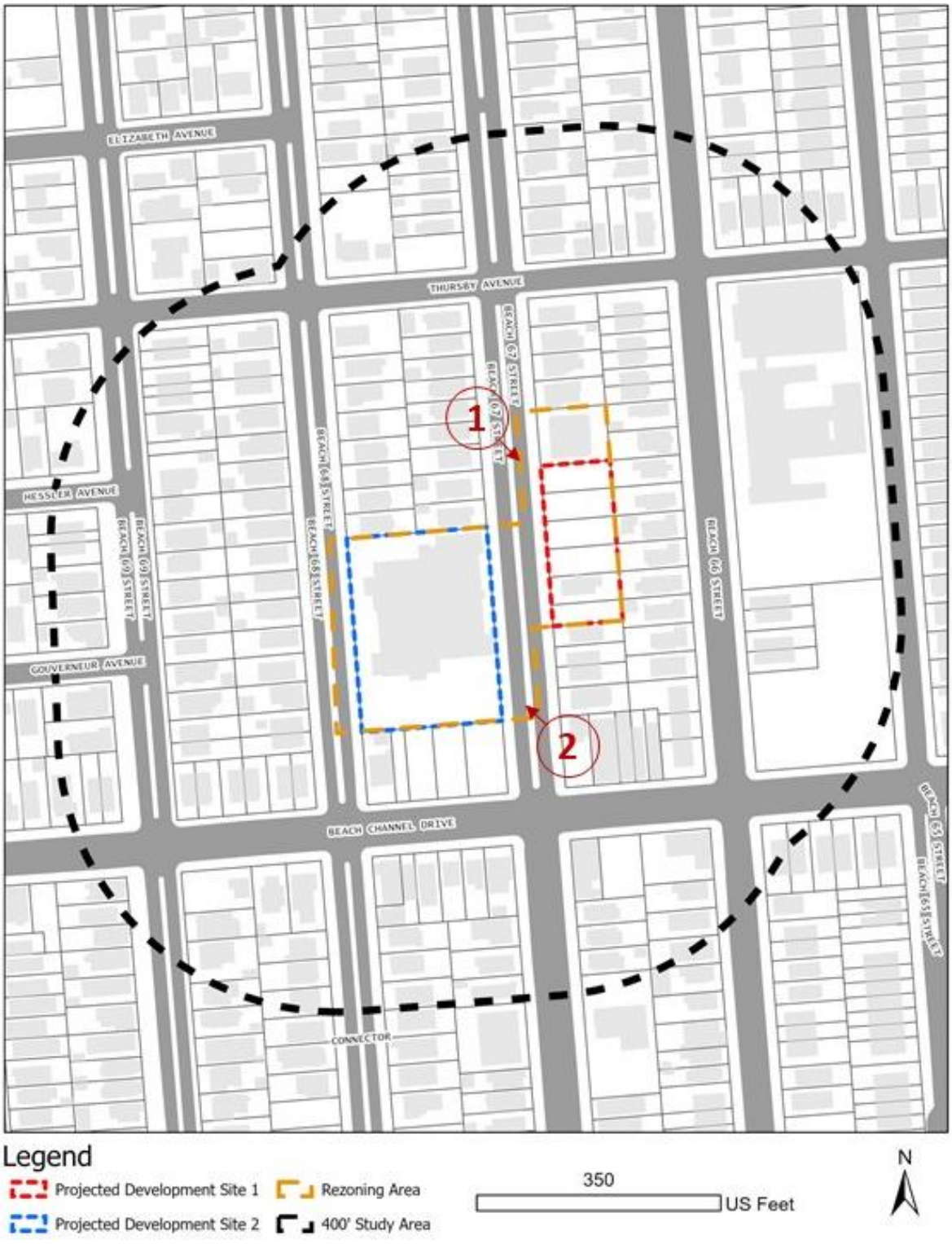


Figure 2.7-2: Future No-Action – Projected Development Site 1



Figure 2.7-3: Future With-Action – Projected Development Site 1



Figure 2.7-4: Future No-Action – Projected Development Site 2



Figure 2.7-5: Future With-Action – Projected Development Site 2



2.8 NATURAL RESOURCES

An assessment of a proposed project's impact on natural resources is typically performed for projects that either would occur on or near natural resources (e.g., wetlands, woodlands, meadows, etc.), or for projects that would result in either the direct or indirect disturbance of such resources. The proposed project site is a disturbed urban environment and no natural resource impacts are anticipated. As a result, there would be no impact to the area's natural resources and no further assessment is necessary.

However, the proposed project site is located within the Jamaica Bay Watershed. As such, the *Jamaica Bay Watershed Protection Plan Project Tracking Form* was completed (see **Appendix D**). The Jamaica Bay Watershed Protection Plan, developed pursuant to Local Law 71 of 2005, mandates the New York City Department of Environmental Protection (DEP) work with the Mayor's Office of Environmental Coordination (MOEC) to review and track proposed development projects in the Jamaica Bay Watershed which are subject to CEQR, in order to monitor growth and trends.

2.9 HAZARDOUS MATERIALS

According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, and (b) an action would increase pathways to their exposure, or (c) an action would introduce new activities or processes using hazardous materials.

Methodology

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

The hazardous materials assessment begins with a Phase 1 ESA, which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the 2020 *CEQR Technical Manual*, the Phase 1 ESA is conducted in accordance with the standards established by the current ASTM Phase 1 ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties.

The purpose of the Phase I ESA was to investigate and identify Recognized Environmental Conditions (RECs), including historical RECs (HRECs), controlled RECs (CRECs), and de minimis conditions (DMCs). A REC is defined by the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. HRECs are a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. CRECs are a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. DMCs are those situations that do not present a material risk of harm to public health or the environment and generally would not be subject to enforcement action if brought to the attention of the regulating authority.

If a potential REC is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

The assessment is based on a review of existing conditions, reported pre-existing conditions, and observed operations at the subject property and adjacent properties. A copy of the Phase I ESA is provided in **Appendix E.** The Phase I ESA results are summarized below.

Analysis

The Phase I ESA was performed at the four parcels comprising Projected Development Site 1, located at 444, 442, 438, 432, 430 and 426 Beach 67th Street (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24).

The Phase I ESA revealed the following environmental areas of concern:

- Hurricane Sandy in 2012 severely flooded the Far Rockaway area which resulted in spills and discharges of heating oil and other chemical products (i.e., cleaning fluids, paints, cleaning solvents) from residential and commercial properties throughout the area. In the addition, the development of Far Rockaway has resulted in the importation of fill material as the area was historical a marsh as identified on historical topographic maps. Therefore, due to the history of area including the potential for migration of contamination from off-site sources and urban fill, the possibility exists for subsurface contamination on and in immediate vicinity of subject parcel to be present.

Based on the above-described activities, no controlled RECs (CRECs), or historical RECs (HRECs) were identified in connection with the subject property.

The following de minimis condition were identified during this assessment:

- De minimis trash and miscellaneous debris (wood pallets, lumber, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- AECOM observed six motor vehicles on the subject property, with all but one being either abandoned or out of use. The abandoned or out of use vehicles an ambulance, a utility van, two passenger cars, and a motorcycle. The vehicles are presumed by AECOM to include fluids such as gasoline and motor oil. The bus is used by the God's Battalion Pentecostal Assembly Church (owner of the subject property) to transport parishioners to various locations and events in the area. Minor stains were observed around the area where the bus and the utility van were parked.

Conclusion

Given the nature of this project as AIRS affordable and community facility and the current status of risk associated with development and financing of such projects, the cost of a phase 2 and remedial action plan pre-certification is prohibitive for the development– particularly given the discretionary ULURP process required and the uncertainties associate with these processes. The completion of a phase 2, review time and

completion of an approved remedial action plan could add an additional four months to certification time frame before the project enters ULURP. The Applicant, Brisa Builders – is requesting an E designation be considered for Projected Development Site 1 If the Applicant is given a E-designation they may then enter the voluntary clean-up program with OER and be eligible to apply for up to 45,000 in grants to offset the cost of remedial investigation. Given these factors, the Applicant is requesting consideration of an E designation for Project Development Site 1 (Applicant Site).

To preclude the potential for significant adverse impacts, an (E) Designation would be provided for the Applicant's Projected Development Site. E-605 has been assigned to this project. The text of the (E) designation for would be as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

2.10 WATER AND SEWER INFRASTRUCTURE

This chapter assesses the potential impacts of the Proposed Project on the City's water supply, wastewater treatment, and stormwater management infrastructure. This analysis is made in accordance with the guidance set forth in the *CEQR Technical Manual*.

The Proposed Project would connect to both the municipal water supply and separated wastewater and stormwater conveyance and treatment systems (sanitary sewage flows to a wastewater treatment plant and stormwater flows untreated through outfalls into nearby waterways). Wastewater from the area is conveyed to the Rockaway Wastewater Treatment Plant (WWTP), which has a total capacity of approximately 45 million gallons per day (mgd).

Section 200 of Chapter 13: *Water and Sewer Infrastructure* of the *CEQR Technical Manual* identifies the types of projects that require at least a preliminary assessment of their impact on the City water supply and wastewater and stormwater conveyance and treatment systems. Guidance provided in that section of the *CEQR Technical Manual*, indicates that an assessment of the effect of the Proposed Project on the City's water supply, and wastewater and stormwater conveyance and treatment system is warranted.

Water Supply

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is needed if a project would result in an exceptionally large demand for water (e.g., more than one mgd) or is in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system). Although the incremental additional water demand from the Proposed Project would represent less than 1% of the City's overall water supply, the Proposed Project is located on the Rockaway Peninsula, an area of low water pressure.

Wastewater and Stormwater Conveyance and Treatment

As indicated in Section 220 of Chapter 13 of the *CEQR Technical Manual*, a preliminary assessment of the impact of the Proposed Project on wastewater and stormwater conveyance and treatment is needed if the Proposed Project is in a separately sewered area and would exceed certain incremental development (above the predicted No-Action condition) of DUs or commercial, public facility, and institution and/or community facility space per site.

Since the Proposed Project is in a direct drainage area, as well as being in the Jamaica Bay watershed and involving a site one acre or larger with an increase in impervious surfaces, a preliminary assessment of wastewater and stormwater conveyance and treatment impacts of the Proposed Project is warranted.

Existing Conditions

Water Supply and Demand

The City's water supply system is comprised of three watersheds – the Croton, Delaware, and Catskill – which extend as far north as the Catskill Mountains, and deliver on average approximately 1.1 billion gallons of water per day to customers in the five boroughs and Westchester County. From these watersheds, potable water is conveyed to the City via a system of reservoirs, aqueducts, and tunnels. Within the City, a grid of water pipes distributes water to customers. The Project Site is serviced by existing DEP water mains located within Beach Channel Drive and Beach 67th Street.

Water demand is a function of the land use on the Proposed Development Site. The site contains one two-family dwelling and two community facilities (a church and a nursing home).

Wastewater Generation and Treatment

The Proposed Project Area is in an area where sanitary sewage flows to a wastewater treatment plant and stormwater directly drains untreated into nearby waterways. Wastewater from the Proposed Project Area is anticipated to be treated at the Rockaway WWTP, where wastewater is fully treated by physical and biological processes before it is discharged as effluent into Jamaica Bay. The quality of effluent is regulated by a State Pollutant Discharge Elimination System (SPDES) permit issued by the New York State Department of Environmental Conservation, which establishes limits for effluent parameters (i.e. suspended solids, fecal coliform bacteria, and other pollutants). Since the volume of flow to a WWTP affects the level of treatment a plant can provide, the SPDES permit also establishes a maximum permitted capacity. For the Rockaway WWTP, the maximum permitted capacity is 45 mgd. The average dry monthly flow to the Rockaway WWTP over the past 12 months has been 19 mgd, which is approximately 42% of the permitted capacity.

For analysis purposes, the amount of sanitary sewage is estimated as all water demand generated by existing on-site uses except for air conditioning, which typically is not discharged into the sewer system. As shown in **Table 2.10-1**, the amount of daily sanitary sewage generated by the existing uses in the Proposed Project Area is approximately 8,437 gpd.

Table 2.10-1: Existing Water Consumption and Wastewater Generation

Land Use	Water Consumption & Wastewater Generation	Area/Units	Domestic Water/Wastewater	Air Conditioning
Residential	Domestic: 100 gpd/person[2]	2 DUs	60	0
Community Facility	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	83,774 sf	8,377	14,242
Total Water Demand			22,679	
Total Wastewater Generation			8,437	

Notes:

[1] Consumption rates obtained from the 2020 *CEQR Technical Manual* Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment," unless otherwise noted.

[2] Based on 2016 *East New York Rezoning FEIS.* Calculated based on total building floor area, assuming no additional water demand from open storage.

Stormwater Drainage and Management

Currently, stormwater runoff from impermeable surfaces in the Proposed Project Area directly drains, untreated, into Jamaica Bay.

The Proposed Project Area is comprised of roof areas (33,387 sf, or approximately 38 percent), pavement and walkways (31,976 sf, or approximately 37 percent) and grass and softscape (21,637 sf, or approximately 25 percent), resulting in a weighted runoff coefficient (the fraction of precipitation that becomes surface runoff for each surface type) of 0.75 (**Table 2.10-2**).

Table 2.10-2: Surface Types on the Project Site, Existing Conditions

Surface Type	Roof	Pavement & Walkways	Grass & Softscape	Total
Percentage of Total Area	38	37	25	100
Surface Area (sf)	33,387	31,976	21,637	87,000
Runoff Coefficient[1]	1.00	0.85	0.20	0.75

Note:

[1] Runoff coefficients for each surface type from DEP.

Standard DEP runoff coefficients were used to calculate the amount of stormwater runoff during a range of storm events, with rainfall averaging from 0.0 to 2.5 inches over durations of 3.8 to 19.5 hours. **Table 2.10-3**

shows the existing stormwater runoff generation for the existing uses in the Proposed Project Area. As indicated in the table, for storm events with up to 2.5 inches of rainfall, the Proposed Project Area could generate up to 0.10 million gallons of stormwater. Depending on rainfall intensity, during storm events with up to 2.5 inches of rainfall, the stormwater flows generated range from 0.00 to 0.10 million gallons.

Table 2.10-3: Stormwater Runoff on the Project Site, Existing Conditions

Rainfall (inches)	Duration (hours)	Total Area (acres)	Weighted Runoff Coefficient	Stormwater Runoff (MG)
0.00	3.80	2.00	0.75	0.00
0.40	3.80	2.00	0.75	0.02
1.20	11.30	2.00	0.75	0.05
2.50	19.50	2.00	0.75	0.10

Future No-Action Conditions

The Proposed Development Site is located in the Arverne neighborhood on the Rockaway Peninsula. As a number of the lots in the surrounding area have not been developed or enlarged since the 2008 Rockaway Neighborhoods Rezoning, it is safe to assume existing conditions will remain the same in the Future No-Action scenario.

Future With-Action Conditions

In the Future With-Action Scenario, the Proposed Project could result in the development of 305 dwelling units and 71,996 sf of community facility space.

Water Supply and Demand

The Proposed Project would not result in significant adverse impacts on the City's water supply system. As indicated in Table 11-1 above, the Projected Development Sites are expected to generate a water demand of approximately 22,679 gpd, which is approximately 0.002 percent of the City's daily demand.
Wastewater Generation and Treatment

In the future with the Proposed Project, wastewater from the Projected Development Sites would continue to be treated by the Rockaway WWTP. The capacity of the plant would not change as a result of the Proposed Project, and the facility would continue to operate within its SPDES-permitted capacity of 45 mgd.

As indicated above, the Projected Development Sites are expected to generate approximately 8,437 gpd of sanitary sewage. With an existing average dry weather monthly flow to the Rockaway WWTP of 19 mgd and the addition 8,437 gpd, the plant would continue to have ample reserve capacity. Pursuant to CEQR Technical Manual guidelines, as the demand associated with the Proposed Project would be well within the

capacity of the affected treatment plant, no significant adverse impacts to the City's wastewater treatment services would occur as a result of the Proposed Project.

Stormwater Drainage and Management

In the future with the Proposed Project, it is anticipated that the amount of surface area comprised of roofs would increase over existing conditions as underutilized and vacant lots are developed with the proposed buildings. As indicated in **Table 2.10-4**, it is anticipated that roof area would comprise 95 percent of the Projected Development Sites' surface area. For analysis purposes, it is assumed that the remaining lot area would be hardscape (pavement and walks). As a result of these anticipated surface area changes, the weighted runoff coefficient for Projected Development Sites is expected to increase over existing conditions. As also indicated in Table 11-4, the development sites are expected to have a weighted runoff coefficient of 0.99 in the With-Action condition.

Table 2.10-4: Surface Types on the Project Site, With-Action Conditions

Surface Type	Roof	Pavement & Walkways	Grass & Softscape	Total
Percentage of Total Area	95	5	0	100
Surface Area (sf)	82,650	4,350	0	87,000
Runoff Coefficient[1]	1.00	0.85	0.20	0.99

Note:
[1] Runoff coefficients for each surface type from DEP.

As indicated in **Table 2.10-5**, compared to existing stormwater volumes draining to Jamaica Bay from the Proposed Project Area, the total stormwater flow would increase by 0.03 mgd during storm events with up to 2.5 inches of rainfall, from 0.10 mgd to 0.13 mgd. As shown in the table, for storm events with up to 2.5 inches of rainfall, the total stormwater volumes would range from 0.00 to 0.13 mgd.

Table 2.10-5: Stormwater Runoff on the Project Site, With-Action Conditions

Rainfall (inches)	Duration (hours)	Total Area (acres)	Weighted Runoff Coefficient	Stormwater Runoff (MG)
0.00	3.80	2.00	0.99	0.00
0.40	3.80	2.00	0.99	0.02
1.20	11.30	2.00	0.99	0.06
2.50	19.50	2.00	0.99	0.13

Based on the above analysis, the following actions have been recommended to avoid significant adverse impacts.

Sewer System:

Sanitary Sewer:

Based on analysis, the proposed actions would likely result in an increase of 643% (1.094 cfs) in the sanitary flow of the adjacent sewers based on analysis using the proposed community and residential usages and flow factors outlined above. A hydraulic analysis of the existing sewer system will likely be required prior to the submittal of the Site Connection Proposal Application (SCP) to determine whether the existing sewer system can support higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, there might be a need to amend the existing drainage plan based on the hydraulic analysis calculations.

Storm Sewer:

Stormwater Runoff:

A stormwater analysis will be required as part of the DEP site connection approval process in order to bring the building into compliance with the required stormwater release rate.

Water System:

The proposed development would generate an incremental water demand in the New York City water supply system. Existing infrastructure should be able to handle the water demand.

2.11 TRANSPORTATION

2.11.1 Introduction

This section examines the potential traffic, parking, transit, pedestrian, and safety impacts associated with the proposed rezoning located in the Arverne neighborhood of Queens Community District 14. As described in Chapter 1, "Project Description," the Applicant is seeking to rezone properties on the east and west sides of Beach 67th Street between Beach Channel Drive and Thursby Avenue. For Projected Site 1 (under applicant control), the proposed zoning map amendment will facilitate the development of a nine-story Affordable Independent Residence for Seniors (AIRS) building with 84 dwelling units and nine off-street parking spaces and an eleven-story community facility building for use as a 500-seat charter elementary school (pre-K through 6th Grade) with six off-street parking spaces. These two new buildings will both have frontages along Beach 67th Street and will replace the currently occupied two-family home, parking lot, and vacant land. The existing improved two-story building, currently used by the Battalion Pentecostal Assembly Church, will remain but the air rights will be transferred to Projected Site 1. Projected Site 2 (not under applicant control) is currently occupied by the Resort Nursing Home which consists of two eight-story buildings with a total of 280 beds and 65 space off-street parking lot serving the nursing home. A residential building would replace the existing nursing home and off-street parking lot and would yield 221 dwelling units (44 units would be set aside as affordable) and 100. parking spaces. Projected Site 2 would be located between Beach 67th Street and Beach 68th Street.

All analyses were conducted according to the *CEQR Technical Manual* and impacts were determined based on a comparison between the future with the proposed condition (With-Action condition) and the future without the proposed condition (No Action Condition). The analyses consider the opening year of the project in 2022 to identify potential impacts, and if warranted, determine feasible mitigation measures that would be appropriate to address those impacts. A total of 10 intersections and two pedestrian elements meet the CEQR threshold and were analyzed. None of the bus routes, the subway line, or the subway station elements meet the CEQR thresholds for analysis. A crash analysis was performed for all intersections and roadway links within a 0.25-mile radius of the rezoning parcels and any intersections analyzed for traffic outside of this area. Detailed 24-hour off-street parking accumulation tables were developed for each current and proposed land uses on Projected Sites 1 and 2.

2.11.2 Preliminary Analysis Methodology and Screening Assessment

Background

Table 2.11-1 provides a summary of the proposed development program and a summary of the incremental change between the Existing condition and the proposed development program.

Table 2.11-1: Proposed Development Program and Increment

Components	Projected Site 1 (Block 16040)		Projected Site 2 (Block 16041)		Total	
	Increment	Development	Increment	Development	Increment	Development
Residential	-2 DU	0 DU	221 DU	221 DU	219 DU	221 DU
AIRS (Senior Housing)	84 DU	84 DU	0 DU	0 DU	84 DU	84 DU
School	500 Students	500 Students	0 Students	0 Students	500 Students	500 Students
Nursing Home	0 Beds	0 Beds	-280 Beds	0 Beds	-280 Beds	0 Beds
Source: Brisa Evergreen LLC and God's Battalion of Prayer Properties						

Trip generation factors for the proposed project were developed based on information from the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, *East New York Rezoning FEIS*, *American Community Survey (ACS) 2016 Journey to Work (JTW) 5-Year data*, *New York City Department of Transportation (NYCDOT)*, 2012 *Census Transportation Planning Products (CTPP) Reverse Journey to Work (RJTW) data*, *ITE Trip Generation Manual, 10th Edition*, and *field surveys conducted for the Resort Nursing Home in April, 2019*, and are summarized in **Table 2.11-2** below.

For the purposes of trip generation and screening, rates were determined for five peak hours as necessary:

- Weekday AM Peak Hour: This includes trip generation across all land uses primarily with the journey from home to work and from home to school;
- Weekday Midday Peak Hour: This includes trip generation for all land uses;
- Weekday Afternoon Peak Hour: Since the school is projected to operate between 7:30 AM and 4:00 PM, this period was selected based on the projected dismissal of employees and students from the school. The peak hour for trip generation is associated primarily with the journey from school to home;
- Weekday PM Peak Hour: The peak hour for residential trip generation is associated primarily with the journey from work to home. This peak hour does not overlap with the school as dismissal has already occurred and It is assumed that there will be few, if any, after-school activities;
- Saturday Midday Peak Hour: This includes trip generation for all land uses (except the school which is closed).

<u>Residential (Market Rate and Affordable)</u>

The daily person trip generation rate, temporal distributions, and truck trip generation rates are from the *CEQR Technical Manual*. Directional distributions are from the *No. 7 Subway Extension-Hudson Yard Rezoning and Development Program FGEIS,* 2004. Modal split estimates and AM/PM auto occupancy were derived from the ACS (2012-2016) JTW data for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04 located proximate to the rezoning area. Midday and Saturday auto occupancy were calculated by multiplying the AM/PM auto occupancy by 1.4 as per the *East New York Rezoning FEIS, 2016*.

Table 2.11-2: Transportation Planning Factors
Beach 67th Street Rezoning EAS

Land Use:	Residential (Market and Affordable)		Senior Housing (AIRS)		School (Students)		School (Parents)		School (Staff)		Nursing Home	
Trip Generation:	(1)		(1)		(1)		(1)		(1)		(10)	
Daily Person Trips												
Weekday	8.075		8.075		2.0		4.0		2.0		3.32	
Saturday	9.6		9.6		0.0		0.0		0.0		2.52	
	per DU		per DU		per student		per student		per staff		per bed	
Temporal Distribution:	(1)		(1)		(1,5)		(7)		(1,5)		(10)	
AM	10.0%		10.0%		49.5%		50.0%		40.0%		7.5%	
MD	5.0%		5.0%		0.0%		0.0%		0.0%		7.2%	
Afternoon	6.8%		6.8%		49.5%		50.0%		40.0%		7.6%	
PM	11.0%		11.0%		1.0%		0.0%		1.0%		6.6%	
SAT	8.0%		8.0%		0.0%		0.0%		0.0%		16.0%	
In/Out Splits:	(2)		(2)		(6,8)		(6,8)		(6,8)		(10)	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	15%	85%	15%	85%	100%	0%	100%	0%	100%	0%	72%	28%
MD	50%	50%	50%	50%	0%	0%	0%	0%	0%	0%	52%	48%
Afternoon	68%	32%	68%	32%	0%	100%	0%	100%	0%	100%	37%	63%
PM	70%	30%	70%	30%	0%	100%	0%	100%	0%	100%	33%	67%
SAT	50%	50%	50%	50%	0%	0%	0%	0%	0%	0%	52%	48%
Modal Splits:	(3)		(3)		(7)		(7)		(9)		(9)	
	All Periods		**All Periods**		**AM/ Afternoon**	**PM**	**AM/ Afternoon**	**PM**	**All Periods**		**All Periods**	
Auto	41.7%		41.7%		27.0%	39.0%	27.0%	39.0%	64.1%		64.1%	
Taxi	0.4%		0.4%		0.0%	0.0%	0.0%	0.0%	0.5%		0.5%	
Public Bus	14.6%		14.6%		2.0%	3.0%	2.0%	3.0%	10.6%		10.6%	
Subway	37.8%		37.8%		1.0%	2.0%	1.0%	2.0%	13.5%		13.5%	
Walk/Other	5.5%		5.5%		38.0%	56.0%	38.0%	56.0%	11.4%		11.4%	
School Bus					32.0%	0.0%	32.0%	0.0%				
	100.0%		100.0%		100.0%	100.0%	100.0%	100.0%	100.0%		100.0%	
Vehicle Occupancy:	(3) **AM/PM**	(3,4) **MD/SAT**	(3) **AM/PM**	(3,4) **MD/SAT**	(6)		(6)		(9)		(9)	
Auto	1.08	1.51	1.08	1.51	1.3		1.3		1.09		1.09	
Taxi	1.08	1.51	1.08	1.51	1.3		1.3		1.09		1.09	
School Bus					35							
Truck Trip Generation:	(1)		(1)		(2)						(11)	
Daily Truck Trips												
Weekday	0.060		0.060		0.030						0.061	
Saturday	0.020		0.020		0.030						0.004	
	per DU		per DU		per student						per bed	
AM	12.0%		12.0%		9.6%						11.8%	
MD	9.0%		9.0%		11.0%						35.3%	
Afternoon	2.0%		2.0%		1.0%							
PM	2.0%		2.0%		1.0%						0.0%	
SAT	9.0%		9.0%		0.0%						0.0%	
Truck In/Out Splits	**In**	**Out**	**In**	**Out**	**In**	**Out**					**In**	**Out**
AM/MD/Afternoon/PM/SAT	50%	50%	50%	50%	50%	50%					50%	50%

Sources:

1 CEQR Technical Manual (2014).

2 Based on data from No. 7 Subway Extension-Hudson Yard Rezoning and Development Program FGEIS, 2004.

3 Based on ACS 2012-2016 Journey to Work 5-Year data for tracts 954, 964, 942.02, 972.02, 972.03, and 972.04.

4 Midday and Saturday auto occupancy determined by applying a multiplier (1.4) to the AM/PM rate based on *East New York Rezoning EIS* , 2015.

5 PM Temporal split based on remainder of CEQR Technical Manual distribution for students during AM & Afternoon hours.

6 Based on *Brownsville Ascend Charter School Transportation Assessment, 2011* as used for *East New York Rezoning FEIS,2016.*

7 Based on data provided by NYC DOT.

8 Assumed by applicant that any after school activities will either take place immediately upon dismissal or occur outside any peak hours.

9 Based on 2012-2016 ACS Reverse Journey to Work for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04.

10 Based on ITE Trip Generation Manual, 10th Edition (620 - Nursing Home).

11 Based on field survey counts for the Resort Nursing Home in April, 2019.

AIRS (Senior Housing)

The daily person trip generation rate, temporal distributions, and truck trip generation rates are from the *CEQR Technical Manual* (Residential, 3 or more floors). Directional distributions are from the *No. 7 Subway Extension-Hudson Yard Rezoning and Development Program FGEIS*, 2004. Modal split estimates and AM/PM auto occupancy were derived from the *ACS (2012-2016) JTW* data for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04. Midday and Saturday auto occupancy was calculated by multiplying the AM/PM auto occupancy by 1.4 as per the *East New York Rezoning FEIS*.

Charter Elementary School

Students

The daily person trip generation rate and temporal distribution are from the *CEQR Technical Manual*, and the assumption that all after school activities would encompass the remaining 1% of trips not included in other peak hours as per the *CEQR Technical Manual*. The modal split was provided by NYCDOT. The vehicle occupancy was derived from the *Brownsville Ascend Charter School Transportation Assessment*. The directional distributions are from the *Brownsville Ascend Charter School Transportation Assessment* and the assumption from the applicant that most after school activities would occur either immediately upon school closure or outside any peak hours. It was assumed that all auto trips would be to either drop-off or pick-up students by parents/caregivers. Therefore, each generated vehicle would constitute two trips (one in trip and one out trip). Truck trip generation was based on data from the 2004 *No. 7 Subway Extension-Hudson Yard Rezoning and Development Program FGEIS*.

Parents

The daily person trip generation rate for parents are from the 2020 *CEQR Technical Manual*. This factor was applied to all Student trips, except for student trips by school bus. NYCDOT recommended parent temporal distribution to be 50% during both the AM and Afternoon peak hours. As recommended by NYCDOT, an equal number of both "In" trips and "Out" trips were projected during the AM and Afternoon peak hours. The same modal split and directional distribution assumptions used for students were used for parents.

Staff

The daily person trip generation rate for staff are from the 2020 *CEQR Technical Manual*. Modal splits and vehicle occupancy were derived from 2012-2016 *ACS RJTW* data for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04. The directional distribution was derived from the *Brownsville Ascend Charter School Transportation Assessment* and the assumption from the applicant that most after school activities would occur either immediately upon school closure or outside any peak hours. Temporal distributions are from the 2020 *CEQR Technical Manual* and the assumption from the applicant that most after school activities would occur either immediately upon school closure or outside any peak hours.

Nursing Home

The daily person trip generation rate, temporal distribution, and directional distribution were derived from the *ITE Trip Generation Manual, 10th Edition* (620 - Nursing Home). The modal splits and vehicle occupancy were taken

from the 2012-2016 *ACS RJTW* data for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04. The truck trip generation rates were derived from field survey counts conducted at the *Resort Nursing Home* on Saturday, April 13th, and Tuesday, April 16th, 2019.

CEQR Transportation Analysis Screening

The *CEQR Technical Manual* provides a methodology for evaluating the potential impacts of a proposed project on the transportation system. A trip generation analysis based on the proposed development program is prepared to determine the expected number of person and vehicle trips that the proposed project would generate. This trip generation is compared to the Level 1 screening thresholds defined in the *CEQR Technical Manual* (50 peak hour vehicle trip-ends, 200 peak hour pedestrian, subway, or bus trips). If the proposed project's trip generation exceeds the Level 1 threshold, a Level 2 screening analysis is warranted.

In the Level 2 screening analysis, project-generated trips are assigned to specific intersections, transit lines, and pedestrian elements. Upon assignment of trips, if the proposed project generates 50 or more peak hour vehicle trips through an intersection, 50 or more peak hour bus passengers assigned to a single bus line (in one direction), 200 or more subway passengers at a single subway station or line, or 200 pedestrians or 20 students at any pedestrian element, then a detailed analysis of that mode would be warranted to evaluate the potential for significant impacts on the transportation network.

Trip Generation Summary

Table 2.11-3 shows the Project-Generated Trip ends for all trips and student trips, respectively. Approximately 1,220 total person trips are projected during the weekday AM peak hour, 53 during the weekday midday peak hour, 1,144 during the weekday Afternoon peak hour, 227 during the weekday PM peak hour, and 121 during the Saturday peak hour.

The proposed rezoning would generate approximately 298 total vehicle trip ends during the weekday AM peak hour, -6 during the weekday midday peak hour, 262 during the weekday Afternoon peak hour, 73 during the weekday PM peak hour, and -3 during the Saturday peak hour as shown in **Table 2.11-4**.

The proposed rezoning would generate approximately 203 total student walk trips during the weekday AM peak hour, 0 during the weekday midday peak hour, 203 during the weekday Afternoon peak hour, 6 during the weekday PM peak hour, and 0 during the Saturday peak hour as shown in **Table 2.11-5.**

Level 1 Screening

The Level 1 Screening evaluates the number of vehicle and person trip-ends by mode to determine if further analysis is warranted. For the purposes of the Level 1 Screening, all truck and school bus trips were converted to Passenger Car Equivalents (PCE) as per the *CEQR Technical Manual*.

Table 2.11-3: Trip Generation Summary
Beach 67th Street Rezoning EAS

Project Components:		Residential (Market and Affordable)		Senior Housing (AIRS)		School (Students)*		School (Parents)**		School (Staff)		Nursing Home		Total			Total (Student Only Trips)		
Size:		219 DU		84 DU		500 students		385 Parents		44 staff		-280 beds							
Peak Hour Trips:																			
AM		176		68		495		518		35		-70		1,222			495		
Midday		88		34		0		0		0		-67		55			0		
Afternoon		120		46		495		518		35		-71		1,143			495		
PM		194		75		10		8		1		-61		227			10		
Saturday		168		65		0		0		0		-113		120			0		
Person Trips:																Net			Net
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total	In	Out	Total
AM	Auto	11	62	4	24	134	0	103	103	22	0	-32	-13	242	176	418	134	0	134
	Taxi	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	Public Bus	4	22	1	8	10	0	8	8	4	0	-5	-2	22	36	57	10	0	10
	Subway	10	56	4	22	5	0	4	4	5	0	-7	-3	21	79	100	5	0	5
	Walk/Other	1	8	1	3	188	0	145	145	4	0	-6	-2	333	154	486	188	0	188
	School Bus	0	0	0	0	158	0	0	0	0	0	0	0	158	0	158	158	0	158
	Total	26	149	10	57	495	0	259	259	35	0	-50	-20	775	445	1,220	495	0	495
Midday	Auto	19	19	7	7	0	0	0	0	0	0	-22	-21	4	5	9	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Public Bus	6	6	2	2	0	0	0	0	0	0	-4	-3	4	5	9	0	0	0
	Subway	17	17	6	6	0	0	0	0	0	0	-5	-4	18	19	37	0	0	0
	Walk/Other	2	2	1	1	0	0	0	0	0	0	-4	-4	-1	-1	-2	0	0	0
	School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	44	44	16	16	0	0	0	0	0	0	-35	-32	25	28	53	0	0	0
Afternoon	Auto	34	16	13	6	0	134	103	103	0	22	-17	-29	133	252	385	0	134	134
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Public Bus	12	6	5	2	0	10	8	8	0	4	-3	-5	22	25	46	0	10	10
	Subway	31	15	12	6	0	5	4	4	0	5	-4	-6	43	29	72	0	5	5
	Walk/Other	5	2	2	1	0	188	145	145	0	4	-3	-5	149	335	483	0	188	188
	School Bus	0	0	0	0	0	158	0	0	0	0	0	0	0	158	158	0	158	158
	Total	82	39	32	15	0	495	259	259	0	35	-27	-45	346	798	1,144	0	495	495
PM	Auto	56	25	22	9	0	4	0	3	0	1	-13	-26	65	16	81	0	4	4
	Taxi	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
	Public Bus	20	9	8	3	0	0	0	0	0	0	-2	-4	26	8	34	0	0	0
	Subway	51	22	20	8	0	0	0	0	0	0	-3	-6	68	24	92	0	0	0
	Walk/Other	8	3	3	1	0	6	0	5	0	0	-2	-5	9	10	19	0	6	6
	School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	136	59	53	21	0	10	0	8	0	1	-20	-41	169	58	227	0	10	10
Saturday	Auto	35	35	14	14	0	0	0	0	0	0	-38	-35	11	14	25	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Public Bus	12	12	5	5	0	0	0	0	0	0	-6	-6	11	11	22	0	0	0
	Subway	32	32	12	12	0	0	0	0	0	0	-8	-7	36	37	73	0	0	0
	Walk/Other	5	5	2	2	0	0	0	0	0	0	-7	-6	0	1	1	0	0	0
	School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	84	84	33	33	0	0	0	0	0	0	-59	-54	58	63	121	0	0	0
Vehicle Trips:																Total Balanced			Total Balanced
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total	In	Out	Total
AM	Auto	10	57	4	22	103	103	0	0	20	0	-29	-12	108	170	278	103	103	206
	Taxi	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	Taxi (Balanced)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0
	School Bus (Balanced)	0	0	0	0	5	5	0	0	0	0	0	0	5	5	10	5	5	10
	Truck	1	1	0	0	1	1	0	0	0	0	-1	-1	1	1	2	1	1	2
	Total	12	60	4	22	109	109	0	0	20	0	-30	-13	115	178	293	109	109	218
Midday	Auto	13	13	5	5	0	0	0	0	0	0	-20	-19	-2	-1	-3	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	School Bus (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	1	1	0	0	1	1	0	0	0	0	-3	-3	-1	-1	-2	1	1	2
	Total	14	14	5	5	1	1	0	0	0	0	-23	-22	-3	-2	-5	1	1	2
Afternoon	Auto	31	15	12	6	103	103	0	0	0	20	-16	-27	130	117	247	103	103	206
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	School Bus (Balanced)	0	0	0	0	5	5	0	0	0	0	0	0	5	5	10	5	5	10
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	31	15	12	6	108	108	0	0	0	20	-16	-27	135	122	257	108	108	216
PM	Auto	52	23	20	8	0	3	0	0	0	1	-12	-24	60	11	71	0	3	3
	Taxi	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
	Taxi (Balanced)	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0
	School Bus (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	54	24	20	8	0	3	0	0	0	1	-12	-24	62	12	74	0	3	3
Saturday	Auto	23	23	9	9	0	0	0	0	0	0	-35	-32	-3	0	-3	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	School Bus (Balanced)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	23	23	9	9	0	0	0	0	0	0	-35	-32	-3	0	-3	0	0	0

Notes: *Student generated Auto trips consist of 1 vehicle trip IN and 1 vehicle trip OUT. School bus trips consist of 1 vehicle trip IN and 1 vehicle trip OUT.
** Based on the survey results, NYCDOT recommended that Parent trips should be calculated using a 1.3 factor against total Student trips

Table 2.11-4: Incremental Project-Generated Trip Ends

Components	Auto	Taxi (Balanced)	Bus/ Truck (1.5 PCE)*	Total Vehicles	Public Bus	Subway	Walk/Other	On-Street Parking Walk Trips	Total Walk
Weekday AM Peak Hour	278	2	18	298	57	100	486	43	686
Weekday Midday Peak Hour	-3	0	-3	-6	9	37	-2	0	44
Weekday Afternoon Peak Hour	247	0	15	262	46	72	483	6	607
Weekday PM Peak Hour	71	2	0	73	34	92	19	18	163
Saturday Midday Peak Hour	-3	0	0	-3	22	73	1	14	110

Notes: Truck and School Bus trips converted to Passenger Car Equivalents (PCE) as per CEQR Technical Manual
Shaded cells exceed 50 peak hour vehicle trip ends or 200 peak hour pedestrian trip ends

Table 2.11-5: Incremental Project-Generated Trip Ends (Pedestrian Students Only)

Components	Public Bus	Subway	Walk/Other	On-Street Parking Walk Trips	Total Walk
AM Peak Hour	10	5	188	0	203
Midday Peak Hour	0	0	0	0	0
Afternoon Peak Hour	10	5	188	0	203
PM Peak Hour)	0	0	6	0	6
Saturday Midday Peak Hour	0	0	0	0	0

Note: Shaded cells exceed 200 peak hour pedestrian trip ends

Traffic

As detailed in **Table 2.11-4**, the proposed project would generate greater than 50 vehicle trips during the weekday AM peak hour, weekday Afternoon peak hour, and weekday PM peak hour. As this exceeds the Level 1 threshold of 50 vehicle trip-ends, a Level 2 screening assessment was prepared for the proposed project during these peak hours.

Subway

The proposed project is located just over one block north of the Beach 67th Street – Arverne by the Sea subway station, which is served by the A Train. As shown in **Table 2.11-4**, the proposed project would not generate greater than 200 subway trips during any of peak hours, for all trips and student only trips. Therefore, a quantitative analysis of subway capacity would not be warranted.

Bus

The project site is served by three bus routes within an approximately quarter-mile walk**.** The Q22 local bus operates along Beach Channel Drive between Roxbury and Far Rockaway. The QM17 express bus connects Far Rockaway and Midtown Manhattan with a stop on Beach Channel Drive. The Q52 Select Bus Service route connects Arverne and Woodside with a stop on Beach 67th Street at the Beach 67th Street subway station. As shown in **Table 2.11-4**, the proposed project would generate fewer than 200 bus trips during each of the peak hours for all trips and student only trips. Therefore, a quantitative analysis of bus route capacity would not be warranted.

Pedestrian

In addition to walk-only trips, all bus and subway trips generated by the proposed project would begin or end as pedestrian trips. It was assumed that all auto trips ending in an on-site parking space do not constitute a walk trip and that auto trips ending in an on-street parking space do constitute a walk trip. Auto pick-up/drop-offs, taxi trips, and school bus trips were assumed to occur at the entrance to the building, and as such, no walk trips were assigned to the pedestrian network for these modes. The proposed project would exceed the Level 1 threshold of 200 trips during the weekday AM peak hour and the weekday Afternoon peak hour for both all trips and student only trips as shown in **Table 2.11-4 and Table 2.11-5**, respectively. Therefore, a Level 2 screening assessment was prepared for the proposed project during these peak hours.

Level 2 Screening

For the Level 2 screening assessment, auto and pedestrian trips were assigned to intersections and pedestrian elements to determine whether a detailed quantitative analysis would be necessary. Reverse Journey to Work data from the 2012 Census Transportation Planning Package and population statistics for rezoning area Census Tracts and Census Block Groups were used to determine origin and destination patterns. This methodology is discussed below in more detail.

Traffic

Using Reverse Journey to Work data from the 2012 CTPP data, vehicular trips were assigned to an origin/destination zone to either the northeast, northwest, southeast, or southwest of the rezoning area and

routed accordingly along the local roadway network. The unique geography and road network geometry of this area was important to take into consideration because vehicular trips are much more concentrated since routing options on the peninsula are more limited than in most other parts of New York City. Reverse Journey to Work data demonstrated that the vast majority of trips would originate either east or west of the study area. Additionally, given the limited accessibility of the study area, it was assumed all trip generation sources (Students, Residential, Nursing Home, etc.) would follow the same general route to the study area from their origin/destination points as demonstrated by the Reverse Journey to Work Data. Ultimately, it was projected that most vehicular trips would access the area by either Beach Channel Drive, Arverne Blvd/Rockaway Beach Blvd., or the Shore Front Parkway.

As detailed in **Table 2.11-4**, the proposed rezoning would generate 298 total vehicle trips during the weekday AM peak hour, 262 during the weekday Afternoon peak hour, and 73 during the weekday PM peak hour. A limit of 15 vehicles bound for Projected Site 1 could park on-site (nine spaces for the AIRS building and six for the charter elementary school) and all remaining vehicles would park on-street. As per the zoning code, the required on-site parking at Projected Site 2 would accommodate up to 100 vehicles while all remaining vehicles were assumed to park on-street. However, it was conservatively assumed that all vehicles generated by the rezoning during all time periods were assigned through the Projected Site 1 and Projected Site 2 driveways. While Projected Site 2 could have access on both Beach 67th and Beach 68th Streets, in order to be conservative, it was assumed that all auto trips would access the site via Beach 67th Street, the same street by which all vehicles must access Projected Site 1. **Table 2.11-6** shows the number of vehicles assigned to area intersections and proposed analysis locations.

The proposed rezoning would generate greater than 50 vehicle trips (in PCE) during the weekday AM, weekday Afternoon, and weekday PM peak hours as indicated in **Table 2.11-6.** As such, a quantitative analysis of traffic conditions is warranted at 10 intersections during the weekday AM, nine intersections during the Afternoon peak hour, and one intersection during the PM peak hour within the study area. Quantitative analysis would not be warranted for the weekday and Saturday midday peak hours as project-generated trips would not meet the 50-vehicle threshold. **Figure 2.11-1** demonstrates the locations of these intersections relative to the study area.

Table 2.11-6: Project Generated Vehicle Trips by Intersection (with PCE)

Intersection	AM Peak Hour	Afternoon Peak Hour	PM Peak Hour
Beach Channel Dr and Beach 68th St	83	67	31
Beach Channel Dr and Beach 67th St	185	112	19
Beach Channel Dr and Beach 66th St	127	110	31
Thursby Ave and Beach 68th St	67	87	30
Thursby Ave and Beach 67th St	116	151	54
Thursby Ave and Beach 66th St	50	64	23
Beach Channel Dr and Beach 73rd St	115	100	34
Rockaway Beach Blvd and Beach 73rd St	76	66	23
Rockaway Beach Blvd and Beach 67th St	53	47	7
Beach Channel Dr. and Beach 62nd St/Arverne Blvd.	125	109	31
Note: Shaded cells indicate intersections that are projected to exceed 50 peak hour vehicles			

Figure 2.11-1



Intersections Exceeding CEQR Threshold

Legend

★ Analysis Intersections

N

Beach Channel Drive is a two-way eastbound/westbound roadway with one travel lane in each direction and curbside parking on both sides of the street. The northbound and southbound lanes are separated by a double yellow line and there are five-foot Class II bicycle lanes in both directions between the parking and travel lanes. The QM 17 and Q22 buses operate along Beach channel Drive in the study area.

Rockaway Beach Boulevard is a two-way eastbound/westbound roadway with one to two travel lanes in each direction separated by a raised concrete median with left turn lanes. Curbside parking is generally provided in both directions. The Q22 and Q52-SBS bus routes operate along Rockaway Beach Boulevard in the study area.

Thursby Avenue is a two-way eastbound/westbound roadway with curbside parking in both directions.

Beach 66th Street is a two-way northbound/southbound roadway that operates with one travel lane and curbside parking in both directions. The northbound and southbound lanes are separated by a double yellow line between Thursby Avenue and Beach Channel Drive.

Beach 67th Street and Beach 68th Street are two-way northbound/southbound roadways separated by landscaped medians that operate with one travel lane and curbside parking in both directions.

Pedestrians

Pedestrian and student trips were assigned to the pedestrian network based on their origins and destinations (to/from subway/bus stops, to/from parked cars, to/from surrounding residential blocks). Overall pedestrian walk-only trips were distributed north and south along Beach 67th Street and east and west along Beach Channel Drive and Thursby Avenue to/from the residential neighborhoods surrounding the projected development sites. Auto trip pedestrians between the sites and on-street parking spaces were distributed the same as walk-only trips. Bus and subway trips were routed south to the Beach 67th Street subway station and bus stops on Beach Channel Drive and Beach 67th Street.

As shown in **Table 2.11-4**, the proposed rezoning would generate 486 walk-only pedestrian trips during the weekday AM peak hour and 483 during the weekday Afternoon peak hour. In addition, some auto, and all bus and subway trips have a pedestrian component and these trips pass through pedestrian elements within the rezoning area. As a result, the total pedestrian trips (all modes) generated by the proposed rezoning would be 686 trips during the weekday AM peak hour and 607 during the weekday Afternoon peak hour.

As shown in **Table 2.11-5**, the proposed rezoning would generate 188 walk-only student trips during the weekday AM and Afternoon peak hours. Student trips were assigned origin/destination points based on the relative Pre-K through 6th Grade age populations of the surrounding Census Block Groups within approximately 0.25-mile radius, using the ACS (2012-2016) for census tracts 954, 964, 942.02, 972.02, 972.03, and 972.04. In addition, on-street parking auto, and all bus and subway trips have a pedestrian component that pass through pedestrian elements within the rezoning area. As a result, the total pedestrian

trips (all modes) generated by the proposed rezoning would be 203 student trips during the weekday AM and Afternoon peak hours.

All new pedestrians projected from the proposed rezoning were routed through all pedestrian elements (sidewalk, crosswalks, and corners) within the study area during the weekday AM and Afternoon peak hours. As shown in **Table 2.11-7**, only two locations meet the threshold for a quantitative analysis. The East sidewalk, located on Beach 67th Street between Projected Site 1 and Beach Channel Drive is projected to exceed 200 new pedestrians during the weekday AM and Afternoon peak hours. The east crosswalk of the Beach Channel Drive and Beach 67th Street intersection is projected to exceed 200 new pedestrians during the weekday AM peak hour. As such, quantitative analyses would be warranted at these locations during these periods **(Figure 2.11-2)**. For the remaining pedestrian elements, fewer than 200 pedestrians are projected and a quantitative analysis would not be warranted.

Figure 2.11-2



Pedestrian Analysis Locations

Table 2.11-7: Projected Pedestrian Volumes at Pedestrian Elements

Sidewalks	Pedestrian Trips (All)			
	AM	Exceeds CEQR Threshold?	Afternoon	Exceeds CEQR Threshold?
East sidewalk between Projected Site 1 and Beach Channel Drive	445	Yes	407	Yes
East crosswalk on Beach Channel Drive and Beach 67th Street	208	Yes	188	No

Student pedestrian volumes were routed through uncontrolled crossings in the study area during both the Weekday AM and Afternoon peak hours. As identified in **Table 2.11-8**, two intersections are projected to exceed 20 new students during the AM and afternoon peak hours including the Thursby Avenue and Beach 68th Street intersection and the Thursby Avenue and Beach 66th Street intersection.

Table 2.11-8: Projected Student Volumes at Uncontrolled Crosswalks

Crosswalks	Pedestrian Trips (Students)			
	AM	Exceeds CEQR Threshold?	Afternoon	Exceeds CEQR Threshold?
Thursby Avenue and Beach 68th Street				
South Crosswalk	17	Yes	17	Yes
North Crosswalk	8		8	
Thursby Avenue and Beach 67th Street				
East Crosswalk	8	No	8	No
West Crosswalk	8		8	
Thursby Avenue and Beach 66th Street				
East Crosswalk	16	Yes	16	Yes
West Crosswalk	8		8	

2.11.3 Transportation Analysis Methodologies

The operational analysis methodologies and significant impact criteria, as defined in the *CEQR Technical Manual*, have been provided for traffic, pedestrians, parking, and safety.

Traffic

The intersection capacity and level of service (LOS) analysis was performed in accordance with the standard analytical methodology for signalized and unsignalized intersections prescribed in the Highway Capacity Manual (HCM), published by the Transportation Research Board (TRB). The capacity analysis for signalized and unsignalized intersections was performed using Synchro 10, with results computed using the HCM methodology. The LOS for signalized and unsignalized intersections are expressed in terms of average stopped delay experienced per vehicle.

The LOS of a signalized intersection is defined in terms of control delay per vehicle (seconds per vehicle). Control delay is the portion of total delay experienced by a motorist that is attributed to the traffic signal. For unsignalized intersections, the total delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position.

The traffic service and operating conditions are qualitatively expressed in terms of six LOS categories "A" through "F", where LOS "A" represents the best traffic flow condition with little or no delay, and LOS "F" describes the worst operating condition with extensive congestion and delays. In between, a LOS "C" represents a stable flow of good traffic operation, and is normally used as the desirable design objective. The LOS "D" is generally considered to be a minimum acceptable traffic operating condition in urban areas for short time periods. The LOS "E" represents the theoretical capacity of the particular intersection approach, and is defined as the maximum flow volume that can reasonably be expected to pass a point or a uniform section of a lane or roadway under the prevailing roadway, travel demand, and traffic control conditions. **Table 2.11-9** shows the LOS criteria for signalized and unsignalized intersections.

Table 2.11-9: Level of Service Criteria – Signalized and Unsignalized Intersections

LOS	Signalized	Unsignalized
	Control Delay (seconds/vehicle)	Control Delay (seconds/vehicle)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0
C	> 20.0 and ≤ 35.0	> 15.0 and ≤ 25.0
D	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0
E	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0
F	> 80.0	> 50.0
Source: Highway Capacity Manual, 2000		

According to the criteria presented in the *CEQR Technical Manual*, signalized intersection impacts are considered significant and require examination of mitigation if they result in an increase in the Future With-Action condition of 5 or more seconds of delay in a lane group over Future No-Action levels beyond mid-LOS D. For Future No-Action LOS E, a 4-second increase in delay is considered significant. For Future No-Action LOS F, a 3-second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, or C in the Future No-Action condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of LOS D), or unacceptable LOS E or F in the Future With-Action condition.

For unsignalized intersections, the same criteria used for signalized intersection impact assessment would be used (mid-LOS D for unsignalized intersections is a 30-second delay). However, a minimum of 90 passenger-car-equivalents (PCE's) would also be needed in the Future With-Action condition in any peak hour for the minor street to trigger a significant impact.

Pedestrians

The pedestrian analyses were conducted following the methodologies presented in the 2010 HCM, pursuant to procedures detailed in the *CEQR Technical Manual*. LOS is calculated for all pedestrian facilities based on square feet per pedestrian (SFP) as shown in **Table 2.11-10**. Significant impacts were identified using the criteria outlined in the *CEQR Technical Manual*, which uses various sliding-scale formulas for different pedestrian elements and flow conditions**.**

Table 2.11-10: Level of Service Criteria – Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks (SFP)
	Non-Platoon Flow (SFP)	Platoon Flow (SFP)	
A	> 60	> 530	> 60
B	> 40 and ≤ 60	> 90 and ≤ 530	> 40 and ≤ 60
C	> 24 and ≤ 40	> 40 and ≤ 90	> 24 and ≤ 40
D	> 15 and ≤ 24	> 23 and ≤ 40	> 15 and ≤ 24
E	> 8 and ≤ 15	> 11 and ≤ 23	> 8 and ≤ 15
F	≤ 8	≤ 11	≤ 8

Note: SFP = square feet per pedestrian.
Source: *CEQR Technical Manual*.

Sidewalks

Sidewalk analysis is conducted using the analytical procedures described in the 2010 Highway Capacity Manual (HCM 2010). The primary performance measure for sidewalks is pedestrian space, expressed as SFP. The calculation of the sidewalk SFP is based on the two-way pedestrian volumes, the effective sidewalk width in feet (incorporating a buffer between walls, curbs, and obstructions), and average walking speed. Sidewalk LOS is further analyzed based on whether the observed pedestrian flow is generally "non-platoon" (uniform) or "platoon" (pedestrian surges emanating from a nearby bus stop, subway station, or crosswalk) during the peak hour being analyzed.

For sidewalks exhibiting non-platoon flow in non-CBD areas, average pedestrian space under the With-Action condition deteriorating within acceptable LOS C or better should generally not be considered a significant impact. If the pedestrian space under the With-Action condition deteriorates to LOS D or worse (less than 24.0 ft^2/p for non-platoon flow), then the determination of whether the impact is considered significant is based on a sliding scale that varies with the No-Action pedestrian space. Determination of significant impacts for sidewalks with non-platoon flow in a non-CBD area is summarized as follows:

- If the average pedestrian space under the No-Action condition is greater than 26.6 ft^2/p, then a decrease in pedestrian space under the With-Action condition to 24.0 ft^2/p or less (LOS D or worse) should be considered a significant impact. If the pedestrian space under the With-Action condition is greater than 24.0 ft^2 /p (LOS C or better), the impact should not be considered significant.
- If the average pedestrian space under the No-Action condition is between 5.1 and 26.6 ft^2/p a decrease in pedestrian space under the With-Action condition should be considered significant according to the sliding scale formula in Equation 16-8 or using Table 16-14 in the *CEQR Technical Manual.*
- If the decrease in average pedestrian space is less than value calculated from the formula in Equation 16-8 or Table 16-14 in the *CEQR Technical Manual*, the impact should not be considered significant.

- If the average pedestrian space under the No-Action condition is less than 5.1 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/p should be considered significant.

Crosswalks/Corners

Crosswalk and corner analyses are conducted at signalized intersections using the analytical procedures described in the 2010 Highway Capacity Manual (HCM 2010). The capacity of crosswalks and corners are evaluated based on pedestrian space measured in terms of square feet per pedestrian. To calculate pedestrian space for crosswalks, effective crosswalk widths, crosswalk length, signal timing, hourly two-way crosswalk volumes, conflicting hourly turning vehicles, and average walking speed (based on area users as determined by NYCDOT Signals) are required. To calculate pedestrian space for corner areas, corner length/width, hourly two-way crosswalk and cornering volumes, corner radius, and obstructions measured in square feet are required.

For corners and crosswalks at signalized intersections in non-CBD areas, the average pedestrian space that is considered acceptable ranges between LOS A and LOS C. If the pedestrian space deteriorates to worse than LOS C (less than 24.0 ft2/p), significant impacts are determined based on the following sliding scale as outlined in the *CEQR Technical Manual:*

- If the average pedestrian space under the No-Action condition is greater than 26.6 ft2/p, then a decrease in pedestrian space under the With-Action condition to 24.0 ft^2/p or less (LOS D or worse) should be considered a significant impact. If the pedestrian space under the With-Action condition is greater than 24.0 ft^2 /p (LOS C or better), the impact should not be considered significant.
- If the average pedestrian space under the No-Action condition is between 5.1 and 26.6 ft^2/p,a decrease in pedestrian space under the With-Action condition should be considered significant according to the sliding scale formula in Equation 16-7 or using Table 16-12 in the *CEQR Technical Manual.*
- If the decrease in pedestrian space is less than the value calculated from the formula in Equation 16-7 or Table 16-12 in the *CEQR Technical Manual*, the impact is not considered significant.

If the average pedestrian space under the No-Action condition is less than 5.1 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/p should be considered

Parking

The parking analysis identifies the extent to which on-street parking and off-street parking is available and utilized under Existing, No-Action, and With-Action conditions. The analysis takes into consideration projected changes in parking supply and demand within a 0.25-mile radius of the proposed project. The study provides a comparison between future parking needs versus availability to determine if a parking shortfall is likely as a result of the proposed project. According to the *CEQR Technical Manual*, if the proposed project generates more parking demand than it supplies within a 0.25-mile radius of the Project Site, this shortfall may be considered significant. However, if the project-generated parking demand can be fully

accommodated within the on-site project parking supply and on-street/off-street parking spaces within a 0.25-mile radius of the Project Site, then the shortfall would not be considered significant. Since this project is in Parking Zone 5, a parking shortfall may be considered significant if the parking demand generated would consume more than half the available on-street and off-street parking spaces within a 0.25-mile radius of the Project Site.

Vehicular and Pedestrian Safety

Crash data is collected for the most recent three-year period from NYCDOT and classified as Reportable, Non-Reportable, or Property Damage Only. For locations that are identified as a high-crash location, the safety assessment should include accident type and severity (including pedestrian and bicycle crashes), type of intersection control, and discernible patterns of crashes. Other factors should be also considered, such as high volumes of at-risk pedestrian age groups (children or the elderly), crossing locations with difficult sight lines, or uncontrolled locations. High-crash locations are defined as those with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available. The vehicular and pedestrian safety assessment will consider the projected vehicular and pedestrian traffic that would be added to each study intersection identified as a high crash location. Since one of the proposed land uses is a school, detailed signal, all-way stop, and enhanced crossing warrant analyses will be performed at any uncontrolled crossings where 20 or more students will be assigned to cross.

2.11.4 Assessment

Existing Conditions

Traffic

Data Collection
Traffic turning movement counts (TMCs) were performed at six critical intersections near the proposed rezoning sites in June 2018 on a mid-week day (June 6, 2018) when school was in session from 6:30 to 9:00 AM and 2:00 to 6:00 PM. Based on comments from NYCDOT, the study area was expanded after the initial TMCs to include five additional intersections counted in November 2019 on a mid-week day (November 21, 2019) when school was in session from 6:30 to 9:30 AM and 2:00 to 6:00 PM. Al of the counts were conducted using cameras for four classifications (cars, trucks, buses, and pedestrians). The TMC locations (seven signalized and four unsignalized) included the following intersections (see **Figure 2.11-1):**

June 2018

- Beach Channel Dr and Beach 68th St (unsignalized)
- Beach Channel Dr and Beach 67th St
- Beach Channel Dr and Beach 66th St
- Thursby Ave and Beach 68th St (unsignalized)
- Thursby Ave and Beach 67th St (unsignalized)

- Thursby Ave and Beach 66th St (unsignalized)

November 2019

- Beach Channel Drive and Beach 62nd Street
- Rockaway Blvd and Beach 67th Street
- Rockaway Blvd and Beach 73rd Street
- Beach Channel Drive and Beach 73rd Street
- Beach Channel Drive and Arverne Blvd

Ten Automatic Traffic Recorders (ATRs) were placed on study area roadways to calibrate the TMCs. Some ATRs were deployed in 2018 with the original TMCs for 11 consecutive days (including the TMC count day) between June 1st and June 11th, 2018, some were deployed in 2019 for seven consecutive days (to coincide with the TMCs requested by NYCDOT) between November 16 and November 22, 2019, and some during both periods.

- Northbound Beach 67th Street (between Beach Channel Drive and Thursby Avenue) – 2018 and 2019
- Southbound Beach 67th Street (between Beach Channel Drive and Thursby Avenue) – 2018 and 2019
- Westbound Thursby Avenue (between Beach 67th and Beach 66 Streets) - 2018
- Eastbound Thursby Avenue (between Beach 67th and Beach 66 Streets) - 2018
- Westbound Beach Channel Drive (between Beach 67th and Beach 66 Streets) – 2018 and 2019
- Eastbound Beach Channel Drive (between Beach 67th and Beach 66 Streets) – 2018 and 2019
- Northbound Beach 73rd Street (between Beach Channel Drive and Rockaway Beach Blvd) – 2019
- Southbound Beach 73rd Street (between Beach Channel Drive and Rockaway Beach Blvd) – 2019
- Westbound Rockaway Beach Blvd (between Beach 73rd Street and Schooner Street) – 2019
- Eastbound Rockaway Beach Blvd (between Beach 73rd Street and Schooner Street) – 2019

The ATR data collected in 2018 and 2019 were compared and it was determined that there were no discernable differences. As a result, the 2018 TMCs were not adjusted and the 2019 ATRs were used to balance the traffic volume network.

An inventory of the study area roadway network and intersections were performed to establish the existing physical characteristics including traffic control devices (i.e. traffic signals, stop signs, yield signs, etc.), roadway and lane widths, the number of travel lanes, lane utilization and turn prohibitions, driveway locations, and any other features that would affect traffic flow and intersection capacity analysis. Traffic signal timing data was obtained from the NYCDOT and was compared to the prevailing field conditions.

Volume Development

To establish a current baseline for evaluating the potential traffic impacts of the proposed project, analysis of existing roadway and traffic conditions in the study area was undertaken to serve as the foundation from which future traffic conditions are forecasted and evaluated. Since intersection traffic analysis is measured in terms of hourly volumes, it is essential to determine the critical peak hours during which the proposed project may have the greatest traffic impact on the surrounding roadway system. Based on the background traffic volumes and the peak hours of operation of the proposed developments, the peak hours for traffic analyses were identified as:

- Weekday AM Peak Hour: 6:45 - 7:45 AM;
- Weekday Afternoon Peak Hour: 3:45 - 4:45 PM;
- Weekday PM Peak Hour: 5:00 – 6:00 PM

Using the collected traffic volumes, balanced existing condition traffic networks were created for the weekday AM, Afternoon, and PM peak hours as provided in **Figures 2.11-3. 2.11-4. and 2.11-5**, respectively.

Analysis

Detailed intersection capacity analyses were performed at the six critical intersections within the study area using Synchro Traffic Analysis Software (Version 10) to assess existing traffic conditions. Traffic volumes, intersection geometry (lane utilization, lane widths, etc.), and signal timing (for signalized intersections) were used in the analysis. Field observations were collected to document prevailing travel conditions in the field including queue lengths, congestion, and estimates of LOS during the weekday AM, Afternoon, and PM peak hours as a check against the analysis results. The detailed results of the intersection analyses for the 2018 Existing condition weekday AM, Afternoon, and PM peak hours in terms of v/c ratios, delays, and LOS are summarized in **Table 2.11-11** for signalized intersections and **Table 2.11-12** for unsignalized intersections.

The 2018 Existing condition analysis results show that most movements at the seven signalized and four unsignalized intersections studied operate at mid-LOS-D or better during all peak hours. The exceptions include the eastbound approach (LOS E) during all time periods, the northbound through/right turn movements (LOS) E during the Afternoon peak hour, and the southbound approach (LOS D over 45 seconds during the AM peak hour and LOS F during the Afternoon and PM peak hours) at the signalized Beach Channel Drive and Beach 62nd Street intersection. In addition, the northbound approach, during the Afternoon and PM peak hours, and the southbound approach, during the PM peak hour, operate at LOS D (over 30 seconds) at the unsignalized Beach Channel Drive and Beach 68th Street intersection.

Figure 2.11-3
Beach 67th Street Rezoning
Existing Condition - Balanced Volumes
Weekday AM (6:45am - 7:45am)

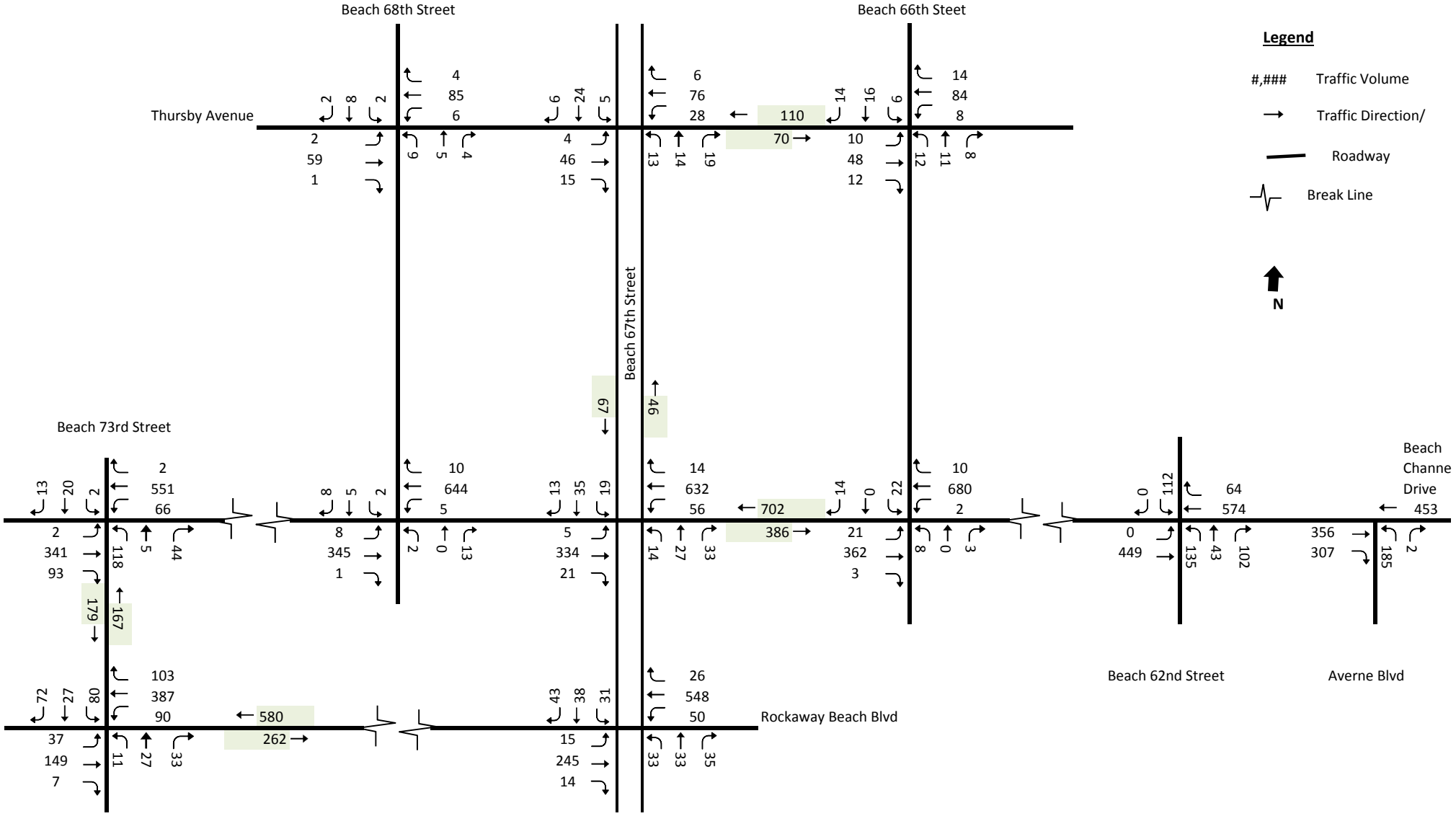


Figure 2.11-4
Beach 67th Street Rezoning
Existing Condition - Balanced Volumes
Weekday Afternoon (3:45pm - 4:45pm)

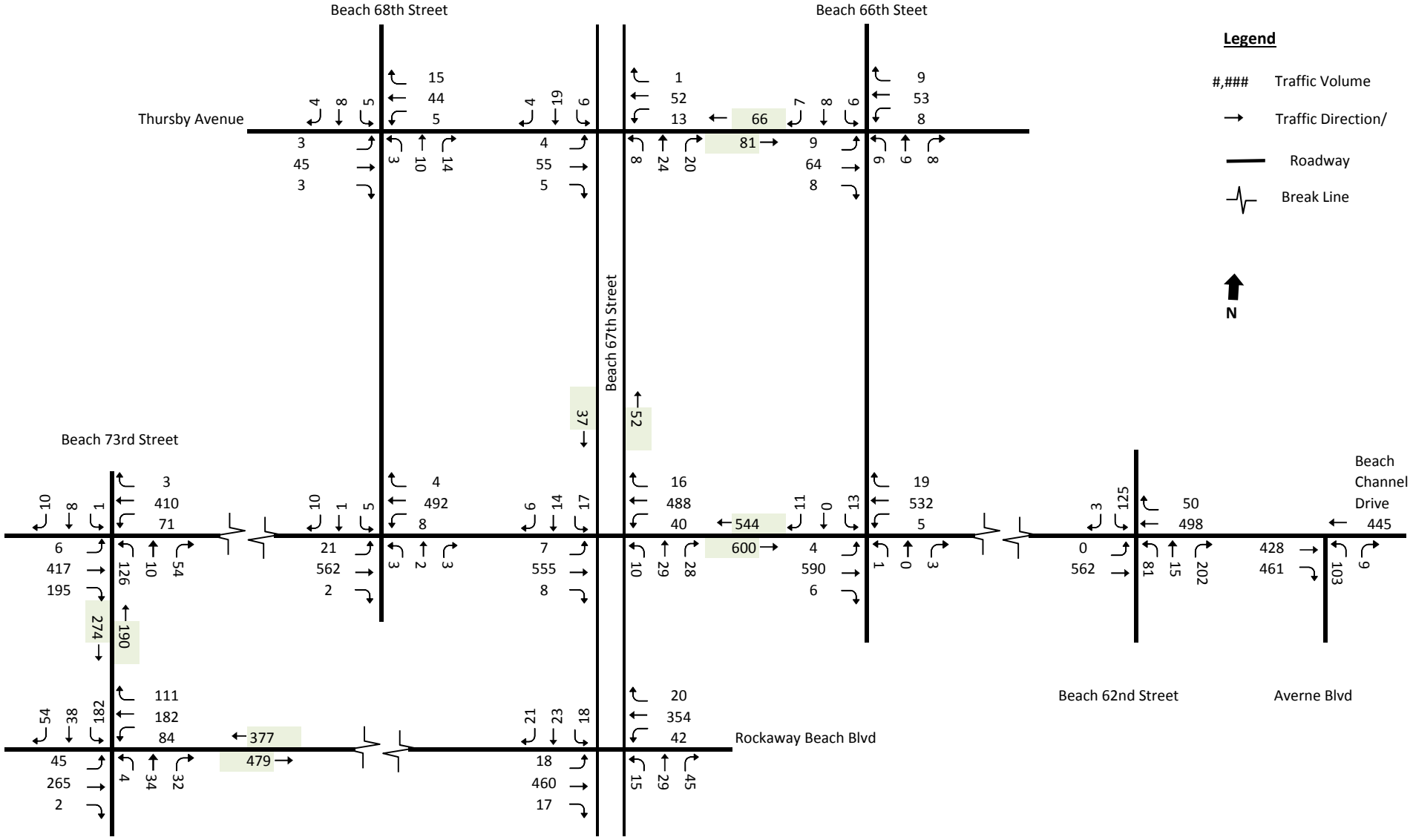


Figure 2.11-5
Beach 67th Street Rezoning
Existing Condition - Balanced Volumes
Weekday PM (5:00pm - 6:00pm)

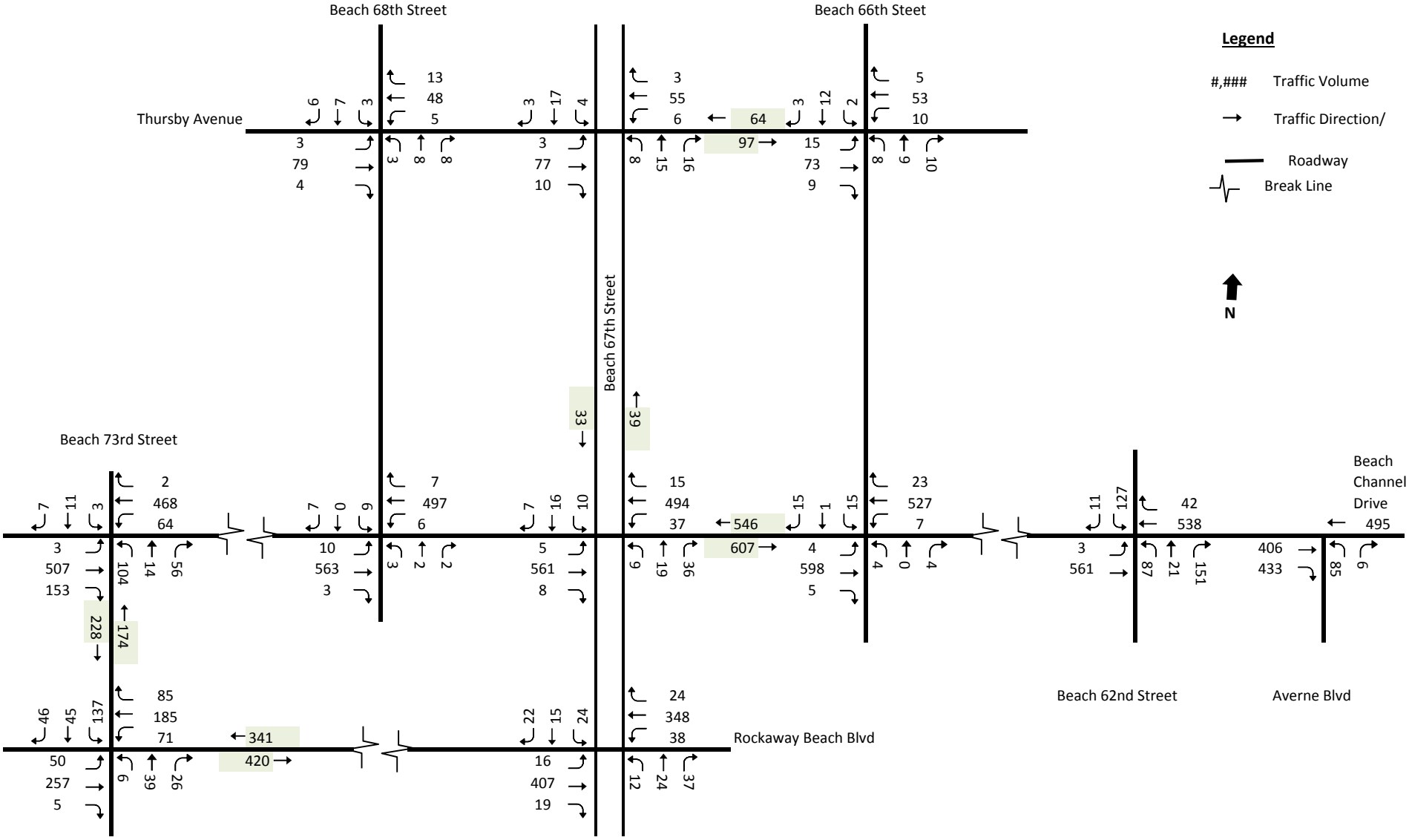


Table 2.11-11
Existing Condition Level of Service Results - Signalized Intersections

Int.	Existing Condition											
	Weekday AM Peak Hour				Weekday Afternoon Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Beach Channel Drive and Beach 67th Street												
EB	LTR	0.46	27.3	C	LTR	0.72	33.8	C	LTR	0.69	33.5	C
WB	LTR	1.00	35.6	D	LTR	0.79	13.8	B	LTR	0.77	13.1	B
NB	LTR	0.18	22.3	C	LTR	0.16	19.3	B	LTR	0.15	18.5	B
SB	LTR	0.19	22.1	C	LTR	0.10	21.2	C	LTR	0.08	21.0	C
	Int.		31.4	C	Int.		23.5	C	Int.		22.8	C
Beach Channel Drive and Beach 66th Street												
EB	LTR	0.52	15.3	B	LTR	0.76	13.9	B	LTR	0.71	12.8	B
WB	LTR	0.88	32.2	C	LTR	0.75	22.2	C	LTR	0.73	22.0	C
NB	LTR	0.03	20.0	B	LTR	0.01	19.5	B	LTR	0.02	19.8	B
SB	LTR	0.11	21.0	C	LTR	0.06	20.9	C	LTR	0.08	20.5	C
	Int.		25.8	C	Int.		18.0	B	Int.		17.5	B
Beach Channel Drive and Beach 62nd Street												
EB	LT	0.83	46.1	D	LT	0.88	51.9	D	LT	0.98	67.1	E
WB	TR	0.75	8.5	A	TR	0.63	6.6	A	TR	0.63	7.0	A
NB	LT	0.81	58.2	E	LT	0.46	37.0	D	LT	0.49	38.0	D
	R2-R	0.36	33.6	C	R2-R	0.80	54.0	D	R2-R	0.58	39.6	D
SB	L2-LTR	0.83	71.8	E	L2-LTR	0.62	43.8	D	L2-LTR	0.74	54.4	D
	Int.		33.3	C	Int.		34.0	C	Int.		39.4	D
Beach Channel Drive and Arverne Blvd												
EB	T	0.38	5.2	A	T	0.45	5.8	A	T	0.39	6.1	A
WB	T	0.66	30.4	C	T	0.59	26.4	C	T	0.66	30.0	C
NB	LR	0.59	38.9	D	LR	0.35	31.7	C	LR	0.31	31.0	C
	Int.		22.4	C	Int.		17.5	B	Int.		20.3	C
Rockaway Beach Blvd and Beach 67th Street												
EB	LTR	0.21	7.9	A	LTR	0.33	7.6	A	LTR	0.31	7.7	A
WB	L	0.12	9.0	A	L	0.12	9.2	A	L	0.11	8.9	A
	TR	0.31	9.9	A	TR	0.20	9.0	A	TR	0.20	8.9	A
NB	LTR	0.32	27.1	C	LTR	0.26	25.9	C	LTR	0.21	25.3	C
SB	LTR	0.37	19.8	B	LTR	0.19	17.7	B	LTR	0.18	17.6	B
	Int.		12.1	B	Int.		10.5	B	Int.		10.2	B

Table 2.11-11 (Continued)
Existing Condition Level of Service Results - Signalized Intersections

Rockaway Beach Blvd and Beach 73rd Street												
EB	LTR	0.28	12.6	B	LTR	0.37	13.7	B	LTR	0.39	13.9	B
	L	0.21	20.6	C	L	0.20	21.9	C	L	0.19	22.4	C
WB	T	0.54	27.6	C	T	0.26	22.2	C	T	0.24	22.4	C
	R	0.16	19.3	B	R	0.18	20.9	C	R	0.13	20.4	C
NB	LTR	0.22	27.0	C	LTR	0.22	26.8	C	LTR	0.22	26.9	C
SB	LT	0.33	30.2	C	LT	0.72	41.7	D	LT	0.61	36.1	D
	R	0.29	29.8	C	R	0.21	25.9	C	R	0.15	25.2	C
	Int.		23.5	C	Int.		24.3	C	Int.		22.5	C
Beach Channel Drive and Beach 73rd Street												
EB	L	0.01	9.5	A	L	0.02	9.8	A	L	0.01	9.7	A
	T	0.49	15.2	B	T	0.58	17.1	B	T	0.62	17.9	B
WB	L	0.24	23.4	C	L	0.29	26.1	C	L	0.27	26.4	C
	TR	0.73	34.7	C	TR	0.60	31.9	C	TR	0.61	33.1	C
NB	LT	0.29	39.7	D	LT	0.31	38.9	D	LT	0.26	35.8	D
SB	LTR	0.10	20.9	C	LTR	0.05	20.2	C	LTR	0.06	20.3	C
	Int.		27.9	C	Int.		26.3	C	Int.		26.5	C

Table 2.11-12
Existing Condition Level of Service Results - Unsignalized Intersections

Int.	Existing Conditions											
	Weekday AM Peak Hour				Weekday Afternoon Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Beach Channel Drive and Beach 68th Street												
EB	LTR	0.01	0.4	A	LTR	0.03	0.7	A	LTR	0.02	0.4	A
WB	LTR	0.01	0.1	A	LTR	0.01	0.3	A	LTR	0.01	0.3	A
NB	LTR	0.05	15.5	C	LTR	0.07	30.5	D	LTR	0.07	34.1	D
SB	LTR	0.09	24.5	C	LTR	0.09	22.5	C	LTR	0.13	31.8	D
	Int.		0.9	A	Int.		1.2	A	Int.		1.1	A
Thursby Avenue and Beach 68th Street												
EB	LTR	0.10	10.1	B	LTR	0.08	10.0	A	LTR	0.12	10.1	B
WB	LTR	0.15	10.5	B	LTR	0.10	9.9	A	LTR	0.10	9.9	A
NB	LTR	0.01	3.7	A	LTR	0.00	0.9	A	LTR	0.00	1.2	A
SB	LTR	0.00	1.4	A	LTR	0.00	2.2	A	LTR	0.00	1.4	A
	Int.		9.1	A	Int.		7.6	A	Int.		8.2	A
Thursby Avenue and Beach 67th Street												
EB	LTR	0.00	0.5	A	LTR	0.00	0.5	A	LTR	0.00	0.3	A
WB	LTR	0.03	2.1	A	LTR	0.01	1.6	A	LTR	0.01	0.8	A
NB	LTR	0.09	11.5	B	LTR	0.09	10.7	B	LTR	0.08	11.0	B
SB	LTR	0.08	12.0	B	LTR	0.06	11.0	B	LTR	0.05	11.2	B
	Int.		4.8	A	Int.		4.8	A	Int.		3.7	A
Thursby Avenue and Beach 66th Street												
EB	LTR	0.01	1.2	A	LTR	0.01	0.9	A	LTR	0.01	1.4	A
WB	LTR	0.01	0.7	A	LTR	0.01	0.9	A	LTR	0.01	1.3	A
NB	LTR	0.07	12.1	B	LTR	0.05	11.1	B	LTR	0.06	11.8	B
SB	LTR	0.08	11.4	B	LTR	0.04	10.7	B	LTR	0.04	11.8	B
	Int.		3.9	A	Int.		3.2	A	Int.		3.6	A

Pedestrian

Data Collection

Only two pedestrian elements met the CEQR screening threshold for analysis. The pedestrian counts were conducted for the east crosswalk at the at the Beach 67th Street and Beach Channel Drive simultaneous with the TMCs. The East Sidewalk on Beach 67th Street between Beach Channel Drive and Thursby Avenue inventory and pedestrian counts were conducted on November 21, 2019.

Analysis

Based on the sidewalk and crosswalk analyses conducted during the weekday AM and Afternoon peak hours, both elements operate at a satisfactory LOS as depicted in **Table 2.11-13.**

Table 2.11-13: Existing Condition Level of Service Results – Pedestrian Facilities

Pedestrian Elements	Analysis Peak Hours	
	Weekday AM	Weekday Afternoon
East Sidewalk Beach 67th Street between Beach Channel Drive and Thursby Ave	A	A
East Crosswalk Beach 67th Street and Beach Channel Drive	A	A

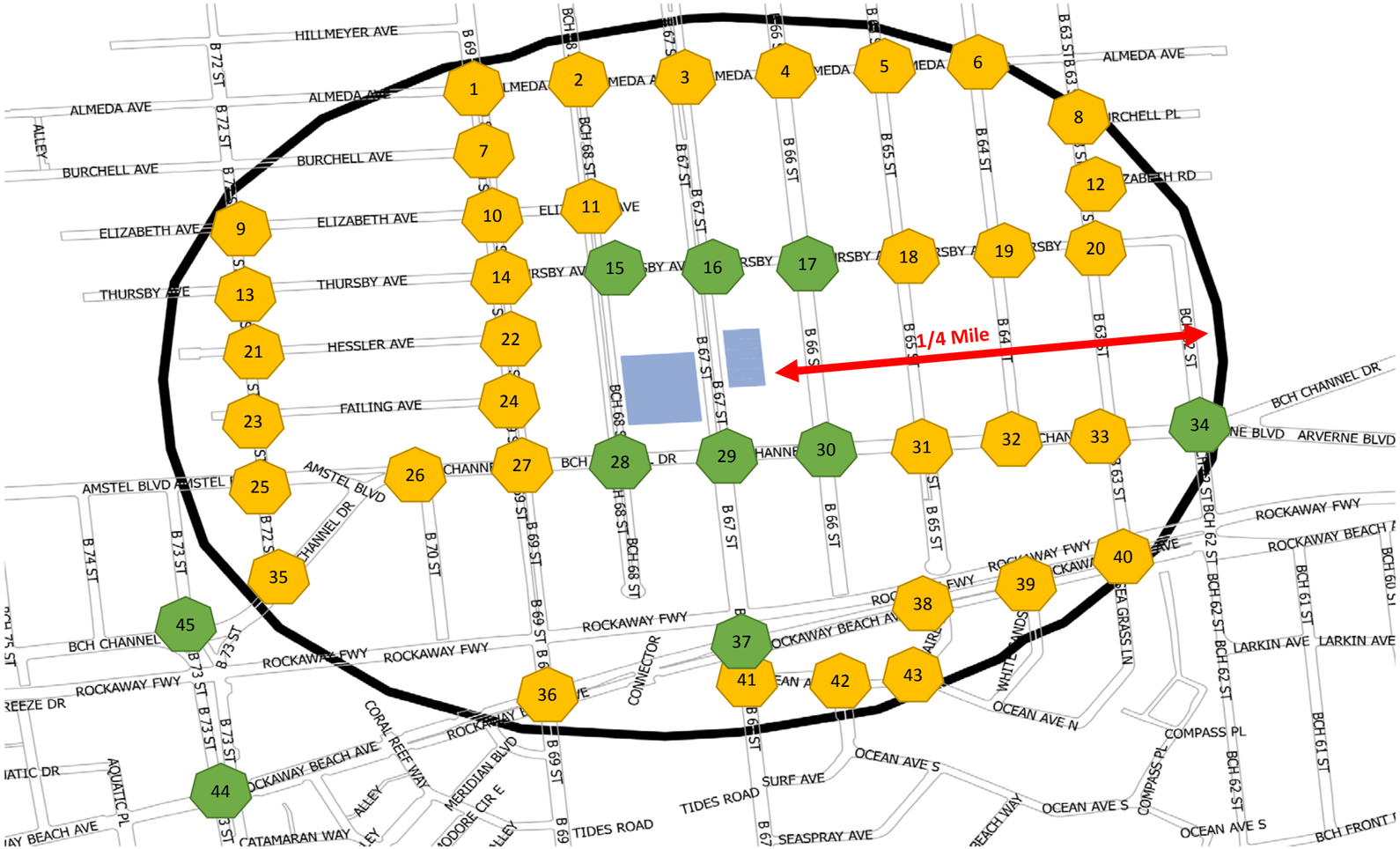
Parking

Due to COVID-19, a traditional parking survey for the Beach 67th Street Rezoning within a 0.25-mile radius of the proposed action could not be performed to fully substantiate our assertion. The Peninsula Hospital Site Redevelopment FEIS on-street parking study area is adjacent to the east of the Beach 67th Street Rezoning study area. The land use characteristics of these areas are both primarily residential with the Peninsula Hospital Site Redevelopment FEIS study area being even more densely populated with some high-rise apartment buildings. The results of the pre-COVID-19 parking survey performed for the Peninsula Hospital Site Redevelopment FEIS indicated that within a 0.25-mile radius of the Project Site, on-street parking utilization was found to be 68%, 57%, 57%, and 55% of available spaces during the Weekday AM, Weekday midday, Weekday PM, and Weekday Overnight periods, respectively. Observations of on-street parking made during several trips to the Beach 67th Street Rezoning study area prior to COVID-19 yielded similar results as the Peninsula Hospital Site Redevelopment FEIS on-street parking survey in that on-street parking was typically available at all times of the day within a 0.25-mile radius of the proposed action.

Vehicular and Pedestrian Safety

Crash data for the study area intersections and mainline sections within a 0.25-mile radius along principal access routes for pedestrians and vehicles being assigned as a result of the proposed project and intersections being analyzed outside of the 0.25-mile radius of the rezoning **(Figure 2.11-6)**. The data was obtained from DOT for the period between January 1, 2015 and December 31, 2017. The data obtained quantify the total number of reportable crashes (involving fatality, injury, or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of vehicular crashes with pedestrians and bicycles at each location.

Figure 2.11-6



Legend

Intersection within 1/4 mile — 25

Study Intersections — 27

	E/W Street	&	N/S Street
1	Almeda Avenue	&	Beach 69th Street
2	Almeda Avenue	&	Beach 68th Street
3	Almeda Avenue	&	Beach 67th Street
4	Almeda Avenue	&	Beach 66th Street
5	Almeda Avenue	&	Beach 65th Street
6	Almeda Avenue	&	Beach 64th Street
7	Burchell Avenue	&	Beach 69th Street
8	Burchell Place	&	Beach 63rd Street
9	Elizabeth Avenue	&	Beach 72nd Street
10	Elizabeth Avenue	&	Beach 69th Street
11	Elizabeth Avenue	&	Beach 68th Street
12	Elizabeth Road	&	Beach 63rd Street
13	Thursby Avenue	&	Beach 72nd Street
14	Thursby Avenue	&	Beach 69th Street
15	Thursby Avenue	&	Beach 68th Street
16	Thursby Avenue	&	Beach 67th Street
17	Thursby Avenue	&	Beach 66th Street
18	Thursby Avenue	&	Beach 65th Street
19	Thursby Avenue	&	Beach 64th Street
20	Thursby Avenue	&	Beach 63rd Street
21	Hessler Avenue	&	Beach 72nd Street
22	Hessler Avenue	&	Beach 69th Street
23	Failing Avenue	&	Beach 72nd Street
24	Failing Avenue	&	Beach 69th Street
25	Amstel Blvd	&	Beach 72nd Street
26	Beach Channel Drive	&	Beach 70th Street
27	Beach Channel Drive	&	Beach 69th Street
28	Beach Channel Drive	&	Beach 68th Street
29	Beach Channel Drive	&	Beach 67th Street
30	Beach Channel Drive	&	Beach 66th Street
31	Beach Channel Drive	&	Beach 65th Street
32	Beach Channel Drive	&	Beach 64th Street
33	Beach Channel Drive	&	Beach 63rd Street
34	Beach Channel Drive	&	Beach 62nd Street/Averne Blvd
35	Beach Channel Drive	&	Beach 72nd Street
36	Rockaway Beach Blvd	&	Beach 69th Street
37	Rockaway Beach Blvd	&	Beach 67th Street
38	Rockaway Beach Blvd	&	Saltaire Ln
39	Rockaway Beach Blvd	&	White Sands Way
40	Rockaway Beach Blvd	&	Sea Grass Lane
41	Ocean Avenue N	&	Beach 69th Street
42	Ocean Avenue N	&	Surf Avenue
43	Ocean Avenue N	&	Saltaire Ln
44	Rockaway Beach Blvd	&	Beach 73rd Street
45	Beach Channel Drive	&	Beach 73rd Street

The data collected was evaluated and there were no mid-block crashes reported at any mainline sections within a ¼ mile radius along principal access routes where pedestrians and vehicles were assigned as a result of the proposed project. A summary of the intersections within the study area with at least one crash during the three-year period is provided in **Table 2.11-14**. During the January 1, 2015 to December 31, 2017 three-year period, a total of 71 reportable and non-reportable crashes, no fatalities, 79 injuries, and 12 pedestrian/ one bicyclist-related crashes occurred at the study area intersections.

Each of these locations were evaluated to determine whether it was considered a high-crash location. A high crash location is identified when 48 or more total crashes (reportable and non-reportable) or five or more pedestrian/bicycles injury crashes are recorded in any consecutive 12 months of the most recent 3-year period for which data is available. A rolling yearly total of crash data did not identify any study area intersections as high crash locations.

Future No-Action Condition

Traffic

Volume Development

The proposed rezoning parcels located on the east and west sides of Beach 67th Street have a projected opening year of 2022. Details regarding additional development projects within the vicinity of the project area were collected from the Queens Office at the Department of City Planning on December 6th, 2019 by Laura Kenney of City Planning. According to the borough planner: "As far as upcoming developments within the area there aren't any within 400 feet. There is a large-scale development in the pipeline and a rezoning at Beach 62nd Street between Thursby Ave and Beach Channel Drive as well as a DPR capital project for Thursby Basin Park but all three are approximately 1,000 feet east of the project area." However, these projects are not projected to open prior to the proposed project. With this in mind, the 2018 existing condition traffic volumes were grown to the No-Action year of 2022 using a compounded CEQR annual growth rate of 0.5% for this section of Queens (the four-year growth rate was computed as 1.020150501).

Using the projected traffic volumes, balanced No-Action condition traffic networks were created for the weekday AM, Afternoon, and PM peak hours as provided in **Figures 2.11-7. 2.11-8. and 2.11-9**, respectively.

Analysis

The detailed results of the intersection analyses for the 2022 No-Action condition weekday AM, Afternoon, and PM peak hours in terms of v/c ratios, delays, and LOS are summarized in **Table 2.11-15** for signalized intersections and **Table 2.11-16** for unsignalized intersections. The 2022 No-Action condition analysis results are similar to the 2018 Existing conditions with the exception of two intersections. At the signalized Beach Channel Drive and Beach 62nd Street intersection, the northbound through/right turn movement is projected to worsen to LOS D over 45 seconds during the PM peak hour. At the unsignalized Beach Channel Drive and Beach 68th Street intersection, the northbound approach is projected to worsen from LOS D to LOS E during the PM peak hour.

Table 2.11-14: Summary of Intersection Crash Locations
Beach 67th Street Rezoning EAS

Intersection		Three Year Study Period						Crashes by Year						Ped + Bike 12 Consecutive Months (Max)
East-West Roadway	North-South Roadway	Crashes by Year			Crashes	Fatalities	Injuries	Pedestrian			Bicycle			
		2015	2016	2017	Total	Total	Total	2015	2016	2017	2015	2016	2017	
Rockaway Beach Blvd	Beach 73rd St	1	4	3	8	0	12	0	1	1	0	0	0	1
Beach Channel Drive	Beach 72nd St	0	1	0	1	0	1	0	0	0	0	0	0	0
Gouverneur Avenue	Beach 72nd St	0	2	0	2	0	0	0	0	0	0	0	0	0
Thursby Avenue	Beach 72nd St	0	1	0	1	0	0	0	0	0	0	0	0	0
Amstel Blvd	Beach 72nd St	1	0	2	3	0	4	0	0	0	0	0	0	0
Elizabeth Avenue	Beach 72nd St	0	0	2	2	0	2	0	0	1	0	0	0	1
Rockaway Beach Blvd	Beach 69th St	0	1	2	3	0	2	0	0	0	0	0	0	0
Rockaway Frwy	Beach 67th St	0	1	0	1	0	1	0	1	0	0	0	0	1
Gouverneur Avenue	Beach 69th St	0	1	0	1	0	1	0	1	0	0	0	0	1
Beach Channel Drive	Beach 69th St	0	0	1	1	0	1	0	0	0	0	0	0	0
Beach Channel Drive	Beach 68th St	3	0	2	5	0	5	0	0	0	0	0	0	0
Almeda Avenue	Beach 69th St	0	1	0	1	0	0	0	0	0	0	0	0	0
Thursby Avenue	Beach 69th St	2	2	3	7	0	8	1	0	0	0	0	0	1
Elizabeth Avenue	Beach 69th St	0	0	1	1	0	0	0	0	0	0	0	0	0
Thursby Avenue	Beach 68th St	0	2	0	2	0	1	0	0	0	0	0	0	0
Almeda Avenue	Beach 67th St	0	0	1	1	0	3	0	0	0	0	0	0	0
Thursby Avenue	Beach 67th St	1	0	0	1	0	3	0	0	0	0	0	0	0
Beach Channel Drive	Beach 65th St	2	1	0	3	0	3	0	1	0	0	0	0	1
Beach Channel Drive	Beach 64th St	0	2	1	3	0	7	0	0	0	0	0	0	0
Beach Channel Drive	Beach 63rd St	0	1	1	2	0	1	0	0	0	0	0	0	0
Thursby Avenue	Beach 66th St	1	2	0	3	0	8	0	0	0	0	0	0	0
Thursby Avenue	Beach 65th St	0	0	2	2	0	1	0	0	0	0	0	0	0
Thursby Avenue	Beach 64th St	1	0	0	1	0	1	0	0	0	0	0	0	0
Burchell Rd	Beach 63rd St	0	0	1	1	0	0	0	0	0	0	0	0	0
Beach Channel Drive	Beach 62nd St	0	2	3	5	0	7	0	0	2	0	0	0	2
Beach Channel Drive	Beach 67th St	2	2	4	8	0	6	0	1	2	1	0	0	2
Beach Channel Drive	Beach 66th St	0	0	2	2	0	1	0	0	0	0	0	0	0
Total		**14**	**26**	**31**	**71**	**0**	**79**	**1**	**5**	**6**	**1**	**0**	**0**	

Source: NYC DOT January 1st, 2015 to December 31st, 2017 crash data
Note: High Crash Locations are highlighted

Figure 2.11-7
Beach 67th Street Rezoning
No Action Condition - Balanced Volumes
Weekday AM (6:45am - 7:45am)

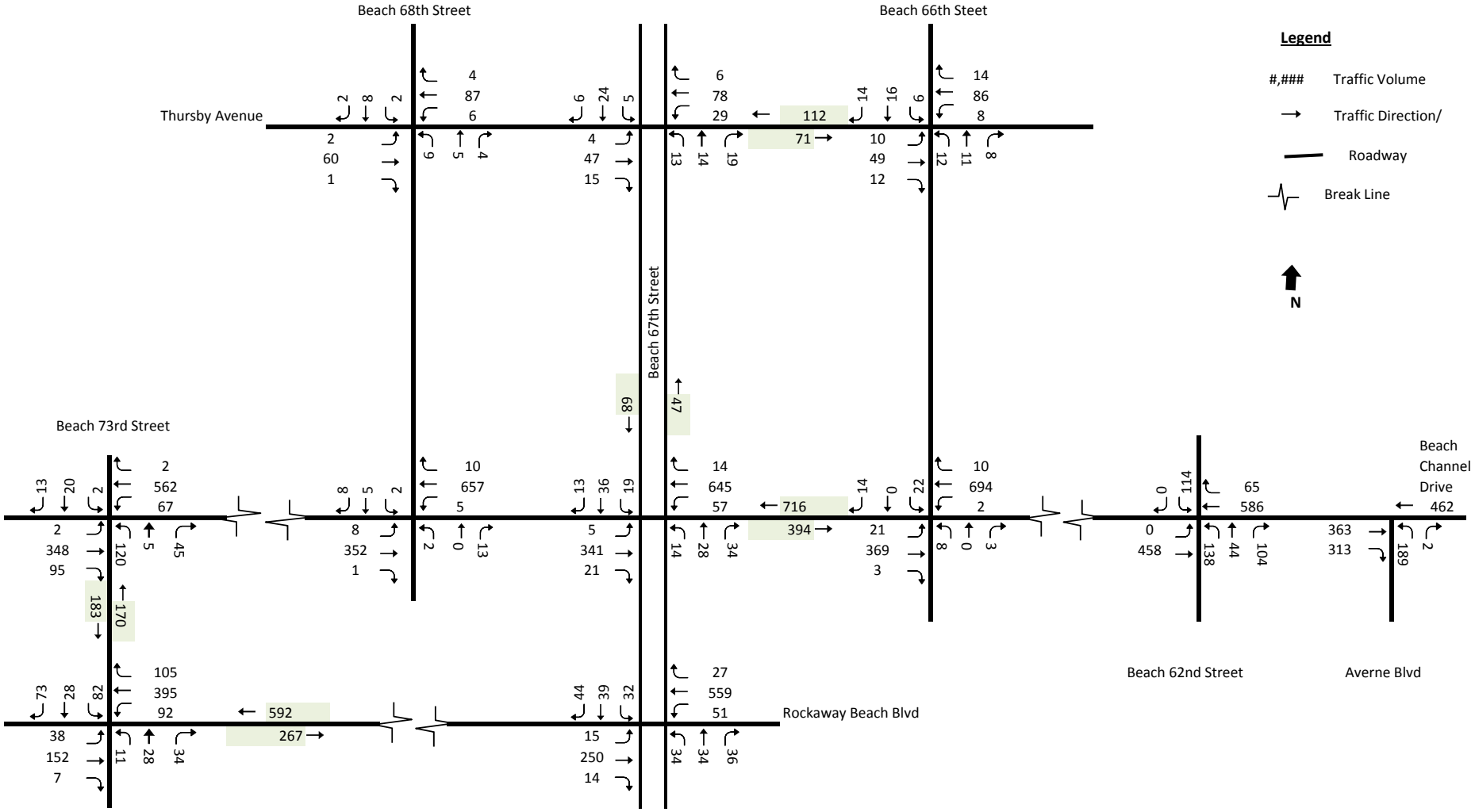


Figure 2.11-8
Beach 67th Street Rezoning
No Action Condition - Balanced Volumes
Weekday Afternoon (3:45pm - 4:45pm)

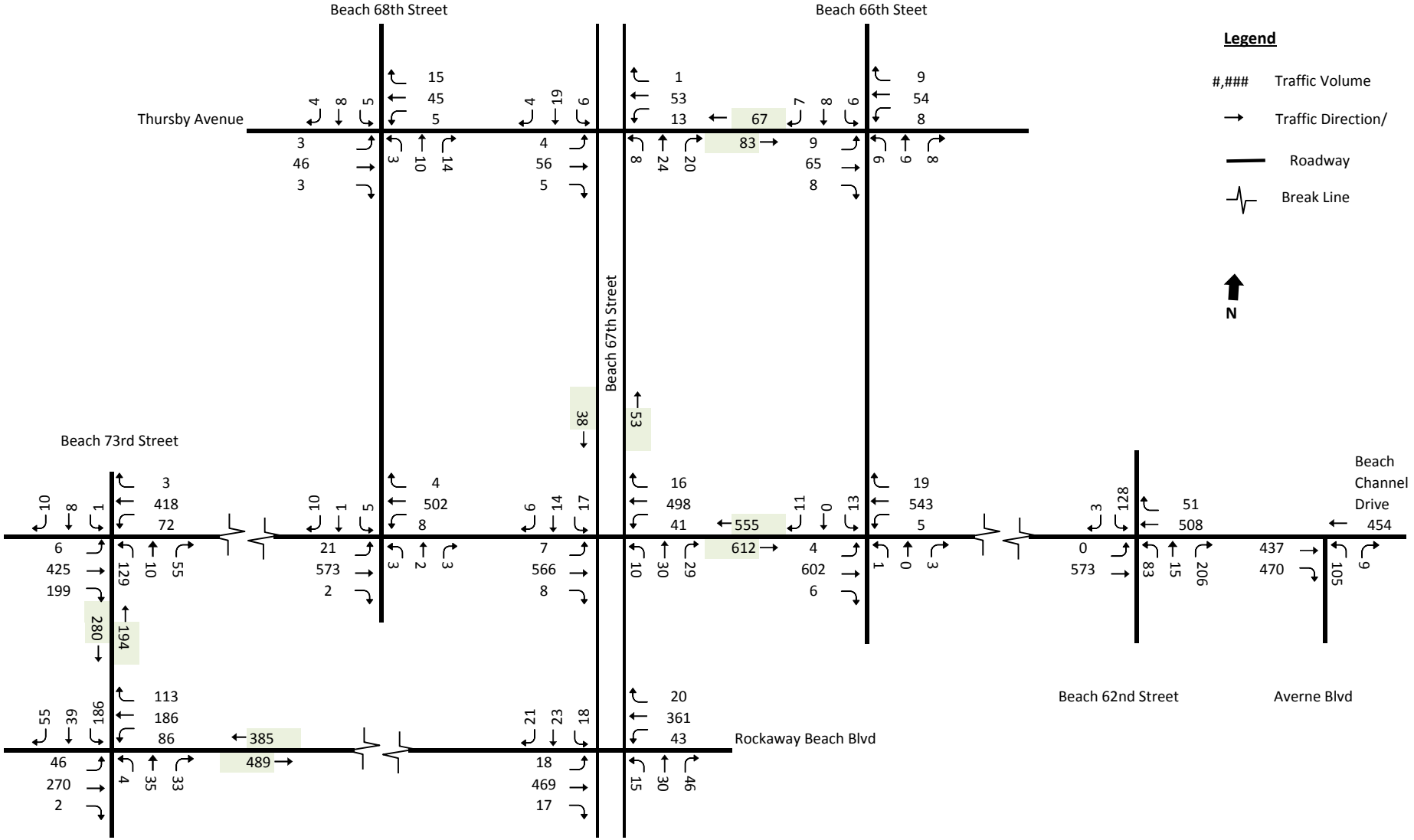


Figure 2.11-9
Beach 67th Street Rezoning
No Action Condition - Balanced Volumes
Weekday PM (5:00pm - 6:00pm)

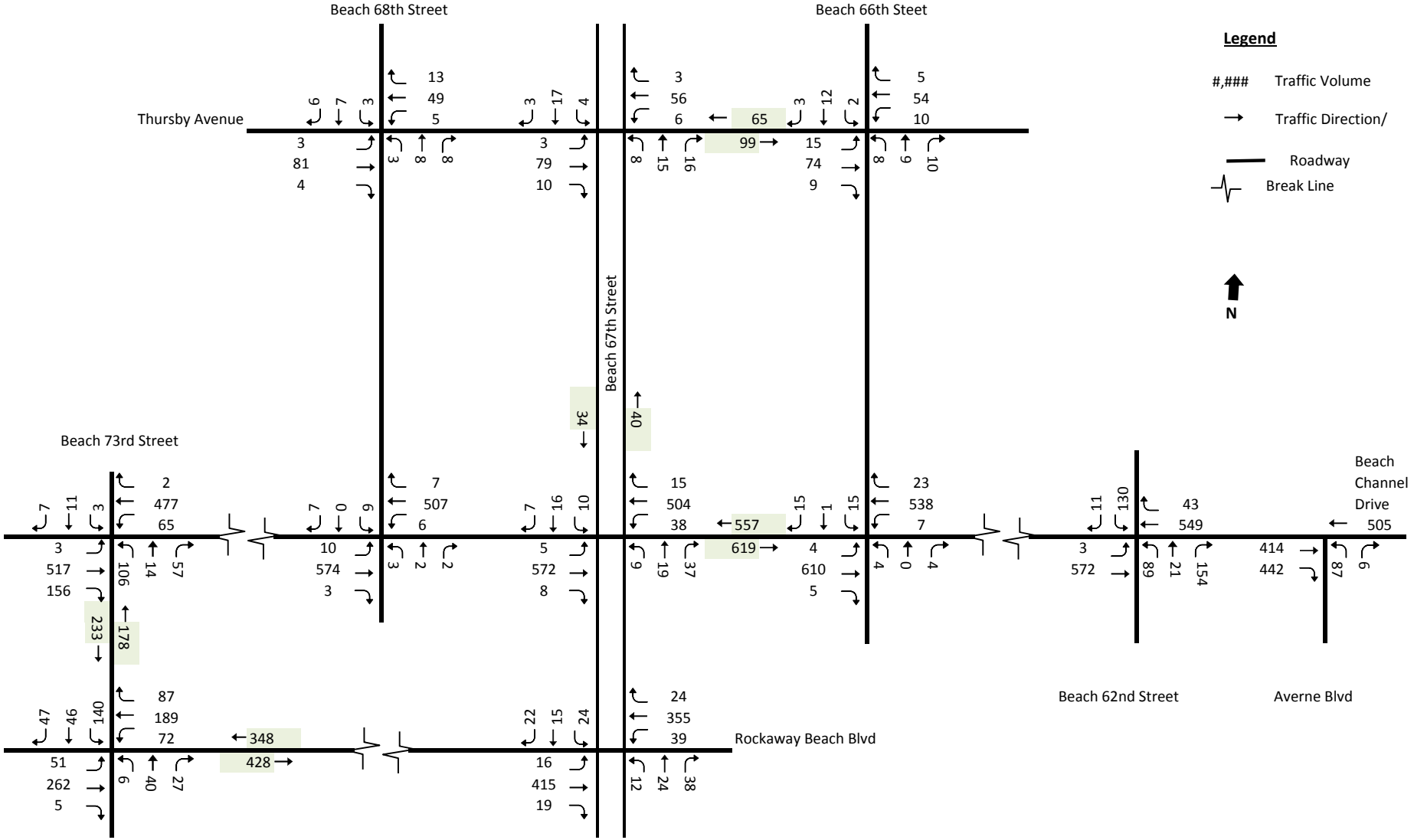


Table 2.11-15: No-Action Condition Level of Service Results - Signalized Intersections

Int.	No Action Condition											
	Weekday AM Peak Hour				Weekday Afternoon Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Beach Channel Drive and Beach 67th Street												
EB	LTR	0.47	27.7	C	LTR	0.74	34.6	C	LTR	0.70	34.0	C
WB	LTR	1.03	42.3	D	LTR	0.81	14.5	B	LTR	0.79	13.9	B
NB	LTR	0.18	22.2	C	LTR	0.16	19.8	B	LTR	0.15	18.2	B
SB	LTR	0.19	22.2	C	LTR	0.10	21.4	C	LTR	0.08	21.0	C
	Int.		35.3	D	Int.		24.3	C	Int.		23.4	C
Beach Channel Drive and Beach 66th Street												
EB	LTR	0.53	15.2	B	LTR	0.78	14.5	B	LTR	0.72	13.0	B
WB	LTR	0.90	35.5	D	LTR	0.76	22.8	C	LTR	0.74	22.8	C
NB	LTR	0.03	20.0	B	LTR	0.01	19.5	B	LTR	0.02	19.8	B
SB	LTR	0.11	21.0	C	LTR	0.06	20.9	C	LTR	0.08	20.5	C
	Int.		27.8	C	Int.		18.6	B	Int.		17.9	B
Beach Channel Drive and Beach 62nd Street												
EB	LT	0.85	48.2	D	LT	0.89	53.0	E	LT	1.00	71.4	E
WB	TR	0.76	9.2	A	TR	0.64	6.9	A	TR	0.64	7.4	A
NB	LT	0.83	60.0	E	LT	0.47	37.2	D	LT	0.50	38.4	D
	R2-R	0.37	33.8	C	R2-R	0.81	55.3	E	R2-R	0.59	40.1	D
SB	L2-LTR	0.85	75.8	E	L2-LTR	0.65	45.2	D	L2-LTR	0.71	52.0	D
	Int.		34.7	C	Int.		34.8	D	Int.		40.9	D
Beach Channel Drive and Arverne Blvd												
EB	T	0.39	5.3	A	T	0.46	6.4	B	T	0.39	6.4	B
WB	T	0.67	31.2	C	T	0.60	27.1	C	T	0.67	30.9	C
NB	LR	0.60	39.4	D	LR	0.36	31.9	C	LR	0.32	31.1	C
	Int.		23.0	C	Int.		18.1	B	Int.		20.8	B
Rockaway Beach Blvd and Beach 67th Street												
EB	LT	0.39	10.4	B	LT	0.63	12.9	B	LT	0.59	12.1	B
	R	0.02	6.1	A	R	0.02	4.9	A	R	0.02	5.4	A
WB	L	0.13	9.1	A	L	0.15	9.7	A	L	0.13	9.3	A
	TR	0.32	9.9	A	TR	0.21	9.0	A	TR	0.21	9.0	A
NB	LTR	0.32	27.3	C	LTR	0.27	26.1	C	LTR	0.22	25.4	C
SB	LTR	0.37	19.7	B	LTR	0.19	17.5	B	LTR	0.18	17.4	B
	Int.		12.7	B	Int.		12.8	B	Int.		12.2	B

Table 2.11-15 (Continued)
No-Action Condition Level of Service Results - Signalized Intersections

Int.	No Action Condition											
	Weekday AM Peak Hour				Weekday Afternoon Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Rockaway Beach Blvd and Beach 73rd Street												
EB	LTR	0.28	12.7	B	LTR	0.38	13.8	B	LTR	0.40	14.0	B
WB	L	0.22	20.7	C	L	0.21	22.0	C	L	0.20	22.5	C
	T	0.55	27.9	C	T	0.26	22.2	C	T	0.25	22.5	C
	R	0.17	19.3	B	R	0.19	21.0	C	R	0.14	20.5	C
NB	LTR	0.23	27.1	C	LTR	0.22	26.9	C	LTR	0.23	27.0	C
SB	LT	0.34	30.1	C	LT	0.74	43.0	D	LT	0.62	36.7	D
	R	0.29	29.7	C	R	0.21	25.9	C	R	0.15	25.3	C
	Int.		23.7	C	Int.		24.6	C	Int.		22.7	C
Beach Channel Drive and Beach 73rd Street												
EB	L	0.01	9.5	A	L	0.02	9.8	A	L	0.01	9.7	A
	T	0.50	15.4	B	T	0.60	17.4	B	T	0.63	18.2	B
WB	L	0.25	23.5	C	L	0.30	26.4	C	L	0.28	26.9	C
	TR	0.74	34.9	C	TR	0.61	32.2	C	TR	0.62	33.5	C
NB	LT	0.30	39.6	D	LT	0.32	39.0	D	LT	0.27	35.9	D
SB	LTR	0.10	20.9	C	LTR	0.05	20.2	C	LTR	0.06	20.3	C
	Int.		28.0	C	Int.		26.5	C	Int.		26.8	C

Table 2.11-16: No-Action Condition Level of Service Results - Unsignalized Intersections

Int.	No Action Conditions											
	Weekday AM Peak Hour				Weekday Afternoon Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Beach Channel Drive and Beach 68th Street												
EB	LTR	0.01	0.4	A	LTR	0.03	0.7	A	LTR	0.02	0.4	A
WB	LTR	0.01	0.1	A	LTR	0.01	0.3	A	LTR	0.01	0.3	A
NB	LTR	0.05	16.0	C	LTR	0.08	31.9	D	LTR	0.08	36.0	E
SB	LTR	0.10	25.7	D	LTR	0.09	23.4	C	LTR	0.14	33.7	D
	Int.		0.9	A	Int.		1.2	A	Int.		1.2	A
Thursby Avenue and Beach 68th Street												
EB	LTR	0.10	10.1	B	LTR	0.08	10.1	B	LTR	0.12	10.1	B
WB	LTR	0.15	10.5	B	LTR	0.10	9.9	A	LTR	0.10	9.9	A
NB	LTR	0.01	3.7	A	LTR	0.00	0.9	A	LTR	0.00	1.2	A
SB	LTR	0.00	1.4	A	LTR	0.00	2.2	A	LTR	0.00	1.4	A
	Int.		9.1	A	Int.		7.6	A	Int.		8.3	A
Thursby Avenue and Beach 67th Street												
EB	LTR	0.00	0.5	B	LTR	0.00	0.5	A	LTR	0.00	0.3	A
WB	LTR	0.03	2.2	B	LTR	0.01	1.5	A	LTR	0.01	0.8	A
NB	LTR	0.09	11.5	A	LTR	0.09	10.7	B	LTR	0.08	11.0	B
SB	LTR	0.08	12.0	A	LTR	0.06	11.0	B	LTR	0.05	11.2	B
	Int.		4.8	A	Int.		4.8	A	Int.		3.6	A
Thursby Avenue and Beach 66th Street												
EB	LTR	0.01	1.2	A	LTR	0.01	0.9	A	LTR	0.01	1.3	A
WB	LTR	0.01	0.6	A	LTR	0.01	0.9	A	LTR	0.01	1.3	A
NB	LTR	0.07	12.2	B	LTR	0.05	11.1	B	LTR	0.06	11.9	B
SB	LTR	0.08	11.5	B	LTR	0.04	10.7	B	LTR	0.04	11.8	B
	Int.		3.9	A	Int.		3.2	A	Int.		3.6	A

Pedestrians

Similar to the traffic volumes, the 2018 Existing condition pedestrian volumes were grown to the No-Action year of 2022 using a compounded CEQR annual growth rate of 0.5% for this section of Queens. Based on the sidewalk and crosswalk analyses conducted during the weekday AM and Afternoon peak hours, both elements are projected to operate at a satisfactory LOS as depicted in **Table 2.11-17.**

Table 2.11-17: No Action Condition Level of Service Results – Pedestrian Facilities

Pedestrian Elements	Analysis Peak Hours	
	Weekday AM	Weekday Afternoon
East Sidewalk Beach 67th Street between Beach Channel Drive and Thursby Ave	A	A
East Crosswalk Beach 67th Street and Beach Channel Drive	A	A

Future With-Action Condition

Traffic

Volume Development
As stated previously, the proposed rezoning would generate 298 total vehicle trips during the weekday AM peak hour, 262 during the weekday Afternoon peak hour, and 73 during the weekday PM peak hour. These new projected trips were assigned to the local roadway network using census data for the weekday AM, Afternoon, and PM peak hours as provided in **Figures 2.11-10. 2.11-11. and 2.11-12**, respectively. These vehicle trips were added to the 2022 No- Action condition volumes during the weekday AM, Afternoon, and PM peak hours yielding the 2022 With Action condition volumes as depicted in **Figures 2.11-13. 2.11-14,** and **2.11-15**, respectively.

Analysis
The signalized intersection analysis results for the With-Action condition were compared against the results for the No-Action condition during the weekday AM, Afternoon, and PM peak hours in **Table 2.11-18, Table 2.11-19,** and **Table 2.11-20**, respectively. Based on the comparisons using the criteria provided in the *CEQR Technical Manual*, the following significant traffic impacts were identified:

- Beach Channel Drive and Beach 66th Street – westbound approach during the weekday AM peak hour
- Beach Channel Drive and Beach 67th Street – westbound approach during the weekday AM peak hour
- Beach Channel Drive and Beach 62nd Street - eastbound approach during the weekday AM and Afternoon peak hours.

The unsignalized intersection analysis results for the With-Action condition were also compared against the results for the No-Action condition during the weekday AM, Afternoon, and PM peak hours in **Table 2.11-21, Table 2.11-22,** and **Table 2.11-23**, respectively. Based on the comparisons using only the change in delay

criteria provided in the *CEQR Technical Manual,* significant traffic impacts were identified at the Beach Channel Drive and Beach 68th Street intersection for the southbound approach during the AM peak hour and the northbound approach during the weekday Afternoon and PM peak hours. However, since these approaches would not meet the 90 PCE threshold (the second *CEQR Technical Manual* criteria) in the With-Action condition, the changes would not constitute significant traffic impacts.

Figure 2.11-10
Beach 67th Street
Project Generated Volumes (PCE)
Weekday AM

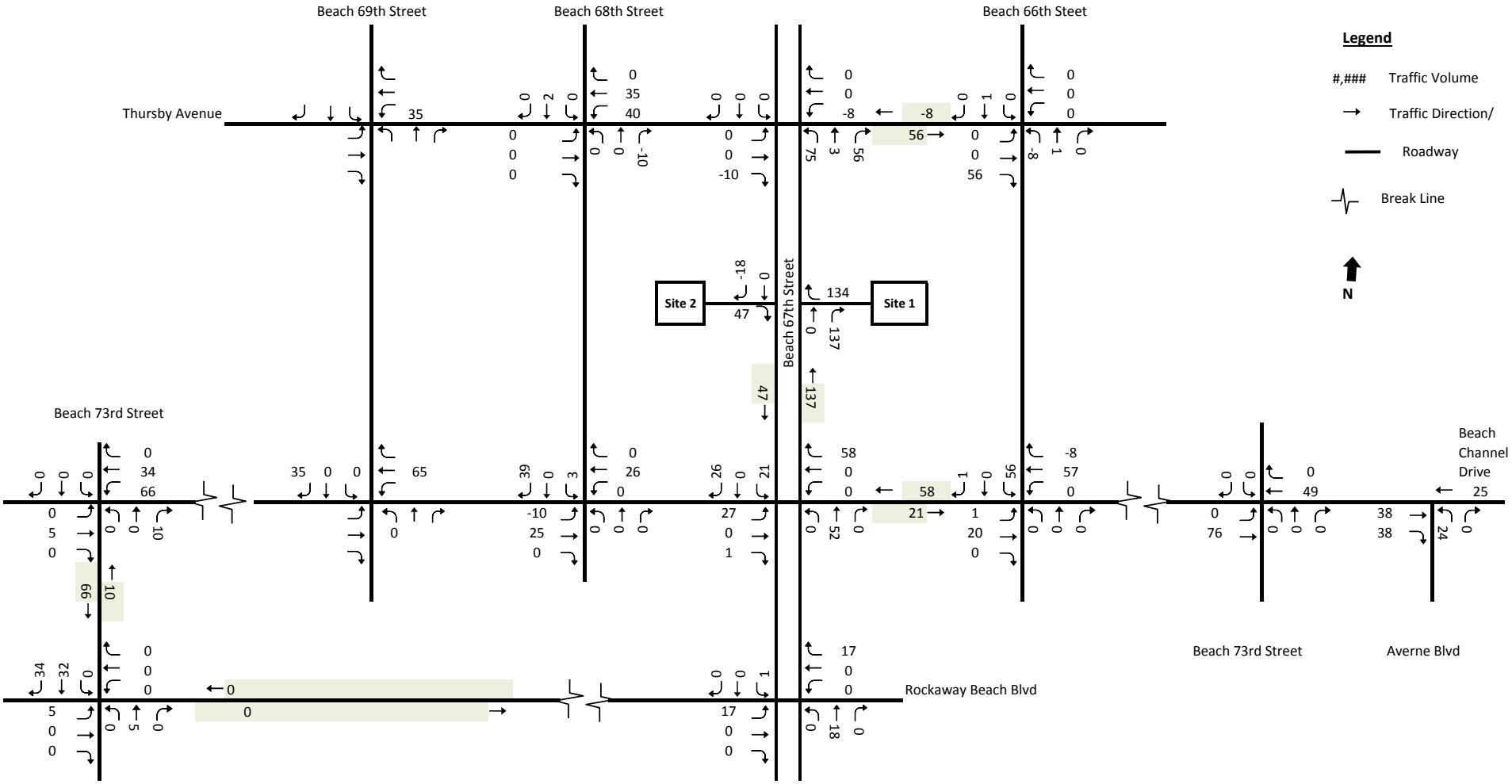


Figure 2.11-11
Beach 67th Street
Project Generated Volumes (PCE)
Weekday Afternoon

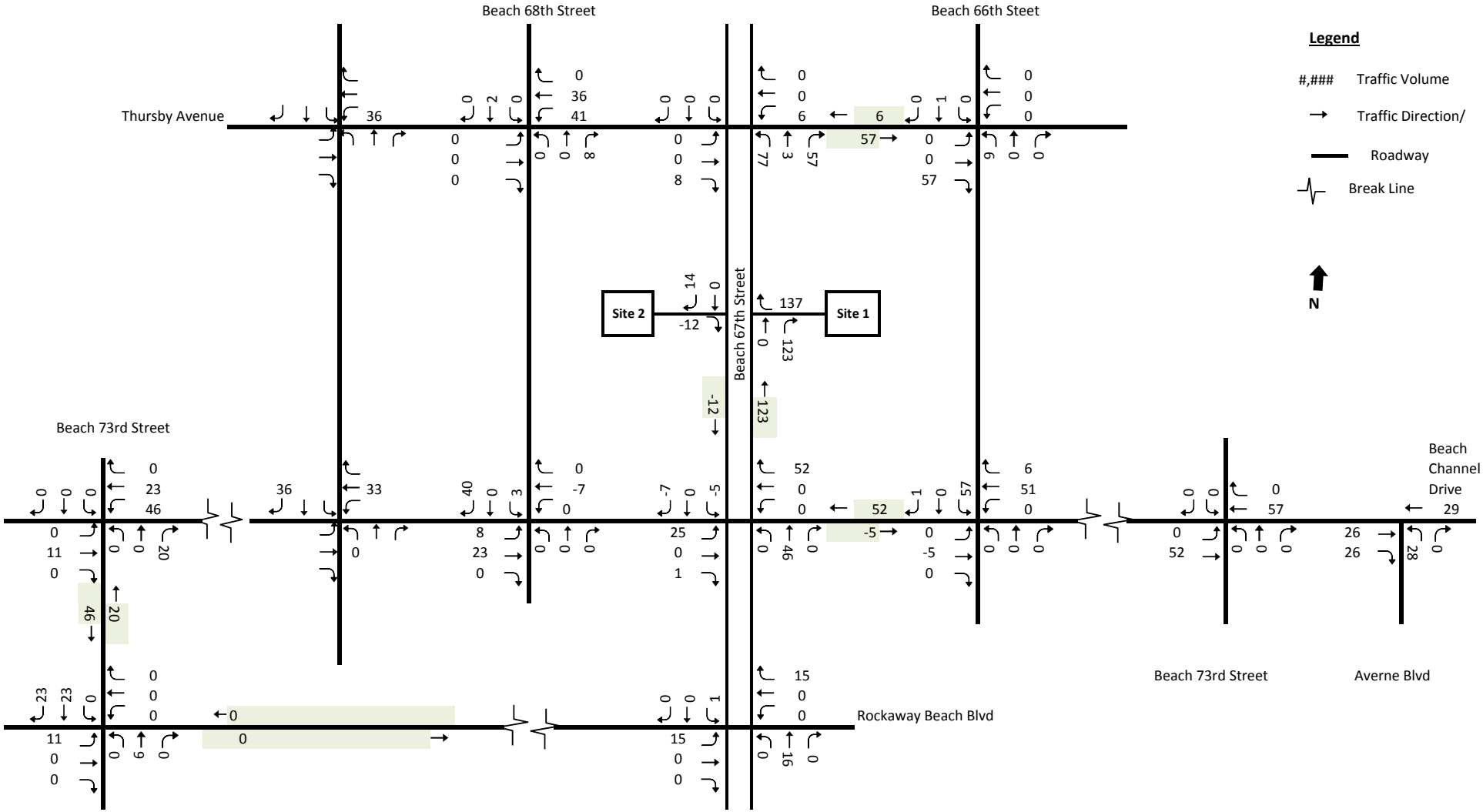


Figure 2.11-12
Beach 67th Street
Project Generated Volumes
Weekday PM (5:00pm - 6:00pm)

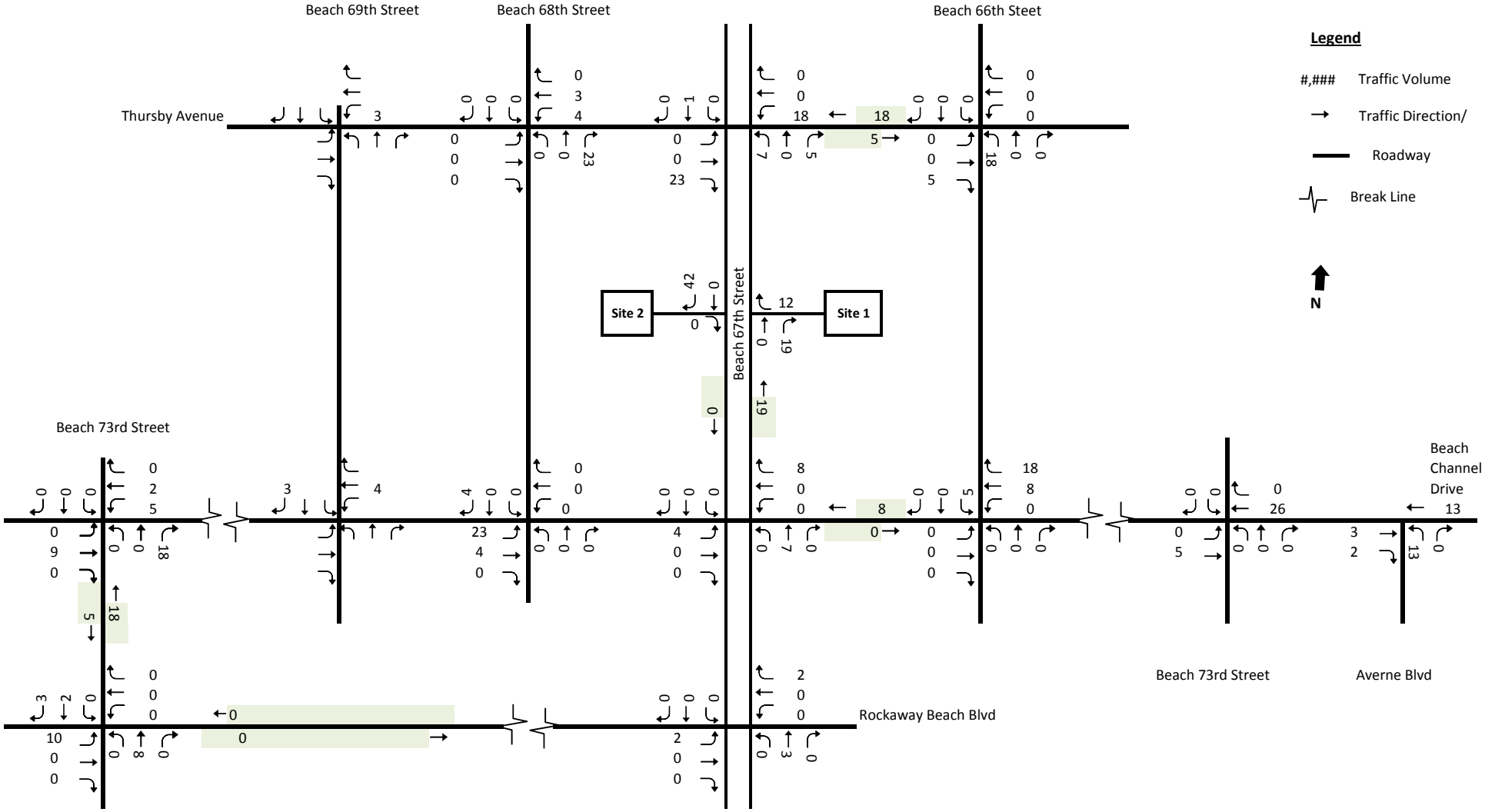


Figure 2.11-13
Beach 67th Street Rezoning
With Action Condition - Balanced Volumes
Weekday AM (6:45am - 7:45am)

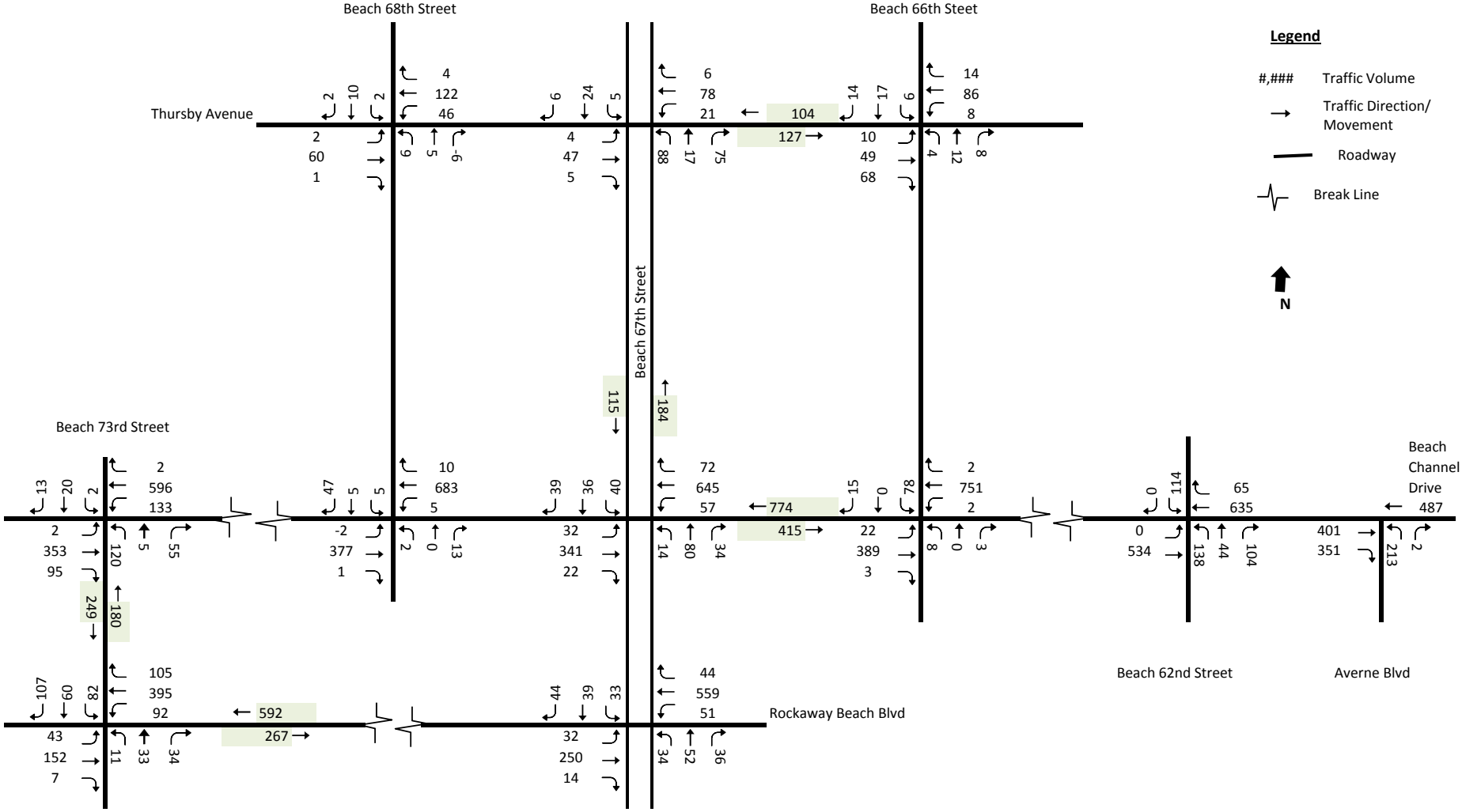


Figure 2.11-14
Beach 67th Street Rezoning
With Action Condition - Balanced Volumes
Weekday Afternoon (3:45pm - 4:45pm)

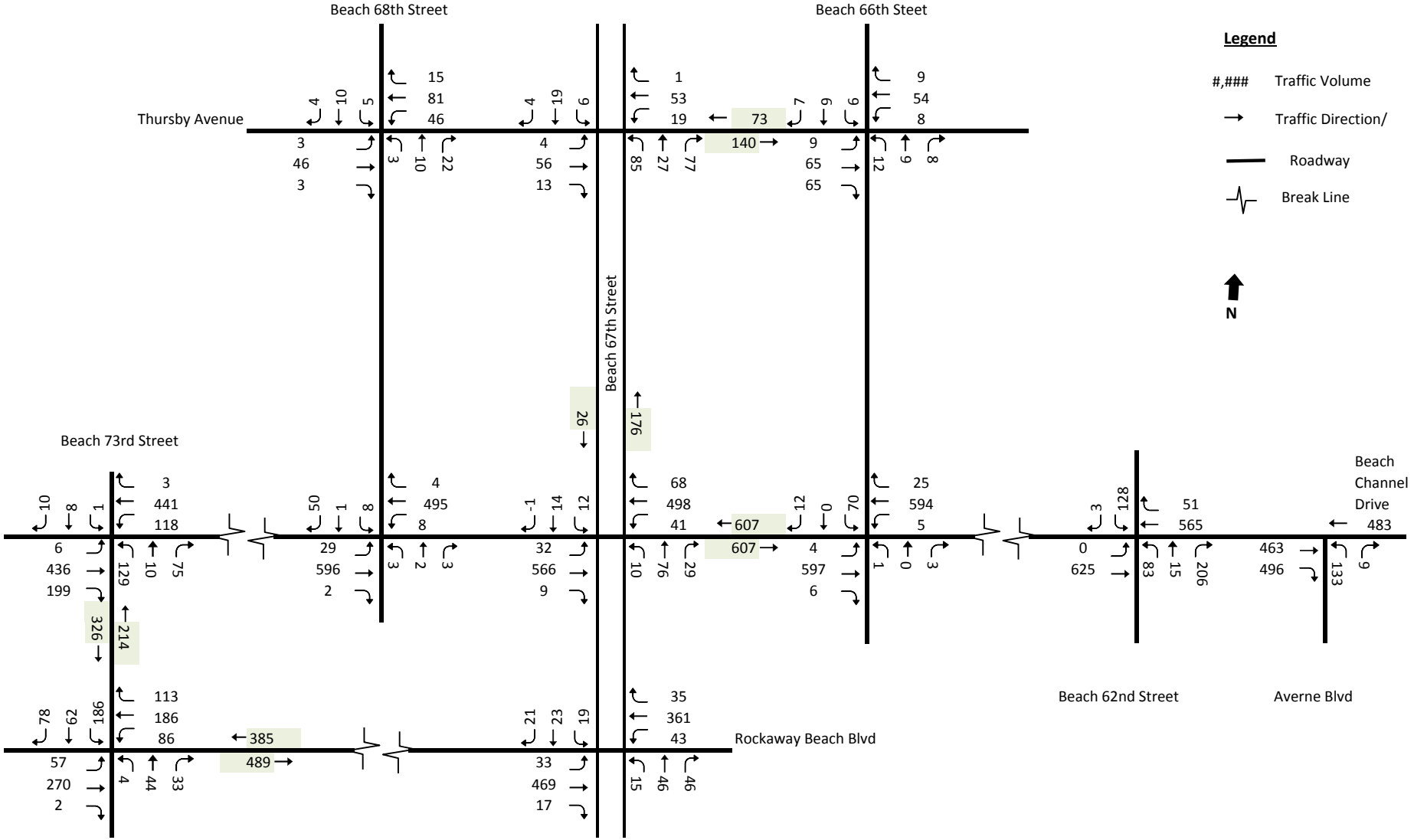


Figure 2.11-15
Beach 67th Street Rezoning
With Action Condition - Balanced Volumes
Weekday PM (5:00pm - 6:00pm)

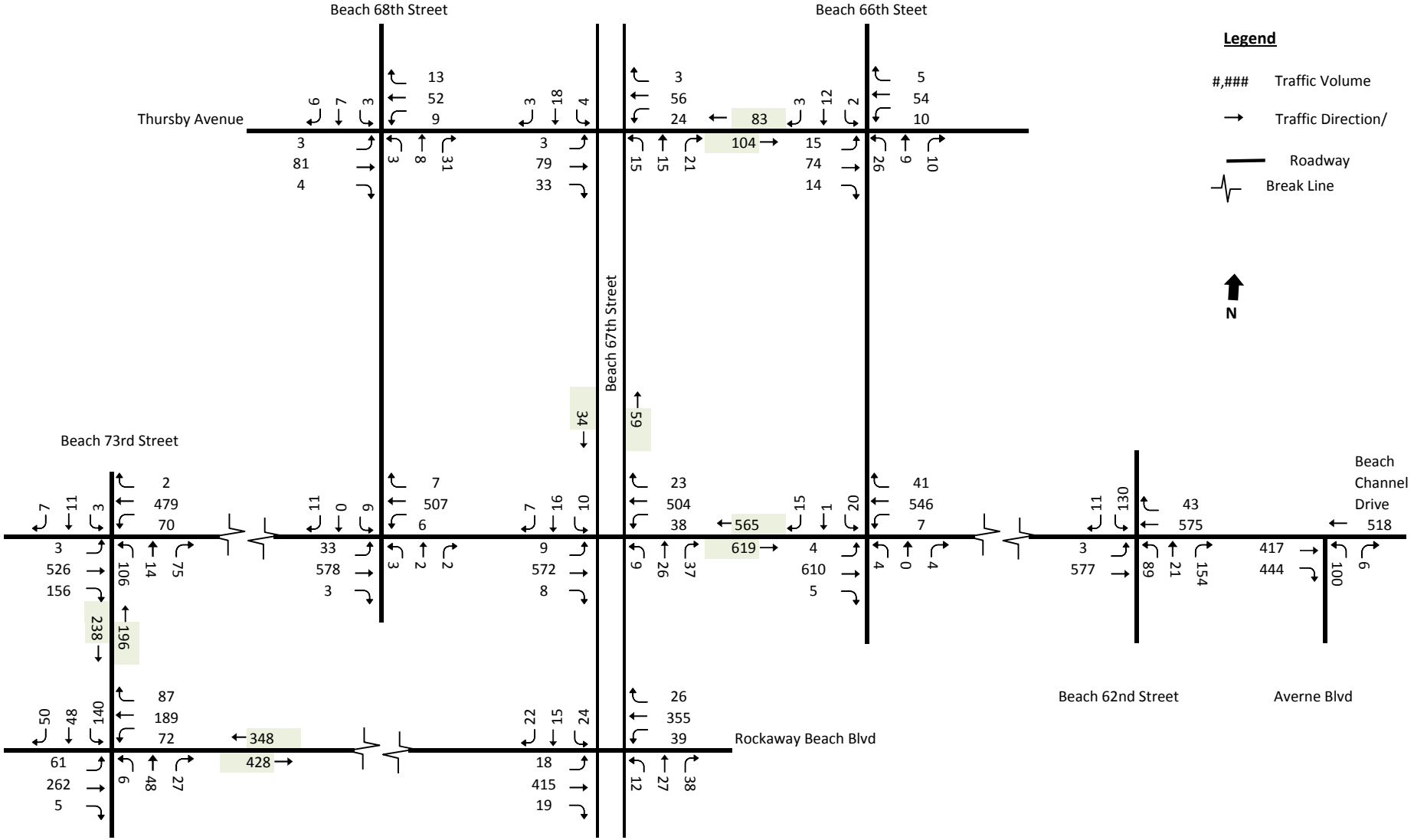


Table 2.11-18: Weekday AM Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday AM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 67th Street									
EB	LTR	0.47	27.7	C	LTR	0.57	31.8	C	
WB	LTR	1.03	42.3	D	LTR	1.17	96.2	F	+
NB	LTR	0.18	22.2	C	LTR	0.31	24.4	C	
SB	LTR	0.19	22.2	C	LTR	0.42	27.2	C	
	Int.		35.3	D	Int.		64.9	E	
Beach Channel Drive and Beach 66th Street									
EB	LTR	0.53	15.2	B	LTR	0.57	15.5	B	
WB	LTR	0.90	35.5	D	LTR	0.95	67.1	E	+
NB	LTR	0.03	20.0	B	LTR	0.03	20.0	B	
SB	LTR	0.11	21.0	C	LTR	0.30	24.2	C	
	Int.		27.8	C	Int.		46.3	D	
Beach Channel Drive and Beach 62nd Street									
EB	LT	0.85	48.2	D	LT	0.99	68.4	E	+
WB	TR	0.76	9.2	A	TR	0.82	12.5	B	
NB	LT	0.83	60.0	E	LT	0.83	60.0	E	
	R2-R	0.37	33.8	C	R2-R	0.37	33.8	C	
SB	L2-LTR	0.85	75.8	E	L2-LTR	0.85	75.8	E	
	Int.		34.7	C	Int.		42.8	D	
Beach Channel Drive and Arverne Blvd									
EB	T	0.39	5.3	A	T	0.43	6.1	A	
WB	T	0.67	31.2	C	T	0.71	31.9	C	
NB	LR	0.60	39.4	D	LR	0.67	42.7	D	
	Int.		23.0	C	Int.		24.1	C	
Rockaway Beach Blvd and Beach 67th Street									
EB	LT	0.39	10.4	B	LT	0.44	11.1	B	
	R	0.02	6.1	A	R	0.02	5.9	A	
WB	L	0.13	9.1	A	L	0.13	9.2	A	
	TR	0.32	9.9	A	TR	0.33	10.1	B	
NB	LTR	0.32	27.3	C	LTR	0.37	28.2	C	
SB	LTR	0.37	19.7	B	LTR	0.38	22.1	C	
	Int.		12.7	B	Int.		13.5	B	

Table 2.11-18 (Continued): Weekday AM Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday AM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Rockaway Beach Blvd and Beach 73rd Street									
EB	LTR	0.28	12.7	B	LTR	0.30	12.9	B	
WB	L	0.22	20.7	C	L	0.22	20.8	C	
	T	0.55	27.9	C	T	0.55	27.9	C	
	R	0.17	19.3	B	R	0.17	19.3	B	
NB	LTR	0.23	27.1	C	LTR	0.25	27.3	C	
SB	LT	0.34	30.1	C	LT	0.43	26.2	C	
	R	0.29	29.7	C	R	0.42	27.1	C	
	Int.		23.7	C	Int.		23.3	C	
Beach Channel Drive and Beach 73rd Street									
EB	L	0.01	9.5	A	L	0.01	9.5	A	
	T	0.50	15.4	B	T	0.50	15.5	B	
WB	L	0.25	23.5	C	L	0.49	27.2	C	
	TR	0.74	34.9	C	TR	0.79	33.1	C	
NB	LT	0.30	39.6	D	LT	0.30	38.5	D	
SB	LTR	0.10	20.9	C	LTR	0.10	20.9	C	
	Int.		28.0	C	Int.		27.4	C	

Table 2.11-19: Weekday Afternoon Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday Afternoon Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 67th Street									
EB	LTR	0.74	34.6	C	LTR	0.82	39.8	D	
WB	LTR	0.81	14.5	B	LTR	0.92	21.5	C	
NB	LTR	0.16	19.8	B	LTR	0.27	21.6	C	
SB	LTR	0.10	21.4	C	LTR	0.08	22.0	C	
	Int.		24.3	C	Int.		29.5	C	
Beach Channel Drive and Beach 66th Street									
EB	LTR	0.78	14.5	B	LTR	0.77	14.0	B	
WB	LTR	0.76	22.8	C	LTR	0.84	29.0	C	
NB	LTR	0.01	19.5	B	LTR	0.01	19.5	B	
SB	LTR	0.06	20.9	C	LTR	0.22	23.7	C	
	Int.		18.6	B	Int.		21.8	C	
Beach Channel Drive and Beach 62nd Street									
EB	LT	0.89	53.0	D	LT	0.98	64.1	E	+
WB	TR	0.64	6.9	A	TR	0.71	7.8	A	
NB	LT	0.47	37.2	D	LT	0.47	37.2	D	
	R2-R	0.81	55.3	E	R2-R	0.81	55.3	E	
SB	L2-LTR	0.65	45.2	D	L2-LTR	0.65	45.2	D	
	Int.		34.8	C	Int.		38.6	D	
Beach Channel Drive and Arverne Blvd									
EB	T	0.46	6.4	A	T	0.48	7.6	A	
WB	T	0.60	27.1	C	T	0.64	28.8	C	
NB	LR	0.36	31.9	C	LR	0.45	34.0	C	
	Int.		18.1	B	Int.		20.0	B	
Rockaway Beach Blvd and Beach 67th Street									
EB	LT	0.63	12.9	B	LT	0.66	13.6	B	
	R	0.02	4.9	A	R	0.02	5.0	A	
WB	L	0.15	9.7	A	L	0.15	9.8	A	
	TR	0.21	9.0	A	TR	0.22	9.1	A	
NB	LTR	0.27	26.1	C	LTR	0.30	26.6	C	
SB	LTR	0.19	17.5	B	LTR	0.20	16.9	B	
	Int.		12.8	B	Int.		13.4	B	

Table 2.11-19 (Continued)
Weekday Afternoon Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday Afternoon Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Rockaway Beach Blvd and Beach 73rd Street									
EB	LTR	0.38	13.8	B	LTR	0.40	14.1	B	
WB	L	0.21	22.0	C	L	0.21	22.1	C	
	T	0.26	22.2	C	T	0.26	22.2	C	
	R	0.19	21.0	C	R	0.19	20.9	C	
NB	LTR	0.22	26.9	C	LTR	0.25	27.3	C	
SB	LT	0.74	43.0	D	LT	0.82	46.6	D	
	R	0.21	25.9	C	R	0.31	25.0	C	
	Int.		24.6	C	Int.		25.8	C	
Beach Channel Drive and Beach 73rd Street									
EB	L	0.02	9.8	A	L	0.02	9.8	A	
	T	0.60	17.4	B	T	0.61	17.8	B	
WB	L	0.30	26.4	C	L	0.50	31.1	C	
	TR	0.61	32.2	C	TR	0.64	31.1	C	
NB	LT	0.32	39.0	D	LT	0.32	37.5	D	
SB	LTR	0.05	20.2	C	LTR	0.05	20.2	C	
	Int.		26.5	C	Int.		26.6	C	

Table 2.11-20: Weekday PM Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday PM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 67th Street									
EB	LTR	0.70	34.0	C	LTR	0.71	33.7	C	
WB	LTR	0.79	13.9	B	LTR	0.80	14.4	B	
NB	LTR	0.15	18.2	B	LTR	0.17	18.7	B	
SB	LTR	0.08	21.0	C	LTR	0.09	22.6	C	
	Int.		23.4	C	Int.		23.5	C	
Beach Channel Drive and Beach 66th Street									
EB	LTR	0.72	13.0	B	LTR	0.72	12.8	B	
WB	LTR	0.74	22.8	C	LTR	0.78	24.6	C	
NB	LTR	0.02	19.8	B	LTR	0.02	19.8	B	
SB	LTR	0.08	20.5	C	LTR	0.09	21.7	C	
	Int.		17.9	B	Int.		19.0	B	
Beach Channel Drive and Beach 62nd Street									
EB	LT	1.00	71.4	E	LT	1.01	72.9	E	
WB	TR	0.64	7.4	A	TR	0.67	7.7	A	
NB	LT	0.50	38.4	D	LT	0.50	38.4	D	
	R2-R	0.59	40.1	D	R2-R	0.59	40.1	D	
SB	L2-LTR	0.71	52.0	D	L2-LTR	0.71	52.0	D	
	Int.		40.9	D	Int.		41.1	D	
Beach Channel Drive and Arverne Blvd									
EB	T	0.39	6.4	A	T	0.40	6.2	A	
WB	T	0.67	30.9	C	T	0.69	32.0	C	
NB	LR	0.32	31.1	C	LR	0.36	32.3	C	
	Int.		20.8	C	Int.		21.7	C	
Rockaway Beach Blvd and Beach 67th Street									
EB	LT	0.59	12.1	B	LT	0.59	12.1	B	
	R	0.02	5.4	A	R	0.02	5.4	A	
WB	L	0.13	9.3	A	L	0.13	9.3	A	
	TR	0.21	9.0	A	TR	0.21	9.0	A	
NB	LTR	0.22	25.4	C	LTR	0.23	25.5	C	
SB	LTR	0.18	17.4	B	LTR	0.18	17.1	B	
	Int.		12.2	B	Int.		12.2	B	

Table 2.11-20 (Continued)
Weekday PM Peak Hour - Significant Impact Assessment - Signalized Intersections

Int.	Weekday PM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Rockaway Beach Blvd and Beach 73rd Street									
EB	LTR	0.40	14.0	B	LTR	0.42	14.3	B	
WB	L	0.20	22.5	C	L	0.20	22.5	C	
	T	0.25	22.5	C	T	0.25	22.5	C	
	R	0.14	20.5	C	R	0.14	20.5	C	
NB	LTR	0.23	27.0	C	LTR	0.25	27.3	C	
SB	LT	0.62	36.7	D	LT	0.64	37.0	D	
	R	0.15	25.3	C	R	0.16	24.8	C	
	Int.		22.7	C	Int.		22.9	C	
Beach Channel Drive and Beach 73rd Street									
EB	L	0.01	9.7	A	L	0.01	9.7	A	
	T	0.63	18.2	B	T	0.64	18.5	B	
WB	L	0.28	26.9	C	L	0.30	27.4	C	
	TR	0.62	33.5	C	TR	0.62	33.2	C	
NB	LT	0.27	35.9	D	LT	0.27	34.5	C	
SB	LTR	0.06	20.3	C	LTR	0.06	20.3	C	
	Int.		26.8	C	Int.		26.6	C	

Table 2.11-21
Weekday AM Peak Hour - Significant Impact Assessment - Unsignalized Intersections

Int.	Weekday AM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 68th Street									
EB	LTR	0.01	0.4	A	LTR	0.00	0.0	A	
WB	LTR	0.01	0.1	A	LTR	0.01	0.2	A	
NB	LTR	0.05	16.0	C	LTR	0.09	23.0	C	
SB	LTR	0.10	25.7	D	LTR	0.36	33.0	D	*
	Int.		0.9	A	Int.		2.3	A	
Thursby Avenue and Beach 68th Street									
EB	LTR	0.10	10.1	B	LTR	0.10	10.4	B	
WB	LTR	0.15	10.5	B	LTR	0.30	12.2	B	
NB	LTR	0.01	3.7	A	LTR	0.01	4.7	A	
SB	LTR	0.00	1.4	A	LTR	0.00	1.2	A	
	Int.		9.1	A	Int.		10.8	B	
Thursby Avenue and Beach 67th Street									
EB	LTR	0.00	0.5	B	LTR	0.00	0.6	A	
WB	LTR	0.03	2.2	B	LTR	0.02	1.8	A	
NB	LTR	0.09	11.5	A	LTR	0.49	20.3	C	
SB	LTR	0.08	12.0	A	LTR	0.10	13.9	B	
	Int.		4.8	A	Int.		11.7	B	
Thursby Avenue and Beach 66th Street									
EB	LTR	0.01	1.2	A	LTR	0.01	0.7	A	
WB	LTR	0.01	0.6	A	LTR	0.01	0.7	A	
NB	LTR	0.07	12.2	B	LTR	0.06	13.0	B	
SB	LTR	0.08	11.5	B	LTR	0.09	12.8	B	
	Int.		3.9	A	Int.		3.2	A	
Note: * Approach does not meet 90 PCE threshold to be an impact									

Table 2.11-22
Weekday Afternoon Peak Hour - Significant Impact Assessment - Unsignalized Intersections

Int.	Weekday Afternoon Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 68th Street									
EB	LTR	0.03	0.7	A	LTR	0.04	1.1	A	
WB	LTR	0.01	0.3	A	LTR	0.01	0.3	A	
NB	LTR	0.08	31.9	D	LTR	0.13	52.0	F	*
SB	LTR	0.09	23.4	C	LTR	0.31	26.4	D	
	Int.		1.2	A	Int.		2.7	A	
Thursby Avenue and Beach 68th Street									
EB	LTR	0.08	10.1	B	LTR	0.09	10.5	B	
WB	LTR	0.10	9.9	A	LTR	0.25	11.6	B	
NB	LTR	0.00	0.9	A	LTR	0.00	0.7	A	
SB	LTR	0.00	2.2	A	LTR	0.00	2.0	A	
	Int.		7.6	A	Int.		9.1	A	
Thursby Avenue and Beach 67th Street									
EB	LTR	0.00	0.5	A	LTR	0.00	0.4	A	
WB	LTR	0.01	1.5	A	LTR	0.02	2.2	A	
NB	LTR	0.09	10.7	B	LTR	0.46	17.9	C	
SB	LTR	0.06	11.0	B	LTR	0.08	13.3	B	
	Int.		4.8	A	Int.		10.9	B	
Thursby Avenue and Beach 66th Street									
EB	LTR	0.01	0.9	A	LTR	0.01	0.5	A	
WB	LTR	0.01	0.9	A	LTR	0.01	1.0	A	
NB	LTR	0.05	11.1	B	LTR	0.07	12.7	B	
SB	LTR	0.04	10.7	B	LTR	0.05	11.8	B	
	Int.		3.2	A	Int.		3.0	A	
Note: * Approach does not meet 90 PCE threshold to be an impact									

Table 2.11-23
Weekday PM Peak Hour - Significant Impact Assessment - Unsignalized Intersections

Int.	Weekday PM Peak Hour								
	No Action Condition				With Action Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact
Beach Channel Drive and Beach 68th Street									
EB	LTR	0.02	0.4	A	LTR	0.05	1.3	A	
WB	LTR	0.01	0.3	A	LTR	0.01	0.3	A	
NB	LTR	0.08	36.0	E	LTR	0.10	43.1	E	*
SB	LTR	0.14	33.7	D	LTR	0.18	35.6	E	
	Int.		1.2	A	Int.		1.8	A	
Thursby Avenue and Beach 68th Street									
EB	LTR	0.12	10.1	B	LTR	0.13	10.3	B	
WB	LTR	0.10	9.9	A	LTR	0.11	10.1	B	
NB	LTR	0.00	1.2	A	LTR	0.00	0.6	A	
SB	LTR	0.00	1.4	A	LTR	0.00	1.4	A	
	Int.		8.3	A	Int.		7.6	A	
Thursby Avenue and Beach 67th Street									
EB	LTR	0.00	0.3	A	LTR	0.00	0.2	A	
WB	LTR	0.01	0.8	A	LTR	0.02	2.4	A	
NB	LTR	0.08	11.0	B	LTR	0.11	11.9	B	
SB	LTR	0.05	11.2	B	LTR	0.06	12.0	B	
	Int.		3.6	A	Int.		4.2	A	
Thursby Avenue and Beach 66th Street									
EB	LTR	0.01	1.3	A	LTR	0.01	1.3	A	
WB	LTR	0.01	1.3	A	LTR	0.01	1.3	A	
NB	LTR	0.06	11.9	B	LTR	0.11	12.9	B	
SB	LTR	0.04	11.8	B	LTR	0.04	11.9	B	
	Int.		3.6	A	Int.		4.4	A	
Note: * Approach does not meet 90 PCE threshold to be an impact									

Pedestrians

As stated previously, the proposed rezoning would generate 686 total pedestrian trips during the weekday AM peak hour and 607 total pedestrian trips during the weekday Afternoon peak hour. All new pedestrians projected from the proposed rezoning were routed through all pedestrian elements (sidewalk, crosswalks, and corners) within the study area during the weekday AM and Afternoon peak hours. Based on the With-Action condition sidewalk and crosswalk analyses conducted during the weekday AM and Afternoon peak hours, both elements are projected to operate at a satisfactory LOS as depicted in **Table 2.11-24.** As a result, no significant pedestrian impacts are anticipated in the study area during any of the time periods analyzed.

Table 2.11-24: With Action Condition Level of Service Results – Pedestrian Facilities

Pedestrian Elements	Analysis Peak Hours	
	Weekday AM	Weekday Afternoon
East Sidewalk Beach 67th Street between Beach Channel Drive and Thursby Ave	B	A
East Crosswalk Beach 67th Street and Beach Channel Drive	A	A

Student pedestrian volumes were routed through uncontrolled crossings in the study area during both the weekday AM and Afternoon peak hours. As identified in **Table 2.11-8**, two intersections are projected to exceed 20 new students during the AM and afternoon peak hours including the Thursby Avenue and Beach 68th Street intersection and the Thursby Avenue and Beach 66th Street intersection. Based on meeting this threshold, detailed "Signal", "All-Way Stop", and "Enhanced Crossing" warrant analyses were conducted to determine if mitigation is required. Based on the analysis, neither intersection met any of these warrants.

Parking

In order to determine the hourly project generated on-street parking demand, 24-hour parking accumulation tables were developed for the nursing home, charter elementary school staff, residential development, and the AIRS (senior housing), using the transportation planning factors data provided previously in **Table 2.11-2** and the trip generation data found in **Table 2.11-3**. The land use specific hourly temporal distributions were derived from the ITE Trip Generation Manual, 10th Edition for the nursing home, *CEQR Technical Manual* for the charter elementary school staff, and the 2004 No. 7 Subway Extension-Hudson Yard Rezoning and Development Program FGEIS (modified based on the *CEQR Technical Manual*) for both the residential development and the AIRS (senior housing).

A total of 15 off-street parking spaces are proposed for Projected Site 1 (nine spaces for the AIRS - senior housing and six spaces for the charter elementary school) and 100 off-street parking spaces are proposed for the residential development planned for Projected Site 2. The proposed action would also remove the 65 off-street parking spaces currently dedicated for use by the Resort Nursing Home on Proposed Site 2. During hours when the project generated demand for parking for each land use exceeds its off-street parking supply, these vehicles would park on the street. As identified in **Table 2.11-25**, the total hourly demand for on-street parking was calculated by adding the unmet demand for off-street parking for the charter elementary school staff, residential development, and the AIRS (senior housing) and deducting the unmet demand for off-street parking for the nursing home since it would be eliminated as part of the proposed action. As a result, the highest demand for on-street parking due to the proposed action is projected to be 57 vehicles during the 8:00 to 9:00 PM hour.

The length of Beach 67th Street frontage along Projected Site 1 is 230 feet combined for both the proposed charter elementary school and the AIRS (senior housing) properties. It is proposed to change the current parking regulations from "No Parking - Wednesdays 11:30 AM – 1 PM – Street Cleaning" to "No Standing 7 AM – 4 PM School Days." This would eliminate approximately eight on-street parking spaces. It is also proposed to add the "No Standing 7 AM – 4 PM School Days" parking regulation in front of the Battalion Pentecostal Assembly Church (approximately 60 feet long) in addition to the current "No Parking Anytime" parking regulation. This would lengthen the available continuous frontage to approximately 290 feet that would be used to accommodate the charter elementary school pick up/drop off operations for cars and school buses during school hours.

Table 2.11-25: Project Generated On-Street Parking Demand

Time	Nursing Home	Charter Elementary School Staff	Residential	AIRS (Senior Housing)	Total
12-1 AM	0	0	10	33	43
1-2 AM	0	0	10	33	43
2-3 AM	0	0	10	33	43
3-4 AM	0	0	10	33	43
4-5 AM	0	0	10	33	43
5-6 AM	0	0	10	33	43
6-7 AM	0	0	7	32	39
7-8 AM	0	20	0	25	45
8-9 AM	0	20	0	6	26
9-10 AM	-4	20	0	0	16
10-11 AM	-9	20	0	0	11
11-12 PM	-2	20	0	0	18
12-1 PM	-3	20	0	0	17
1-2 PM	-10	20	0	0	10
2-3 PM	-1	16	0	0	15
3-4 PM	0	11	0	0	11
4-5 PM	0	0	0	6	6
5-6 PM	0	0	0	17	17
6-7 PM	0	0	0	27	27
7-8 PM	0	0	12	34	46
8-9 PM	0	0	20	37	57
9-10 PM	0	0	10	33	43
10-11 PM	0	0	10	33	43
11-12 AM	0	0	10	33	43

Based on the parking analysis for the proposed action, the worst-case parking deficit would be 65 spaces (57 vehicle unmet overflow from off-street parking and removal of eight on-street parking spaces) during the 8:00 to 9:00 PM hour. Observations of on-street parking made during several trips to the Beach 67th Street Rezoning study area prior to COVID-19 yielded similar results as the Peninsula Hospital Site Redevelopment FEIS on-street parking survey in that on-street parking was typically available at all times of the day within a 0.25-mile radius of the proposed action to accommodate the projected parking shortfalls due to the rezoning.

Mitigation Condition

Traffic

The mitigated traffic operations reflect the implementation of traffic improvements that are proposed to remove all significant traffic impacts identified as a result of the With-Action condition. The signalized intersection analysis results for the With Mitigation condition demonstrate that the identified impacts were removed and no new impacts were created as a result of the proposed mitigation measures as provided in **Table 2.11-26** for the weekday AM peak hour, **Table 2.11-27** for the Afternoon peak hour, and **Table 2.11-28** for the weekday PM peak hour.

Table 2.11-26: Weekday AM Peak Hour – Mitigation Analysis - Signalized Intersections

Int.	Weekday AM Peak Hour													
	No-Action condition				With-Action Condition					Mitigation Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Impact	Lane Group	v/c Ratio	Delay (sec)	LOS	Mitigated?
Beach Channel Drive and Beach 67th Street														
EB	LTR	0.47	27.7	C	LTR	0.57	31.8	C		LTR	0.51	19.8	B	
WB	LTR	1.03	42.3	D	LTR	1.17	96.2	F	+	LTR	1.04	40.5	D	**Yes**
NB	LTR	0.18	22.2	C	LTR	0.31	24.4	C		LTR	0.40	30.4	C	
SB	LTR	0.19	22.2	C	LTR	0.42	27.2	C		LTR	0.53	36.2	D	
	Int.		35.3	D	Int.		64.9	E		Int.		33.4	C	
Beach Channel Drive and Beach 66th Street														
EB	LTR	0.53	15.2	B	LTR	0.57	15.5	B		LTR	0.57	23.3	C	
WB	LTR	0.90	35.5	D	LTR	0.95	67.1	E	+	LTR	0.95	38.6	D	**Yes**
NB	LTR	0.03	20.0	B	LTR	0.03	20.0	B		LTR	0.03	20.1	C	
SB	LTR	0.11	21.0	C	LTR	0.30	24.2	C		LTR	0.29	25.0	C	
	Int.		27.8	C	Int.		46.3	D		Int.		32.3	C	
Beach Channel Drive and Beach 62nd Street														
EB	LT	0.85	48.2	D	LT	0.99	68.4	E	+	L	0.66	37.3	D	**Yes**
										T	0.71	31.2	C	
WB	TR	0.76	9.2	A	TR	0.82	12.5	B		TR	0.82	13.1	B	
NB	LT	0.83	60.0	E	LT	0.83	60.0	E		LT	0.83	60.0	E	
	R2-R	0.37	33.8	C	R2-R	0.37	33.8	C		R2-R	0.37	33.8	C	
SB	L2-LTR	0.85	75.8	E	L2-LTR	0.85	75.8	E		L2-LTR	0.85	75.8	E	
	Int.		34.7	C	Int.		42.8	D		Int.		31.7	C	
Beach Channel Drive and Arverne Blvd														
EB	T	0.39	5.3	A	T	0.43	6.1	A		T	0.43	3.8	A	
WB	T	0.67	31.2	C	T	0.71	31.9	C		T	0.71	31.0	C	
NB	LR	0.60	39.4	D	LR	0.67	42.7	D		LR	0.67	42.8	D	
	Int.		23.0	C	Int.		24.1	C		Int.		22.8	C	

Table 2.11-27: Weekday Afternoon Peak Hour – Mitigation Analysis - Signalized Intersections

Int.	Weekday Afternoon Peak Hour													
	No-Action condition				With-Action Condition					Mitigation Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	Mitigated?
Beach Channel Drive and Beach 67th Street														
EB	LTR	0.74	34.6	C	LTR	0.82	39.8	D		LTR	0.73	26.7	C	
WB	LTR	0.81	14.5	B	LTR	0.92	21.5	C		LTR	0.81	9.1	A	
NB	LTR	0.16	19.8	B	LTR	0.27	21.6	C		LTR	0.35	26.9	C	
SB	LTR	0.10	21.4	C	LTR	0.08	22.0	C		LTR	0.10	26.8	C	
	Int.		24.3	C	Int.		29.5	C		Int.		18.8	B	
Beach Channel Drive and Beach 66th Street														
EB	LTR	0.78	14.5	B	LTR	0.77	14.0	B		LTR	0.77	21.3	C	
WB	LTR	0.76	22.8	C	LTR	0.84	29.0	C		LTR	0.84	27.7	C	
NB	LTR	0.01	19.5	B	LTR	0.01	19.5	B		LTR	0.01	19.5	B	
SB	LTR	0.06	20.9	C	LTR	0.22	23.7	C		LTR	0.22	23.6	C	
	Int.		18.6	B	Int.		21.8	C		Int.		24.5	C	
Beach Channel Drive and Beach 62nd Street														
EB	LT	0.89	53.0	D	LT	0.98	64.1	E	+	L	0.60	38.4	D	**Yes**
										T	0.79	33.9	C	
WB	TR	0.64	6.9	A	TR	0.71	7.8	A		TR	0.71	7.8	A	
NB	LT	0.47	37.2	D	LT	0.47	37.2	D		LT	0.47	37.2	D	
	R2-R	0.81	55.3	E	R2-R	0.81	55.3	E		R2-R	0.81	55.3	E	
SB	L2-LTR	0.65	45.2	D	L2-LTR	0.65	45.2	D		L2-LTR	0.65	45.2	D	
	Int.		34.8	C	Int.		38.6	D		Int.		29.0	C	
Beach Channel Drive and Arverne Blvd														
EB	T	0.46	6.4	A	T	0.48	7.6	A		T	0.48	4.1	A	
WB	T	0.60	27.1	C	T	0.64	28.8	C		T	0.64	28.8	C	
NB	LR	0.36	31.9	C	LR	0.45	34.0	C		LR	0.45	34.0	C	
	Int.		18.1	B	Int.		20.0	B		Int.		18.3	B	

Table 2.11-28: Weekday PM Peak Hour – Mitigation Analysis - Signalized Intersections

Int.	Weekday Afternoon Peak Hour												
	No-Action condition				With-Action Condition					Mitigation Condition				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	Mitigated?
Beach Channel Drive and Beach 67th Street														
EB	LTR	0.70	34.0	C	LTR	0.71	33.7	C		LTR	0.64	21.9	C	
WB	LTR	0.79	13.9	B	LTR	0.80	14.4	B		LTR	0.71	5.5	A	
NB	LTR	0.15	18.2	B	LTR	0.17	18.7	B		LTR	0.22	23.3	C	
SB	LTR	0.08	21.0	C	LTR	0.09	22.6	C		LTR	0.11	27.6	C	
	Int.		23.4	C	Int.		23.5	C		Int.		14.6	B	
Beach Channel Drive and Beach 66th Street														
EB	LTR	0.72	13.0	B	LTR	0.72	12.8	B		LTR	0.72	22.4	C	
WB	LTR	0.74	22.8	C	LTR	0.78	24.6	C		LTR	0.78	24.6	C	
NB	LTR	0.02	19.8	B	LTR	0.02	19.8	B		LTR	0.02	19.8	B	
SB	LTR	0.08	20.5	C	LTR	0.09	21.7	C		LTR	0.09	21.7	C	
	Int.		17.9	B	Int.		19.0	B		Int.		23.5	C	
Beach Channel Drive and Beach 62nd Street														
EB	LT	1.00	71.4	E	LT	1.01	72.9	E		L	0.51	38.0	D	
										T	0.77	28.3	C	
WB	TR	0.64	7.4	A	TR	0.67	7.7	A		TR	0.67	7.7	A	
NB	LT	0.50	38.4	D	LT	0.50	38.4	D		LT	0.50	38.4	D	
	R2-R	0.59	40.1	D	R2-R	0.59	40.1	D		R2-R	0.59	40.1	D	
SB	L2-LTR	0.71	52.0	D	L2-LTR	0.71	52.0	D		L2-LTR	0.71	52.0	D	
	Int.		40.9	D	Int.		41.1	D		Int.		26.7	C	
Beach Channel Drive and Arverne Blvd														
EB	T	0.39	6.4	A	T	0.40	6.2	A		T	0.40	3.3	A	
WB	T	0.67	30.9	C	T	0.69	32.0	C		T	0.69	32.0	C	
NB	LR	0.32	31.1	C	LR	0.36	32.3	C		LR	0.36	32.3	C	
	Int.		20.8	C	Int.		21.7	C		Int.		20.5	C	

Specifically, the significant traffic impacts identified at three signalized intersections in the With-Action condition can be mitigated based on the measures in **Table 2.11-29**:

The future With-Action condition as compared with the future With Mitigation condition for the Beach Channel Drive and Beach 62nd Street/Arverne Boulevard intersection is presented graphically in **Figure 2.11-16.**

An AutoTURN analysis was performed for the Beach Channel Drive and Beach 62nd Street intersection both with and without improvements to determine whether a single unit truck (SU-30) and fire truck (Aerial Fire Truck – NCHRP Report 659) could be accommodated. Based on the analysis conducted, the SU-30 (truck) and fire truck are not projected to have any issues turning under the current or proposed intersection configuration.

Table 2.11-29: Proposed Traffic Mitigation Measures

Beach Channel Drive and Beach 67th Street

Phase	With Action				Mitigation			
	All Times (sec)				All Times (sec)			
	R	G	Y	Total	R	G	Y	Total
EB/WB	38	49	3	90	32	55	3	90
NB/SB	56	31	3	90	62	25	3	90

Move six seconds of green time from the northbound/southbound approach to the eastbound/westbound approach

Beach Channel Drive and Beach 66th Street

No Change. The revised signal timing at the Beach Channel Drive and Beach 67th Street intersection improves the delays at this intersection during the AM peak hour.

Beach Channel Drive and Beach 62nd Street/Arverne Blvd

Phase	With Action				Mitigation			
	All Times (sec)				All Times (sec)			
	R	G	Y	Total	R	G	Y	Total
Phase A - EB/WB	52	35	3	90	-	-	-	0
Phase B - NB (Arverne Blvd)	67	20	3	90	-	-	-	0
Phase A - EB (to Beach Channel Dr)/WB	-	-	-	0	52	35	3	90
Phase B - EB (to Arverne Blvd/NB (Arverne Blvd)	-	-	-	0	67	20	3	90
Phase C - NB/SB	67	20	3	90	67	20	3	90

Beach Channel Drive

Create two 11-foot wide eastbound Beach Channel Drive travel lanes (one for left turns and through traffic to Beach Channel Drive and one for through traffic to Arverne Boulevard).

Maintain an 11-foot wide westbound Beach Channel Drive travel lane between Beach 62nd and Beach 63rd Streets.

Remove 175 feet of parking on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets. This would eliminate approximately 14 parking spaces (seven on each side of the street).

Provide "No Stopping Anytime" signs on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.

Shift the Beach Cannel Drive center line 5.5 feet to the north between Beach 62nd and Beach 63rd Streets.

Create 2.5-foot wide stripped buffers along both curbs of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.

Shift the five-foot wide eastbound and westbound exclusive bicycle lanes on Beach Channel Drive between the 2.5-foot curb buffers and the 11-foot travel lanes between Beach 62nd and Beach 63rd Streets.

Shift the eastbound Beach Channel Drive stop bar at the Beach 62nd Street intersection 25-feet to the west and add "Stop Here on Red" sign.

Add eastbound lane designation and/or guide signs on Beach Channel Drive prior to Beach 62nd Street.

Adjust Phase A by stopping eastbound Beach Channel Drive vehicles to Arverne Boulevard to protect eastbound bicycles/pedestrians.

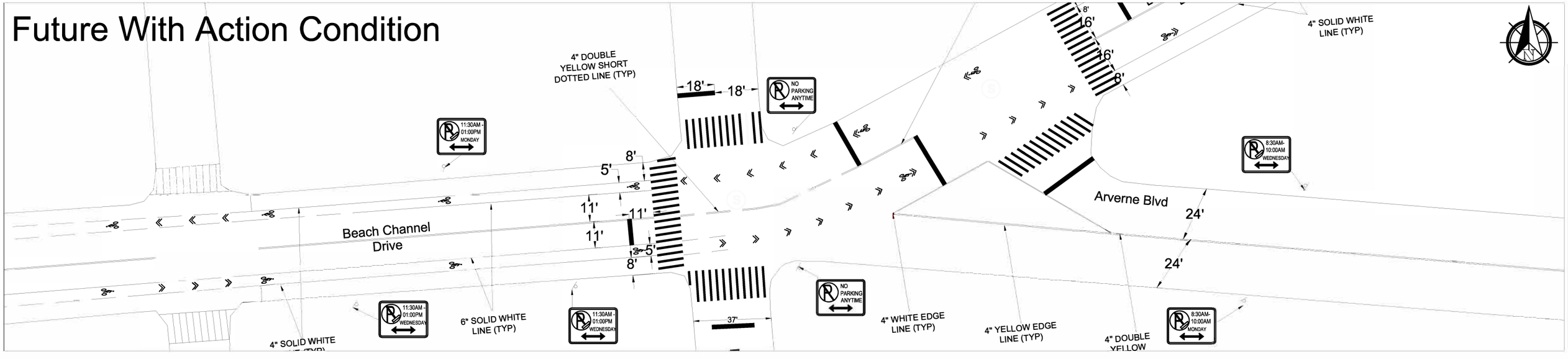
Arverne Boulevard

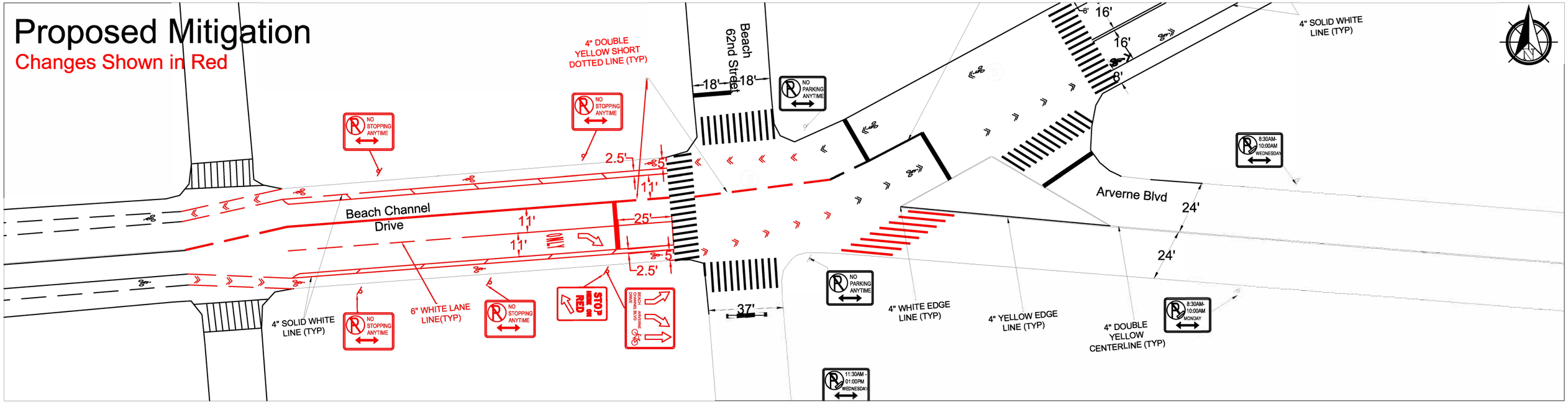
Add a stripped crosswalk across southbound Arverne Boulevard east of Beach 62nd Street (between the southeast corner and the island).

Adjust Phase B by allowing eastbound Beach Channel Drive vehicles to Arverne Boulevard to move with northbound Arverne Boulevard (eastbound Beach Channel Drive bicycles/pedestrians are stopped).

Figure 2.11-16
Project: Beach 67th Street Rezoning
Intersection: Beach Channel Drive, Beach 62nd Street and Arverne Blvd

Date: 01/07/2021





PREPARED BY:

SIMCO ENGINEERING, D.P.C.

Notes:

1. Parking is removed on both sides of Beach Channel Drive between Beach 62nd Street and Beach 63rd Street.
2. Two 11 feet travel lanes are provided for the eastbound approach on Beach Channel Drive.

Pedestrians

Safety

Signal, all-way stop, and enhanced crossing warrant analyses have been conducted at the Thursby Avenue and Beach 68th Street intersection and the Thursby Avenue and Beach 66th Street intersection at uncontrolled crossings where 20 or more students will be assigned to cross. Since the analyses determined that none of these warrants were met, traffic control could not be approved at these locations. However, a crossing guard would be requested at both intersections, along with the Thursby Avenue and Beach 67th Street intersection, to direct students safely through these intersections during school commencement and dismissal. The Applicant commits to deploying school safety officers during school commencement and dismal at these three intersections until such time that crossing guards can be provided. (except at locations where crossing guards are currently deployed during these periods).

Analysis

The traffic impact identified at the Beach Channel Drive and Beach 67th Street intersection was mitigated by moving six seconds of green time from the northbound/southbound approach to the eastbound/westbound approach. In order to determine whether any of the four crosswalks at this intersection would be adversely affected by the proposed change in signal timing, detailed pedestrian crosswalk analyses were performed during the weekday AM and Afternoon peak hours for the No-Action, With-Action, and Mitigation conditions (**Table 2.11-30).** Based on the analysis results, all crosswalks at this intersection are projected to operate at LOS B or better during all time periods analyzed.

Table 2.11-30
Mitigation Condition Level of Service Results
Beach Channel Drive and Beach 67th Street Crosswalks

Crosswalks	No-Action Condition		With-Action Condition		Mitigation Condition	
	SFP	LOS	SFP	LOS	SFP	LOS
AM Peak Hour						
East	260.7	A	64.7	A	45.7	B
West	248.2	A	81.6	A	58.0	B
North	619.9	A	173.3	A	202.6	A
South	941.4	A	394.6	A	459.8	A
Afternoon Peak Hour						
East	183.1	A	63.3	A	45.3	B
West	287.9	A	110.5	A	79.9	A
North	425.1	A	153.6	A	179.6	A
South	778.7	A	422.4	A	491.1	A

2.11.5 Conclusions

Based on the results of the analyses, there would not be any significant impacts in terms of pedestrians, parking, or vehicular or pedestrian safety as a result of the proposed rezoning. In addition, all significant traffic impacts identified could be mitigated. According to the results of the AutoTURN analysis performed, the SU-30 truck and firetruck are not projected to have any issues turning under the current or proposed intersection configuration at the Beach Channel Drive and Beach 62nd Street/Arverne Boulevard intersection. Regarding traffic mitigation measures, the Applicant has agreed to implement the following traffic mitigation measures in consultation with DOT:

1. At Beach Channel Drive and Beach 67th Street:
- Move six seconds of green time from the northbound/southbound approach to the eastbound/westbound approach.

2. At Beach Channel Drive and Beach 62nd Street/Arverne Boulevard:
- Create two 11-foot wide eastbound Beach Channel Drive travel lanes (one for left turns and through traffic to Beach Channel Drive and one for through traffic to Arverne Boulevard).
- Maintain an 11-foot wide westbound Beach Channel Drive travel lane between Beach 62nd and Beach 63rd Streets.
- Remove 175 feet of parking on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets. This would eliminate approximately 14 parking spaces (seven on each side of the street).
- Provide "No Stopping Anytime" signs on both sides of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.
- Shift the Beach Cannel Drive center line 5.5 feet to the north between Beach 62nd and Beach 63rd Streets.
- Create 2.5-foot wide stripped buffers along both curbs of Beach Channel Drive between Beach 62nd and Beach 63rd Streets.
- Shift the five-foot wide eastbound and westbound exclusive bicycle lanes on Beach Channel Drive between the 2.5-foot curb buffers and the 11-foot travel lanes between Beach 62nd and Beach 63rd Streets.
- Shift the eastbound Beach Channel Drive stop bar at the Beach 62nd Street intersection 25-feet to the west and add "Stop Here on Red" sign.
- Add eastbound lane designation and/or guide signs on Beach Channel Drive prior to Beach 62nd Street.
- Adjust Phase A by stopping eastbound Beach Channel Drive vehicles to Arverne Boulevard to protect eastbound bicycles/pedestrians.
- Add a stripped crosswalk across southbound Arverne Boulevard east of Beach 62nd Street (between the southeast corner and the island).
- Adjust Phase B by allowing eastbound Beach Channel Drive vehicles to Arverne Boulevard to move with northbound Arverne Boulevard (eastbound Beach Channel Drive bicycles/pedestrians are stopped).

Regarding pedestrian mitigation measures, The Applicant agrees to request NYPD crossing guards at the intersections of Thursby Avenue and Beach 66th Street and Thursby Avenue and Beach 68th Street, along with the Thursby Avenue and Beach 67th Street intersection, to direct students safely through these intersections during school commencement and dismissal. The Applicant commits to deploying school safety officers during school commencement and dismissal at these three intersections, at the Applicant's expense, until such time that crossing guards can be provided (except at locations where crossing guards are currently deployed during these periods) in consultation with DOT (the "Pedestrian Mitigation Measures").

The Traffic Mitigation Measures and the Pedestrian Mitigation Measures would be implemented in accordance with the conditional negative declaration (CND) and restrictive declaration (RD) for the proposed actions; the applicant would be responsible for any costs related to implementation of the measures.

2.12 AIR QUALITY

This section examines the potential for air quality impacts from the Proposed Action. According to the CEQR Technical Manual, air quality impacts can be characterized as either direct or indirect impacts. Direct impacts result from emissions generated by stationary sources, such as stack emissions from on-site fuel burned for boilers and heating, ventilation, and air conditioning (HVAC) systems. Indirect effects are caused by off-site emissions associated with a project, such as emissions from on-road motor vehicles ("mobile sources") traveling to and from a project site. An assessment of traffic associated with the proposed project was conducted to determine if the Proposed Action would have potential air quality mobile sources concerns.

Pollutants of Concern

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

Carbon Monoxide

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

Particulate Matter

Particulate matter is made up of small solid particles and liquid droplets. PM10 refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and PM2.5 refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particles smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

Nitrogen Oxides

When combustion temperatures are extremely high, such as in engines, atmospheric nitrogen gas may combine with oxygen gas to form various oxides of nitrogen. Of these, nitric oxide (NO) and nitrogen dioxide (NO2) are the most significant air pollutants. This group of pollutants is generally referred to as nitrogen oxides or NOX. Nitric oxide is relatively harmless to humans but quickly converts to NO2. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

Sulfur Dioxide

Sulfur Dioxide (SO2) emissions are the main components of the "oxides of sulfur," a group of highly reactive gases from fossil fuel combustion at power plants, other industrial facilities, industrial processes, and burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. High concentrations of SO2 will lead to formation of other sulfur oxides. By reducing the SO2 emissions, other forms of sulfur oxides are also expected to decrease. When oxides of sulfur react with other compounds in the atmosphere, small particles that can affect the lungs can be formed. This can lead to respiratory disease and aggravate existing heart disease.

Non-criteria Pollutants

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

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

Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, for CO from mobile sources and for PM2.5, the de minimis criteria are also used to determine significance of impacts.

National Ambient Air Quality Standards

The Clean Air Act (CAA) requires the USEPA to set standards on the pollutants that are considered harmful to public health and the environment. The NAAQS were implemented as a result of the CAA, amended in 1990 (see Table 2.10-1). The NAAQS applies to six principal ("criteria") pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter 10 (PM10), particulate matter 2.5 (PM2.5), sulfur dioxide (SO2), and ozone.

Non-criteria Pollutant Thresholds

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

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter (µg/m3) for the one-hour and annual average time periods for various air toxic compounds.

In order to evaluate impacts of non-carcinogenic toxic air emissions, USEPA developed a methodology called the "Hazard Index Approach."

The acute hazard index is determined by summing hazard quotients from individual chemicals and hazard index approach is only applicable to chronic hazard quotients. For chronic non-carcinogenic effects, the hazard index is calculated as the sum of chronic hazard quotients of all chemicals.
For acute exposure, USEPA recommends summing acute hazard quotients from individual chemicals if they have similar effects.

DAR-1 states that maximum concentration of all air contaminants must be less than a Hazard Index of 2 for non-carcinogen non-criteria air contaminants. If the combined ratio of pollutant concentration divided by its respective exposure threshold for each of the toxic pollutants is found to be less than 2.0, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

Table 2.12-1: National and New York State Ambient Air Quality Standards

Pollutant	Averaging Time	Standards
Carbon Monoxide (CO)	1-hour	35 ppm (40,000 µg/m^3)
	8-hour	9 ppm (10,000 µg/m^3)
Nitrogen Dioxide (NO_2)	1-hour	100 ppb (188 µg/m^3)
	annual	53 ppb (100 µg/m^3)
Ozone	8-hour	0.075 ppm
Particular Matter (PM_{10})	24-hour	150 µg/m^3
Particular Matter ($PM_{2.5}$)	24-hour	35 µg/m^3
	annual	12 µg/m^3
Sulfur Dioxide (SO_2)	1-hour	75 ppb (196 µg/m^3)
	3-hour	0.5 ppm (1,300 µg/m^3)

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

all the carcinogenic toxic pollutants combined is less than one-in-one million, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

Carbon Monoxide (CO) De Minimis Criteria

New York City has developed de minimis criteria to assess the significance of the increase in CO concentrations that would result from the impact of proposed projects or actions on mobile sources, as set forth in the 2020 CEQR Technical Manual. These criteria set the minimum change in CO concentration that defines a significant environmental impact. Significant increases of CO concentrations in New York City are defined as: (i) an increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or (ii) an increase of more than half the difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

Particulate Matter ($PM_{2.5}$) *De Minimis* Criteria

New York City uses de minimis criteria to determine the potential for significant adverse PM2.5 impacts under CEQR. The de minimis criteria are as follows:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average PM2.5 concentration increments which are predicted to be greater than 0.1 µg/m3 at ground level on a neighborhood; or
- Annual average PM2.5 concentration increments which are predicted to be greater than 0.3 µg/m3 at a discrete receptor location (elevated or ground level).

Methodology and Assessment

Mobile Sources

Project-Generated Traffic Screening Analysis

Screening analyses for the project's peak hour auto traffic and peak hour heavy-duty diesel vehicle (HDDVs) traffic were conducted. Per the *CEQR Technical Manual*, a detailed analysis for carbon monoxide (CO) is required if the generate peak hour auto traffic or diversion of existing peak hour traffic would result in an increment of 170 auto trips (in this area of the city). A detailed analysis for particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) is required if the generate peak hour HDDVs traffic or its equivalent in vehicular emissions, depending on the type of road, would be met or exceeded.

According to the transportation analysis for this project, 185 vehicles would traverse the intersection of Beach Channel Drive and Beach 67 Street during the AM peak-hour period, which exceeds the threshold of 170

vehicular trips (condition outlined in Sections 210 of Chapter 17 of *the CEQR Technical Manual*). Therefore, a CO detailed analysis is required for this intersection. No other intersection would result in an increase of more than 170 vehicles per hour during any peak-hour period.

The $PM_{2.5}$ equivalent truck calculation in vehicular emission screen depends on the type of road. Beach Channel Drive is a minor arterial roadway, Beach 73rd Street is a principle arterial roadway, and all other roadways are local streets[8]. The *CEQR Technical Manual* threshold criterions for arterial roadways is 23 HDDVs, and 12 HDDVs for local streets (paved roads with less than 5,000 vehicle per day). For the screening analysis, the number of trucks were assumed to be the project-generated traffic of these types of vehicles. The number of autos, obtained from the trip assignment, are the reminder of the vehicles. The HDDVs screen assumed that all autos (passenger cars and passenger trucks combined) are LDGT1 class vehicles, based on guidance from the New York City Department of City Planning (DCP). The worst-case HDDVs or its equivalent in vehicular emissions would result in a maximum of 95 equivalent trucks traveling on Beach 67 Street. **Table 2.12-2** shows the results of the *CEQR Technical Manual* Equivalent Truck Calculation for each peak-hour period.

Table 2.12-2: *CEQR Technical Manual* Equivalent Truck Calculations

Roadway	Roadway Classification (Threshold HDDVs screen)	Peak-Hour Period	Truck Per Hour	Bus Per Hour	Auto Per Hour	Equivalent Truck	Pass / Fail
Beach 67 Street	Paved (12)	AM	2	10	172	95	Fail
		Afternoon	0	10	141	78	Fail
		PM	0	0	54	26	Fail
Beach 66 Street	Paved (12)	AM	2	10	37	30	Fail
		Afternoon	0	10	54	36	Fail
		PM	0	0	23	11	Pass
Thursby Avenue	Paved (12)	AM	2	10	53	37	Fail
		Afternoon	0	10	75	46	Fail
		PM	0	0	30	14	Fail
Arverne Blvd	Paved (12)	AM	2	10	50	36	Fail
		Afternoon	0	10	44	21	Fail
		PM	0	0	15	7	Pass
Beach Channel Drive	Minor Arterial (23)	AM	2	10	103	16	Pass
		Afternoon	0	10	99	14	Pass
		PM	0	0	34	1	Pass
Beach 73rd Street	Principle Arterial (23)	AM	2	10	64	14	Pass
		Afternoon	0	10	56	12	Pass
		PM	0	0	23	1	Pass

As seen in Table **2.12-2**, the Proposed Actions PM2.5 equivalent truck calculation in vehicular emission exceed the HDDVs screening threshold criterion on Beach 67 Street, Beach 66 Street, Arverne Avenue, and

[8]https://gis3.dot.ny.gov/html5viewer/?viewer=FC

Thursby Avenue. Therefore, a detailed analysis is required. The intersection of Beach 67 Street and Thursby Avenue was determined to be worst-impacted intersection, based on the equivalent truck calculation in vehicular emission and total number of vehicles traversing each intersection.

Project-Generated Traffic Detailed Analysis

Methodology and Database

PM2.5 detailed analysis was conducted for the intersection of Beach 67 Street and Thursby Avenue, based on the equivalent truck calculation in vehicular emissions and traffic increment at the intersection. CO detailed analysis was conducted for the intersection of Beach 67 Street and Beach Channel Drive as this intersection failed the CO screening analysis. The existing traffic count and vehicle classification, No-Action traffic count, and project incremental traffic were used in the analysis. The project increment was added to the No-Action traffic to project the With-Action traffic.

Vehicular emissions were compiled with the EPA Motor Vehicle Emission Simulator (MOVES) version 2014b. CO emission factors were calculated for the month of July and PM2.5 for the month of January, based on previous analyses for these pollutants showing maximum concentrations in these seasons. Fugitive dust emissions were added to the MOVES output to calculate the short-term PM2.5 emission factors (per the New York City Department of Environmental Protection (DEP), annual fugitive dust emission is negligible). Slit loading factor was obtained from the CEQR Technical Manual. In addition, based on DEP guidance, the conservative assumptions of “dry” road condition was used for the short-term calculation (precipitation reduced silt loading).

Dispersion analysis was conducted with the EPA’s CAL3QHCR dispersion model version 13196. All models specified settling and deposition velocities of 0-meter per second, 60-minute averaging time, and urban surface roughness of 108-centimeter.

Roadways were modeled as free flowing, at grade, links. Short-term receptors were placed in the middle of sidewalks around the intersection. Annual receptors were placed 15-meter from the curbs. The worst-case peak-hour traffic was used for both the short-term and annual timeframes analyses. The PM2.5 short-term and annual concentrations were evaluated with the NYC Guideline (de minimis).

Air Pollutants and Applicable Standards and Guidelines

The EPA has identified six pollutants, known as criteria pollutants, which are of concern nationwide. 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. To determine compliance with the NAAQS, the predicted concentrations from the analyzed source(s) are added to the background concentrations. Based on the CEQR Technical Manual, the nearest federally-mandated background concentration monitoring site, for each pollutant independently, is

considered a representative site. The NAAQS and background concentrations of the criteria pollutants that detailed analyses were conducted for are presented in **Table 2.12-3.**

Table 2.12-3: Background Concentration at the NYSDEC Nearest Monitoring Station

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
$PM_{2.5}$	24-Hour	35 µg/m^3	17.6 µg/m^3	Queens College
	Annual	12 µg/m^3	7.0 µg/m^3	
CO	1-Hour	35 ppm	1.51 ppm	
	8-Hour	9 ppm	1.10 ppm	

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply $PM_{2.5}$ and CO significant impact (*de minimis* threshold). The City's *de minimis* criteria are used to determine the significance of the incremental increase in CO and $PM_{2.5}$ concentrations that would result as a consequence of the proposed project. The CO criteria set the minimum change in 8-hour average CO concentration that constitutes a significant environmental impact. Significant increase of CO concentrations in New York City are:

- 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.

$PM_{2.5}$ significant impact concentrations relevant to mobile sources intersection analysis are shown here:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 µg/m^3 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
- The 8-hour CO *de minimis* design value is 3.95 ppm and the 24-hour $PM_{2.5}$ *de minimis* design value is 8.70 µg/m^3.

Figure 2.12-1: Approximate Receptors for Intersection of Beach 87th Street & Thursby Avenue



Figure 2.12-2: Approximate Receptors for Intersection of Beach 87th Street & Beach Channel Drive



Project-Generated Traffic Dispersion Analysis Results

The predicted incremental concentrations of $PM_{2.5}$ and 8-hour CO were evaluated with the NYC Guideline (*de minimis*). CO and $PM_{2.5}$ ambient air concentrations (increment plus background concentrations) were evaluated with the NAAQS. **Table 2.12-4** shows the dispersion analysis results.

Table 2.12-4: Project-Generated Traffic Dispersion Analysis Results

Pollutant and Averaging Time	Increment Concentration	Background Concentration	Background Plus Increment Concentration	NAAQS	*de minimis*
With-Action Scenario					
$PM_{2.5}$ 24-hour	3.51 µg/m³	17.6 µg/m³	21.1 µg/m³	35 µg/m³	8.70 µg/m³
$PM_{2.5}$ Annual	0.14 µg/m³	7.0 µg/m³	7.14 µg/m³	12 µg/m³	0.1 µg/m³
CO 1-hour	0.2159 ppm	1.51 ppm	1.73 ppm	35 ppm	N.A.
CO 8-hour	0.19 ppm	1.10 ppm	1.29 ppm	9 ppm	3.95 ppm
No-Action Scenario					
$PM_{2.5}$ Annual	0.04 µg/m³	7.0 µg/m³	7.04 µg/m³	12 µg/m³	0.1 µg/m³
$PM_{2.5}$ 24-hour	0.1083 µg/m³	17.6 µg/m³	17.7083 µg/m³	35 µg/m³	8.70 µg/m³

As seen in **Table 2.12-4**, the $PM_{2.5}$ and 8-hour CO concentrations do not exceed the *de minimis* design values, and the pollutants increment plus background concentrations are within the NAAQS design values. Therefore, no significant adverse air quality impacts are expected at intersections affected by the project-generated traffic.

Conclusion

No violations of the ambient air quality standards at intersections affected by the Proposed Actions were predicted in the analysis. Therefore, there is no reason to believe that the Proposed Actions would result in any potential significant adverse mobile source air quality impact associated with the project-generated traffic, and further assessment is not warranted.

Stationary Sources

According to the CEQR Technical Manual guidelines, air quality analyses of stationary sources may be warranted if a project would (i) create new stationary sources of pollutants – such as emission stacks of industrial plants, hospitals, other large institutional uses, or even a building's boilers – that may affect surrounding uses; (ii) introduce certain new uses near existing or planned emissions stacks that may affect the use, or (iii) introduce structures near such stacks so that changes in the dispersion of emissions from the stacks may affect surrounding uses.

HVAC Systems Analysis

As described in Section 220 and Section 321 in Chapter 17 of the CEQR Technical Manual, for single building projects that would use fossil fuels (i.e., fuel oil or natural gas) for HVAC systems, a preliminary stationary

source screening analysis is typically warranted to evaluate the potential for impacts on existing buildings from HVAC systems emissions for the proposed project. The CEQR Technical Manual provides screening nomographs based on fuel type, stack height, minimum distance from the source to the nearest receptor buildings with similar or greater heights, and floor area of development resulting from the proposed project. There are three different curves representing three different stack heights (30 feet, 100 feet and 165 feet) on the figures, and the number closest to but not higher than the proposed stack height should be selected. The screening methodology determines the minimum required distance from the source to the nearest receptor of similar or greater height, beyond which the action would not have a significant adverse impact. Based on the development size, if the distance from the development site to the nearest building of similar or greater height is less than the minimum required distance determined, there is the potential for a significant air quality impact from the project's boilers, and further analysis needs to be conducted using the USEPA's AERSCREEN and/or AERMOD model.

Dispersion Modeling

Potential impacts were evaluated using the EPA AERMOD dispersion model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analysis of potential impacts from exhaust stacks was performed assuming stack tip downwash, urban dispersion and surface roughness length, with and without building downwash, and elimination of calms. The AERMOD model also incorporates the algorithms from the PRIME model, which is designed to predict impacts in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). The Building Profile Input Program (BPIP) program for the PRIME model (BPIPRM) was used to determine the projected building dimensions modeling with the building downwash algorithm enabled. The modeling of downwash from sources accounts for all obstructions within a radius equal to five obstruction heights of the stack.

Methodology Utilized for Estimating NO_2 Concentrations

The 1-hour and annual average NO_2 concentration impact from the proposed project's stationary combustion sources were estimated using AERMOD model's Tier 2 updated Ambient Ratio Method, referred as "ARM2". ARM2 does not require additional input data that is subject to case-by-case review and approval. The model execution time for ARM2 is faster than for those more computationally intensive refined methods. The ARM2 method performs better than the old ARM method and is comparable to the more refined EPA modeling methods for 1-hour ambient NO_2 concentrations.

Total 1-hour NO_2 concentrations were determined following methodologies that are accepted by the EPA, and which are considered appropriate and conservative. The methodology used to determine the compliance of total 1-hour NO_2 concentrations from the proposed sources with the 1-hour NO2 NAAQS was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from proposed sources were first added to the seasonal hourly background monitored concentrations; then the highest combined daily 1-hour NO_2 concentration was determined at each receptor location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally the 98th percentile concentrations were averaged over the latest five years.

Meteorological Data

The meteorological data set consisted of five consecutive years of meteorological data: surface data collected at JFK Airport (2015–2019), and concurrent upper air data collected at Brookhaven, NY. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevation over the five-year period. These data were processed using the EPA AERMET program to develop data in a format which can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps to determine surface parameters used by the AERMET program.

Receptor Placement

A comprehensive receptor network (i.e., locations with continuous public access) was developed for the modeling analyses. Discrete receptors (i.e., locations at which concentrations are calculated) were modeled along the existing and proposed buildings' façades to represent potentially sensitive locations such as operable windows and intake vents. For each of the proposed buildings, receptors were conservatively placed on the façades of the maximum development envelope. Rows of receptors at spaced intervals on the modeled buildings were analyzed at multiple elevations.

Industrial Sources Analysis

A field survey and a review of MapPluto GIS data were undertaken in order to identify potential manufacturing and processing facilities located within the 400-foot air toxics study area. Searches of the New York City Department of Environmental Protection's CATS online permitting database were conducted to determine whether any active industrial permits exist within the 400-foot study area. No active or expired permits were found; therefore, the Proposed Action would not result in new sensitive uses being introduced within 400 feet of manufacturing or processing facilities, and no further air toxics impact assessment is warranted. Lists of all New York State Department of Environmental Conservation (NYSDEC) Title V Facility Permits and NYSDEC State Facility Air permits, including facility addresses, were obtained from New York State Open Data (https://data.ny.gov/). The facility addresses were then geocoded in GIS to see if any permitted facilities are located within the 1,000-foot major source study area. No major emission sources were identified within

1,000 feet of the project site. Accordingly, the Proposed Action does not require further evaluation with respect to major stationary sources.

Existing Conditions

The total concentrations experienced at receptors include background concentrations from existing surrounding emission sources. Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other area emission sources. The NYSDEC maintains an air quality monitoring network and produces annual air quality reports that include monitoring data for CO, NO2, PM10, PM2.5, and SO2. To develop background levels, pollutant concentrations from monitoring sites located closest to the project area were obtained from New York State Ambient Air Quality Report for 2019. **Table 2.12-5** summarizes the background concentrations for each of the pollutants.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria, without considering the annual background. Therefore, the annual $PM_{2.5}$ background is not presented in the table.

Table 2.12-5: Background Concentration

Pollutant	Averaging Time	Monitoring Station	Background Concentration
Carbon Monoxide (CO)	1-hour	Queens College	2.85 ppm
	8-hour	Queens College	1.3 ppm
Nitrogen Dioxide (NO_2)	1-hour	Queens College	103.6 µg/m^3
	annual	Queens College 2	26.7 µg/m^3
Particulate Matter (PM_{10})	24-hour	Queens College2	28 µg/m^3
Particulate Matter ($PM_{2.5}$)	24-hour	Queens College	17.0 µg/m^3
	annual	Queens College 2	7.1 µg/m^3
Sulfur Dioxide (SO_2)	1-hour	Queens College	13.55 µg/m^3
	Annual	Queens College	1.5 µg/m^3

Future No-Action Condition

As described in Section 1.0, Project Description, In the future without the Proposed Action (the No-Action condition), the proposed project area would remain consistent with existing conditions.

Future With-Action Condition

Stationary Sources

HVAC Screening Analysis

A screening analysis was conducted using the methodology previously described to evaluate the potential impacts on existing buildings from emissions from individual as well as cumulative HVAC systems for the

proposed project. For conservative purposes, the shortest distance between the source and the receptor assuming the maximum building footprints was used. It was assumed that the exhaust stacks would be located three feet above roof height (as per the *CEQR Technical Manual*). The screening analysis was initially performed using the *CEQR Technical Manual* procedures assuming the use of No. 2 fuel oil. If the screening results failed with the use of No. 2 fuel oil, a second screening procedure was conducted, assuming use of natural gas. The proposed project would result in the development of two Projected Development Sites (Site 1 has two separate buildings) of varying sizes, summarized in **Table 2.12-6**.

Table 2.12-6: Reasonable Worst-Case Development Scenario Summaries

Site No.	Block	Lot	Max Allowable Gross Area (sq. ft.)	Max Allowable Height (ft.)
Projected Site 1a	16040	12, 14, 16	76,241	128
Projected Site 1b	16040	18, 20, 22	60,480	90
Projected Site 2	16041	6	221,760	75

However, as indicated in *CEQR Technical Manual*, this screening figure is only appropriate for sources at least 30 feet from the nearest buildings of similar or greater height. Since Projected Site 1a and Projected Site 1b are adjacent and would be attached to each other, a refined dispersion modeling analysis approach is warranted. The Public School 042 building located at 460 Beach 66th Street (Block 16039, Lot 14) is the nearest building of similar or greater height.

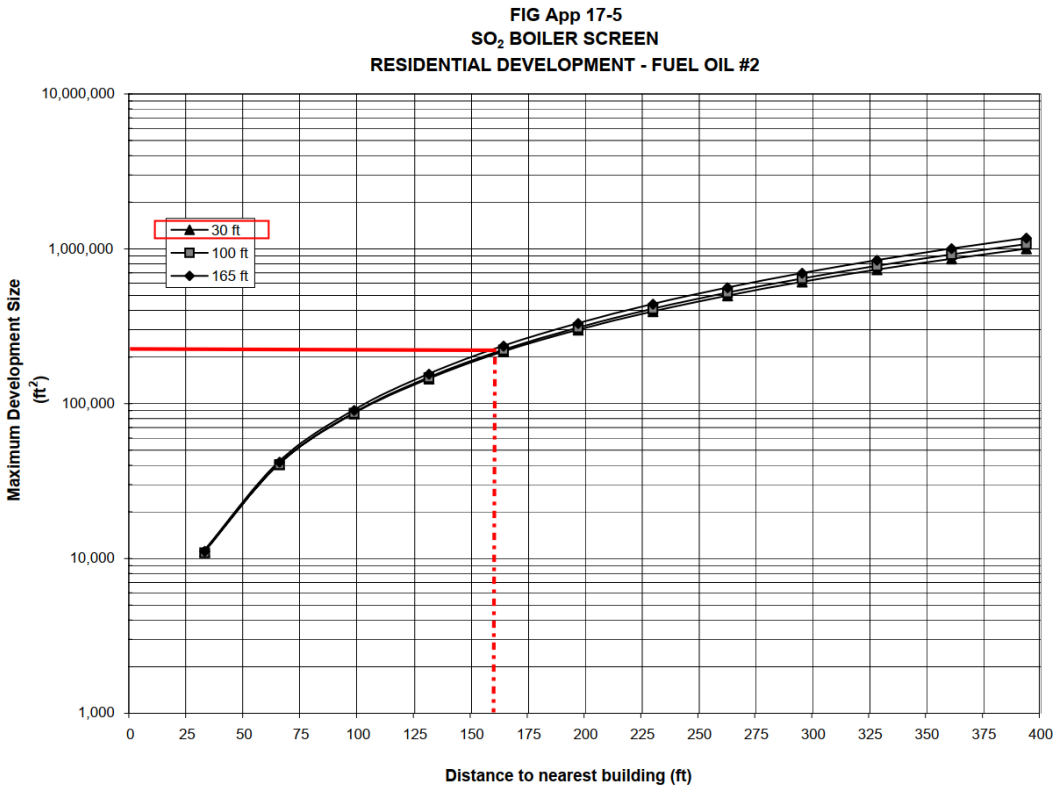
As shown in Figure **2.12-3**, the minimum allowable distance to screen out detailed air quality impact analysis for any sensitive receptors with similar or greater height from Projected Site 2 is 160 feet. Since Projected Site 2 would be located approximately 70 feet from Projected Site 1a and 1b, and Projected Site 1a and 1b would have greater height, a detailed modeling analysis would be required to determine the impact from Projected Site 2 on Projected Site 1a and Projected Site 1b.

For conservative measure, 4 dispersion modeling scenarios were completed to ensure there would be no adverse impacts from the Proposed Action. The Project-on-Project analyses included the impact from Projected Sites 1a and 1b on Projected Site 2, the impact from Projected Sites 1a and 2 on Projected Site 1b, and the impact from Projected Sites 1b and 2 on Projected Site 1a. The Project-on-Existing analysis run was the cumulative impact of all Projected Sites on Public School 042.

Figure 2.12-3: Air Quality Screening Graph – Projected Site 2

HVAC Screening Analysis

Site: Projected Site 2



Stack Height: 78 ft
Proposed Maximum SQFA: 221,760 ft^2
Minimum Allowable Distance to Nearest Building: 160 ft

Dispersion Modeling Analysis

For the refined analysis, the exhaust stacks for HVAC systems were assumed to be located at the edge of the development massing closest to the receptor, unless the source and receptor were immediately adjacent to each other. Since Projected Development Site 1a and Projected Development Site 1b were immediately adjacent to each other, the stack on Site 1b was assumed to be located at an initial distance of 70 feet from the nearest receptor. All other stack locations were placed as close to receptors as possible. Receptors were placed around the entire foot print of the receiving building with 10-foot increments. Ground floor receptors were place at 5 feet above the ground with each additional level 10-feet above the previous.

The refined dispersion modeling analysis was performed for criteria pollutants of $PM_{2.5}$, NO_2 and SO_2 for which the National Ambient Air Quality Standards (NAAQS) have been established, with emission rates for No. 2 fuel oil. If a source could not be in compliance with the NAAQS or $PM_{2.5}$ *de minimis* criteria established in the *CEQR Technical Manual*, the stack would then be set back in 5-foot increments until the source met the respective criteria.

An estimate of the emissions from the HVAC systems was made based on the projected development size, type of fuel used and type of construction with below fuel consumptions rates applicable for residential developments: 60.3 ft^3/ft^2-year and 0.43 gal/ft^2-year for natural gas and fuel oil, respectively. Short-term fuel consumption rates were based on peak hourly fuel consumption estimates for each HVAC system relevant to individual projected site. HVAC emission factors for each fuel type were obtained from the EPA *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources*. **Table 2.12-7** presents the HVAC emission rates firing NO_2 for Projected Site 1a, 1b, and Projected Site 2 and stack parameters used in the AERMOD.

Table 2.12-7 HVAC Emission Rates and Stack Parameters for the Proposed Buildings

	Projected Site 1a	Projected Site 1b	Projected Site 2
Emission Rate (g/s)			
1-Hr NO_x	1.69E-02	2.73E-02	1.00E-01
Annual NO_x	4.62E-03	7.48E-03	2.74E-02
24-Hr $PM_{2.5}$	1.79E-03	2.91E-03	1.07E-02
Annual $PM_{2.5}$	4.92E-04	7.97E-04	2.92E-03
1-Hr SO_2	2.39E-02	3.88E-02	1.42E-01
Annual SO_2	6.56E-03	1.066E-02	3.90E-02
Stack Parameters			
Stack Height (ft)	131	93	78
Stack Diameter (m)	0.3048	0.3048	0.4572
Exhaust Velocity (m/s)	7.8	7.8	7.2

AERMOD Modeling Concentration

Assessment Results

Table 2.12-8 summarizes the AERMOD-predicted potential cumulative air quality impacts from all four scenarios. There was one exceedance for 1-hour NO_2 in the impact to Projected Development 1B using a Tier II analysis. No other exceedances were noted using the Tier I analysis. Therefore, a Tier II NO_x to NO_2 analysis was conducted for the impact to Projected Development 1B.

Table 2.12-8: Maximum Modeled Concentrations (µg/m³)

Pollutant & Averaging Time	Modeled Concentration (ug/m3)	Background Concentration (ug/m3)	Evaluated Concentration (ug/m3)	Threshold Concentration (ug/m3)	Threshold Standard
Impact on Projected Development 1A					
1-hour NO2	82.200	103.6	185.8	188	NAAQS
Annual NO2	2.129	26.7	28.829	100	NAAQS
24-hour PM2.5	4.117	17.00	21.117	8.6	de minimis
Annual PM2.5	0.227	7.10	7.327	0.3	de minimis
1-hour SO2	26.787	13.55	40.337	196	NAAQS
Annual SO2	3.02	1.5	4.52	80	DAR-10 AGC
Impact on Projected Development 1B					
1-hour NO2	92.468	103.6	196.068	188	NAAQS
Annual NO2	1.534	26.7	28.234	100	NAAQS
24-hour PM2.5	3.281	17.00	20.281	8.6	de minimis
Annual PM2.5	0.163	7.10	7.263	0.3	de minimis
1-hour SO2	8.512	13.55	22.062	196	NAAQS
Annual SO2	2.18	1.5	3.68	80	DAR-10 AGC
Impact on Projected Development 2					
1-hour NO2	17.042	103.6	120.642	188	NAAQS
Annual NO2	0.273	26.7	26.973	100	NAAQS
24-hour PM2.5	0.804	17.00	17.804	8.6	de minimis
Annual PM2.5	0.029	7.10	7.129	0.3	de minimis
1-hour SO2	9.4220	13.55	22.972	196	NAAQS
Annual SO2	0.39	1.5	1.89	80	DAR-10 AGC
Impact on 460 Beach 66th Street					
1-hour NO2	47.541	103.6	151.141	188	NAAQS
Annual NO2	0.692	26.7	27.392	100	NAAQS
24-hour PM2.5	1.928	17.00	18.928	8.6	de minimis
Annual PM2.5	0.074	7.10	7.174	0.3	de minimis
1-hour SO2	67.508	13.55	81.058	196	NAAQS
Annual SO2	0.98	1.5	2.48	80	DAR-10 AGC

*Note: all exceedances above threshold standards are highlighted in yellow.

Tier II Dispersion Analysis

To more accurately estimate the amount of NO_2 produced from the HVAC emissions, the EPA's Ambient Ratio Method (ARM2), or a Tier II approach, was applied. The ARM2 approach uses a variable ambient ratio that is a function of model predicted 1-hour NO_x concentration based on an analysis of hourly ambient NO_x monitoring data from approximately 580 stations between 2001 to 2010. The results of the tier II analysis for impacts to Proposed Development 1B are seen in **Table 2.12-9**. The 1-hour NO_2 concentration is below the threshold standard. Therefore, no significant impact is expected to Projected Development 1B, or any of the other Proposed Development buildings, from the HVAC emissions of the new buildings.

Table 2.12-9: Maximum Modeled Concentrations (µg/m³) – Tier II Analysis

Pollutant & Averaging Time	Modeled Concentration (ug/m3)	Background Concentration (ug/m3)	Evaluated Concentration (ug/m3)	Threshold Concentration (ug/m3)	Threshold Standard
Impact on Projected Development 1B					
1-hour NO2	46.234	103.60	149.834	188	NAAQS

Proposed (E) Designation

To ensure that there are no significant adverse impacts related to emissions from the HVAC systems associated with the With-Action development onto existing or other projected buildings of similar or greater height, certain restrictions would be required regarding fuel type and/or exhaust stack location for some of the development sites. The text of the (E) designation (E-605) would be as follows:

Projected Development Site 1 (Block 16040, Lots 12, 14, 16, 18, 20, 22, 24)

- Projected Development Site 1A (Charter School) - Any new community facility development on the above-referenced property must ensure HVAC stack(s) is located at the highest tier and at least 131 feet above grade, to avoid any significant adverse air quality impacts.
- Projected Site 1B (Affordable Independent Residence for Seniors (AIRS)) - Any new residential development on the above-referenced property must ensure HVAC stack(s) is located at the highest tier and at least 93 feet above grade, the location of any heating, ventilation, air conditioning (HVAC) stack shall be restricted to at most 50 feet from the northern lot line facing Thursby Avenue to avoid any significant adverse air quality impacts.

Projected Development Site 2 (Block 16041, Lot 6)

- Projected Development Site 2 - Any new residential development on the above-referenced property must ensure stack(s) is located at the highest tier and at least 78 feet above grade

2.12.4 Conclusion

The air quality analysis demonstrates that the potential pollutant concentrations and/or concentration increment from mobile sources emissions associated with the Proposed Action would not exceed the NAAQS or the City's

de minimis thresholds, as the project would not generate enough vehicle trips to cause air quality impacts.

As for the HVAC stationary source emissions, with the adoption of (E) Designation (E-605) for the projected buildings associated with the Proposed Actions, the Project would not exceed the NAAQS and the City's *de minimis* criteria. No industrial source was found within 400-foot radius and no large or major source were found within a 1000-foot radius of the Project Area, therefore, no significant adverse impacts from industrial sources are anticipated on the proposed residential buildings.

Therefore, there no significant adverse air quality impacts would occur as a result of the Proposed Actions.

2.13 NOISE

Introduction

Equity Environmental Engineering, LLC (Equity) conducted Noise Monitoring in support of the Proposed Action. Vehicular traffic and rail traffic are the predominant source of noise in the area. Therefore, the Proposed Action warrants an assessment of the potential for adverse effects on project occupants from ambient noise. The Project Site is surrounded by Thursby Avenue to the north, Beach Channel Drive to the south, Beach 66th Street to the east, Beach 67th Street between the two development sites, and Beach 68th Street to the West.

Parkside Avenue is a two-way east-west bound street with curbside parking. Beach Channel Drive is a two-way east-west bound street with curbside parking. Beach 66th Street is a two-way north-south bound street with curbside parking. Beach 67th Street is a two-way north-south bound street with curbside parking. Beach 68th Street is a two-way north-south bound street with curbside parking. Local intersections are controlled by stop signs and traffic signals.

The Proposed Action would allow noise-sensitive residential development. Therefore, an assessment of the potential for adverse effects on project occupants from ambient noise is warranted. The Project would create a playground as well as add vehicles to the bounding roadways. Therefore, this noise assessment is an assessment of ambient noise that could adversely affect occupants of the development as well as an assessment of project-generated noise. The predominant noise source at the Affected Area is vehicular traffic on surrounding streets.

Framework of Noise Analysis

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.

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 frequency weightings used are the A- and C-weightings. 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-weighting is the most commonly used for environmental measurements, 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 frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most 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.

Table 2.13-1: 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: 2020 CEQR Technical Manual	

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

- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA 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_{eq} 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_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.

- Lmax is the highest SPL measured during a given period of time. It is useful in evaluating Leqs for time periods that have an especially wide range of 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 percentile-exceeded 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 dBA 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.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise exposure guidelines for exterior noise levels. As shown in Table 19-2 below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable, Table 19-3 of the *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values

for buildings are designed to maintain interior noise levels of 45 dBA (L_{10} *or Ldn, depending on the source*) or below.

Table 2.13-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1. Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	----------$L_{dn} \leq 60$ dBA----------		----------60 < $L_{dn} \leq 65$ dBA----------		(I) 65 < $L_{dn} \leq 70$ dBA, (II) 70 ≤ L_{dn}		----------$L_{dn} \leq 75$ dBA----------
2. Hospital, nursing home		$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 65$ dBA		65 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel, or motel	(7 AM to 10 PM)	$L_{10} \leq 65$ dBA		65 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	(10 PM to 7 AM)	$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dB(A) 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 as 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 DNL contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved Aviation Environmental Design Tool (AEDT) Computer Model using flight data supplied by the PANYNJ.

[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 listed by octave band).

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

Table 2.13-3 CEQR TM: Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Project	70 < $L_{10} \leq 73$	73 < $L_{10} \leq 76$	76 < $L_{10} \leq 78$	78 < $L_{10} \leq 80$	80 < L_{10}
Attenuation[1]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	36 + $(L_{10} - 80)^2$ dB(A)

Source: New York City of Environmental Protection

Notes:

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

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

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of vehicular traffic, noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day. Pursuant to CEQR Technical Manual Methodology, measurements were conducted for 1-hour periods during each of the peak periods at each monitoring location at the Rezoning Area: Location One (1)

was on Beach 67th Street at the northern portion of the Rezoning Area; Location Two (2) was on Beach 67th Street at the southern portion of the Rezoning Area. The noise monitoring locations are shown below in **Figure 2.13-1 – 2.13.3**.

Noise monitoring was conducted using a using Type 1 Casella CEL-633 sound level meter with wind screen. The monitor was placed on a tripod at a height of approximately four feet above the ground, away from any other noise-reflective surfaces. The monitor was calibrated prior to and following each monitoring session. Periods of peak vehicular traffic around the Project Area constitute a worst-case condition for noise. Noise meter calibration certification and back up data are provided in **Appendix G**.

Figure 2.13-1: Noise Monitoring Locations

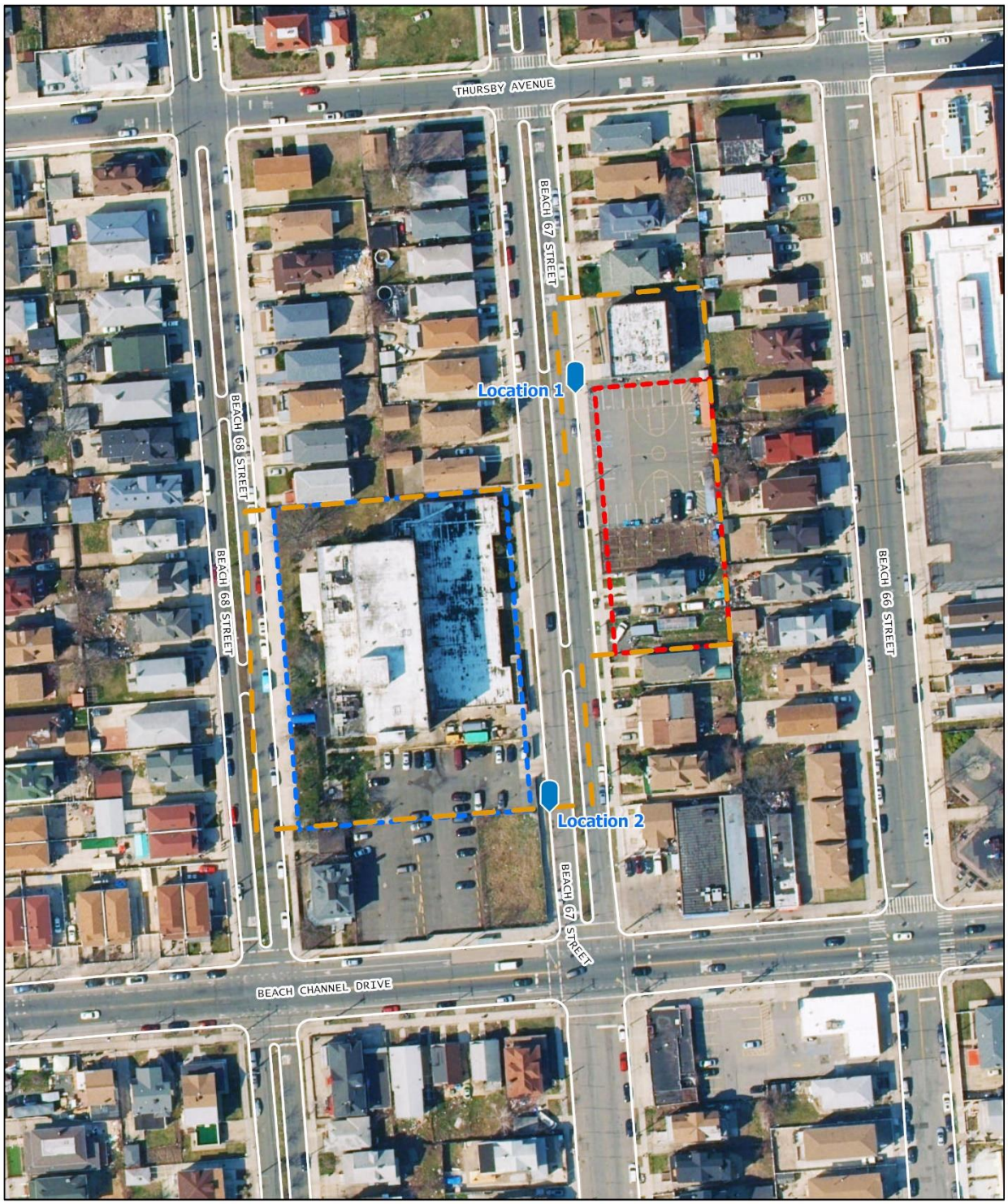


Figure 2.13-2: Location 1 – Beach 67th Street – Northern Portion of Rezoning Area



Figure 2.13-3: Location 2 – Beach 67th Street – Southern Portion of Rezoning Area



Measurement Conditions

Monitoring was conducted during typical midweek conditions, on Wednesday October 28th, 2020. Wind speeds were mild during monitoring. Traffic volumes and vehicle classification were documented during the noise monitoring.

Existing Conditions

The predominant source of noise at the site is vehicular traffic.

Table 2.13-4: Noise (dB) Levels at Location 1

Wednesday, October 28th, 2020			
Time	**7:30 am – 8:30 am**	**12:00 pm – 1:00 pm**	**4:30 pm – 5:30 pm**
L_{max}	79.6	93.1	83.2
L_{10}	60.5	65.0	62.0
L_{eq}	60.8	65.4	62.2
L_{50}	51.5	54.5	51.5
L_{90}	46.5	50.5	48.0
L_{min}	43.3	47.2	46.1

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Table 2.13-5: Noise (dB) Levels at Location 2

Wednesday, October 28th, 2020			
Time	**7:30 am – 8:30 am**	**12:00 pm – 1:00 pm**	**4:30 pm – 5:30 pm**
L_{max}	90.0	76.4	88.5
L_{10}	**71.5**	63.5	63.0
L_{eq}	67.1	60.9	63.4
L_{50}	58.5	56.0	56.5
L_{90}	53.0	52.0	52.5
L_{min}	48.5	48.1	49.1

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Tables 2.13-6 through **Table 2.13-7** contain the traffic volumes and vehicle classifications for the morning, noon, and evening monitoring sessions.

Table 2.13-6: Traffic Volumes and Vehicle Classifications – Location 1

	7:30 am – 8:30 am	12:00 pm – 1:00 pm	4:30 pm – 5:30 pm
Car	23	43	26
SUV	44	64	36
Medium Truck	2	1	3
Heavy Truck	3	1	0
Bus	4	0	2
Train	0	0	0

Table 2.13-7: Traffic Volumes and Vehicle Classifications – Location 2

	7:30 am – 8:30 am	12:00 pm – 1:00 pm	4:30 pm – 5:30 pm
Car	23	57	43
SUV	33	42	31
Medium Truck	4	6	3
Heavy Truck	3	1	0
Bus	3	0	0
Train	0	0	0

The 2020 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the Proposed Action, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable general external exposure. The highest recorded L_{10} at Location 1 was 65.0 dB(A) during the midday period. The highest recorded L_{10} at Location 2 was 71.5 dB(A) during the evening period.

Preliminary PCE Screening

Pursuant to Section 111 of the 2020 *CEQR Technical Manual,* mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For Mobile Sources, an initial noise assessment may be appropriate if a proposed action would generate additional project-generated vehicular traffic in an area where roadways currently carry no or very low traffic volumes, or where a nearby receptor would potentially be impacted by high ambient noise levels. Receptors are generally the subject of most noise impact analyses. A noise-sensitive location (known as a "receptor") is usually defined as an area where human activity may be adversely affected when noise levels exceed

predefined thresholds of acceptability or when noise levels increase by an amount exceeding predefined thresholds of change.

Automobile noise is a function of vehicle speed and engine noise. With changing gears, the noise levels tend to increase in a sawtooth kind of pattern as vehicular speed increases. The interaction of the road surface with the tires generates noise that increases with vehicle speed. At vehicular speeds below 30 miles per hour, the typical automobile noise spectrum is dominated by engine noise. At speeds higher than 30 miles per hour, the automobile noise signature is composed of a combination of lower frequency engine noise and higher frequency tire noise. The engine and tire noise for vehicular speeds above 30 miles per hour are comparable in noise level. Noise generated by buses and heavy trucks is also composed of engine and tire noise, but tire noise tends to dominate the noise signature at vehicular speeds above 30 miles per hour in trucks and buses. Cargo load normally does not significantly affect noise levels because increased load usually results in decreased vehicular speed and the effects cancel each other out. Because individual trucks and buses are noisier than individual automobiles, the concept of Noise passenger car equivalents (PCEs) is used.

Pursuant to Section 332.1 of the 2020 *CEQR Technical Manual*, the below values can be used to calculate vehicular noise using the following projections:

- Each Automobile or Light Truck: 1 Noise PCE
- Each Medium Truck: 13 Noise PCEs
- Each Bus: 18 Noise PCEs
- Each Heavy Truck: 47 Noise PCEs

To determine if the Proposed Action would result in an increase to existing Noise PCE values by 100 percent or more, a preliminary screening was conducted. This screening assesses the Noise PCE values of the vehicles projected to arrive and depart the Projected Development Sites as determined by the traffic analysis (See Section 2.11 above), compared to the PCE values of existing background traffic recorded during noise monitoring.

Noise PCE Screening Assumptions

The Project Vehicle Trip Assignment Increment for AM, Midday, and PM located in Appendix G in the EAS was used for the Noise PCE Screening Assessment. Tables 2.13-8 through 2.13-11 below provide the results of the Noise PCE Screening. The afternoon peak hour (3:45 – 4:45 PM) project generated traffic was conservatively compared to the No-Action PM peak hour traffic.

Table 2.13-8: Location 1 - Existing & No-Action Noise PCE Values

Location 1: Existing, No-Action Noise PCE Value									
	Existing Vehicle Counts AM	Existing AM Noise PCE Value	Build Year AM Noise PCE Value	Existing Vehicle Counts MD	Existing MD Noise PCE Value	Build Year MD PCE Value	Existing PM Vehicle Counts	Existing PM Noise PCE Value	Build Year PM Noise PCE Value
Car/Taxi	23	23	23	43	43	43	26	26	26
Van/Light Truck/SUV	44	44	44	64	64	65	36	36	36
Medium Truck	2	26	26	1	13	13	3	39	39
Heavy Truck	3	141	142	1	47	47	0	0	0
Bus	4	72	73	0	0	0	2	36	36
Total Noise PCE	-	306	309	-	167	169	-	137	138

Table 2.13-9: Location 1 - Existing VS. With-Action PCE Screening

Location 1: Existing VS. With-Action Noise PCE Screening						
	AM Project Generated Vehicles	AM With-Action Noise PCE Value	MD Project Generated Vehicles	MD With Action Noise PCE Value	PM Project Generated Vehicles	PM With Action Noise PCE Value
Car/ Taxi	111	134	0	43	145	171
Van/Light Truck/SUV	0	44	0	65	0	36
Medium Truck	0	26	0	13	0	39
Heavy Truck	1	180	0	47	0	0
Bus	4	144	0	0	6	142
Total Noise PCE	-	529	-	169	-	389
Noise PCE Increment	AM	220	MD	0	PM	252
% Increase		**71%**		**0%**		**182%**

***Note: grey denotes incremental noise PCE threshold exceedances**

Table 2.13-10: Location 2 - Existing & No-Action Noise PCE Values

Location 2: Existing & No-Action Noise PCE Value									
	Existing Vehicle Counts AM	Existing AM Noise PCE Value	Build Year AM Noise PCE Value	Existing Vehicle Counts MD	Existing MD Noise PCE Value	Build Year MD PCE Value	Existing PM Vehicle Counts	Existing PM Noise PCE Value	Build Year PM Noise PCE Value
Car/Taxi	23	23	23	57	57	58	43	43	43
Van/Light Truck/SUV	33	33	33	42	42	42	36	31	31
Medium Truck	4	52	53	6	78	79	3	39	39
Heavy Truck	3	141	142	1	47	47	0	0	0
Bus	3	54	55	0	0	0	0	0	0
Total Noise PCE	-	303	306	-	224	226	-	113	114

Table 2.13-11: Location 2 - Existing VS. With-Action PCE Screening

Location 2: Existing VS. With-Action Noise PCE Screening						
	AM Project Generated Vehicles	AM With-Action Noise PCE Value	MD Project Generated Vehicles	MD With Action Noise PCE Value	PM Project Generated Vehicles	PM With Action Noise PCE Value
Car/ Taxi	176	200	0	58	107	150
Van/Light Truck/SUV	0	33	0	42	0	31
Medium Truck	0	53	0	79	0	39
Heavy Truck	1	202	0	47	0	0
Bus	6	168	0	0	4	78
Total Noise PCE	-	655	-	226	-	299
Noise PCE Increment	AM	349	MD	0	PM	186
% Increase		**114%**		**0%**		**163%**

***Note: grey denotes incremental noise PCE threshold exceedances**

Per the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) Noise values would not increase by 100 percent or more due to a Proposed Action, a detailed analysis is not required. As indicated above in **Table 2.13-9 and 2.13-11**, the Proposed Action would increase the Noise PCE values by greater than 100% during the PM Peak Hour at Location 1, and during the AM and PM Peak Hour at Location 2. Therefore, a detailed Noise PCE Analysis is warranted.

Detailed Noise PCE Analysis

Because the AM and PM Peak hour Noise PCE values increase over 100% of the existing, a Detailed Noise PCE Analysis is required. According to Section 332.1 of the 2020 *CEQR Technical Manual*, the following equation is used to determine the increase in noise levels for the With-Action Scenario based upon the Noise PCEs.

FNA NL = 10 log (NA PCE/E PCE) + E NL
Where:
FNA NL = Future No-Action Noise Level
NA PCE = No-Action Noise PCEs
E PCE = Existing Noise PCEs
E NL = Existing Noise Level

The calculation is conducted using the $L_{eq(1)}$ noise measurement results. $L_{10(1)}$ values are calculated by adding the difference between the $L_{10(1)}$ and $L_{eq(1)}$ descriptors to the calculated No-Action $L_{eq(1)}$ noise levels. Existing noise levels are compared to No-Action noise levels as shown in **Table 2.13-12 – 2.13-14**. To determine potential significant impacts, With-Action condition $L_{eq(1)}$ noise levels are compared with the No-Action $L_{eq(1)}$ noise levels as shown in **Table 2.13-15 - 2.13-17** to determine threshold exceedances pursuant to Chapter 19, Section 410 of the CEQR Technical Manual.

Table 2.13-12: Location 1 PM Existing Noise Levels VS. No-Action PM Noise Levels

	Existing PM Noise PCE Value	No-Action PM Noise PCE Value
Car/ Taxi	26	26
Van/Light Truck/SUV	36	36
Medium Truck	39	39
Heavy Truck	0	0
Bus	36	36
Total Noise PCE	137	138
Leq	62.2	62.2
L10	62.0	62.0
Change Over Existing (Leq)	-	0

Table 2.13-13: Location 2 Existing AM Noise Levels VS. No-Action AM Noise Levels

	Existing AM Noise PCE Value	No-Action AM Noise PCE Value
Car/ Taxi	23	23
Van/Light Truck/SUV	33	33
Medium Truck	52	53
Heavy Truck	141	142
Bus	54	55
Total Noise PCE	303	306
Leq	67.1	67.1
L10	71.5	71.5
Change Over Existing (Leq)	-	0

Table 2.13-14: Location 2 Existing PM Noise Levels VS. No-Action PM Noise Levels

	Existing PM Noise PCE Value	No-Action PM Noise PCE Value
Car/ Taxi	43	43
Van/Light Truck/SUV	31	31
Medium Truck	39	39
Heavy Truck	0	0
Bus	0	0
Total Noise PCE	113	114
Leq	63.4	63.4
L10	63.0	63.0
Change Over Existing (Leq)	-	0

Table 2.13-15: Location 1 No-Action PM Noise Levels vs. With-Action PM Noise Levels

	No-Action PM Noise PCE Value	**With-Action PM Noise PCE Value**
Car/ Taxi	26	171
Van/Light Truck/SUV	36	36
Medium Truck	39	39
Heavy Truck	0	0
Bus	36	142
Total Noise PCE	138	389
Leq	62.2	66.7
L10	62.0	66.5
Change Over No-Action (Leq)	-	**4.49**
Impact Threshold	**Fail**	**3.00**

*Note: grey denotes threshold exceedances to Leq increase

Table 2.13-16: Location 2 No-Action AM Noise Levels vs. With-Action AM Noise Levels

	No-Action AM Noise PCE Value	With-Action AM Noise PCE Value
Car/ Taxi	43	200
Van/Light Truck/SUV	33	33
Medium Truck	53	53
Heavy Truck	142	202
Bus	55	168
Total Noise PCE	306	655
Leq	67.1	70.4
L10	71.5	74.8
Change Over No-Action (Leq)	**-**	**3.31**
Impact Threshold	**Fail**	**3**

*Note: grey denotes threshold exceedances to Leq increase

Table 2.13-17: Location 2 No-Action PM Noise Levels vs. With-Action PM Noise Levels

	No-Action PM Noise PCE Value	With-Action PM Noise PCE Value
Car/ Taxi	43	150
Van/Light Truck/SUV	31	31
Medium Truck	39	39
Heavy Truck	0	0
Bus	0	78
Total Noise PCE	114	299
Leq	63.4	67.6
L10	63.0	67.2
Change Over No-Action (Leq)	**-**	**4.18**
Impact Threshold	**Fail**	**3**

*Note: grey denotes threshold exceedances to Leq increase

Detailed Noise PCE Analysis Conclusion

Pursuant to Chapter 19, Section 410 of the CEQR Technical Manual, during daytime hours (between 7 AM and 10 PM), nuisance levels for noise are generally considered to be more than 45 dB(A) indoors and 70 to 75 dB(A) outdoors. Typical construction techniques used in the past (including typical single-glazed windows) provide a minimum of approximately 20 dB(A) of noise attenuation from outdoor to indoor areas. In view of these factors and for the purposes of determining a significant impact during daytime hours, it is reasonable to consider 65 dB(A) L_{eq} (1) as an absolute noise level that should not be significantly exceeded.

For example, if the No-Action noise level is 60 dB(A) L_{eq} (1) or less, a 5 dB(A) L_{eq}(1) or greater increase would be considered significant. If the No-Action noise level is 61 dB(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 is considered significant. Similarly, if the No-Action noise level is 62 dB(A) L_{eq} (1) or more, a 3 dB(A) L_{eq}(1) or greater change is considered significant.

As shown above in **Table 2.13-15 - 2.13-17**, the Proposed Action would result in an increase to future No-Action Leq noise levels at both Location 1 and Location 2 above the absolute noise level that should not be significantly exceeded.

- As shown in **Table 2.13-15**, the future With Action L10 value at Location 1 is anticipated to be 66.5 dB(A), inclusive of project generated traffic.
- As shown in **Table 2.13-16**, the future With Action L10 value at Location 2 is anticipated to be 74.8 dB(A) during the worst-case AM peak hour, inclusive of project generated traffic.

Based on field observations, the residential buildings on Beach 67th Street near noise monitoring Locations 1 and 2 have, at minimum, insulated glass windows with through window air-conditioning units. These windows are expected to provide at least 25 dB(A) of attenuation. Therefore, based on the anticipated L10 noise levels under future With Action Conditions, it is anticipated that the interior noise levels of surrounding receptors would be within the acceptable 45 dB(A) CEQR threshold for interior residential noise levels. The additional building attenuation for Project Development Sites 1 and 2, above that determined by in-field monitoring based on Future projected L10 noise levels, is evaluated below.

Stationary Source (Playground) Analysis

A detailed analysis of stationary noise may be appropriate if the proposed project would introduce a stationary noise source, such as a playground, to be operating within 1,500 feet of a receptor, or within direct line of sight to that receptor.

Projected Development Site 1a (charter school) would introduce a 3,800 square foot outdoor space above the third floor (level 4). The outdoor space is to be utilized as a playground. The outdoor space is located adjacent to the kitchen.

The nearest receptors that were considered as part of the preliminary screening, or were subject to further playground noise analysis are as follows:

Receptor 1 – Eastern Façade of Projected Development Site 1a (school)

The proposed 4th floor outdoor space would directly abut the eastern exterior façade of the fourth floor of the Proposed School Building. A kitchen is adjacent to this area. One floor above (21') the proposed outdoor space will be the library.

Receptor 2 – Eastern Façade of Projected Development Site 1b (residential)

The proposed 4th floor outdoor space would directly abut the eastern exterior façade of the fourth floor of the residential development on Projected Development Site 1b. A stairwell and bedroom are adjacent to this area.

Methodology

To determine the potential noise impacts of the proposed 4th floor outdoor space, all noise sensitive receptors were evaluated based on the measurements and procedures outlines in a study conducted by AKRF entitled, *"Development of Noise Assessment Method for School Playground Noise".* The study, conducted for the New York School Construction Authority (SCA), included noise monitoring at nine schools (one early childhood center, for elementary schools, three intermediate schools, and one high school) and provides the results for hourly equivalent (L_{eq}) noise levels by grade composition as shown in **Table 2.13-18** below. This study has been widely used and recognized for assessing school playground noise impacts for previously approved projects subject to environmental review by the New York City Department of City Planning (DCP), and the New York City Department of Environmental Protection (DEP), and the SCA.

Table 2.13-18: Maximum Playground Boundary Noise Level in L_{eq}

School Type	L_{eq} Noise Level in dB(A)
Early Childhood School	71.5
Elementary School	71.4
Intermediate School	71.0
High School	68.2

Source: Wu. Weixiong, AKRF, Inc. "Development of Noise Assessment Method for School Playground Noise," Inter-Noise 2006, Volume 6.

The proposed School will have students in grades K-6 and is considered an elementary school. As shown in **Table 2.13-18** above, the elementary school (71.4 dB(A)) noise level was selected as the referenced noise level from the boundary of the proposed 4th floor outdoor space.

To add the monitored and playground noise levels, the following equation was used:

$$L = 10 \, \mathrm{Log}_{10} \left(\sum_{i=1}^{n} 10^{(L_i / 10)} \right)$$

As shown in **Table 2.13-15** above, inclusive of future project generated traffic based on the Detailed PCE Analysis Noise Monitoring Location 1, nearest Projected Development Site 1, is anticipated to have the highest projected L_{eq} noise value of 66.7 dB(A) during the PM monitoring period, and is being used to represent background noise levels.

All receptors were evaluated based on the following impact thresholds pursuant to the 2020 CEQR Technical Manual.

During daytime hours (between 7 AM and 10 PM), nuisance levels for noise are generally considered to be more than 45 dB(A) indoors and 70 to 75 dB(A) outdoors. Typical construction techniques used in the past (including typical single-glazed windows) provide a minimum of approximately 20 dB(A) of noise attenuation

from outdoor to indoor areas. In view of these factors and for the purposes of determining a significant impact during daytime hours, it is reasonable to consider 65 dB(A) L_{eq} (1) as an absolute noise level that should not be significantly exceeded.

For example, if the No-Action noise level is 60 dB(A) L_{eq} (1) or less, a 5 dB(A) L_{eq}(1) or greater increase would be considered significant. If the No-Action noise level is 61 dB(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 is considered significant. Similarly, if the No-Action noise level is 62 dB(A) L_{eq} (1) or more, a 3 dB(A) L_{eq}(1) or greater change is considered significant.

Fourth Floor Outdoor Space on Receptor 1

The following methodology was used to conduct the playground noise assessment to evaluate if additional building attenuation, above that determined by the future projected noise levels based on the Detailed Noise PCE analysis, would be required for the eastern façade of Projected Development Site 1a (Charter School) as a result of the noise generated by the 4th floor outdoor space. The results of this assessment are shown below in **Table 2.13-19**.

Fourth Floor Outdoor Space on Receptor 2

The following methodology was used to conduct the playground noise assessment to evaluate if additional building attenuation, above that determined by the future projected noise levels based on the Detailed Noise PCE analysis, would be required for the eastern façade of Projected Development Site 1b (Residential) as a result of the noise generated by the 4th floor outdoor space. The results of this assessment are shown below in **Table 2.13-19**.

Table 2.13-19: Fourth Floor Outdoor Space on Receptors 1a and 1b

Play Areas - Distances to Receptor	Highest Recorded Leq Monitoring Location 1 (in dBA)	Project Leq (in dBA) based on Detailed PCE Analysis	Predicted Playground Noise Level	Predicted Combined No-Action Leq (in dBA)	Predicted L10	Required Attenuation
0 Feet From Fourth Floor Terrace	62.2	66.7	71.4	72.7	75.7	31.0

Determination of Impacts/Building Attenuation Requirements

The 2020 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential/Institutional use such as would occur under the Proposed Actions, an L_{10} of between 65 and 70 dB(A) is identified as a marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as a marginally unacceptable general external exposure. The highest recorded L_{10} at Location One (1) of the subject property was 65.0 dB(A) during the Midday monitoring period. Based upon the Detailed PCE Analysis, the highest calculated With-Action L_{10} noise level at Location One (1) will be 66.5 dB(A) during the PM monitoring period. Based upon the Playground noise analysis, the highest projected L_{10} noise level along the eastern façade of Project Development Site 1 will be 75.7 during the PM monitoring period. The highest recorded L_{10} at Location Two (2) of the subject property was 71.5 dB(A) during the AM monitoring period. Based upon the Detailed PCE Analysis, the highest calculated With-Action L_{10} noise level at Location Two (2) will be 74.8 dB(A) during the AM monitoring period. The required building attenuation based on these results is summarized in **Table 2.13-20** below and **Table 2.13-21** below.

The 2020 *CEQR Technical Manual* Chapter 19 Section 421.1 outlines impacts on existing receptors:

- If the No Action noise level is less the 60 dB(A) $L_{eq(1)}$, a 5 dB(A) $L_{eq(1)}$ or greater increase would require further action;
- If the No Action noise level is between 60 dB(A) $L_{eq(1)}$ and 62 dB(A) $L_{eq(1),}$ a resultant $L_{eq(1)}$ of 65 dB(A) or greater would require further action;
- 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 period (between 10PM and 7AM), the incremental significant impact threshold would be 3 dB(A).

As discussed above, the Proposed Action would result in an increase to future No-Action Leq noise levels at both Location 1 and Location 2 above the absolute noise level that should not be significantly exceeded. However, based on field observations, the residential buildings on Beach 67th Street near noise monitoring Locations 1 and 2 have, at minimum, insulated glass windows with through window air-conditioning units. These windows are expected to provide at least 25 dB(A) of attenuation. Therefore, based on the anticipated L10 noise levels under future With Action Conditions, it is anticipated that the interior noise levels of surrounding receptors would be within the acceptable 45 dB(A) CEQR threshold for interior residential noise levels. Therefore, there will be no significant impact related to mobile sources on surrounding receptors. Additionally, the window-wall attenuation requirement outlined below will prevent significant adverse impacts on the Projected Development Site.

For Projected Development Site 1, the southern and western facades will require 31 dB(A) of window/wall attenuation. The eastern façade above the fourth floor will require a 31 dB(A) window/wall attenuation. The eastern façade below the fourth and the northern facade will require no window/wall attenuation

For Projected Development Site 2, the northern, southern, eastern, and western facades will require a 31 dB(A) window/wall attenuation. No window/wall attenuation will be required for the northern and western facades.

Table 2.13-20: Projected Site 1 Attenuation Requirements

	AM			MD			PM			
	Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Future With Action L10 Based on Playground Noise Analysis	Highest Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Future With Action L10 Based on Playground Noise Analysis	Highest Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Future With Action L10 Based on Playground Noise Analysis	Required Attenuation
Northern Façade	*60.5	NA	NA	*65.0	NA	NA	*62.0	*66.5	NA	None
Eastern Façade below fourth floor	*60.5	NA	NA	*65.0	NA	NA	*62.0	*66.5	NA	None
Eastern Façade above fourth floor	*60.5	NA	NA	*65.0	NA	NA	*62.0	*66.5	*75.7	31
Western Façade	**71.5	**74.8	NA	**63.5	NA	NA	**63.0	**67.2	NA	31
Southern Façade	**71.5	**74.8	NA	**63.5	NA	NA	**63.0	**67.2	NA	31

* Based on Location 1 Readings
**Based on Location 2 Readings
Note: Grey denotes values used to determine building attenuation

Table 2.13-21: Projected Site 2 Attenuation Requirements

	AM		MD		PM		
	Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Highest Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Highest Recorded L10 Existing	Future With Action L10 Based on Detailed PCE Analysis	Required Attenuation
Northern Façade	**71.5	**74.8	**63.5	NA	**63.0	**67.2	31
Eastern Façade	**71.5	**74.8	**63.5	NA	**63.0	**67.2	31
Western Façade	**71.5	**74.8	**63.5	NA	**63.0	**67.2	31
Southern Façade	**71.5	**74.8	**63.5	NA	**63.0	**67.2	31

* Based on Location 1 Readings
**Based on Location 2 Readings
Note: Grey denotes values used to determine building attenuation

Figure 2.13-4: Noise Attenuation Requirements



To preclude the potential for significant adverse impacts related to noise, (E) designations would be incorporated and E-Designations would be placed on both Projected Development Sites. E-605 has been assigned to this project. The text for the E-designation is as follows:

Block 16040 / Lots 12, 14, 16, 18, 20, 22, 24 (Projected Development Site 1): To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the southern, and western (Beach 67th Street) façades and a 31 dB(A) window/wall attenuation above the fourth floor on the eastern façade to maintain an interior noise level not greater than 45 dB(A). 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.

Block 16041 / Lot 6 (Projected Development Site 2): To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the western (Beach 68th Street), eastern (Beach 67th Street) northern, and southern façades to maintain an interior noise level not greater than 45 dB(A). 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.

2.14 NEIGHBORHOOD CHARACTER

Neighborhood character, as defined in the *CEQR Technical Manual,* is considered to be an amalgam of the various elements that give a neighborhood its distinct personality. These elements include land use, socioeconomic conditions, historic and cultural resources, urban design and visual resources, transportation, noise, and open space, as well as any other physical or social characteristics that help to define a community. Not all these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining features.

According to the *CEQR Technical Manual,* if a project has the potential to result in any significant adverse impacts on any of the above technical areas, a preliminary assessment of neighborhood character may be appropriate. A significant impact identified in one of these technical areas is not automatically equivalent to a significant impact on neighborhood character; rather, it serves as an indication that neighborhood character should be examined.

In addition, depending on the project, a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character. As stated in the *CEQR Technical Manual*, a "moderate" effect is generally defined as an effect considered reasonably close to the significant adverse impact threshold for a particular technical analysis area. When considered together, elements may have the potential to significantly affect neighborhood character. Moderate effects on several elements may affect defining features of a neighborhood and, in turn, a pedestrian's overall experience. If it is determined that two or more categories may have potential 'moderate effects' on the environment, CEQR states that an assessment should be conducted to determine if the proposed project result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. If a project would result in only slight effects in several analysis categories, then further analysis is generally not needed.

This chapter reviews the defining features of the neighborhood and examines the Proposed Action's potential to affect the neighborhood character of the surrounding study area. The study area is generally coterminous with the study area used for the land use and zoning analysis in chapter 2. The impact analysis of neighborhood character that follows below focuses on changes to the technical areas listed above that exceeded CEQR preliminary screening thresholds that were assessed in this EAS Short Form.

The assessment begins with a review of existing conditions and the neighborhood of the study area. The information is drawn from the preceding sections of this EAS but is presented in a more integrated way. While the other sections present all relevant details about aspects of the environmental setting, the discussion for neighborhood character focuses on a limited number of important features that gives the neighborhood its own sense of place and that distinguish them from other parts of the city. A concise discussion of the changes anticipated by the 2022 analysis year under the Future No-Action Condition is then included. A brief overview of the Proposed Project is then presented, along with an analysis of whether any anticipated significant adverse impacts and moderate adverse effects, regarding the relevant technical CEQR assessment categories for neighborhood character, would adversely affect any of the defining features.

2.14.1 Existing Conditions

Land Use, Zoning and Public Policy

The primary land use in the surrounding area is two- and three-story residences and one- to three-story walk-up multi-family residences. Other land uses in the area include multi-family residences with elevators, commercial uses, public facilities and Institutions, mixed residential and commercial buildings, vacant lots, parking, and open space. The residential uses are located south, southwest, west, north, and east of the project site. Commercial uses are located south of the Proposed Development Site along Beach Channel Drive. Public facility uses are located east and southeast of the project site, notably the Robert Vernam School (P.S./M.S. 42) located on Beach 66th Street. Open space, in the form of the Almeda Playground, is located on Beach Channel Drive between Beach 66th Street and Beach 65th Street. Vacant lots are located throughout the study area.

The Proposed Project Area is located within an R4A zoning district. R4A districts are contextual districts that are often mapped to preserve or establish the character of older neighborhoods with pitched roof homes on smaller zoning lots. R4A districts allow for single- and two-family residences in detached homes. These homes are permitted a maximum FAR of 0.75, a maximum street wall height of 21 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet, a minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off-street parking is required per dwelling unit, and 50% is required for IRHU.

R4-1 districts are contextual residential district that is designed for neighborhoods with a slightly wider range of housing types than might be found in other contextual neighborhoods. This district allows slightly larger single- or two-family detached and semi-detached residences than might be found in R3-1 districts. Detached and semi-detached single- and two-family homes are permitted a maximum FAR of 0.75, a maximum perimeter wall height of 25 feet and a maximum building height of 35 feet. These homes must have a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached homes are required 1 side yard totaling 8 feet. Semi-detached homes are required 1 side yard at a minimum of 4 feet, totaling 4 feet. Off-street parking is required per dwelling unit, and 50% is require for income-restricted housing units (IRHU).

R5 districts are non-contextual residential districts which typically produce three- and four-story attached houses and small apartment buildings. R5 districts are often mapped as transition districts between medium and lower density areas. Within an R5 district, the maximum permitted FAR is 1.25, the maximum permitted street wall height is 30 feet and the maximum permitted building height is 40 feet. Above a height of 30 feet, a setback of 15 feet is required from the street wall. R5 districts require a minimum front yard of 10 feet and a minimum rear yard of 30 feet. Detached houses must have two side yards that total at least 13 feet, each with a minimum width of 5 feet. Semi-detached houses require one 8-foot-wide side yard. Apartment buildings require two side yards, each at least 8 feet wide. Off-street parking is required for 85% of the dwelling units, and 42.5% is required for IRHU.

R5A districts are contextual residential districts that are often mapped in older neighborhoods characterized by pitched roof homes on smaller zoning lots. R5A districts allow for single- and two-family residences in detached

homes. These homes are permitted a maximum FAR of 1.10, a maximum street wall height of 25 feet and a maximum building height of 35 feet. These homes bust have a minimum front yard of 10 feet, a minimum rear yard of 30 feet, and two side yards of at least 2 feet each totaling 10 feet. Off –street parking is required per dwelling unit.

R5D districts are contextual residential districts characterized by moderate-density, multi-family housing and serve as a transition between lower-density districts and moderate-density districts. R5D districts allow for all types of residences in all building types – detached, semi-detached, attached and zero-lot line residences. Within an R5D district, the maximum permitted FAR is 2.0 and the maximum permitted building height is 40 feet (45 feet with a Qualifying Ground Floor). R5D districts require a minimum front yard of 5 feet and a minimum rear yard of 30 feet. Side yards are not required for lots less than 30 feet wide. For lots at least 30 feet wide, zero lot line buildings require one side yard at least eight feet wide, and a minimum of eight feet is required between buildings on adjacent zoning lots. Off-street parking, which is not permitted in front of the building, is required for 66% of the dwelling units and for 35% of IRHU.

C1-3 are commercial districts mapped within residential neighborhoods along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors. C1-3 districts can be mapped as commercial overlays or as stand-alone districts. These districts are typically mapped at a depth of 150 feet. When commercial overlays are mapped in R1 through R5 districts, the maximum commercial FAR is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0.

The Proposed Project Area is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law.

The Proposed Project Area is not located within the boundaries of a New York City Department of Housing Preservation and Development Urban Renewal Zone or Area, an Economic Development Corporation Industrial Business Zone, or former In-Place Industrial Park. Nor is the Proposed Action subject to an adopted community-based 197-a Plan. The Proposed Project Area is located within the New York City's Coastal Management Zone.

Urban Design and Visual Resources

The architecture throughout the study area is eclectic, with no unity of form to tie the built environment together visually. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement, and many residential buildings are free-standing detached buildings.

There are few streetscape elements within the study area. Along Beach 67th, 68th and 69th Streets between Beach Channel Drive and Jamaica Bay there are medians which contain grass and young trees that lead to the bay on what otherwise is a basic streetscape lined with wide sidewalks, scattered street lighting and little in the way of visual interest. No other notable streetscape elements are located within the study area.

2.14.2 Future No-Action Conditions

Under the Future No-Action Condition, the Proposed Action would not occur, and it is expected that the existing uses within the area would remain in their current form.

Significant changes to the study area are not expected by the final analysis year of 2022. Under the Future No-Action Condition, it is expected that while tenants within surrounding area buildings may change, the overall use of these buildings within the study area would remain the same, and any physical changes to buildings in the study area would comply with designated zoning regulations and other surrounding districts.

2.14.3 Future With-Action Conditions

The elements that comprise of neighborhood character are reviewed individually below, with a following supporting and cumulative conclusion at the end of this chapter.

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual*, development resulting from a Proposed Action could alter neighborhood character if it introduces new land uses, conflicts with land use policy or other public plans for the area, changes land use character, or generates significant land use impacts.

The proposed rezoning would result in the construction of two new buildings on the Proposed Development Site. The proposed senior building is expected to have a FAR of 1.88. It is a proposed 9-story building at a proposed height of 80 feet containing a total of 84 dwelling units. The building's total gross floor area is 60,480 sf and the total zoning floor area is 58,259 sf. The proposed school is expected to have a FAR of 2.32. It is a proposed 11-story building at a proposed height of 128 feet. The building's total gross floor area is 76,241 sf and total zoning floor area is 71,996 sf.

The proposed zoning map amendment would change the existing R4A district to an R6 district over Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6. Absent the Proposed Action, the Applicant and Co-Applicant would be unable to construct the proposed development under the existing floor area and lot coverage requirements of an R4A district. The Proposed Action would not have a significant impact on the extent of conformity with the current zoning in the surrounding area and it would not adversely affect the viability of conforming uses on nearby properties. Therefore, significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.

The proposed project is consistent with the goals and policies of the City's Local Waterfront Revitalization Program.

Recent years have seen some commercial, residential and community facility development in proximity to the Rezoning Area. The Proposed Action would reinforce this trend toward a more active residential mixed-use neighborhood and would also provide badly needed senior housing to the area. Therefore, the Proposed Action is not expected to have any adverse impacts on surrounding land uses.

Urban Design and Visual Resources

According to the *CEQR Technical Manual*, in developed areas, urban design changes have the potential to affect neighborhood character by introducing substantially different building bulk, form, size, scale, or arrangement. Urban design changes may also affect block forms, street patterns, or street hierarchies, as well as streetscape elements such as street walls, landscaping, curb cuts, and loading docks. Visual resource changes could affect neighborhood character if they directly alter key visual features such as unique and important public view corridors and vistas or block public visual access to such features.

The Proposed Action would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, and as the Proposed Action would not block any view corridors or views to/from any natural areas with rare or defining features, nor would the Proposed Action impact an historical or culturally sensitive community features, the Proposed Action is not expected to result in any significant adverse urban design. Visual resource changes would also not occur, as the Proposed Action would not directly alter any key visual features, such as unique and important public view corridors and vistas or block public visual access to such features. The Proposed Action would not hinder any views of the bay to the north of the project site or of the ocean and beach to the south of the project site.

Conclusions

Of the relevant technical areas specified in the *CEQR Technical Manual* that comprise of neighborhood character, the Proposed Action would not cause significant adverse impacts regarding land use, zoning, and public policy; shadows; urban design and visual resources; or transportation. Moderate adverse effects that would potentially impact such a defining feature, either singly or in combination, have also not been identified for more than one technical study area. Therefore, as the Proposed Action would not have a significant adverse neighborhood character impact and would not result in a significant adverse impact to a defining feature of the neighborhood, further analysis is not necessary.

2.15 CONSTRUCTION

Construction, although temporary, can result in disruptive and noticeable effects on a Proposed Action area. A determination of the significance of construction and the need for mitigation is based on the duration and magnitude of these effects. Construction is typically of greatest importance when it could affect traffic conditions, archaeological resources, and the integrity of historic resources, community noise patterns and air quality conditions. All analyses were undertaken in accordance with the guidelines contained in the *CEQR Technical Manual*.

The Proposed Action involves a rezoning in the Averne section of Queens. On the site controlled by the Applicant and Co-Applicant, construction is expected to last up to approximately 24 months.

As construction would take place over a 24-month period, potential impacts would be minimal and, as discussed below, not expected to have any significant adverse impacts. The following is a brief discussion of the effects associated with the construction related activities on traffic, air quality, noise, historical resources, and hazardous materials resulting from the construction on the Projected Development Sites.

Effect of Construction on Traffic

The Proposed Action would result in new development on the projected development site, which would replace existing uses on the site. During construction, vehicle trips from workers traveling to and from the construction site would be generated, and from the movement of materials and equipment.

The infrastructure of New York City is comprised of physical systems that support the population, including water supply, wastewater, sanitation, energy, roadways, bridges, tunnels, and public transportation. This section covers only the effect of the Proposed Action on traffic operations. Given typical construction hours of 7:00 AM to 4:00 PM, worker trips would be concentrated in off-peak hours typically before both the AM and PM peak commuter periods. Truck movements typically would be spread throughout the day on weekdays and would generally occur between the hours of 7:00 AM and 4:30 PM. Traffic generated by construction workers traveling to and from their work sites and construction truck traffic would not represent a substantial increment during the area's peak travel periods.

Construction activities may result in short-term disruption of both traffic and pedestrian movements at the development sites. This would occur primarily due to the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the site. Additionally, construction would at times result in the temporary closing of sidewalks adjacent to the site. These conditions would not lead to significant adverse effects on traffic and transportation conditions.

Effect of Construction on Air Quality

Possible impacts on local air quality during construction induced by the Proposed Action include fugitive dust (particulate) emission from land clearing operation and demolition as well as mobile source emissions (hydrocarbons, nitrogen oxide, and carbon monoxide) generated by construction equipment and vehicles.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities should be of a short-term duration and relatively contained within a proposed site, not significantly impacting nearby buildings or residents. All appropriate fugitive dust control measures – including watering of exposed areas and dust covers for trucks – would be employed during construction of the development sites. Therefore, the fugitive source emissions generated by the Proposed Action would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the Proposed Action would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a four-year period and be dispersed throughout the proposed Rezoning Area, the mobile source emissions generated by the Proposed Action would not be significant. Overall, the Proposed Action would not have the potential to result in significant adverse air quality impacts.

Effect of Construction on Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from the construction sites can affect community noise levels. The level of impact of these noise sources depends on the noise characteristics of the equipment and activities involved the construction schedule, and the location of potentially sensitive noise receptors.

Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken.

Construction noise associated with the Proposed Action is expected to be similar to noise generated by other residential construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively

short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by Environmental Protection Agency noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses.

Thus, while there may be short periods of time when noise is greater than the Noise Control Code, these regulations would be followed in such a matter that no significant adverse noise impacts would be expected to result from the Proposed Action.

Effect of Construction on Historic Resources

In order to determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No historic or architectural resources were identified on the project area or within the 400-foot study area. Therefore, adverse construction-related impacts are not expected to any historic resource in the vicinity of the Rezoning Area.

Effect of Construction on Hazardous Materials

The Proposed Action would result in new development in the area. As such, a hazardous materials assessment was undertaken, as presented Section 2.9 of this EAS. As discussed in the section, all contaminants and contaminated materials are expected to be removed in accordance with environmental regulations and no significant adverse impacts are expected.

Conclusion

Based on the above qualitative construction analysis, and detailed analysis in the preceding technical sections, construction-related activities are not expected to have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the Proposed Action.

Appendix A: Site Plans

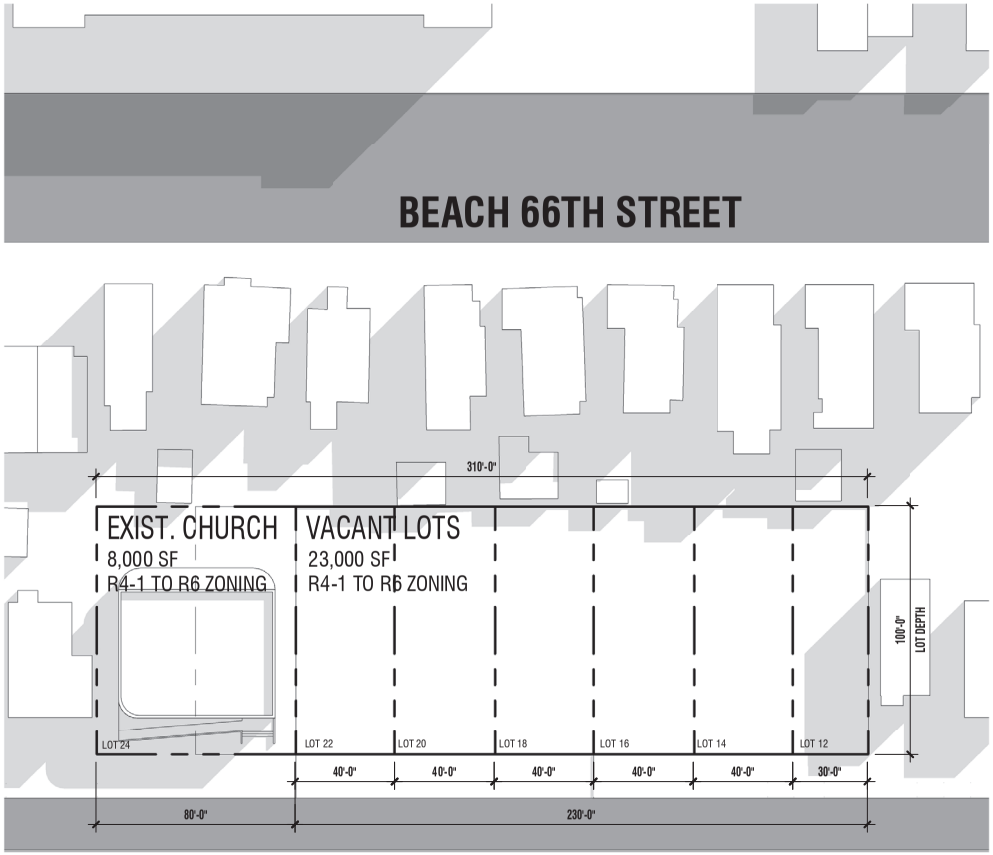


THINK

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

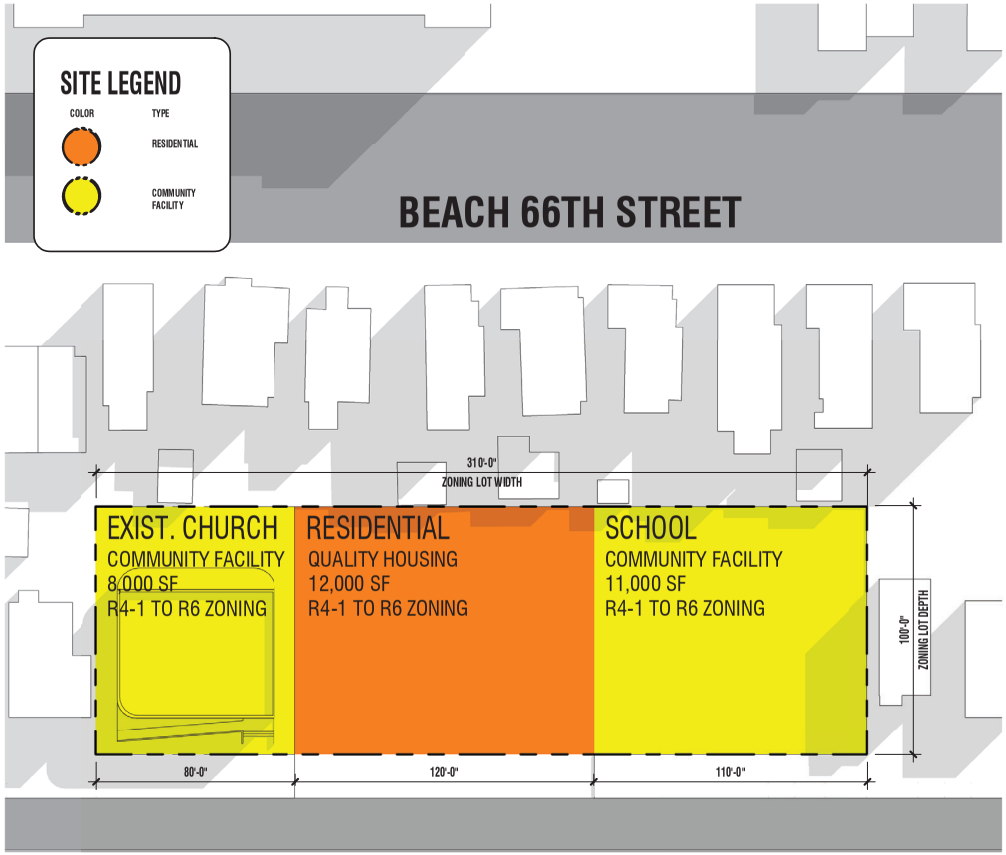
Submission
ULURP SUBMISSION

Date
2021.01.11



1 EXISTING ZONING LOTS

1" = 50'-0"



2 PROPOSED SINGLE ZONING LOT

1" = 50'-0"

THINK

Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
ZONING ANALYSIS - ZONING LOTS

Date
2021.01.11

Drawing No.
Z-01

DLAC SENIOR RESIDENCE AND BEACH 67 CHARTER SCHOOL

SITE INFORMATION

BLOCK – 16040 LOT – 12,14,16,18,20,22,24
ZONING MAP – 30C
ZONING DISTRICT – R4A TO R6
COMMUNITY BOARD - QUEENS 14
TRANSIT ZONE - OUTSIDE ZONE

LOT AREA 12,14,16 = 3,000 + 4,000 + 4,000=11,000 SF
LOT AREA18, 20, 22 = 4,000 + 4,000 + 4,000=12,000 SF
LOT AREA 24 = 8,000 SF
TOTAL ZONING LOT AREA= 11,000 + 12,000 + 8,000=31,000 SF
FLOOD ZONE= AE
BASE, DESIGN FLOOD ELEVATION=9 FT BFE +1 FT= 10 FT DFE

ZONING SUMMARY

USES PERMITTED:

PERMITTED: UG 1-4, 5-9, 14
PROPOSED PROPOSED QUALITY HOUSING BUILDING : UG 2 AIRS **[22-12A]**
PROPOSED COMMUNITY FACILITY BUILDING : UG 3 SCHOOL **[22-13A]**

FLOOR AREA:

QUALITY HOUSING = FAR 2.2 **[23-153]**
COMMUNITY FACILITY = FAR 4.8 **[23-11]**
RESIDENTIAL - AIRS = FAR 3.9 **[23-155]**

	PERMITTED	*EXISTING*	*PROPOSED*	*TOTAL*	
RESIDENTIAL	31,000 SF X 3.9 FAR= **120,900 ZSF**	0 ZSF	58,259 ZSF (AIRS)	0 + 58,259= **58,259 ZSF** < 120,900 ZSF	***COMPLIES***
COMMUNITY FACILITY	31,000 SF X 4.8 FAR= **148,800 ZSF**	7,056 ZSF (EXISTING CHURCH)	71,996 ZSF (SCHOOL)	7,056 + 71,996= **79,052 ZSF** < 148,800 ZSF	***COMPLIES***
TOTAL	***148,800 ZSF***	***7,056 ZSF***	***130,255 ZSF***	*7,056 + 130,225=* ***137,311 ZSF*** *< 148,800 ZSF*	***COMPLIES***

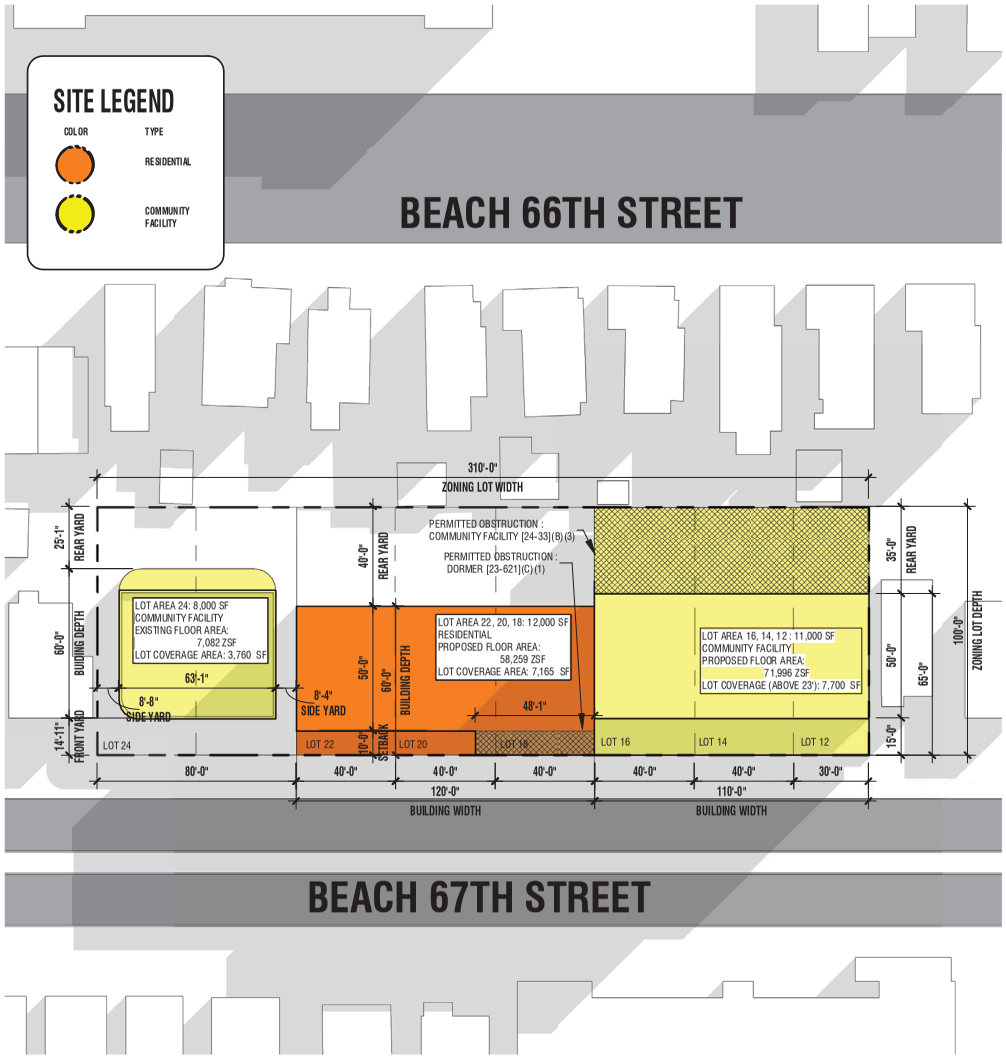
LOT COVERAGE REQUIREMENTS

COMMUNITY FACILITY INTERIOR AND THROUGH LOTS: **65%** **[24-10]**
QUALITY HOUSING INTERIOR AND THROUGH LOTS: **60%** **[23-153]**
MAXIMUM LOT COVERAGE = **65%** **[24-165]**

	LOT AREA	*PERMITTED LOT COVERAGE*	*PROPOSED LOT COVERAGE*	
INTERIOR LOT	31,000 SF	31,000 X .65= **20,150 SF** **65%**	3,780 SF(EXIST. CHURCH)+ 7,095 SF (PROP. RESIDENTIAL)+ 7,700 SF (PROP. SCHOOL) = **18,575 SF** **60%**	***COMPLIES***

COMMUNITY FACILITY FLOOR AREA ARE NOT EXCEEDING 23FT ABOVE THE CURB LEVEL OR BASE PLANE MAY BE EXCLUDED FROM DETERMINING THE PERCENTAGE OF LOT COVERAGE. **[24-12]**

COMMUNITY FACILITY IS PERMITTED OBSTRUCTION IN REQUIRED REAR YARD **[24-33](B)(3)**



1 ZONING SITE PLAN
1" = 50'-0"

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**
Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

Title
ZONING ANALYSIS - ZONING LOT
646.688.5898
info@think-arc.com

Date
2021.01.11
Drawing No.
Z-02

EXISTING CHURCH

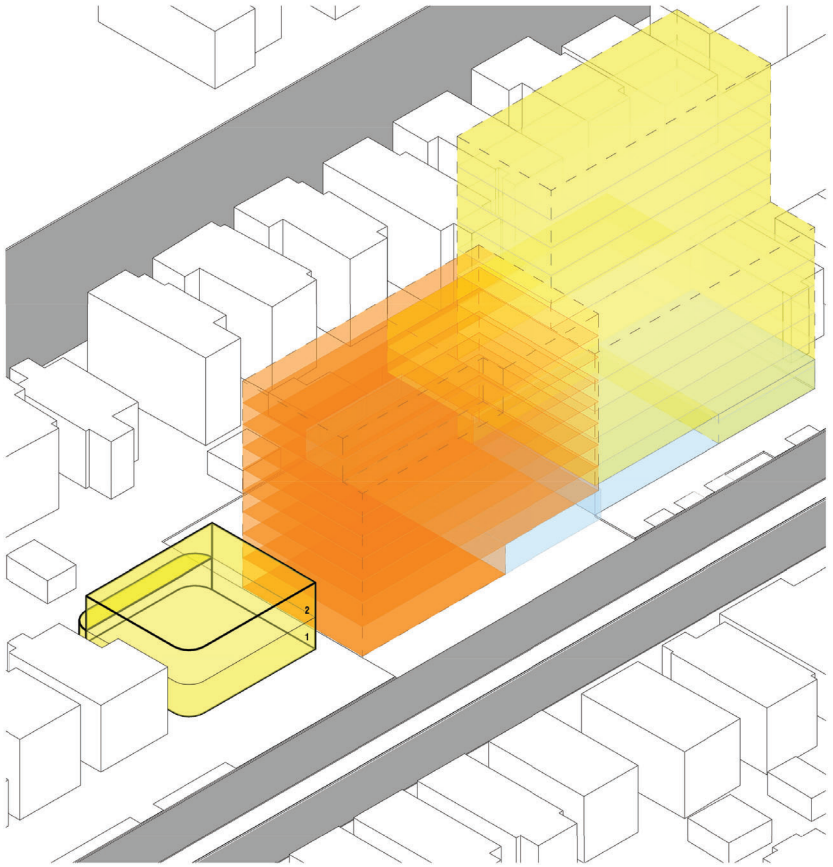
SITE INFORMATION

BLOCK – 16040 LOT – 12,14,16,18,20,22,24
ZONING MAP – 30C
ZONING DISTRICT – R4A TO R6
COMMUNITY BOARD - QUEENS 14
TRANSIT ZONE - OUTSIDE ZONE

LOT AREA 12,14,16 = 3,000 + 4,000 + 4,000=11,000 SF
LOT AREA18, 20, 22 = 4,000 + 4,000 + 4,000=12,000 SF
LOT AREA 24 = 8,000 SF
TOTAL ZONING LOT AREA= 11,000 + 12,000 + 8,000=31,000 SF
FLOOD ZONE= AE
BASE, DESIGN FLOOD ELEVATION=9 FT BFE +1 FT= 10 FT DFE

ZONING ANALYSIS

	ZONING FLOOR AREA
LEVEL 1	3780 SF
LEVEL 2	3276 SF
Total	7056 SF



ZONING ENVELOPE PERSPECTIVE - EXISTING CHURCH

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Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
ZONING ANALYSIS - COMMUNITY (CHURCH)

Date
2021.01.11

Drawing No.
Z-03

DLAC SENIOR RESIDENCE

SITE INFORMATION

BLOCK – 16040 LOT – 12,14,16,18,20,22,24
ZONING MAP – 30C
ZONING DISTRICT – R4A TO R6
COMMUNITY BOARD - QUEENS 14
TRANSIT ZONE - OUTSIDE ZONE

LOT AREA 12,14,16 = 3,000 + 4,000 + 4,000=11,000 SF
LOT AREA18, 20, 22 = 4,000 + 4,000 + 4,000=12,000 SF
LOT AREA 24 = 8,000 SF
TOTAL ZONING LOT AREA= 11,000 + 12,000 + 8,000=31,000 SF
FLOOD ZONE= AE
BASE, DESIGN FLOOD ELEVATION=9 FT BFE +1 FT= 10 FT DFE

ZONING SUMMARY (cont.)

GROSS AREA PER DWELLING UNIT: *NOT APPLICABLE TO AIRS*
DWELLING UNIT FACTOR: 680 **[23-22]**
MINIMUM SIZE OF DWELLING UNITS: *325* **[23-23](C)**
PROPOSED UNITS = 84 DUs, ***COMPLIES***

YARD REQUIREMENTS
REQUIRED MIN FRONT YARD: ***NOT REQUIRED***
SIDE YARD: **NO SIDE YARD OR 8 FOOT MIN., COMPLIES** **[23-462] (C)**
*REQUIRED REAR YARD:**30'**,* ***[PROPOSED 40']*** **[23-47]**

HEIGHT AND SETBACK REQUIREMENTS

ALL MEASUREMENTS OF HEIGHT ABOVE CURB LEVEL, BASE PLANE, BASE FLOOR ELEVATION, GRADE OR OTHER SIMILAR GROUND RELATED DATUM, SHALL BE FROM THE FLOOD RESISTANT CONSTRUCTION ELEVATION **[64-131]**

STREET WALL ARTICULATION, INCLUDING RECESSES SHALL BE A MAX 12" BEYOND STREET WALL. UP TO 50% OF THE AGGREGATE WIDTH STREET WALL MAY PROJECT UP TO 3'-0" **[23-661](D)**

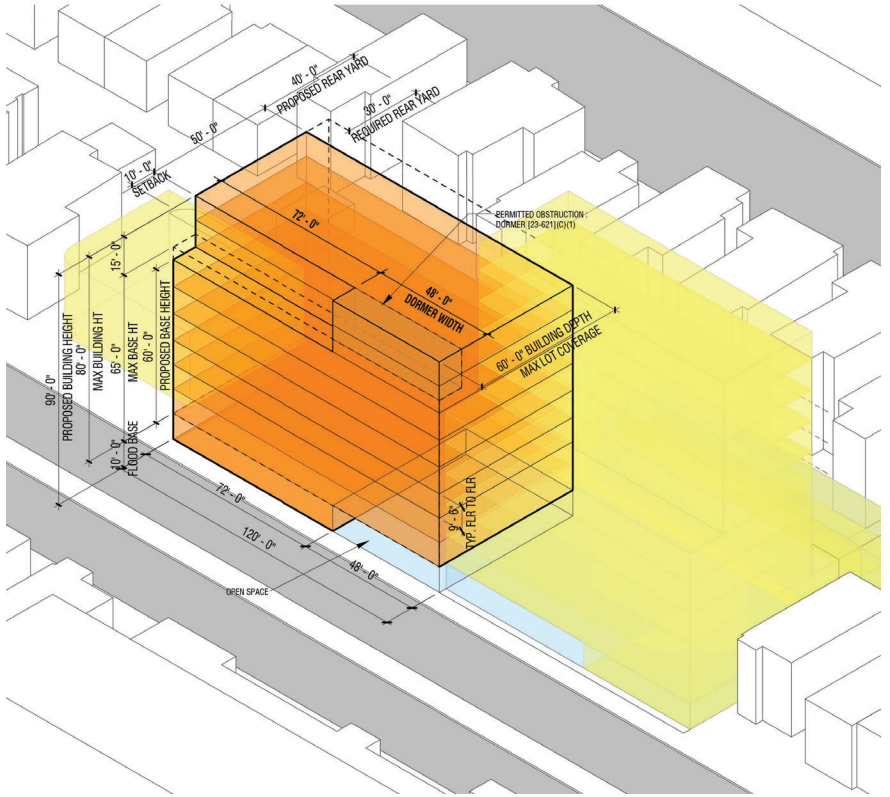
MINIMUM BASE HEIGHT: ***40' [PROPOSED 60']*** **[23-664](B)**
MAXIMUM BASE HEIGHT: ***65' [PROPOSED 60']*** **[23-664](B)**
MAXIMUM BUILDING HEIGHT : ***80' [PROPOSED 80']*** **[23-664](B)**
MAX NUMBER OF STORIES : **8 STORIES [PROPOSED 8]**
SETBACK AT WIDE STREET: ***10' [PROPOSED 10']*** **[23-662](C)**

DORMER:
MAXIMUM DORMER AGGREGATE WIDTH PERMITTED PER STREET FRONTAGE: **60%** **[23-621](C)**
HEIGHT OF DORMER ABOVE MAXIMUM BASE HEIGHT : **15'**
DORMER AGGREGATE WIDTH PERMITTED PER STREET FRONTAGE: **45%**
120' FRONTAGE X 45% = **54' DORMER ALLOWANCE [PROPOSED 48']**

ZONING ANALYSIS

	GROSS FLOOR AREA	ZONING FLOOR AREA
LEVEL 1	4320.0 SF	4190.4 SF
LEVEL 2	7200.0 SF	6984.0 SF
LEVEL 3	7200.0 SF	6984.0 SF
LEVEL 4	7200.0 SF	6922.8 SF
LEVEL 5	7200.0 SF	6912.0 SF
LEVEL 6	7200.0 SF	6912.0 SF
LEVEL 7	7200.0 SF	6912.0 SF
LEVEL 8	6480.0 SF	6220.8 SF
LEVEL 9	6480.0 SF	6220.8 SF
Total	60480.0 SF	58258.8 SF

*ASSUMING A DEDUCTION FACTOR OF 4%



ZONING ENVELOPE PERSPECTIVE - RESIDENTIAL

THINK

Project
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Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

Title
ZONING ANALYSIS - RESIDENTIAL

646.688.5898
info@think-arc.com

Date
2021.01.11

Drawing No.
Z-04

BEACH 67 CHARTER SCHOOL

SITE INFORMATION

BLOCK – 16040 LOT – 12,14,16,18,20,22
ZONING MAP – 30C
ZONING DISTRICT – R4A TO R6
COMMUNITY BOARD - QUEENS 14
TRANSIT ZONE - OUTSIDE ZONE

LOT AREA 12,14,16 = 3,000 + 4,000 + 4,000=11,000 SF
LOT AREA18, 20, 22 = 4,000 + 4,000 + 4,000=12,000 SF
LOT AREA 24 = 8,000 SF
TOTAL ZONING LOT AREA= 11,000 + 12,000 + 8,000=31,000 SF
FLOOD ZONE= AE
BASE, DESIGN FLOOD ELEVATION=9 FT BFE +1 FT= 10 FT DFE

ZONING SUMMARY (cont.)

YARD REQUIREMENTS
MIN FRONT YARD: ***NOT REQUIRED***
SIDE YARD: **NO SIDE YARD OR 8 FOOT MIN.** **[24-36]**
*REQUIRED REAR YARD:****30' [PROPOSED 30']*** **[24-35]**

COMMUNITY FACILITY FLOOR AREA ARE NOT EXCEEDING 23FT ABOVE THE CURB LEVEL OR BASE PLANE MAY BE EXCLUDED FROM DETERMINING THE PERCENTAGE OF LOT COVERAGE. **[24-12]**

COMMUNITY FACILITY IS PERMITTED OBSTRUCTION IN REQUIRED REAR YARD **[24-33](B)(3)**

HEIGHT AND SETBACK REQUIREMENTS

ALL MEASUREMENTS OF HEIGHT ABOVE CURB LEVEL, BASE LEVEL, BASE FLOOD ELEVATION, GRADE OR OTHER SIMILAR GROUND RELATED DATUM, SHALL BE FROM THE FLOOD-RESISTANT CONSTRUCTION ELEVATION. **[64-131]**

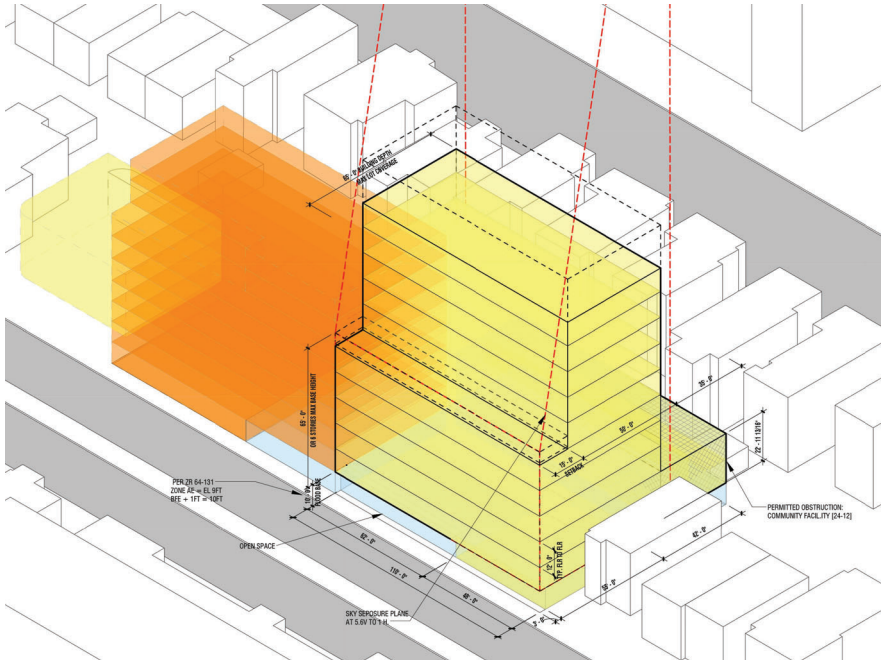
MAXIMUM BASE HEIGHT: ***65' OR 6 STORIES [PROPOSED 58'-10" AT 6 STORIES]*** **[24-522]**
SKY EXPOSURE PLANE: ***5.6V TO 1 H. [PROPOSED 127'-11"]***
INITIAL DISTANCE @ WIDE STREET: ***15 FT [PROPOSED 15']***

THE UNDERLYING REGULATIONS GOVERNING PERMITTED OBSTRUCTIONS TO HEIGHT AND SETBACK SHALL BE MODIFIED TO INCREASE THE PERMITTED VOLUME FOR ELEVATOR OR STAIR BULKHEADS, ROOF WATER TANKS, AND ACCESSORY MECHANICAL EQUIPMENT TO A MAX. LOT COVERAGE OF 30% OF THE LOT COVERAGE OF THE BUILDING ***[64-332]***

ZONING ANALYSIS

	GROSS FLOOR AREA	ZONING FLOOR AREA
LEVEL 1	3090.5 SF	2503.3 SF
LEVEL 2	11000.0 SF	10450.0 SF
LEVEL 3	8800.0 SF	8360.0 SF
LEVEL 4	7700.0 SF	7315.0 SF
LEVEL 5	7700.0 SF	7315.0 SF
LEVEL 6	7700.0 SF	7315.0 SF
LEVEL 7	6050.0 SF	5747.5 SF
LEVEL 8	6050.0 SF	5747.5 SF
LEVEL 9	6050.0 SF	5747.5 SF
LEVEL 10	6050.0 SF	5747.5 SF
LEVEL 11	6050.0 SF	5747.5 SF
Total	76240.5 SF	71995.8 SF

*ASSUMING A DEDUCTION FACTOR OF 5%



ZONING ENVELOPE PERSPECTIVE - SCHOOL

THINK

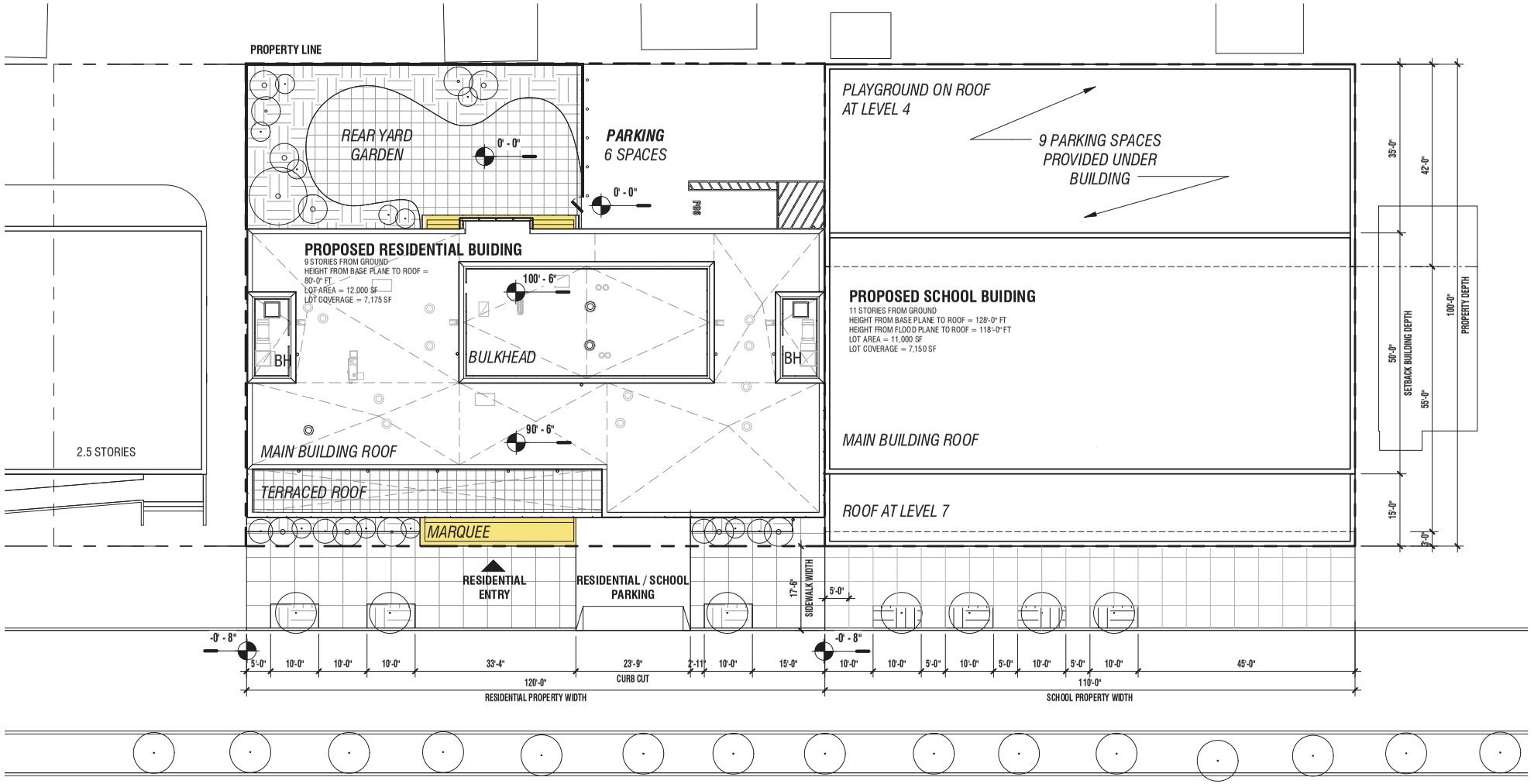
Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
ZONING ANALYSIS - COMMUNITY (SCHOOL)

Date
2021.01.11

Drawing No.
Z-05



THINK

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
SITE PLAN

Date
2021.01.11

Drawing No.
Z-06



THINK

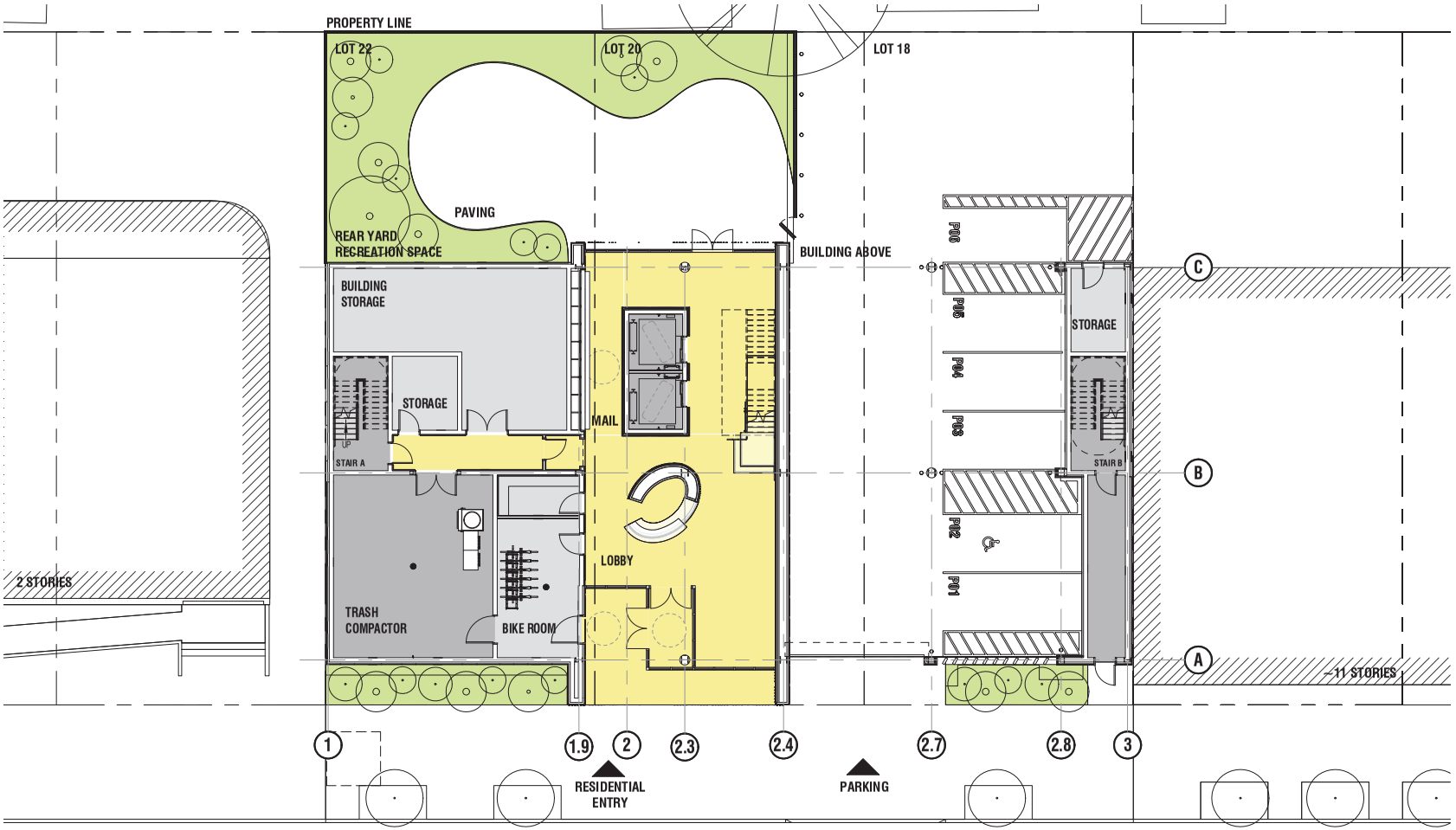
Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
EXTERIOR RENDERING

Date
2021.01.11

Drawing No.
Z-07



1 FLOOR PLAN - GROUND LEVEL

1/16" = 1'-0"

PROGRAM LEGEND

COLOR	PROGRAM TYPE		
	CIRCULATION / OPEN AMENITY		RESIDENTIAL AMENITIES
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE		OPERATING OFFICES
	RESIDENTIAL UNITS		OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
1 BEDROOM	30	37%
2 BEDROOM	1	1%
Total	83	100%

THINK

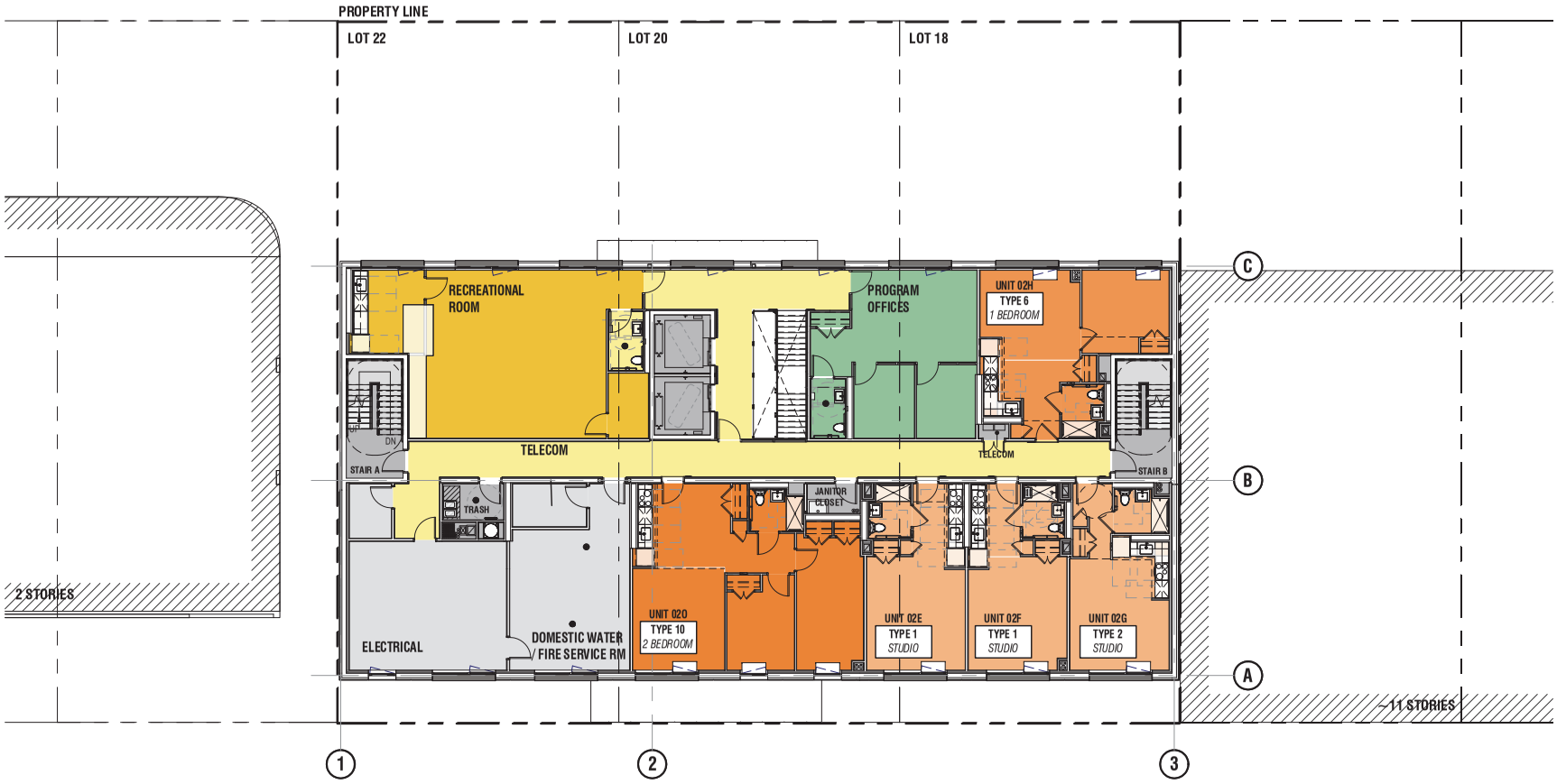
Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
FLOOR PLAN - GROUND LEVEL

Date
2021.01.11

Drawing No.
Z-08



1 FLOOR PLAN - LEVEL 2

1/16" = 1'-0"

PROGRAM LEGEND

COLOR	PROGRAM TYPE
	CIRCULATION / OPEN AMENITY
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE
	RESIDENTIAL UNITS
	RESIDENTIAL AMENITIES
	OPERATING OFFICES
	OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
1 BEDROOM	30	37%
2 BEDROOM	1	1%
Total	83	100%

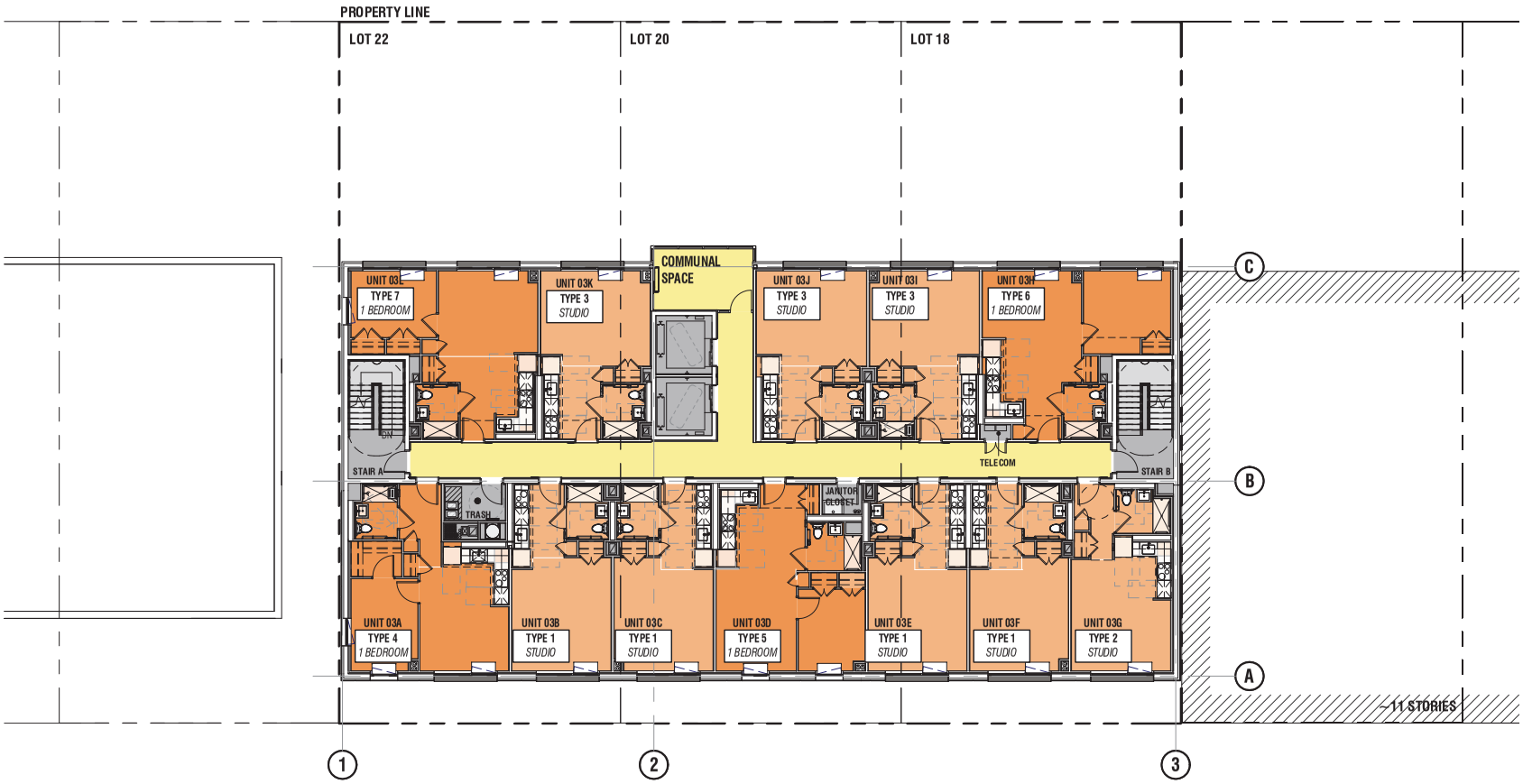
Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
FLOOR PLAN - LEVEL 2

Date
2021.01.11

Drawing No.
Z-09



1 FLOOR PLAN - LEVEL 3 - 7

1/16" = 1'-0"

PROGRAM LEGEND

COLOR	PROGRAM TYPE		
	CIRCULATION / OPEN AMENITY		RESIDENTIAL AMENITIES
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE		OPERATING OFFICES
	RESIDENTIAL UNITS		OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
1 BEDROOM	30	37%
2 BEDROOM	1	1%
Total	83	100%

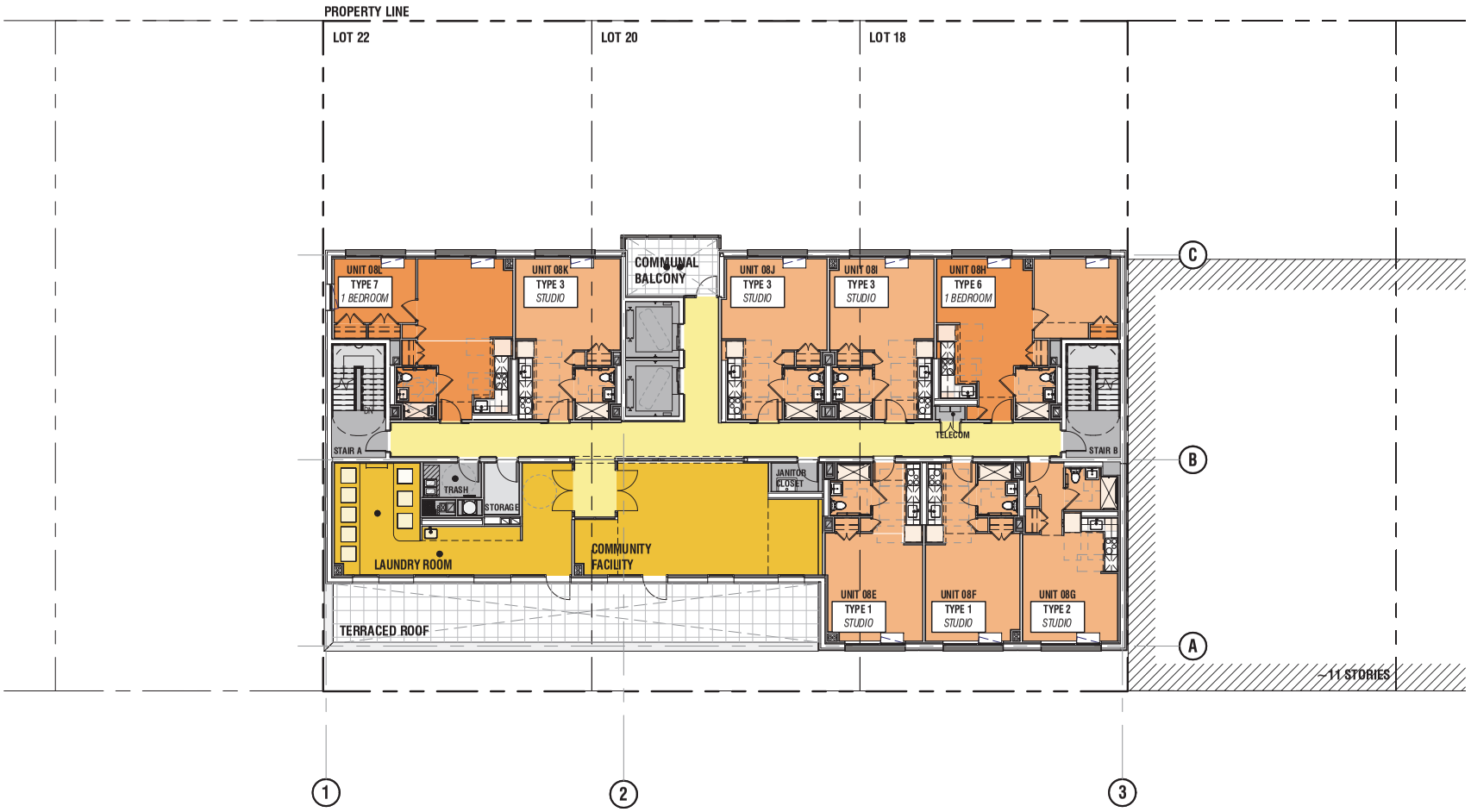
Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
FLOOR PLAN - LEVELS 3 - 7

Date
2021.01.11

Drawing No.
Z-10



1 FLOOR PLAN - LEVEL 8

1/16" = 1'-0"

PROGRAM LEGEND

COLOR	PROGRAM TYPE		
	CIRCULATION / OPEN AMENITY		RESIDENTIAL AMENITIES
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE		OPERATING OFFICES
	RESIDENTIAL UNITS		OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
1 BEDROOM	30	37%
2 BEDROOM	1	1%
Total	83	100%

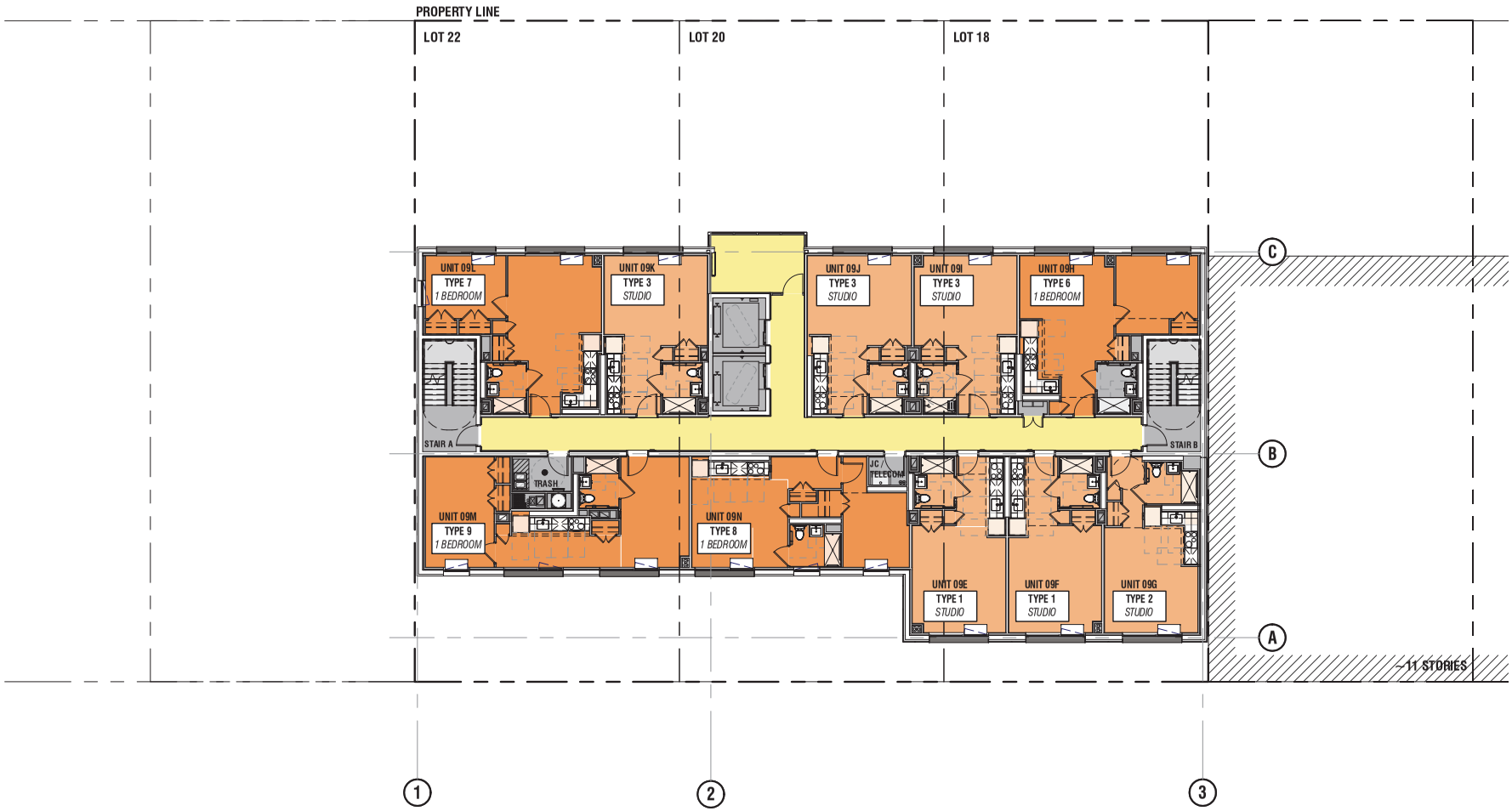
Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
646.688.5898
info@think-arc.com

Title
FLOOR PLAN - LEVEL 8

Date
2021.01.11

Drawing No.
Z-11



1 FLOOR PLAN - LEVEL 9

1/16" = 1'-0"

PROGRAM LEGEND

COLOR	PROGRAM TYPE	COLOR	PROGRAM TYPE
	CIRCULATION / OPEN AMENITY		RESIDENTIAL AMENITIES
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE		OPERATING OFFICES
	RESIDENTIAL UNITS		OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
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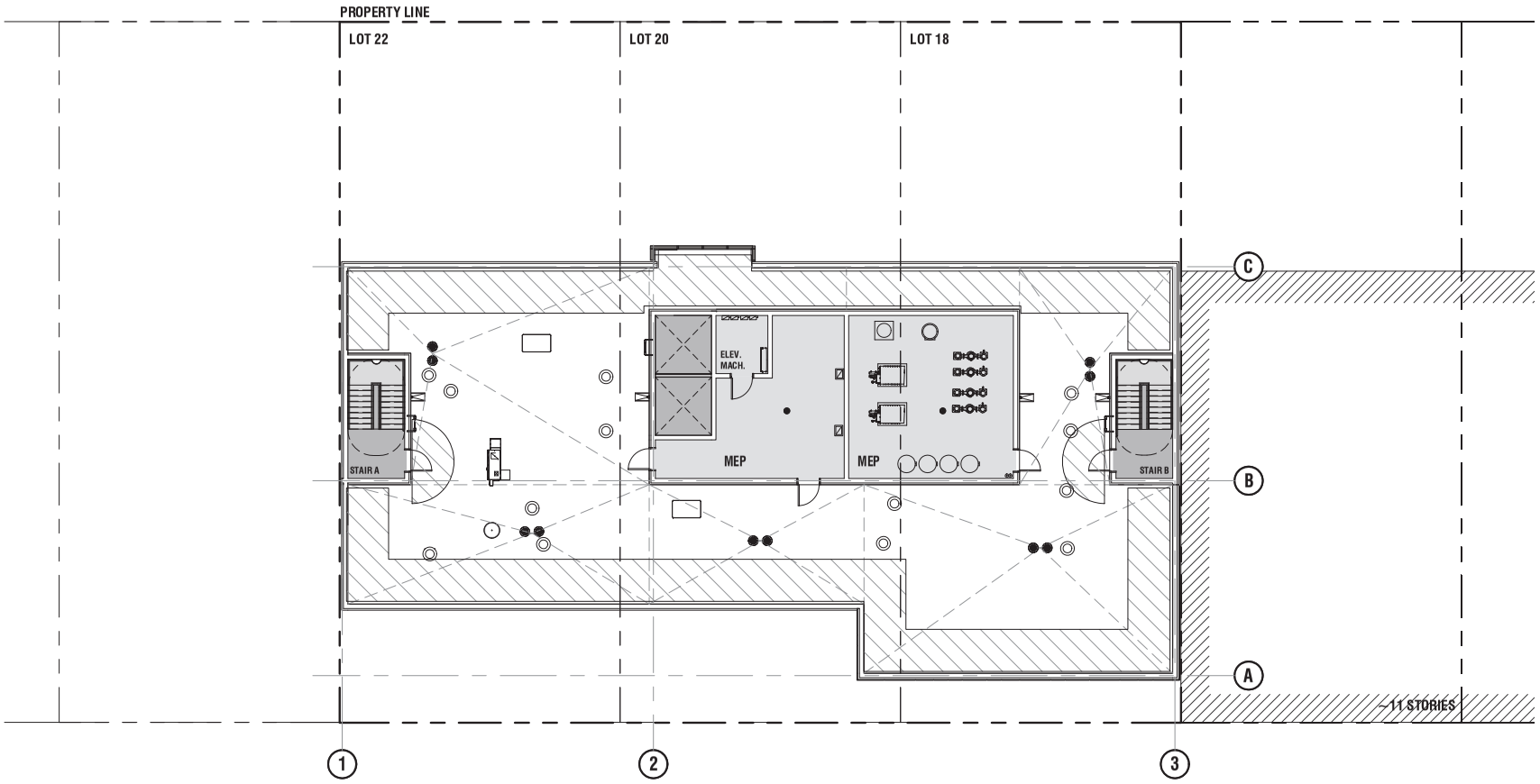
Title
FLOOR PLAN - LEVEL 9

Date
2021.01.11

Drawing No.
Z-12



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

PROGRAM LEGEND

COLOR	PROGRAM TYPE	COLOR	PROGRAM TYPE
	CIRCULATION / OPEN AMENITY		RESIDENTIAL AMENITIES
	EGRESS CORE / MECH. / SERVICE / ELEV. / TRASH / STORAGE		OPERATING OFFICES
	RESIDENTIAL UNITS		OUTDOOR GREEN SPACE

UNIT COUNT

UNIT TYPE	COUNT	%
STUDIO	52	62%
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2 BEDROOM	1	1%
Total	83	100%

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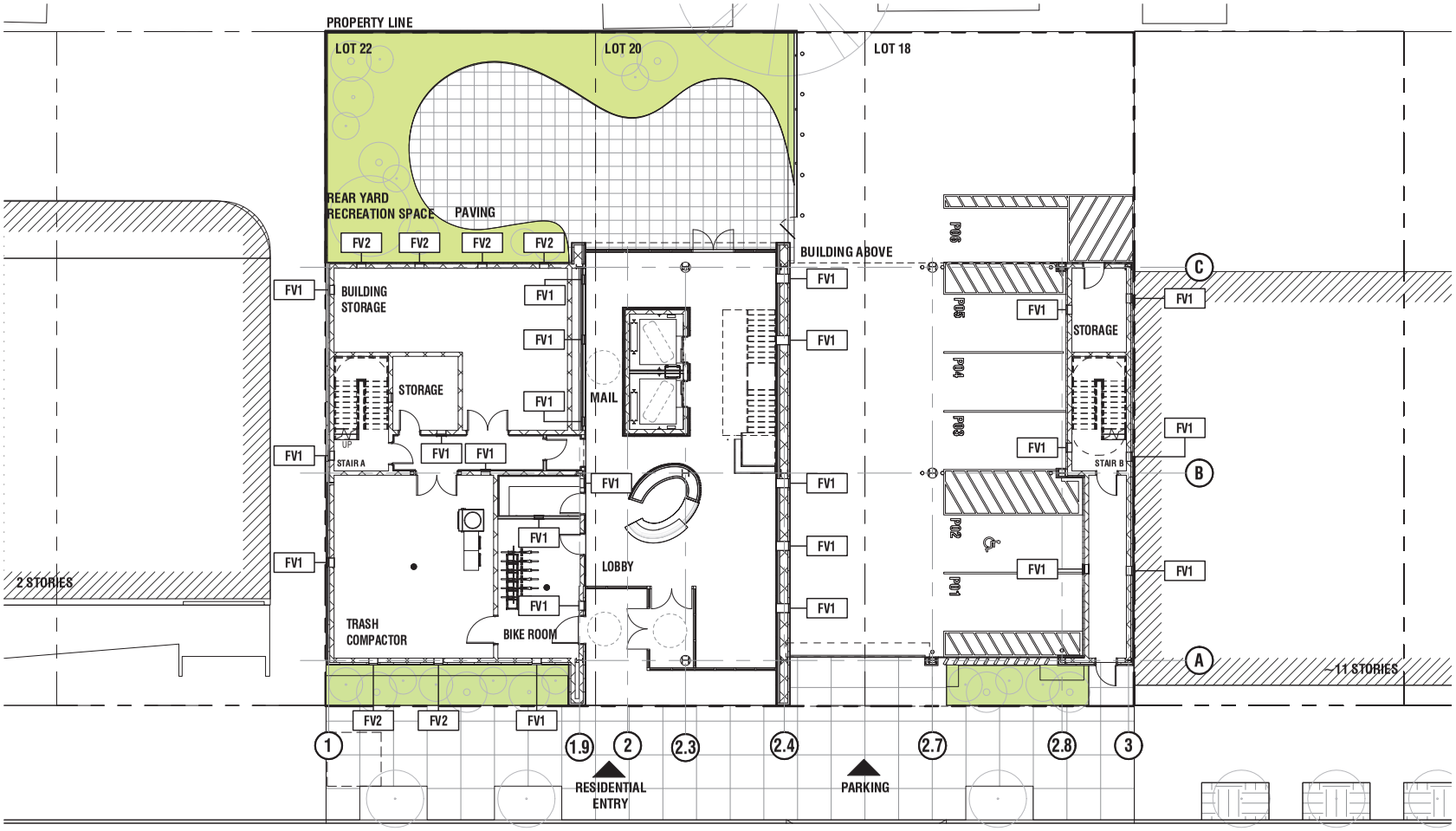
Title
FLOOR PLAN - ROOF

Date
2021.01.11

Drawing No.
Z-13



1 RESILIENCY PLAN

1/16" = 1'-0"

FLOOD VENT LEGEND

FV1	200SF CLEAR AREA FLOOD VENT
FV2	400SF CLEAR AREA FLOOD VENT

GENERAL NOTES

- ONLY BUILDING STORAGE AND BUILDING ENTRY LOCATED ON GROUND FLOOR BELOW FLOOD PLANE 9 AS SHOWN
- FLOOD PLANE STARTS AT 9, ABOVE GROUND LEVEL SHOWN
- WET FLOOD PROOFING PROVIDED WITH FLOOD VENTS AS SHOWN
- RESILIENT MATERIALS USED BELOW FLOOD PLANE

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

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Title
RESILIENCY PLAN

Date
2021.01.11

Drawing No.
Z-14



THINK

Project
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FAR ROCKAWAY, NY

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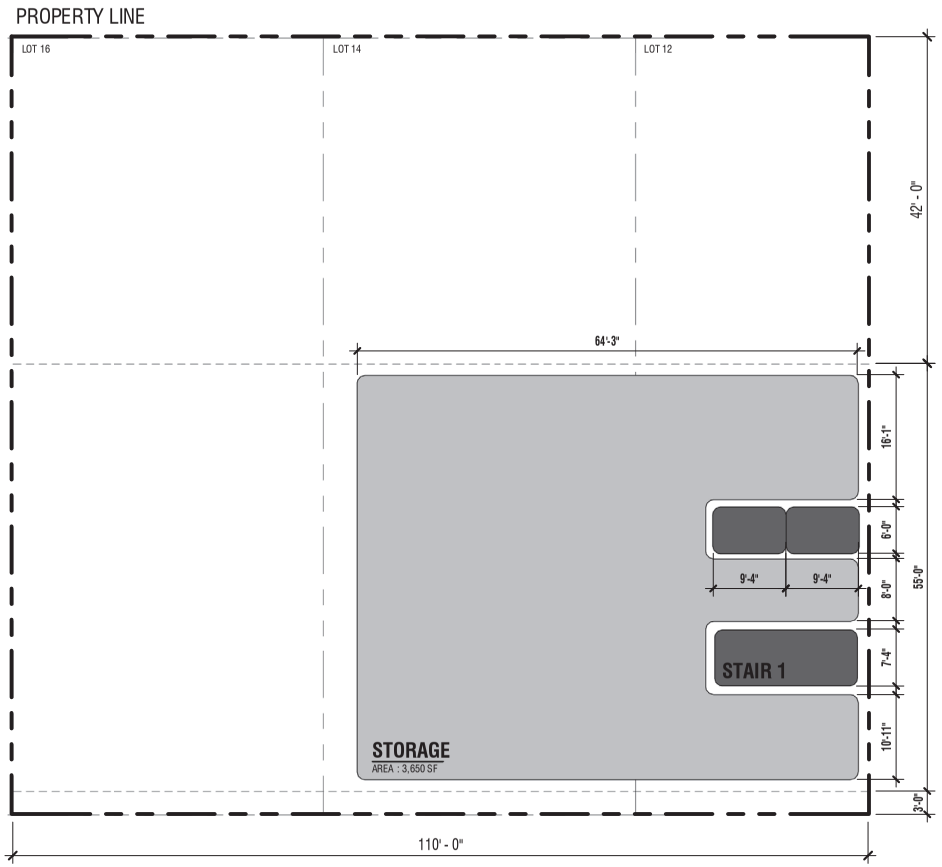
Title
EXTERIOR PERSPECTIVE - LOOKING NORTH

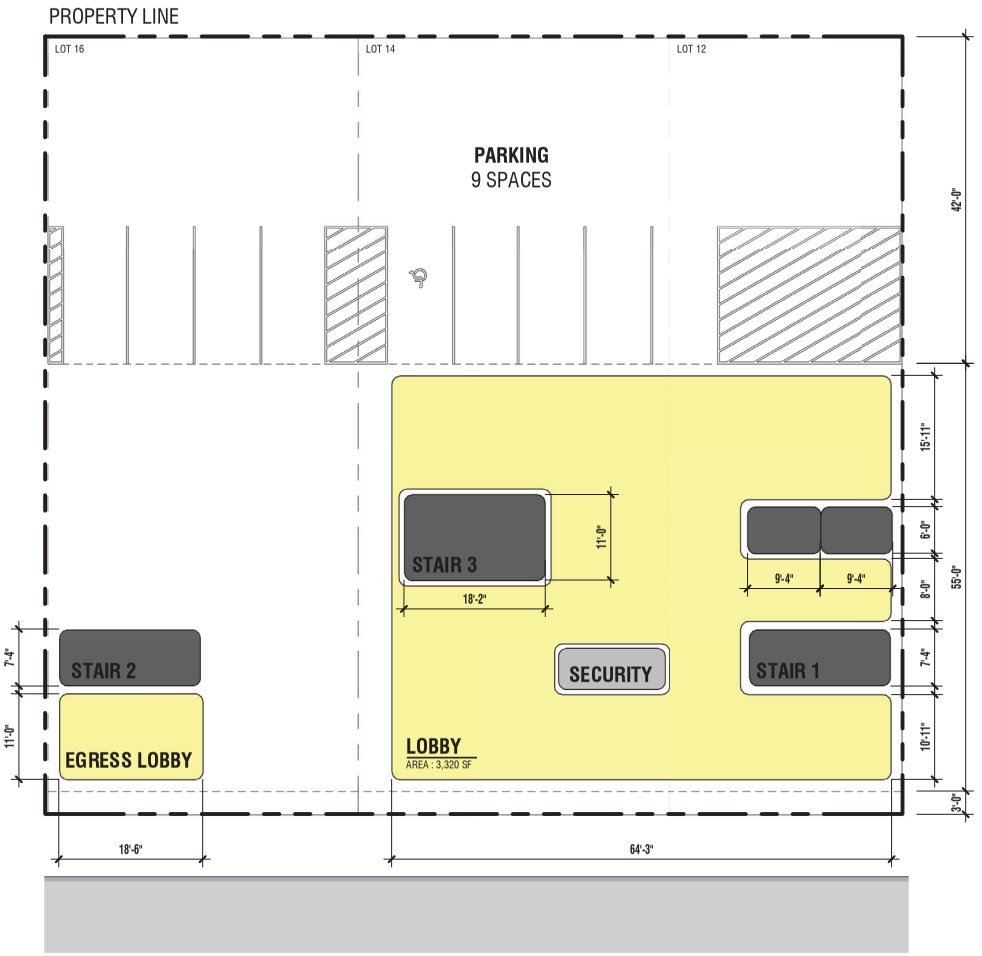
Date
2021.01.11

Drawing No.
Z-15



1 SCHOOL - CELLAR

1/16" = 1'-0"



2 GROUND FLOOR

1/16" = 1'-0"

Project
BEACH 67 CHARTER SCHOOL
Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

FAR ROCKAWAY, NY

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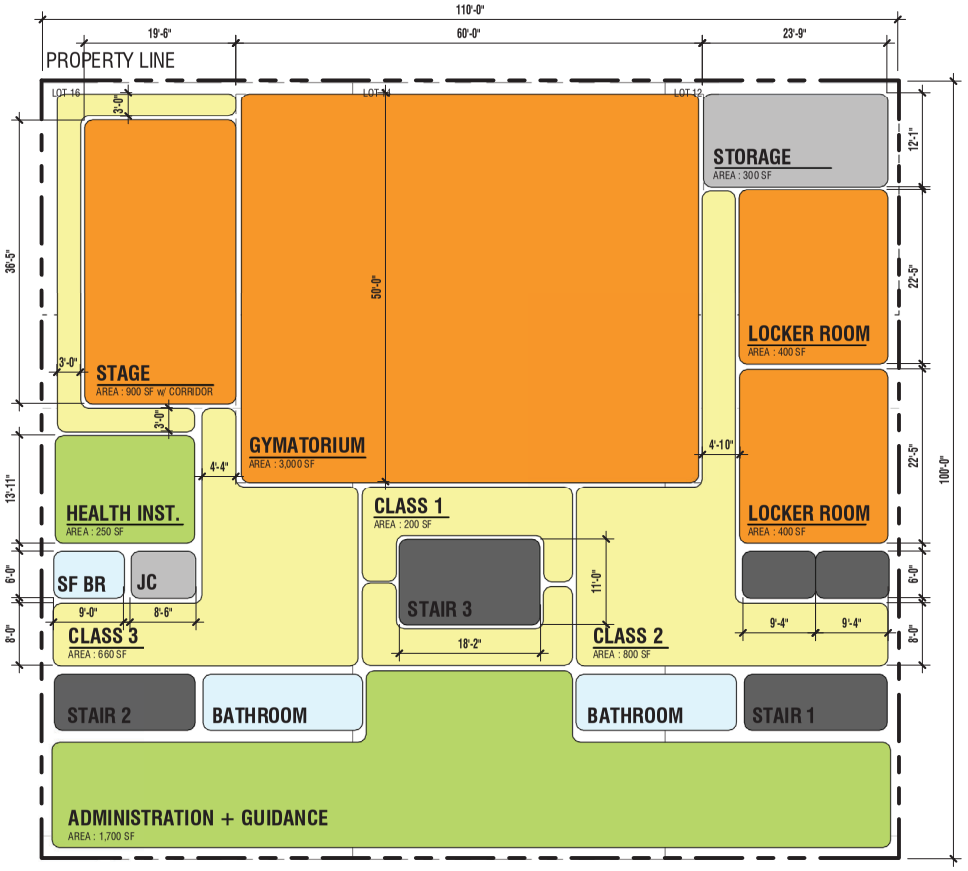
Title
SCHOOL - ZONING PLANS

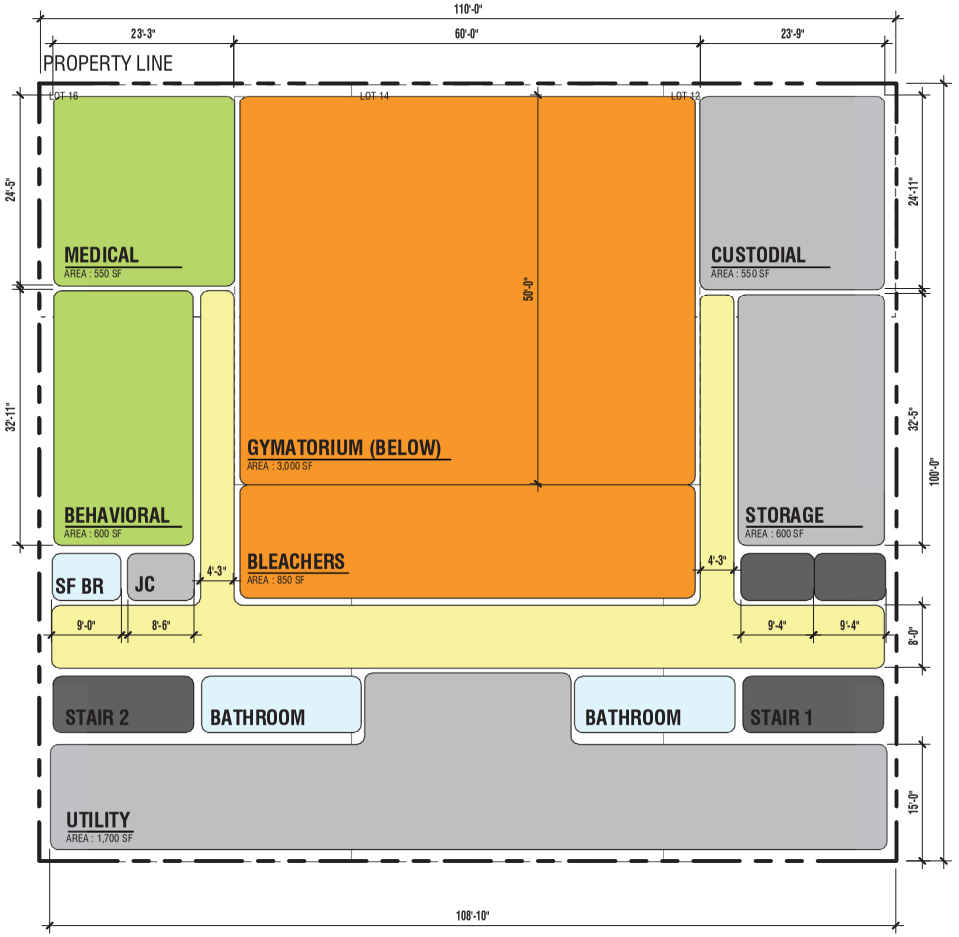
Date
2021.01.11

Drawing No.
Z-16



1 SCHOOL - LEVEL 2

1/16" = 1'-0"



2 SCHOOL - LEVEL 3

1/16" = 1'-0"

Project
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Think! Architecture + Design
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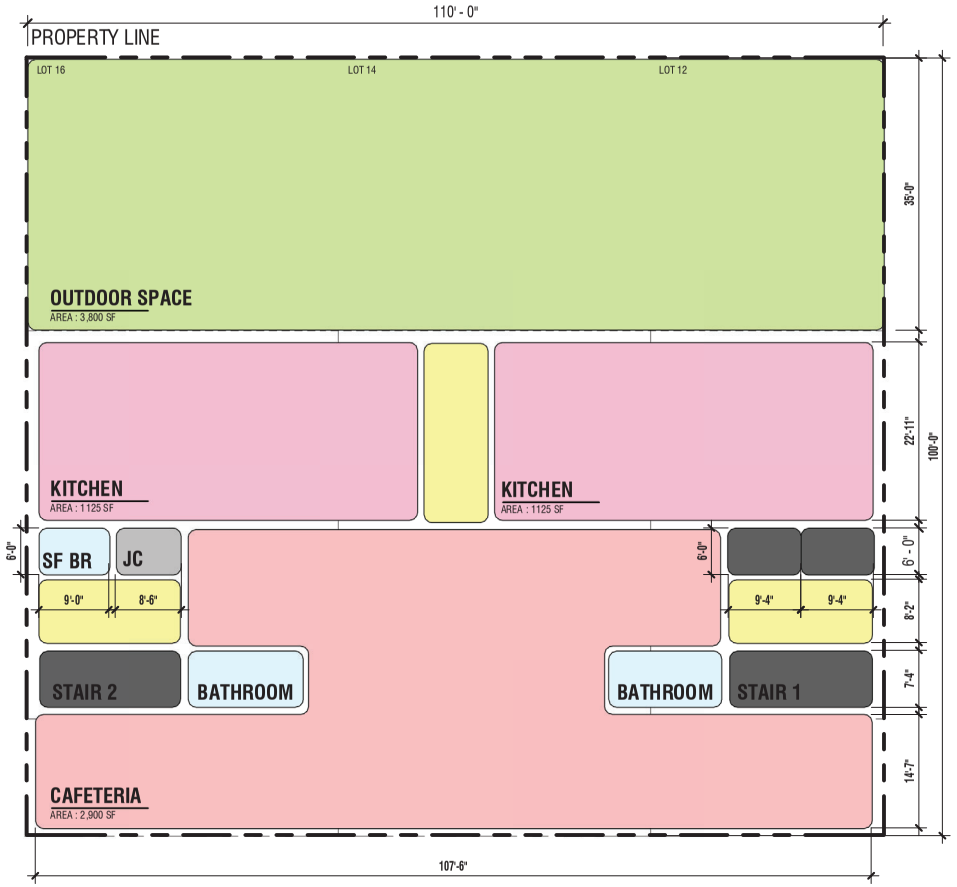
Title
SCHOOL - ZONING PLANS

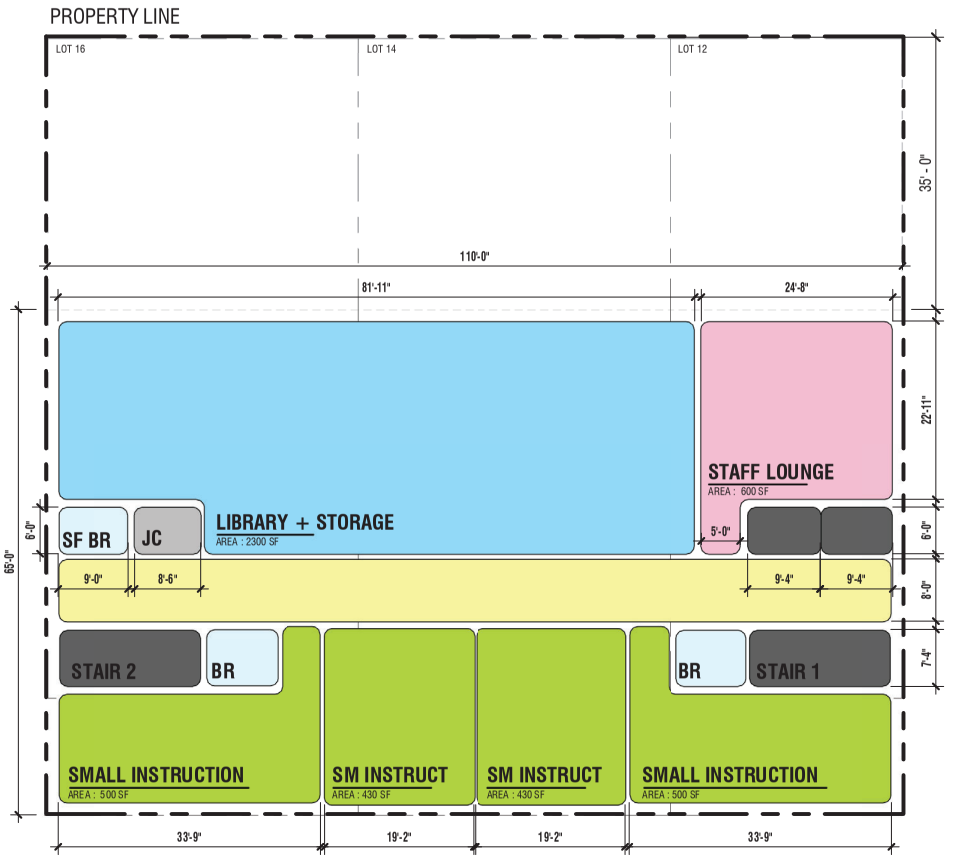
Date
2021.01.11

Drawing No.
Z-17



1 SCHOOL - LEVEL 4

1/16" = 1'-0"



2 SCHOOL - LEVEL 5

1/16" = 1'-0"

Project
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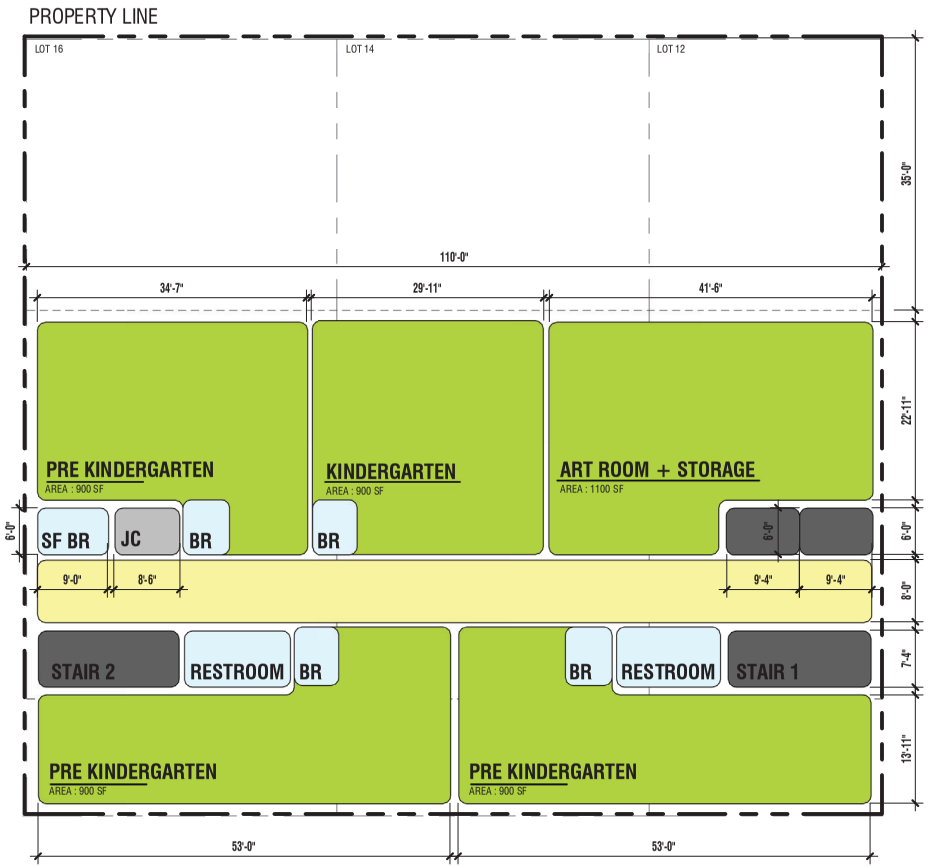
Title
SCHOOL - ZONING PLANS

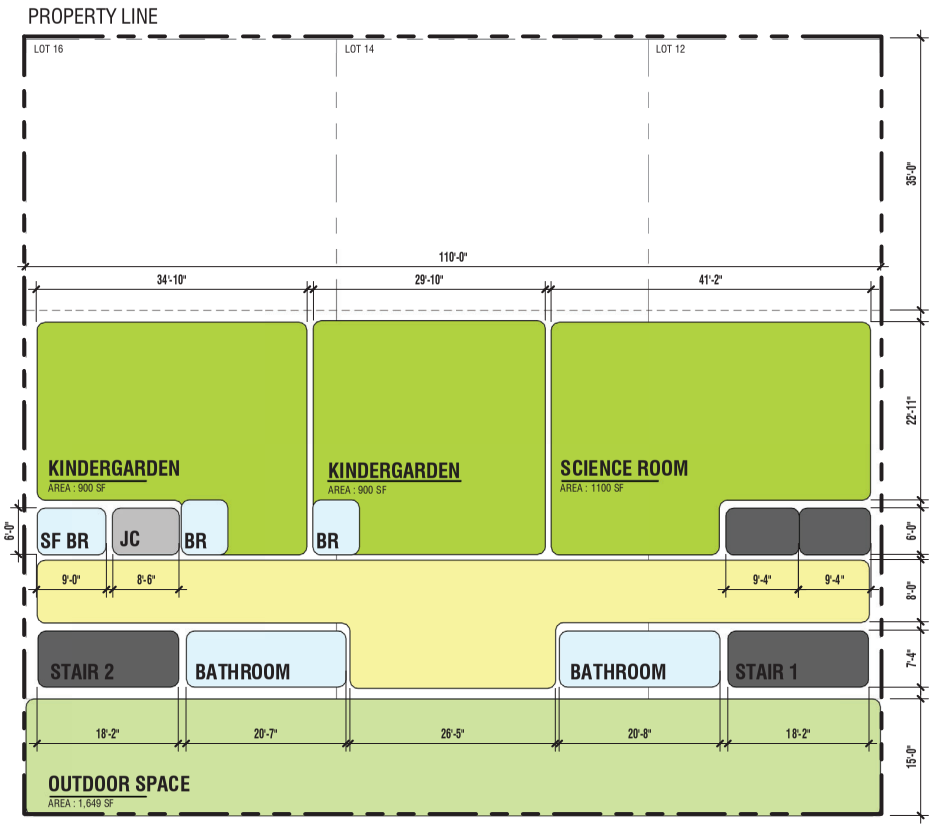
Date
2021.01.11

Drawing No.
Z-18



1 SCHOOL - LEVEL 6

1/16" = 1'-0"



2 SCHOOL - LEVEL 7

1/16" = 1'-0"

THINK

Project
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FAR ROCKAWAY, NY

Title
SCHOOL - ZONING PLANS

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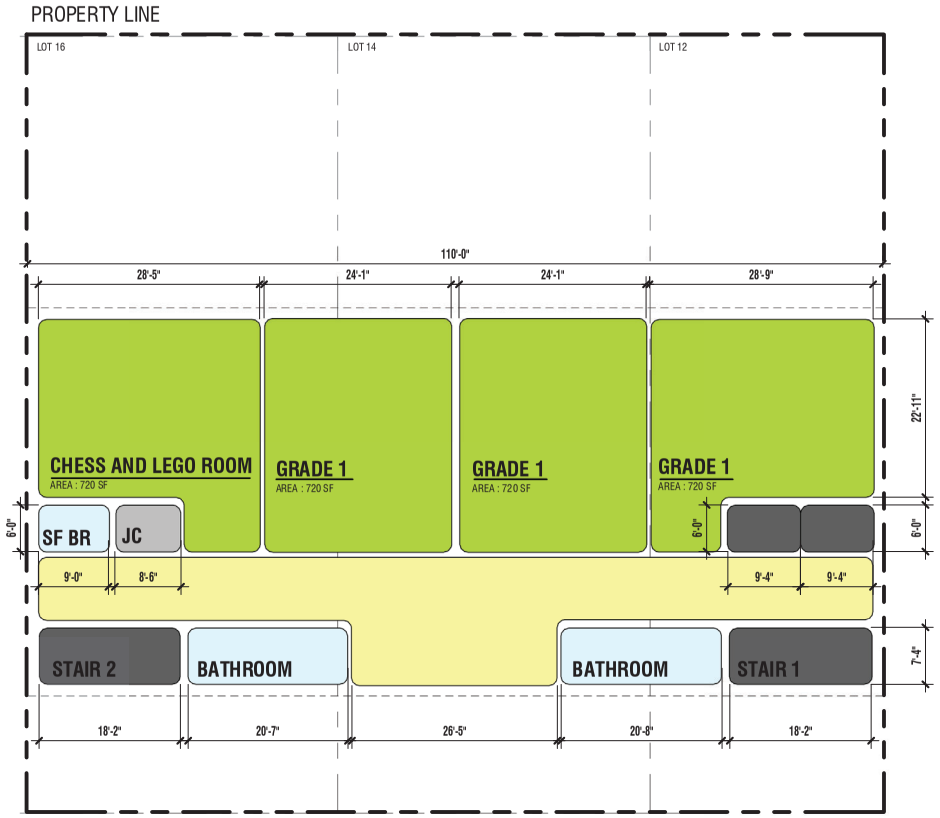
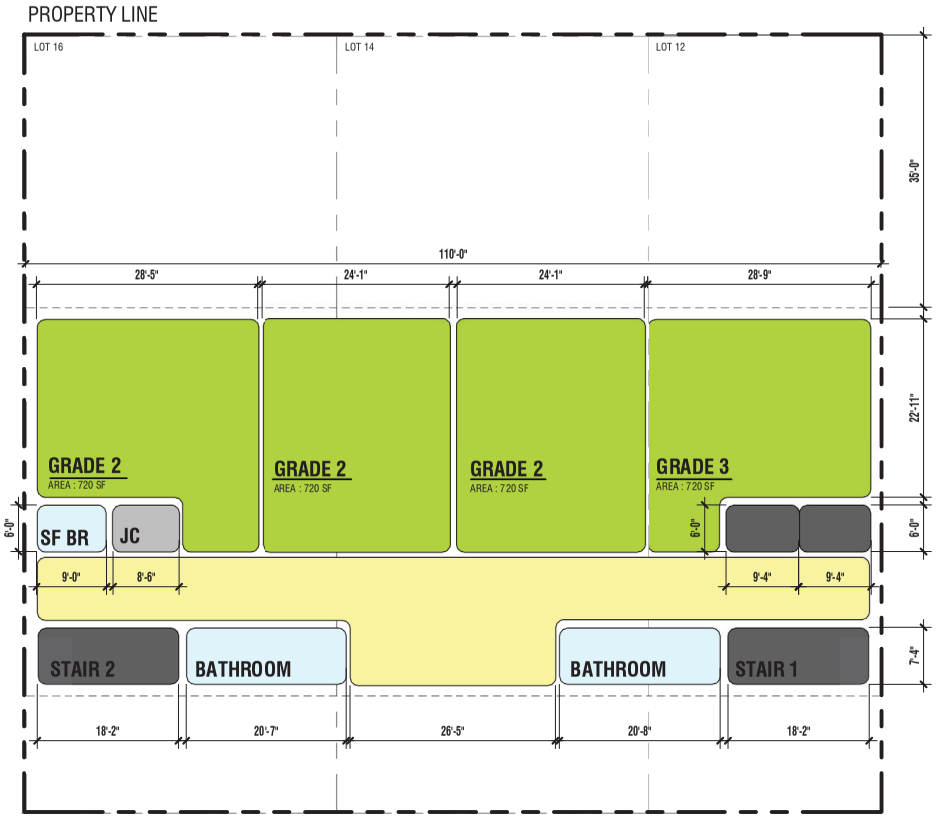
Date
2021.01.11

Drawing No.
Z-19



1 SCHOOL - LEVEL 8

1/16" = 1'-0"



2 SCHOOL - LEVEL 9

1/16" = 1'-0"

THINK

Project
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Title
SCHOOL - ZONING PLANS

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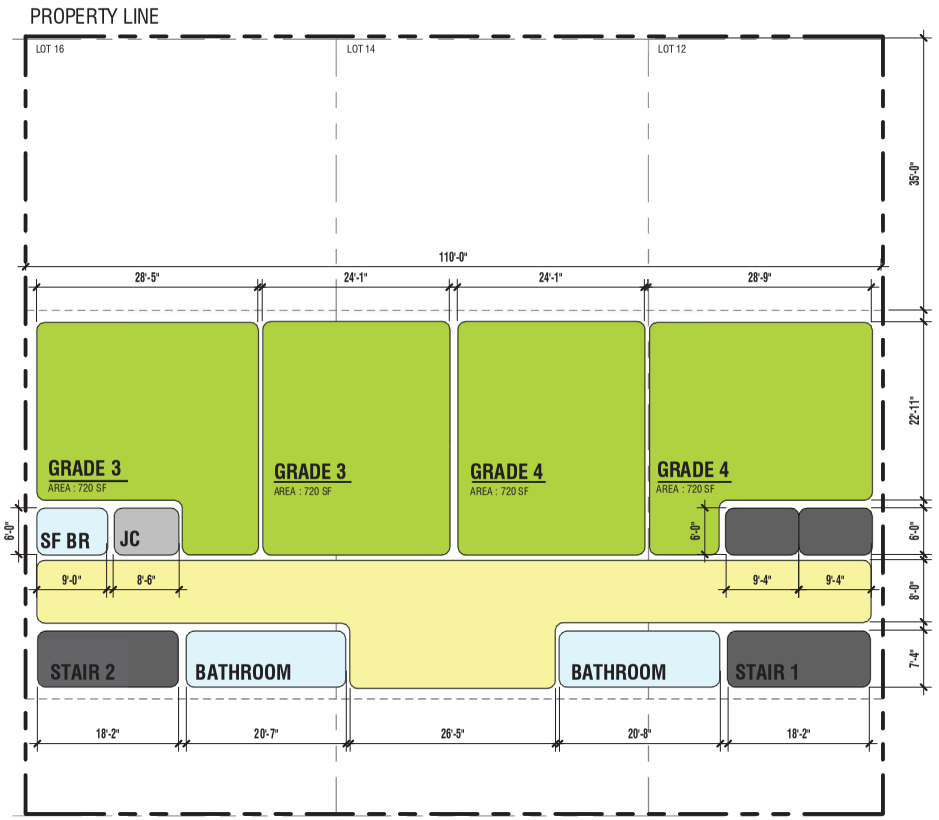
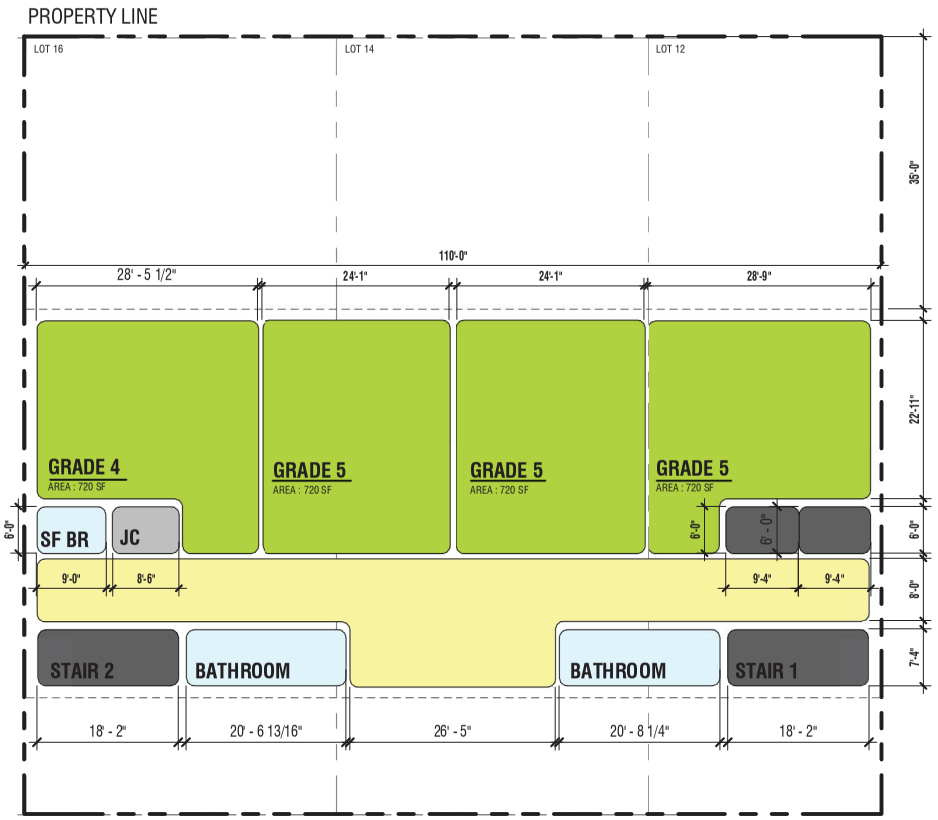
Date
2021.01.11

Drawing No.
Z-20



1 **SCHOOL - LEVEL 10**

1/16" = 1'-0"



2 **SCHOOL - LEVEL 11**

1/16" = 1'-0"

THINK

Project
BEACH 67 CHARTER SCHOOL
Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

FAR ROCKAWAY, NY

Title
SCHOOL - ZONING PLANS

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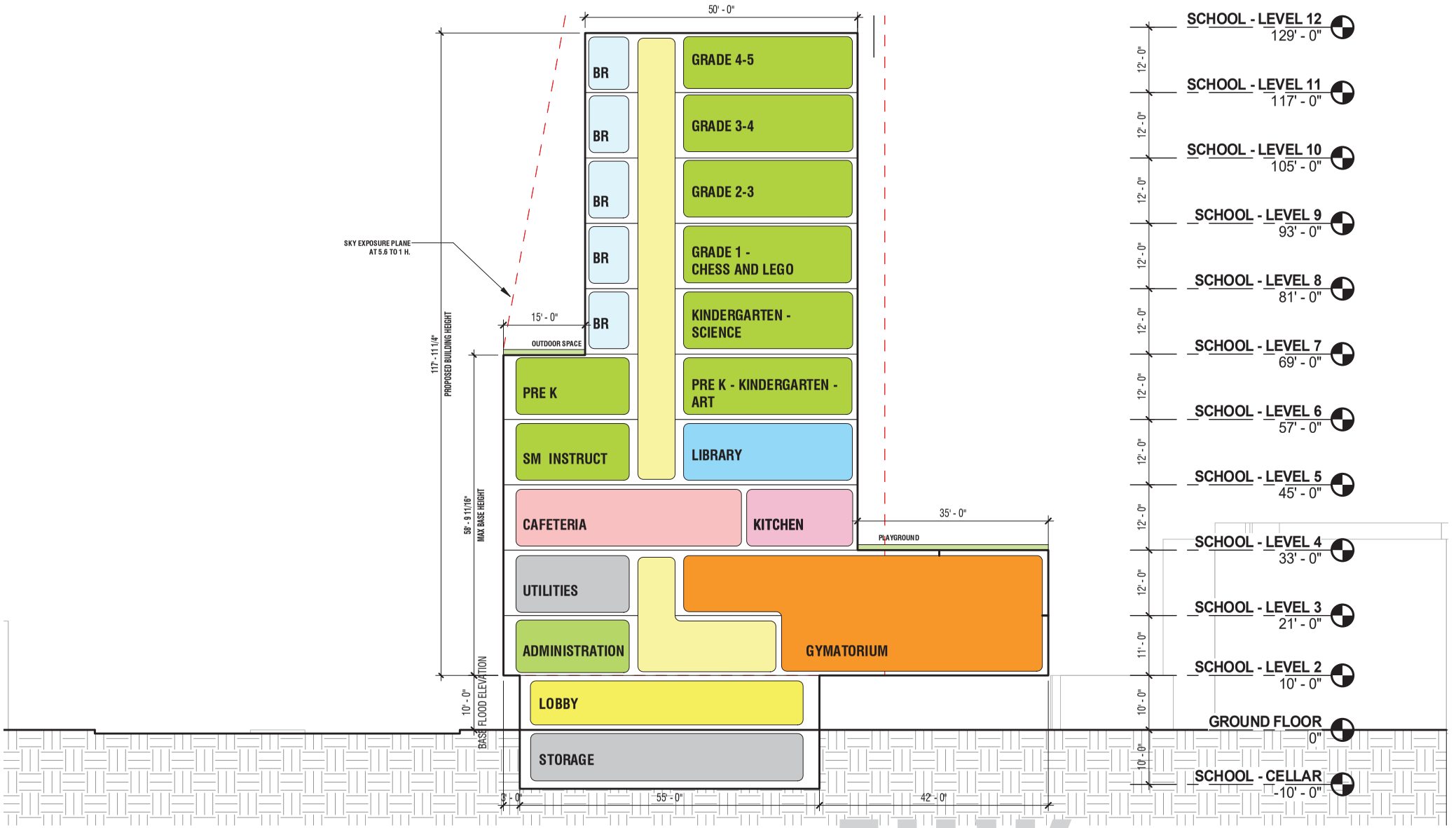
info@think-arc.com

Date
2021.01.11

Drawing No.
Z-21



Project
BEACH 67 CHARTER SCHOOL
Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

FAR ROCKAWAY, NY

Title
SCHOOL - ZONING SECTION

646.688.5898
info@think-arc.com

Date
2021.01.11

Drawing No.
Z-22

GENERAL NOTES

PROPERTY OWNER: GOD'S BATTALION OF PRAYER PROPERTIES, INC.
267 PARK AVENUE SOUTH, 3RD FLOOR
NEW YORK, NY 10010

APPLICANT: KARTHIKEYAN SHANMUGAM, P.E.
BOHLER ENGINEERING NY, PLLC
225 WEST 34TH STREET, SUITE 814
NEW YORK, NY 10122
(646) 661-4200

THIS PLAN REFERENCES:
SURVEY BY: RAMSAY LAND SURVEYING, P.C.
3924 RADCLIFFE AVENUE
BRONX, NY 11201
DATED: 08/16/2018

ARCHITECTURAL PLANS BY: THINK! ARCHITECTURE + DESIGN
1 METROTECH CENTER NORTH, 6TH FLOOR
BROOKLYN, NY 11201
DATED: 10/22/2019

ZONING DATA: BLOCK 16040 | LOTS 12, 14, 16, 18, 20 & 22
426-454 BEACH 67TH STREET
QUEENS, NEW YORK 11692
ZONE: R4A
ZONING MAP: 30c

STREET TREE CALCULATION

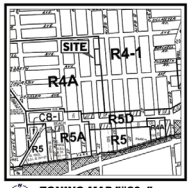
(PER ZONING CODE)

REQUIREMENTS	CALCULATIONS (REQUIRED/PROPOSED)	COMPLIANCE
NYC PARKS: STREET TREES: ONE STREET TREE FOR EVERY 25 FEET OF ROAD FRONTAGE PER § 26-41	FRONTAGE: = 255 LF (BEACH 67TH STREET) = 255 LF / 25 = 9.2 9 STREET TREES REQUIRED 5 EXISTING STREET TREES TO REMAIN 0 EXISTING STREET TREES TO BE REMOVED 0 PROPOSED STREET TREES 0 TREES TO BE PAID INTO OFF-SITE FUND 2 TREES TO BE PAID INTO OFF-SITE FUND	COMPLIES*

*NOTE: GODS BATTALION OF PRAYER PROPERTIES, INC. TO PAY INTO NYCDPR STREET TREE FUND FOR TWO (2) OFF-SITE STREET TREE PLANTINGS AND TWO (2) ON-SITE STREET TREE PLANTINGS(4 PLANTINGS TOTAL)

ITEMS UNDER SEPARATE APPLICATION

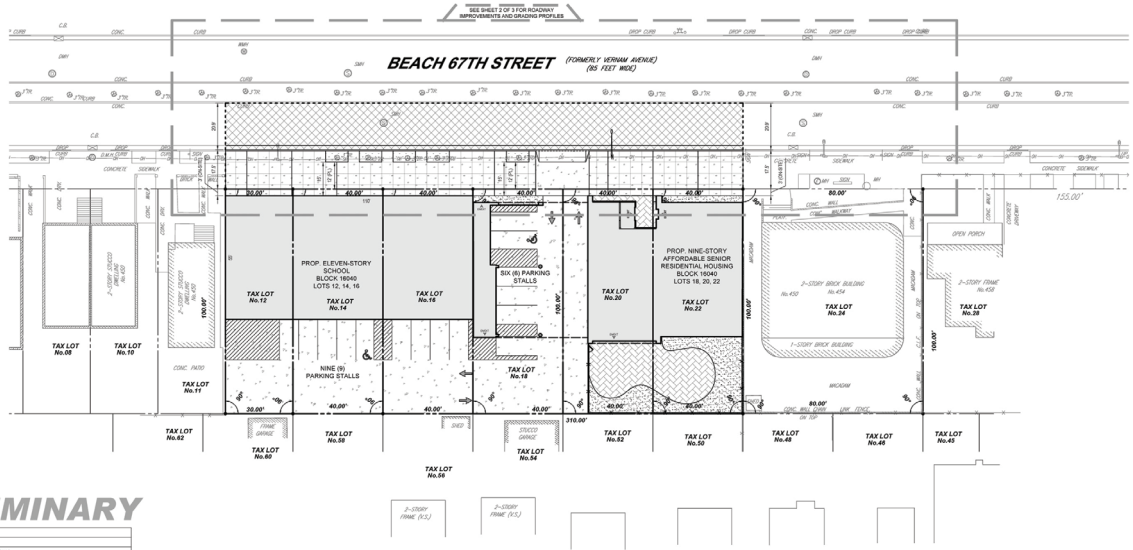
NEW BUILDING (NYCDOB)	NB #_____ NB #_____
CURB CUT (NYCDOB)	IN PROGRESS
PARKS PLAN (NYCDPR)	IN PROGRESS



ZONING MAP "#30c"
SCALE: N.T.S.
SOURCE: CITY OF NEW YORK



NYCDOF TAX MAP
SCALE: N.T.S.
SOURCE: CITY OF NEW YORK



PRELIMINARY

REV	DATE	COMMENT
2	12/17/2020	REV. PER SITE STRIPING
1	10/08/2020	REV. PER SITE MODIFICATION

LIST OF ESTIMATED QUANTITIES

New Concrete Curb	230	Lin. ft.
New Steel Faced Curb	0	Lin. ft.
New Sidewalk	4,025	Sq. ft.
New Roadway	534	Sq. yds
Existing Trees to Remain	2	Each
New Trees	0	Each
Trees To Be Planted Off-Site	0	Each
Trees To Pay Into On-Site Tree Fund	3	Each
Trees To Pay Into Off-Site Tree Fund	4	Each
Existing CB's	0	Each
Exist. CB's to Remain	0	Each
New CB's	0	Each
New DIP	0	Lin. ft.
New Manholes	0	Each

GRAPHIC SCALE 1 INCH = 20 FEET

ROADWAY/SIDEWALK REPAIR LEGEND

- PROPOSED 6" THICK NON-DISTINCTIVE CONCRETE SIDEWALK PER H-1045 TYPE-I
- PROPOSED 7" THICK NON-DISTINCTIVE CONCRETE PER H-1045 TYPE-III
- PROPOSED ASPHALT PVMT. IN R.O.W. - 3" A.C. WEARING SURFACE AND 6" OF THICK CONC. BASE (IF DAMAGED DURING CURB INSTALLATION) TO BE EXTENDED AS DIRECTED BY EXAMINER IF REQUIRED.
- PROPOSED TREE PIT IN R.O.W
- PROPOSED CONCRETE CURB / DROP CURB PER H-1035
- PROPOSED BASKET

ACCESSIBLE ROUTE GENERAL NOTES FROM THE PUBLIC RIGHT OF WAY (PROWAG)

1. OPENINGS IN FLOOR OF GROUND SURFACES MUST NOT ALLOW PASSAGE OF A SPHERE MORE THAN ½ INCH DIAMETER. ELONGATED OPENINGS MUST BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECT OF TRAVEL. (PROWAG R302.7.3)
2. CHANGES IN LEVEL OF ¼ INCH HIGH MAXIMUM ARE PERMITTED TO BE VERTICAL. (PROWAG R302.7.2)
3. CHANGES IN LEVEL BETWEEN ¼ INCH HIGH MINIMUM AND 1/2 INCH HIGH MAXIMUM MUST BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2. (PROWAG R302.7.2)
4. AN ACCESSIBLE ROUTE MUST HAVE A RUNNING SLOPE NOT STEEPER THAN 1:20 AND A CROSS SLOPE NOT STEEPER THAN 1:48 (PROWAG R302.5 / R302.6)
5. THE CLEAR WIDTH OF WALKING SURFACES MUST BE 48 INCHES MINIMUM (PROWAG R302.3)

FLOOD ZONE NOTE

X(C) WORK CONFORMS TO THE REQUIREMENTS OF APPENDIX G. THE ENGINEER ON RECORD CERTIFIES THIS PROPERTY IS IN ZONE AE PER FEMA MAP NUMBER 3604970201G DATED SEPTEMBER 5, 2018, BUT THE CATEGORY OF WORK DOES NOT REQUIRE COMPLIANCE WITH LL 2-09

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NOTE: SEE SHEETS BPP-002 AND BPP-003 FOR PROPOSED ROADWAY IMPROVEMENTS AND DETAILS

NYC DOB APPROVALS

Borough: QUEENS	DOT Ref. No.: _____
DOB NB No.: _____	DOB BPP No.: _____

NEW YORK CITY DEPARTMENT OF TRANSPORTATION
BUILDERS PAVEMENT PLAN
PROJECT DATA

Block: 16040 — Lot: 12, 14, 16, 18, 20, 22
Zone: R4A — Zoning Map: 7D
Street Address: 426-454 BEACH 67TH STREET, QUEENS, NEW YORK 11692
Owner: GOD'S BATTALLION OF PRAYER PROPERTIES, INC.
Address: 267 PARK AVENUE SOUTH, 3RD FLOOR, NEW YORK, NEW YORK 10010

WAIVERS

DOT requirement waived	As per/Date
1)	
2)	
3)	
4)	

GENERAL REQUIREMENTS

1. ALL DESIGNS, MATERIALS, CONSTRUCTION METHODS AND WORKMANSHIP SHALL COMPLY WITH THE FOLLOWING PUBLICATIONS OF THE BUREAU OF HIGHWAYS: STANDARD SPECIFICATIONS, STANDARD DETAILS OF CONSTRUCTION; RULES OF THE BUREAU OF HIGHWAY OPERATIONS; GUIDELINES FOR THE DESIGN OF INFRASTRUCTURE COMPONENTS.
2. ALL NON-STANDARD MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE SPECIFICALLY APPROVED IN WRITING BY THE NYCDOT.
3. ANY WORK NOT COMPLYING WITH THE REQUIREMENTS OF THE NYCDOT SHALL BE REMOVED AND REPLACED IN COMPLIANCE WITH NYCDOT STANDARDS.
4. THIS PLAN SHALL BE VALID FOR THE ISSUANCE OF CONSTRUCTION PERMITS FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL OR SELF-CERTIFICATION, AS APPLICABLE.
5. ALL SIDEWALK AND STREET AREAS CONSTRUCTED UNDER THIS PLAN SHALL REMAIN OPEN TO THE PUBLIC AT ALL TIMES.
6. ALL PROPOSED CURB TO BE STEEL FACED CURB.
7. CONCRETE SIDEWALK SHALL BE CONSTRUCTED IN 5' X 5' FLAGS, WHERE FEASIBLE. FLAG LINES SHOULD BE STRAIGHT. CONTRACTOR WILL REPLACE ROUGH SURFACED, CRACKED, DEPRESSED, AND OTHER TYPES OF DEFECTED FLAGS SO AS TO CONFORM TO NYCDOT STANDARDS. NYCDOT HIGHWAY RULES, TITLE 34, CHAPTER 2, SECTION 2-09 (f)(vii).
8. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS TO BE PLACED EVERY 20' OR LESS ON SIDEWALKS; EVERY 24' OR LESS ON STEEL FACED CURBS; AT THE START OF ALL POURS, AND AT ANY CHANGES IN CONCRETE THICKNESS. EXPANSION JOINTS IN CURBS SHALL COINCIDE WITH EXPANSION JOINTS IN SIDEWALK.
9. CONTRACTOR SHALL ENSURE THAT TRANSVERSE EXPANSION JOINTS SHALL BE 1/4" IN WIDTH MINIMUM, TO 1/2" IN WIDTH MAXIMUM, AND SHALL BE FILLED WITH A PREFORMED JOINT FILLER TO WITHIN ½" OF THE SIDEWALK SURFACE. CONTRACTOR SHALL INSTALL BOND BREAKER AND JOINT SEALER TO WITHIN 1/8" OF TOP SURFACE.
10. SEE BUILDER'S PAVEMENT PLAN DETAILS SHEET FOR REQUIRED DETAILS.

ISSUANCE OF PERMITS

11. NO SIDEWALK, CURB, OR ROADWAY WORK SHALL BE DONE WITHOUT A PERMIT FROM THE BOROUGH HIGHWAY SUPERINTENDENT. APPLICATION SHALL BE MADE THREE DAYS BEFORE STARTING CONSTRUCTION. THE CONTRACTOR SHALL HAVE ALL REQUIRED INSURANCE COVERAGE ON FILE.
12. NO WORK ON DRAINAGE STRUCTURES SHALL BE DONE WITHOUT A PERMIT FROM THE BOROUGH OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
13. ANY VAULT WORK AT THE SITE SHALL BE DONE AS PER THE APPLICABLE RULES OF THE NYCDOT AND THE DEPARTMENT OF BUILDINGS.

CONSTRUCTION ACTIVITY

14. A CONSTRUCTION PLAN SHOWING MAINTENANCE AND PROTECTION OF TRAFFIC, INCLUDING PLACEMENT OF SIDEWALK BRIDGES, BARRIERS AND SIGNAGE, SHALL BE SUBMITTED TO THE BOROUGH HIGHWAY OFFICE BEFORE CONSTRUCTION BEGINS.
15. NO SIDEWALK SHALL BE CLOSED WITHOUT A PERMIT. PEDESTRIAN AND TRAFFIC SAFETY SHALL BE PROTECTED AT ALL TIMES. ROADWAY CLOSINGS SHALL BE AS DIRECTED.
16. THE SITE SHALL BE MAINTAINED IN A CLEAN AND SAFE CONDITION.

FINAL SIGN-OFF

17. PERMITS SHALL BE PRESENTED FROM ALL PUBLIC AGENCIES AND UTILITIES HAVING OWNERSHIP OF STRUCTURES RELOCATED OR REMOVED DURING CONSTRUCTION.
18. ALL PAVEMENT MARKINGS INCLUDING THERMOPLASTIC LANE DIVIDERS, REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN KIND TO THE BUREAU OF TRAFFIC STANDARDS.
19. ALL EXISTING CATCH BASINS ON SITE SHALL BE CLEANED AND MADE OPERABLE.
20. ALL DEFECTIVE ROADWAY CONSTRUCTION ON THIS PROJECT OUTSIDE THE PROJECT LIMITS SHALL BE REPAIRED AS DIRECTED.
21. THE ROADWAY SHALL BE PAVED TO THE REQUIREMENTS OF THE NYCDOT AND AS DIRECTED.
22. CORE REPORTS AND ENGINEER'S AFFIDAVIT SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

DOT ACCEPTANCE

Proposed and existing work shown here reviewed for compliance with all applicable rules and requirements by:

Plan Examiner

Acceptance for issuance of work permits granted by:

Chief/Builders Pavement Section — Date

BOHLER
BOHLER ENGINEERING NY, PLLC
225 W 34TH STREET, SUITE 814
NEW YORK, NY 10122
Phone: (646) 661-4200
Fax: (646) 661-6464
www.BohlerEngineering.com

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON, ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED ARCHITECT OR ENGINEER. IF ANY SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

PROJECT NAME
DLAC SENIOR CENTER
426-454 BEACH 67TH STREET
QUEENS, NEW YORK 11692
BLOCK 16040 | LOTS 12, 14, 16, 18, 20 & 22

BUILDERS PAVEMENT PLAN

SEAL & SIGNATURE — K. SHANMUGAM — PROFESSIONAL ENGINEER — NEW YORK LICENSED No. 099042

DATE: 09/24/2020
PROJECT No: 140035000-BPP-3A
DRAWING BY: RMB
CHK BY: KS
DWG No: BPP-001.00
CAD FILE No: 140035000-BPP-3a
1 OF 3

STICKER LOCATION

Project
DLAC SENIOR RESIDENCE
FAR ROCKAWAY, NY

Think! Architecture + Design
1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201

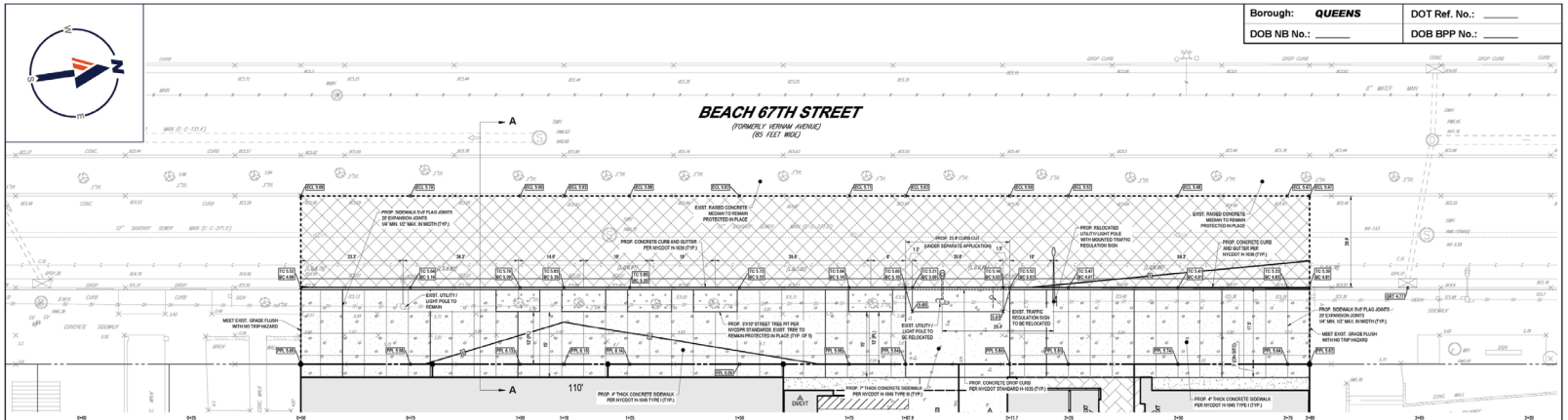
Title
BUILDERS PAVEMENT PLAN

646.688.5898
info@think-arc.com

Date
2021.01.11

Drawing No.
Z-23

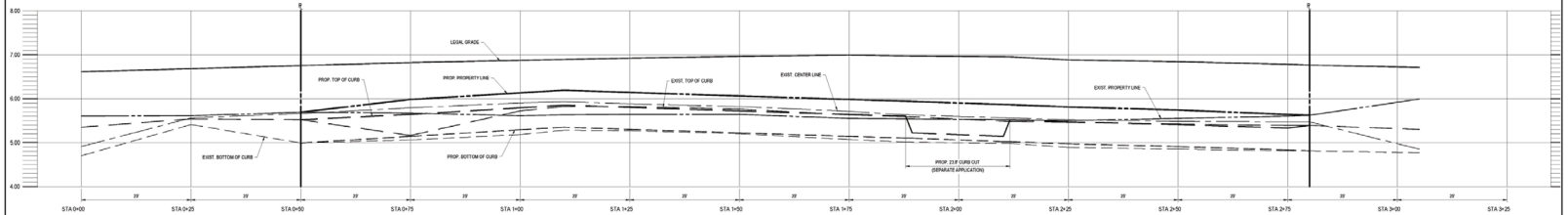
Borough: QUEENS	DOT Ref. No.: _____
DOB NB No.: _____	DOB BPP No.: _____



DESIGN PARAMETERS BEACH 67TH STREET PLAN VIEW

SCALE: 1"=10'

STA	0+00	0+25	0+50	0+75	1+00	1+10	1+25	1+50	1+75	1+87.9	2+11.7	2+25	2+50	2+75	2+80	3+05	3+30
GTS	2.84%	N/A	0.6%	0.6%	0.6%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.33%	-0.32%	-0.4%	N/A	N/A
CLS	2.6%	0.4%	0.52%	0.52%	0.44%	0.33%	-0.34%	-0.34%	-0.44%	-0.65%	-0.39%	-0.3%	-0.18%	-0.04%	0%	-2.48%	3.28%
RCS	0.72%	3.21%	3.11%	2.92%	2.92%	2.78%	2.78%	2.67%	2.73%	2.54%	2.59%	2.63%	2.73%	3.06%	3.16%	N/A	N/A
SCS	N/A	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1.82%	1.35%	N/A	N/A
CR	1.5 in.	6.36 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6.96 in.	N/A	N/A
RD	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	10 ft.	15 ft.	25 ft.	25 ft.	21.4 ft.	23.0 ft.	13.3 ft.	25 ft.	25 ft.	5 ft.	25 ft.	25 ft.
LG	6.61	6.68	6.75	6.82	6.87	6.89	6.92	6.96	6.99	6.97	6.95	6.88	6.84	6.78	6.76	6.71	6.66
EPL	5.60	5.61	5.69	5.67	5.61	5.63	5.64	5.64	5.55	5.54	5.52	5.50	5.55	5.60	5.62	5.59	5.93
PPL	N/A	N/A	5.69	5.68	6.13	6.19	6.14	6.06	5.56	5.54	5.60	5.81	5.74	5.64	5.62	N/A	N/A
ETC	5.35	5.54	5.52	5.16	5.72	5.62	5.62	5.70	5.63	5.59	5.48	5.46	5.42	5.39	5.39	5.30	5.12
EBC	4.70	5.41	4.99	5.06	5.18	5.08	5.27	5.30	5.07	5.01	4.98	4.89	4.85	4.81	4.81	4.77	5.61
PTC	N/A	5.52	5.52	5.64	5.79	5.85	5.80	5.72	5.64	5.60	5.52	5.47	5.41	5.33	5.39	N/A	N/A
PBC	N/A	4.99	4.99	5.14	5.90	5.95	5.90	5.32	5.14	5.10	5.02	4.97	4.91	4.83	4.91	N/A	N/A
ECL	4.91	5.56	5.66	5.79	5.93	5.93	5.86	5.82	5.71	5.63	5.56	5.52	5.46	5.47	5.47	4.85	5.67



PROFILE EASTERLY CURBLINE OF BEACH 67TH STREET

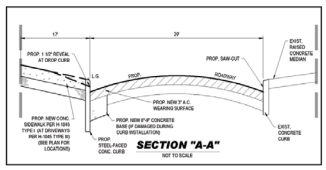
HORIZ. SCALE: 1"=10'
VERT. SCALE: 1"=1'

ABBREVIATION TABLE FOR BPP

GTS = GUTTER SLOPE
CLS = CENTER LINE SLOPE
RCS = ROAD CROSS SLOPE
SCS = SIDEWALK CROSS SLOPE
CR = CURB REVEAL
RD = DIST. FROM PROW STATION

STA = STATION/DISTANCE

LG = LEGAL GRADE
EPL = EXIST. PROPERTY LINE
PPL = PROP. PROPERTY LINE
ETC = EXIST. TOP OF CURB
EBC = EXIST. BOTTOM OF CURB
PTC = PROP. TOP OF CURB
PBC = PROP. BOTTOM OF CURB
ECL = EXIST. ROAD CENTER LINE



SECTION "A-A"

NOT TO SCALE

PROFILE LEGEND

- EXISTING PROPERTY LINE (EPL)
- PROPOSED PROPERTY LINE (PPL)
- EXISTING CENTER LINE (ECL)
- LEGAL GRADE (LG)
- EXISTING TOP OF CURB (ETC)
- EXISTING BOTTOM OF CURB (EBC)
- PROPOSED TOP OF CURB (PTC)
- PROPOSED BOTTOM OF CURB (PBC)

ROADWAY/SIDEWALK REPAIR LEGEND

- PROPOSED 4" THICK NON-DISTINCTIVE CONCRETE SIDEWALK PER H-1045 TYPE-I
- PROPOSED 7" THICK NON-DISTINCTIVE CONCRETE PER H-1045 TYPE-III
- PROPOSED ASPHALT PVMT. IN R.O.W. - 3" A.C. WEARING SURFACE AND 6"-8" THICK CONC. BASE (IF DAMAGED DURING CURB INSTALLATION) TO BE EXTENDED AS DIRECTED BY EXAMINER IF REQUIRED
- PROPOSED TREE PIT IN R.O.W.
- PROPOSED CONCRETE CURB / DROP CURB PER H-1035
- PROPOSED SAWCUT

NYC DOB APPROVALS

PROJECT NAME
DLAC SENIOR CENTER
426-454 BEACH 67TH STREET
QUEENS, NEW YORK 11692
BLOCK 16040 | LOTS 12, 14, 16, 18, 20 & 22

BEACH 67TH STREET PLAN

SEAL & SIGNATURE — K. SHANMUGAM — PROFESSIONAL ENGINEER

DATE: 09/24/2020
PROJECT No: 19037/20-BPP-2A
DRAWING BY: RH/B
CHK. BY: KS
DWG No: BPP-002.00
CAD FILE No: 19037/20-BPP-2A
2 OF 3

STICKER LOCATION

PRELIMINARY

REV.	DATE	COMMENT
2	12/17/2020	REV. PER SITE STRIPING
1	10/08/2020	REV. PER SITE MODIFICATION

GRAPHIC SCALE 1 INCH = 10 FEET (10 0 5 10)

THINK

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

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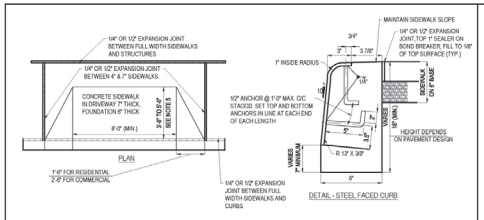
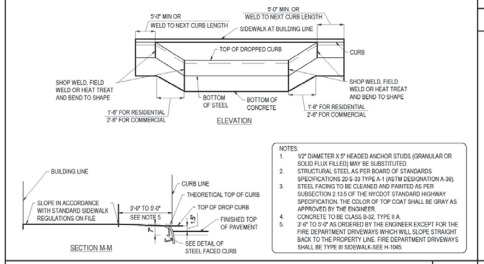
Title
BUILDERS PAVEMENT PLAN

Date
2021.01.11

Drawing No.
Z-24

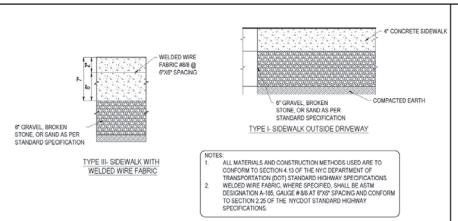
Borough: **QUEENS**	DOT Ref. No.: _____
DOB NB No.: _____	DOB BPP No.: _____





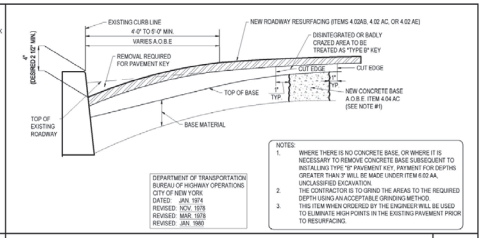
NOTES
1. 1/2" DIAMETER X 5" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.
2. STRUCTURAL STEEL AS PER BOARD OF STANDARDS SPECIFICATIONS 20-S-33 TYPE A-1 (ASTM DESIGNATION A-36).
3. STEEL FACING TO BE CLEANED AND PAINTED AS PER SUBSECTION 2.13.5 OF THE NYCDOT STANDARD HIGHWAY SPECIFICATION. THE COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.
4. CONCRETE TO BE CLASS B-32, TYPE II A.
5. 2'-0" TO 5'-0" AS ORDERED BY THE ENGINEER EXCEPT FOR THE FIRE DEPARTMENT DRIVEWAYS WHICH WILL SLOPE STRAIGHT BACK TO THE PROPERTY LINE. FIRE DEPARTMENT DRIVEWAYS SHALL BE TYPE III SIDEWALK-SEE H-1045.

NYCDOT STEEL FACED DROP CURB H-1015 N.T.S.



NOTES:
1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION 4.13.01F THE NYC DEPARTMENT OF TRANSPORTATION (DOT) STANDARD HIGHWAY SPECIFICATIONS.
2. WELDED WIRE FABRIC, WHERE SPECIFIED, SHALL BE ASTM DESIGNATION A-185, GAUGE # 6/6 AT 6"X6" SPACING AND CONFORM TO SECTION 2.25.0F THE NYCDOT STANDARD HIGHWAY SPECIFICATIONS.

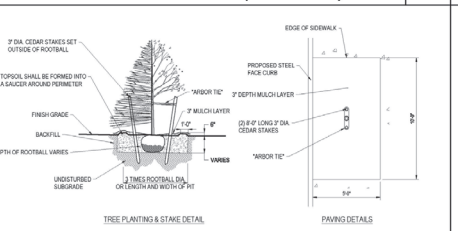
NYCDOT SIDEWALKS H-1045 (TYPE I OR III) N.T.S.



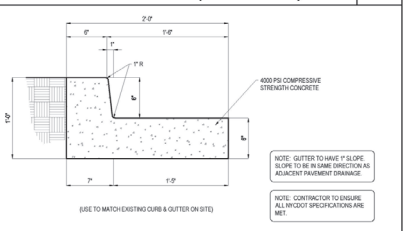
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
CITY OF NEW YORK
DATED: JAN. 1974
REVISED: NOV. 1978
REVISED: MAR. 1979
REVISED: JAN. 1980

NOTES:
1. WHERE THERE IS NO CONCRETE BASE, OR WHERE IT IS NECESSARY TO REMOVE CONCRETE BASE SUBSEQUENT TO INSTALLING TYPE "B" PAVEMENT KEY, PAYMENT FOR DEPTHS GREATER THAN 3" WILL BE MADE UNDER ITEM 6.02 AA, UNCLASSIFIED EXCAVATION.
2. THE CONTRACTOR IS TO GRIND THE AREAS TO THE REQUIRED DEPTH USING AN ACCEPTABLE GRINDING METHOD.
3. THIS ITEM WHEN ORDERED BY THE ENGINEER WILL BE USED TO ELIMINATE HIGH POINTS IN THE EXISTING PAVEMENT PRIOR TO RESURFACING.

PAVEMENT DETAIL - TYPE B-2 (ITEM 6.51 B-2) N.T.S.



NYC TREE PLANTING DETAIL N.T.S.



NOTE: GUTTER TO HAVE 1" SLOPE. SLOPE TO BE IN SAME DIRECTION AS ADJACENT PAVEMENT DRAINAGE.

NOTE: CONTRACTOR TO ENSURE ALL NYCDOT SPECIFICATIONS ARE MET.

CURB AND GUTTER SECTION N.T.S.

NYC DOB APPROVALS

PROJECT NAME
DLAC SENIOR CENTER
426-454 BB&CH 67TH STREET
QUEENS, NEW YORK 11692
BLOCK 16040 | LOTS 12, 14, 16, 18, 20 & 22

BUILDERS PAVEMENT PLAN DETAILS

SEAL & SIGNATURE — K. SHANMUGAM — PROFESSIONAL ENGINEER

DATE: 09/24/2020
PROJECT No: NM2020.BPP-2A
DRAWING BY: RMB
CHK. BY: KS
DWG No.
BPP-003.00
CAD FILE No: NM2020-BPP-2a
3 OF 3

STICKER LOCATION

PRELIMINARY

REV.	DATE	COMMENT
2	12/17/2020	REV. PER SITE STRIPING
1	10/06/2020	REV. PER SITE MODIFICATION

Project
DLAC SENIOR RESIDENCE **FAR ROCKAWAY, NY**

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1 MetroTech Center North, 6th Floor, Brooklyn, NY 11201
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Title
BUILDERS PAVEMENT PLAN

Date
2021.01.11

Drawing No.
Z-25

Appendix B: WRP/ Coastal Assessment Form

FOR INTERNAL USE ONLY	WRP No.
Date Received:	DOS No.

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: Brisa Builders LLC

Name of Applicant Representative: Ericka Keller

Address: 2009 Flatbush Avenue Brooklyn, NY 11234

Telephone: 718-774-6103 Email: erickakeller@brisabuilders.com

Project site owner (if different than above): GOD'S BATTALION OF PRAYER PROPERTIES

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

Brisa Evergreen, LLC (the "Applicant") and God's Battalion of Prayer Properties, Inc. (the "Co-Applicant") seek a zoning map amendment to rezone 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6, in the Arverne neighborhood within Queens Community District 14, on the Rockaway Peninsula, from an R4A zoning district to an R6 zoning district.

2. Purpose of activity

The proposed zoning map amendment would facilitate the development of two new buildings on one 31,000 square foot zoning lot (Lots 12, 14, 16, 18, 20, 22 and 24). The proposed buildings include: (1) a Use Group ("UG") 2 nine-story affordable independent residence for seniors (AIRS) building on Lots 22, 20 and 18 with approximately 57,456 square feet of zoning floor area (1.85 FAR) and 84 housing units, and (2) a UG 3 eleven-story community facility building, intended for use as a charter school, on Lots 16, 14 and 12 with approximately 71,996 square feet of zoning floor area (2.32 FAR).

C. PROJECT LOCATION

Borough: Queens Tax Block/Lot(s): Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 1

Street Address: 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street

Name of water body (if located on the waterfront): N/A

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date:
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain:
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date:

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain:
- ☑ Funding for Construction, specify: HPD Financing
- ☐ Policy or Plan, specify:
- ☐ Funding of Program, specify:
- ☐ Permits, specify:

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: Permit type and number:
- ☐ Funding for Construction, specify:
- ☐ Funding of a Program, specify:
- ☐ Other, explain:

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: Permit type and number:
- ☐ Funding for Construction, specify:
- ☐ Funding of a Program, specify:
- ☐ Other, explain:

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☐ Yes ☑ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☐ Yes ☑ No
3. Is the project located on publicly owned land or receiving public assistance? ☐ Yes ☑ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☐ Yes ☑ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

- ☐ Significant Maritime and Industrial Area (SMIA) *(2.1)*
- ☐ Special Natural Waterfront Area (SNWA) *(4.1)*
- ☐ Priority Maritime Activity Zone (PMAZ) *(3.5)*
- ☐ Recognized Ecological Complex (REC) *(4.4)*
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) *(2.2, 4.2)*

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* **Part I** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* **Part II** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☐
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☐
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☐
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☐
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☐
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☐
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☐
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☐
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☐
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☐
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☐
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☐
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☐
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☐
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☐
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☐
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☐
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☐
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☐
4.8	Maintain and protect living aquatic resources.	☐	☐	☐

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☑	☐	☐
5.1	Manage direct or indirect discharges to waterbodies.	☑	☐	☐
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☑	☐	☐
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☑	☐	☐
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☑	☐	☐
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☑	☐	☐
7.2	Prevent and remediate discharge of petroleum products.	☑	☐	☐
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☐
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☐
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☐
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☐

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☐
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☐
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☐
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☐
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☐
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☐

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: _____

Address: _____

Telephone: _____ Email: _____

Applicant/Agent's Signature: _____

Date: _____

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
518-474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

- [x] Copy of original signed NYC Consistency Assessment Form
- [x] Attachment with consistency assessment statements for all relevant policies
- [ ] For Joint Applications for Permits, one (1) copy of the complete application package
- [x] Environmental Review documents
- [x] Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.
- [x] Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

Appendix C: City Agency Correspondence

NYC Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 21DCP048Q
Project: BEACH 67 REZONING
Date Received: 10/2/2020

Properties with no Architectural or Archaeological significance:

1) 426 BEACH 67 STREET, BBL: 4160400012
2) 430 BEACH 67 STREET, BBL: 4160400014
3) 432 BEACH 67 STREET, BBL: 4160400016
4) 438 BEACH 67 STREET, BBL: 4160400018
5) 442 BEACH 67 STREET, BBL: 4160400020
6) 444 BEACH 67 STREET, BBL: 4160400022
7) 450 BEACH 67 STREET, BBL: 4160400024
8) 4-30 BEACH 68 STREET, BBL: 4160410006

Comments:

In the radius:

S/NR ELIGIBLE P.S. 42, 488 BEACH 66 STREET.

Gina Santucci 10/8/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35207_FSO_DNP_10082020.docx

NYC Environmental Protection

Vincent Sapienza P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

MEMORANDUM

To: Laura Kenny
NYC Department of City Planning

From: Rasheed Lucas
Bureau of Environmental Planning & Analysis

Subject: CEQR # 77DCP461Q
Beach 67th Street Rezoning
Borough of Queens

Date: September 16, 2020

This is in reference to the draft Environmental Assessment Statement (CEQR # 77DCP461Q) received by BWSO on July 22nd, 2020 via e-mail. The current zoning is R4A for this two building, approximately 148,869 square feet (sf) (3.42 acres) development. However, the applicant is seeking to rezone the Development Site from its current zoning designation of R4A to R6. Please be advised of the following comments.

Sewer System:

Sanitary Sewer:

DEP has reviewed the submitted EAS draft and additional documents. Based on analysis, the proposed actions would likely result in an increase of 643% (1.094 cfs) in the sanitary flow of the adjacent sewers based on analysis using the proposed community and residential usages and flow factors outlined in the above referenced CEQR. A hydraulic analysis of the existing sewer system will likely be required prior to the submittal of the Site Connection Proposal Application (SCP) to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, there might be a need to amend the existing drainage plan based on the hydraulic analysis calculations.

Storm Sewer:

Stormwater Runoff –Please note stormwater analysis will be required as part of the DEP site connection approval process in order to bring the building into compliance with the required stormwater release rate.

Water System:

The proposed development would generate an incremental water demand in the New York City water supply system. Existing infrastructure should be able to handle the water demand.

C: Jannine McColgan, P.E., Director, Engineering
Mark Safari, P.E., Director, Connections and Permitting
Frank Loncar, P.E., Director, Collections and Resource Recovery Operations
Frank Kulcsar, P.E., Section Chief, Capital Planning and Budget
Sham Hemraj, P.E., Chief of Distribution Engineering
Steve Carrea, P.E., Chief, Drainage and Modeling
Guo Zhan Wu, P.E., Chief, Regulatory Review
Selim Andrawis, P.E., Chief, Review and Permitting
Ketki Patel, P.E., Deputy Chief, Site Connection and EARU
John Bazik, Review Engineer, Drainage Review Section
Mark Page, Managing Director, BEPA
Terrell Estesen, Director, BEPA
Mitchell Wimbish, Senior Project Manager, BEPA

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

September 9, 2020

Laura Kenny
Associate Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: Beach 67th Street Rezoning
Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and
Block 16041, Lot 6
CEQR # 77DCP461Q

Dear Ms. Kenny:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the July 2020 Environmental Assessment Statement and the July 2018 Phase I Environmental Site Assessment (Phase I) prepared by AECOM on behalf of Brisa Builders (applicant) for the above referenced project. It is our understanding that the applicant and God's Battalion of Prayer Properties, Inc. (co-applicant) is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, (Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6) in the Arverne neighborhood of Queens Community District 14, on the Rockaway Peninsula, from an R4A zoning district to an R6 zoning district. The proposed zoning map amendment would facilitate the applicant's and co-applicant's proposed development on Block 16040 of two new buildings on one 31,000 square foot zoning lot (Lots 12, 14, 16, 18, 20, 22 and 24) (Projected Development Site 1). The proposed buildings include: (1) a Use Group (UG) 2 nine-story affordable independent residence for seniors building on Lots 22, 20 and 18 with approximately 57,456 square feet of zoning floor area and 84 housing units, and (2) a UG 3 eleven-story community facility building, intended for use as a charter school, on Lots 16, 14 and 12 with approximately 71,996 square feet of zoning floor area. Block 16040, Lot 24 is improved with a two-story, 7,082-square foot house of worship, the Battalion Pentecostal Assembly Church, which will remain. In the With-Action Scenario, it is assumed that Block 16041, Lot 6 (Projected Development Site 2) would be developed with a 221,760 gsf UG 2 residential building.

Block 16040, Lots 12, 14, 16, 18, 20 and 22

The July 2018 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential and commercial uses

including residences, a nursing home, a public school, a dry cleaner, a church, etc. Regulatory Databases identified 12 spills and one historical dry cleaner within 1/8-mile; 5 underground storage tank sites and 4 aboveground storage tank sites within 1/4 mile; and 8 leaking storage tank sites within a 1/2-mile of the subject property. Hurricane Sandy in 2012 severely flooded the Far Rockaway area which resulted in spills and discharges of heating oil and other chemical products (i.e., cleaning fluids, paints, cleaning solvents) from residential and commercial properties throughout the area. In the addition, the development of Far Rockaway has resulted in the importation of fill material as the area was historically a marsh. Therefore, due to the history of area including the potential for migration of contamination from off-site sources and urban fill, the possibility exists for subsurface contamination on and in the immediate vicinity of subject property to be present.

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

Projected Development Site 1: Block 16040, Lots 12, 14, 16, 18, 20 and 22 (Site under the control or ownership of the applicant)

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

- DCP should also instruct the applicant that the Phase II Work Plan and HASP should be submitted for DEP review and approval prior to the start of any fieldwork.

Projected Development Site 2: Block 16041, Lot 6 (Site not under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP recommends that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **77DCP461Q**. If you have any questions, you may contact Scott Davidow, P.G. at (718) 595-7716.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
S. Davidow
T. Estesen
M. Wimbish
R. Lucas
O. Abinader (DCP)
M. Bertini (OER)

Appendix D: Jamaica Bay Watershed Form

Print Form

Jamaica Bay Watershed Protection Plan
Project Tracking Form

The Jamaica Bay Watershed Protection Plan, developed pursuant to Local Law 71 of 2005, mandates that the New York City Department of Environmental Protection (DEP) work with the Mayor's Office of Environmental Coordination (MOEC) to review and track proposed development projects in the Jamaica Bay Watershed (http://www.nyc.gov/html/oec/downloads/pdf/ceqr/Jamaica_Bay_Watershed_Map.jpg) that are subject to CEQR in order to monitor growth and trends. If a project is located in the Jamaica Bay Watershed, (the applicant should complete this form and submit it to DEP and MOEC. This form must be updated with any project modifications and resubmitted to DEP and MOEC.

The information below will be used for tracking purposes only. It is not intended to indicate whether further CEQR analysis is needed to substitute for the guidance offered in the relevant chapters of the CEQR Technical Manual.

A. GENERAL PROJECT INFORMATION

1. CEQR Number: TBD 1a. Modification ☐
2. Project Name: Beach 67th Street Rezoning
3. Project Description:

.Brisa Builders Development LLC seek a zoning map amendment to rezone 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street, Block 16040, Lots 12, 14, 16, 18, 20, 22 and 24 and Block 16041, Lot 6 from an R4A zoning district to an R6 zoning district.

4. Project Sponsor: Brisa Builders
5. Required approvals: ULURP
6. Project schedule (build year and construction schedule): 2022

B. PROJECT LOCATION:

1. Street address: 450, 444, 442, 438, 432, 430 and 426 Beach 67th Street and 430 Beach 68th Street
2. Tax block(s): See attached EAS Tax Lot(s): See attached EAS
3. Identify existing land use and zoning on the project site: R4A , vacant
4. Identify proposed land use and zoning on the project site: R6, residential and CF
5. Identify land use of adjacent sites (include any open space):
6. Describe existing density on the project site and the proposed density:

Existing Condition	Proposed Condition
NA	2.32 and 1.37

7. Is project within 100 or 500 year floodplain (specify)? ☐ **100 Year** ☐ **500 Year** ☐ **No**

C. GROUND AND GROUNDWATER

1. Total area of in-ground disturbance, if any (in square feet):
2. Will soil be removed (if so, what is the volume in cubic yards)? NA
3. Subsurface soil classification:
   (per the New York City Soil and Water Conservation Board): NA/Urban
4. If project would change site grade, provide land contours (**attach** map showing existing in 1' contours and proposed in 1' contours).
5. Will groundwater be used (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
6. Will project involve dewatering (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
7. Describe site elevation above seasonal high groundwater:

D. HABITAT

1. Will vegetation be removed, particularly native vegetation? ☐ **Yes** ☒ **No**

   If YES,
   - **Attach** a detailed list (species, size and location on site) of vegetation to be removed (including trees >2" caliper, shrubs, understory planting and groundcover).
   - **List** species to remain on site.
   - **Provide** a detailed list (species and sizes) of proposed landscape restoration plan (including any wetland restoration plans).
2. Is the site used or inhabited by any rare, threatened or endangered species? ☐ **Yes** ☒ **No**
3. Will the project affect habitat characteristics? ☐ **Yes** ☐ **No**

   If YES, describe existing wildlife use and habitat classification using "Ecological Communities of New York State." at http://www.dec.ny.gov/animals/29392.html.
4. Will pesticides, rodenticides or herbicides be used during construction? ☐ **Yes** ☒ **No**

   If YES, estimate quantity, area and duration of application.
5. Will additional lighting be installed? ☐ **Yes** ☒ **No**

   If YES and near existing open space or natural areas, what measures would be taken to reduce light penetration into these areas?

E. SURFACE COVERAGE AND CHARACTERISTICS

(describe the following for both the existing and proposed condition):

	Existing Condition	Proposed Condition
1. ***Surface area:***		
Roof:		
Pavement/walkway:		
Grass/softscape:		
Other (describe):		
2. ***Wetland*** (regulated or non-regulated) area and classification:	NA	NA
3. ***Water surface area:***	NA	NA

4. ***Stormwater management*** (describe):

Existing – how is the site drained?

Site drains into local storm water system

Proposed – describe, including any infrastructure improvements necessary off-site:

No

Appendix E: Phase I ESA

AECOM

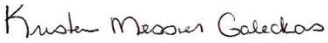
Phase I Environmental Site Assessment of Battalion Pentecostal Assembly Church Properties 426-444 Beach 67th Street, Far Rockaway, Queens County, New York

Brisa Builders Corporation

60581073

July 2018

Quality information

Prepared by	Checked by	Approved by
		
Nelson J. Abrams, PG Senior Project Manager nelson.abrams@aecom.com (212) 377-8705	Kristen Galeckas Environmental Geologist kristen.galeckas@aecom.com 978-905-2210	Rebecca Kelly Senior Project Specialist rebecca.kelly@aecom.com (207) 541-2045

Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

# Hard Copies	PDF Required	Association / Company Name
	1	Brisa Builders Corporation

Prepared for:

Brisa Builders Corporation
2009 Flatbush Avenue
Brooklyn, New York 10035

Prepared by:

AECOM
125 Broad Street
New York, New York 10004
USA
www.aecom.com

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Executive Summary

Brisa Builders Corporation contracted with AECOM Technical Services, Inc. (AECOM) to perform a Phase I Environmental Site Assessment (ESA) of a mixed-use residential/commercial property located at 426–444 Beach 67th Street, Far Rockaway, Queens County, New York (subject property). This Phase I ESA was performed in accordance with the scope and limitations of ASTM Standard Practice Designation E 1527-13 for ESAs. Exceptions to, or deletions from, this practice are described in this report.

The site visit occurred on June 28, 2018. The approximately 0.52-acre subject property contains a 2,829-square foot, two-story residential building with a basement and attic (428 Beach 67th Street) located on the southern portion of the subject property. The building is comprised of two residential units and a meeting area used by the northerly adjacent church. The remainder of the subject property consists of an unpaved lot currently used for parking of operable and non-operable motor vehicles, vegetable gardens, and an asphalt-paved area used as both a playground and parking area for motor vehicles. During the site visit, no visual evidence of underground storage tanks (e.g., vent pipes, fill ports), potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. A sump was observed in the northwest corner of the residential building's basement that apparently collects stormwater that infiltrates into the basement. The water that is collected in the sump discharges into the New York City Department of Environmental Protection's (NYCDEP) municipal sanitary sewer system.

The subject property is located in a predominately residential section of the Arverne section of Far Rockaway, Queens. The subject property is bordered to the north by the Battalion Pentecostal Assembly Church, beyond which are residential dwellings. The subject property is bordered to the east by residential dwellings, beyond which are Beach 66th Street and New York City Public School (PS) 42. The subject property is bordered to the south by residential dwellings. The subject property is bordered to the west by Beach 67th Street, beyond which are residential dwellings and a storage building for the Resort Nursing Home. Gasoline service stations and dry cleaners were not observed in the immediate vicinity (approximately 500 feet) of the subject property. Other off-site sources of concern were not identified in the immediate vicinity.

Historical research indicates that in the late 1800s the subject property was vacant marshland. By 1912, the subject property was developed with three residential dwellings; one being the existing structure at 428 Beach 67th Street. By 1933, the subject property consist of five, single-family residential dwellings with a portion of a two-family residential dwelling located at 426 Beach 67th Street. There are no changes to the subject property until 1981 when two of the residential dwellings are no longer present and by 1983 an additional residential dwelling had been demolished. By 1986, only the current residential dwelling is present. By 1994, the asphalt-paved area located in the northern portion of the property that is used by the northerly adjacent church for a playground and parking is depicted. The subject property has remained in the same general configuration through the present-day other than what appears to be various motor vehicles (busses, boats etc.) parked in the southernmost portion of the subject property prior to the addition of the present-day storage container circa 2014.

The subject property was not identified on the environmental database search report obtained for this project. According to the environmental database report, numerous sites (over 60) were identified within their respective ASTM and/or EDR search distances from the subject property. The majority of these sites were listed on the NY Spills database due to the damaged resulting from Hurricane Sandy in 2012 or minor surficial spills that were immediately remediated. Based on AECOM's review and analysis of the database listings, none of the surrounding sites is expected to present a recognized environmental condition (REC) to the subject property, based on their distance (generally greater than 500 feet),

regulatory status (i.e. regulatory closure, no violations found), media impacted (soil only), and/or topographical position relative to the subject property (i.e. down-gradient or cross-gradient).

The following RECs were identified during this assessment:

- Hurricane Sandy in 2012 severely flooded the Far Rockaway area which resulted in spills and discharges of heating oil and other chemical products (i.e., cleaning fluids, paints, cleaning solvents) from residential and commercial properties throughout the area. In the addition, the development of Far Rockaway has resulted in the importation of fill material as the area was historical a marsh as identified on historical topographic maps. Therefore, due to the history of area including the potential for migration of contamination from off-site sources and urban fill, the possibility exists for subsurface contamination on and in immediate vicinity of subject parcel to be present.

Based on the above-described activities, no controlled RECs (CRECs), or historical RECs (HRECs) were identified in connection with the subject property.

The following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (wood pallets, lumber, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- AECOM observed six motor vehicles on the subject property, with all but one being either abandoned or out of use. The abandoned or out of use vehicles an ambulance, a utility van, two passenger car, and a motorcycle. The vehicles are presumed by AECOM to include fluids such as gasoline and motor oil. The bus is used by the God's Battalion Pentecostal Assembly Church (owner of the subject property) to transport parishioners to various locations and events in the area. Minor stains were observed around the area where the bus and the utility van were parked.

1. Introduction

1.1 Purpose

This Phase I Environmental Site Assessment (ESA) was performed pursuant to AECOM Technical Services, Inc. (AECOM's) written proposal, dated June 1, 2018. This assessment was performed in advance of the potential redevelopment of the subject property. The purpose of this Phase I ESA is to provide the client with information for use in evaluating recognized environmental conditions (RECs) associated with the subject property.

Per the ASTM standard, potential findings can include RECs, including historical RECs (HRECs), controlled RECs (CRECs), and de minimis conditions (DMCs). A REC is defined by the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. HRECs are a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. CRECs are a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. DMCs are those situations that do not present a material risk of harm to public health or the environment and generally would not be subject to enforcement action if brought to the attention of the regulating authority.

This assessment is based on a review of existing conditions, reported pre-existing conditions, and observed operations at the subject property and adjacent properties.

1.2 Scope of Work

The Phase I ESA included a site visit, regulatory research, historical review, and a review and an environmental database analysis of the subject property. In conducting the Phase I ESA, AECOM assessed the subject property for visible signs of possible contamination, researched public records for the subject property and adjacent properties (as applicable), and conducted interviews with persons knowledgeable about the subject property.

This project was performed in accordance with ASTM Standard Practice Designation E 1527-13 and AECOM's proposal, dated June 1, 2018. Conclusions reached in this report are based upon the assessment performed and are subject to limitations set forth in Sections 1.3, 1.4, and 1.5 below.

1.3 Study Limitations

This report describes the results of AECOM's Phase I ESA to identify the presence of conditions materially affecting the subject facility and/or property within the limits of the established scope of work as described in our proposal.

As with any due diligence assessment, there is a certain degree of dependence upon oral information provided by facility or site representatives, which is not readily verifiable through visual observations or supported by any available written documentation. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this assessment was performed. In addition, the findings and opinions expressed in this report are subject to certain conditions and assumptions, which are noted in the report. Any party reviewing the findings of the report must carefully review and consider all such conditions and assumptions.

This report and all field data and notes were gathered and/or prepared by AECOM in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject property. The statements, findings and opinions contained in this report are only intended to give approximations of the environmental conditions at the subject property.

As specified in the ASTM standard (referred to below as "this practice"), it is incumbent that the client and any other parties who review and rely upon this report understand the following inherent conditions surrounding any Phase I ESA:

- Uncertainty Not Eliminated - No ESA can wholly eliminate uncertainty regarding the potential for REC in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for REC in connection with a property, and this practice recognizes reasonable limits of time and costs. (Section 4.5.1 of the ASTM standard)
- Not Exhaustive - "All appropriate inquiry" does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2 of the ASTM Standard)
- Comparison with Subsequent Inquiry - ESAs must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent ESAs should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors. (Section 4.5.4 of the ASTM Standard)

A similar set of inherent limitations exist in cases where the Phase I ESA included a screening-level assessment of vapor migration or vapor encroachment; such an assessment is a required part of a Phase I ESA when the ASTM E1527-13 standard is employed. According to the ASTM E2600-15 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, the following limitations apply:

- Uncertainty Not Eliminated in Screening - No vapor encroachment screen (VES) can wholly eliminate uncertainty regarding the identifications of vapor encroachment conditions (VECs) in connection with the target property. (Section 4.5.1)
- Not Exhaustive - The guide is not meant to be an exhaustive screening. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in

fact, may be a material detriment to the orderly completion of real estate transactions. One of the purposes of this guide is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing a VES and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2)

- Comparison with Subsequent Investigations - It should not be concluded or assumed that an investigation was not adequate because the investigation did not identify any VECs in connection with a property. The VES must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent VESs should not be considered valid bases to judge the appropriateness of any prior screening if based on hindsight, new information, use of developing technology or analytical techniques, or similar factors. (Section 4.5.4)

This report was prepared pursuant to an agreement between Brisa Builders Corporation (Client) and AECOM and is for the exclusive use of the Client. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining AECOM's written consent and provided any such party signs an AECOM-generated Reliance Letter. A third party's signing of the AECOM Reliance Letter and AECOM's written consent are conditions precedent to any additional use or reliance on this report.

The passage of time may result in changes in technology, economic conditions, site variations, or regulatory provisions, which would render the report inaccurate. Reliance on this report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk.

1.4 Site-Related Limiting Conditions

The following site-specific limitations were encountered during the course of this assessment:

- It was not feasible to evaluate every individual room or space within the building located on the subject property during the site visit. AECOM's evaluation of the building focused on areas where hazardous substances are handled. Based on the use of the building on the subject property (residential/commercial), this particular site-related limiting condition is not expected to have a significant limitation to this assessment.
- During the site visit, AECOM did not access the roof of the subject property building. AECOM's evaluation of the subject property focused on areas where hazardous substances are handled. The site contact did not report any hazardous materials associated with the roof. Based on this information, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.

1.5 Data Gaps/Data Failure

The following data failure/data gaps were encountered during the course of this assessment:

- As specified in the agreed upon scope of work, a title search and environmental lien search were not conducted as part of this ESA. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.
- Per ASTM, past owners, operators, and occupants of the subject property who are likely to have material information regarding the potential for contamination at the subject property

shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. AECOM was unable to interview past owners and/or operators at the subject property. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

- Per the agreed scope-of-work and the ASTM Standard, information related to certain site-specific items should be provided by the ESA report user to AECOM. To assist the user in gathering information that may be material to identifying RECs, AECOM provided the Client (the users) with the User Questionnaire from the ASTM Standard; at this time the completed form has not been returned for inclusion in this report. However, this data gap is not expected to represent a significant limitation to this investigation given the historical use of the subject property.
- As of the date of this report, AECOM has not received any responses to Freedom of Information Act (FOIA) requests made to the New York City Department of Environmental Protection (NYCDEP), New York State Department of Health (NYSDOH), Fire Department of the City of New York (FDNY) or New York State Department of Environmental Conservation (NYSDEC). However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

2. Site Description

2.1 Site Location and Parcel Description

The subject property is located at 426–444 Beach 67th Street, Far Rockaway, Queens County, New York. The subject property is situated along eastern side of Beach 67th Street, approximately 275 feet northeast of the intersection of Beach 67th Street and Beach Channel Drive and approximately 250 feet southeast of the intersection of Beach 67th Street and Thursby Avenue. The subject property is accessed from Beach 67th Street (western property boundary).

According to the New York City Department of Finance (NYCDOF), the subject property consists of six contiguous parcels of land that are designated as Block 16040, Lots 12, 14, 16, 18, 20 and 22. The approximate location of the subject property is illustrated on Figure 1 - Site Location Map.

2.2 Site Ownership

According to the NYC DOF, the subject property is owned by the following agencies:

- Block 16040, Lots 12, 16, 18, 20, and 22 – God's Battalion of Prayer Properties, Inc.
- Block 16040, Lot 14 – Assemblies of God Financial Services Group / Assemblies of God Loan Fund.

2.3 Site Visit

Mr. Nelson Abrams with AECOM's 125 Broad Street, New York, New York office visited the subject property on June 28, 2018. During the site visit, Mr. Abrams was accompanied by Mr. David Cockfield, Senior Pastor of the God's Battalion Pentecostal Assembly Church (owner of the subject property) and Dr. Alfred Cockfield, Senior Pastor at the God's Battalion of Prayer Church located in Brooklyn, New York. Both individuals provided information regarding the subject property's current operations and history. Site-related limiting conditions encountered during this assessment were previously summarized in Section 1.4.

The site visit methodology consisted of walking over accessible areas of the subject property, including the building interior and exterior, the perimeter, and the portions of the surrounding area. The following sections summarize the results of the site visit.

2.3.1 Site and Facility Description

The approximately 0.52-acre subject property contains a 2,829-square foot, two-story building with a basement and attic (428 Beach 67th Street) located on the southern portion of the subject property. The building is comprised of two occupied residential units and a meeting area used by the northerly adjacent church. The residential dwelling is of wood frame construction with a concrete foundation and an asphalt-shingled roof. The remainder of the subject property consists of an unpaved lot currently used for parking of operable and non-operable motor vehicles, vegetable gardens, and an asphalt-paved area used as both a playground and parking area for motor vehicles.

In addition, three 40-foot storage containers are located on the subject property and are used to store miscellaneous items (such as books, kitchen equipment, electronic and audio equipment,

clothing, and furniture) used by the church. Two of the containers are located along the eastern edge of the asphalt-paved playground/parking area while the third container is located in the southernmost portion of the subject property. In addition, miscellaneous empty storage bins, containers, barrels, barbeque grills, and other outdoor equipment were observed adjacent to the two storage trailers. Miscellaneous debris, including a trailer used to carry a boat and an abandoned vehicle, was observed in the east-central and southeastern portions of the subject property. A small temporary wooden enclosure covered by plastic sheeting was observed in the southernmost portion of the property. The structure is used to prepare seedlings to be planted in the gardens and for the storage of gardening equipment (i.e. shovels, rakes, spades, etc.).

A small bus owned by the church to transport parishioners is typically parked on the southern portion of the asphalt-paved playground/parking lot. Minor stains of what appeared to be motor oil were observed on the intact asphalt pavement near the bus. Both pastors indicated that vehicle maintenance is performed off-site. In addition, an ambulance, a utility van, an automobile, and a motorcycle, all without license plates, were observed in the southern portion of the subject property, to the south of the residence. Both pastors indicated that the vehicles are in working condition and any maintenance is performed off-site. However, based on AECOM's observations, it appears that these vehicles have not operated for some period of time.

During the site visit, no visual evidence of potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. A sump was observed in the northwest corner of the building's basement that apparently collect stormwater which infiltrates into the basement. The water that is collected in the sump discharges into the New York City Department of Environmental Protection's (NYCDEP) municipal sanitary sewer system. No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit. No visual evidence of significant corrosion was observed on the floors or walls of the subject property buildings or on the exterior of the subject property.

The general layout of the subject property is illustrated on Figure 2 - Site Plan and Representative Site Photographs are provided in Appendix A.

2.3.2 Surrounding Properties

The subject property is located in a predominately residential section of the Averne section of Far Rockaway, Queens. The subject property is bordered to the north by the Battalion Pentecostal Assembly Church, beyond which are residential dwellings. The subject property is bordered to the east by the residential dwellings, beyond which are Beach 66th Street and New York City Public School (PS) 42. The subject property is bordered to the south by residential dwellings. The subject property is bordered to the west by Beach 67th Street, beyond which are residential dwellings and a storage building for the Resort Nursing Home which is located approximately 100 feet west of the subject property.

AECOM did not observe any gasoline service stations or dry cleaners in the immediate vicinity (500 feet) of the subject property. In addition, no sensitive receptors (i.e. day care centers, schools, hospitals, water bodies) are located adjacent to the subject property. Based on AECOM's site reconnaissance of the surrounding neighborhood and historic information, no current off-site sources of concern were identified.

2.3.3 Petroleum Products and Hazardous Materials

Petroleum products and hazardous materials observed at the subject property included typical commercial cleaning supplies located within the residential dwelling; and three 5-gallon containers of rubberized roofing asphalt, two 5-gallon containers of flooring finisher, two plastic gasoline cans were located adjacent to the orange storage container located in the asphalt playground / parking area. A propane gas cylinder similar to the type used with forklifts was located inside the storage container located along the southern portion of the subject property. No additional hazardous materials or petroleum products were observed at the subject property, and none were reported by either pastor to be located at the subject property. Staining or visual evidence of a hazardous materials release was not observed at the time of the site visit.

AECOM observed abandoned and old vehicles on the subject property. AECOM presumes that the engines and gasoline tanks of these vehicles contain fluids including motor oil, antifreeze, lubricants, and gasoline. Minor stains were observed around the area where a bus used by the God's Battalion Pentecostal Assembly Church (owner of the subject property) to transport parishioners is parked and near an unused utility van parked in the southern portion of the subject property.

2.3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCB)-containing dielectric fluids have been widely used as coolants and lubricants in transformers, capacitors, and other electric equipment due to their insulating and nonflammable properties. No hydraulic equipment (transformers, trash compactors, lifts) was observed on the subject property. Four pole-mounted transformers are located adjacent to the west of the subject property, along Beach 67th Street. Labeling indicating PCB content was not observed on the transformers. However, the transformers are owned by PSEG Long Island, and AECOM presumes the utility would be responsible for a release regardless of PCB content.

2.3.5 Aboveground Storage Tanks

Aboveground storage tanks (ASTs) were not observed during the site visit. Both pastors indicated that to the best of their knowledge no ASTs are located on the subject property or have historically been located on the subject property. In addition, no ASTs were listed in the site-specific environmental database report reviewed by AECOM, or otherwise identified during AECOM's review of historical aerial photographs.

2.3.6 Underground Storage Tanks

Visual evidence of underground storage tanks (USTs) (e.g., vent pipes, fill ports) was not observed during the site visit. Both pastors indicated that to the best of their knowledge, no USTs are currently located on the subject property and they are not aware of any USTs historically located on the subject property. In addition, no USTs were listed in the site-specific environmental database report reviewed by AECOM, or otherwise identified during AECOM's review of historical aerial photographs. However, it should be noted that the historic fuel source for the former on-site residences is unknown.

2.3.7 Solid Waste

Solid waste trash cans were observed along the south border of the residential dwelling. According to the pastors, the trash cans are used for the disposal of typical residential waste. Trash is removed by the New York City Department of Sanitation (DOS) on are regular weekly basis. No evidence of inappropriate disposal activities and no significant staining were observed in the vicinity of the trash cans. No other solid waste is generated from the subject property. Trash and miscellaneous debris (such as wood pallets, lumber, plastic bags, etc.) was scattered throughout the vacant parcels portions on the subject property. No staining was observed in the vicinity of this debris. AECOM observed abandoned and old vehicles on the subject property. AECOM presumes that the engines and gasoline tanks of these vehicles contain fluids including motor oil, antifreeze, lubricants, and gasoline. As stated in Section 2.3.3 minor stains were observed in the area where a bus and utility van are parked.

2.3.8 Hazardous Waste

No evidence of hazardous waste generation was observed at the subject property, and the site contacts reported no such activities. In addition, the subject property was not listed as a generator of hazardous waste in the site-specific database report.

2.3.9 Water

The residential dwelling receives its potable water supply from the New York City Department of Environmental Protection (NYCDEP). No potable water wells were observed at the subject property or reported by the site contacts to be present on subject property.

2.3.10 Wastewater

Wastewater discharges from the residential dwelling include effluent from human consumptive use and the sump located in the basement which discharge directly to the NYCDEP municipal sanitary sewer system. With the exception of the on-site showers, floor drains were not observed within the residential dwelling.

2.3.11 Stormwater

Several stormwater drains were observed in the asphalt-paved playground/parking area on the northern portion of the property and around the residential dwelling on the southern portion of the subject property. Stormwater which doesn't infiltrate the unpaved surfaces is expected to flow towards these drains. The sump located in the basement of the residential dwelling rising ground water due to heavy precipitation which infiltrates the basement. Both pastors indicated that the sump and storm drains discharge into the NYCDEP municipal sanitary sewer system.

2.3.12 Heating and Cooling

The residential dwelling is heated by a natural gas furnace located in the basement. Air conditioning for the dwelling is provided by a central air conditioning system located adjacent to the eastern portion of the building. PSEG Long Island provides electrical service while National Grid provides natural gas for the furnace.

3. Environmental Setting

3.1 Topography

According to the United States Geological Survey (USGS) topographic map of the subject property area (Far Rockaway, New York quadrangle) and a review of the Google Earth application, the elevation of the subject property is approximately five feet above mean sea level (msl). Based on a review of these technical resources and AECOM's site visit, the subject property appears to be generally flat with a slight downward slope toward the northwest.

3.2 Soil/Geology

Site-specific geologic information was not identified during the course of this assessment. In general, the subject property is located on a barrier island between Jamaica Bay and the Atlantic Ocean. The barrier island is composed by urban land as of result of fill activities and urban development in the nineteenth and early twentieth centuries. Below the fill, the lithology consists of unconsolidated strata of clay, silt, sand, and gravel of Late Cretaceous and pre-Wisconsin Pleistocene ages. Below these unconsolidated strata is Pre-Cambrian crystalline rock consisting of gneisses and schists.

3.3 Groundwater/Hydrology

Site-specific hydrologic information was not identified during the course of this assessment. Based on the topographic gradient in the area of the subject property, the groundwater flow beneath the subject property and in the surrounding area is anticipated to be very shallow and flow northwest toward Jamaica Bay. However, ground water flow may be tidally influenced due to the proximity of the subject property to the Atlantic Ocean. Based on AECOM's experience in the area, groundwater is anticipated to be present at a depth of approximately 5 feet below ground surface (bgs). However, the actual groundwater flow direction and depth in the vicinity of the subject property cannot be determined without site-specific groundwater monitoring well data.

4. Site and Area History

Historical information for the subject property and surrounding properties is based on AECOM's review and analysis of the following historical sources:

- Aerial photographs dated 1951, 1954, 1962, 1966, 1975, 1984, 1994, 2006, 2009, 2013, and 2017;
- Sanborn® Fire Insurance Maps dated 1912, 1933, 1950, 1981, 1983, 1986, 1987, 1988, 1989, 1991 – 1996, 1999, and 2001 – 2006;
- Topographic maps dated 1897, 1898, 1900, 1947, 1954, 1969, and 2013;
- City directories for the years 1922 - 2014 at approximate 5 to 7 year intervals; and
- Online Property Information reviewed via the City of NYCDOF and the City of New York City Department of Buildings (DOB) websites.

In addition, interviews were conducted with Mr. David Cockfield and Dr. Alfred Cockfield, Senior Pastors at the God's Battalion Pentecostal Assembly Church which owns the subject property.

4.1 Subject Property

Historical research indicates that in the late 1800s the subject property was vacant marshland. By 1912, the subject property was developed with three residential dwellings; one being the existing structure at 428 Beach 67th Street. By 1933, the subject property consist of five, single-family residential dwellings with a portion of a two-family residential dwelling located at 426 Beach 67th Street. There are no changes to the subject property until 1981 when two of the residential dwellings are no longer present and by 1983 an additional residential dwelling had been demolished. By 1986, only the current residential dwelling is present. By 1994, the asphalt-paved area located in the northern portion of the property that is used by the northerly adjacent church for a playground and parking is depicted. The subject property has remained in the same general configuration through the present-day other than what appears to be various motor vehicles (busses, boats etc.) parked in the southernmost portion of the subject property prior to the addition of the present-day storage container circa 2014.

4.2 Off-site Properties

NORTH

Properties to the north of the subject property in the late 1800s consisted of marshland. By 1912, a single residential dwelling was located adjacent to the north where the current church is located. Between 1933 and 1981 additional residential dwellings were constructed further to the north along Beach 67th Street. However, by 1981 the residential dwelling located adjacent to the north had been demolished and the northerly adjacent property was a vacant lot. By 1991, the current church is present adjacent to the north. There have been no substantial changes to this area since 1991.

EAST

Properties to the east of the subject property in the late 1800s consisted of marshland. This area remained vacant until sometime around 1920 when the NYCDOF identified several residential dwellings being constructed. Public School 42 located approximately 180 feet east and northeast of the subject property was constructed in 1924. By the 1933 Sanborn Map, residential dwellings were depicted adjacent to the east and by 1950 easterly adjacent properties are depicted as residential dwellings and flats. By 1981, a previously vacant lot located approximately 200 feet to the southeast of the subject property had been converted into a park. Other than the construction of an addition to Public School 42 between 2009 and 2013, there were no significant changes to the area since 1981.

SOUTH

Properties to the south of the subject property in the late 1800s consisted of marshland. This area remained vacant until sometime around 1920 when the NYCDOF identified several structures consisting of both residential and retail buildings being constructed between 1910 and 1931. The 1933 through 1981 Sanborn Maps depict with a portion of a two-family residential dwelling located adjacent to the south of the subject property with retail stores located approximately 175 feet south of the subject property along Beach Channel Drive. By 1950 additional retail buildings are present along Beach Channel Drive. By 1983, the two-family residential dwelling located on the southern portion of the property and adjacent to the south had been demolished and the southerly adjacent property consisted of a vacant lot through at least 2006. By 2009, the present-day residential building is depicted adjacent to the south of the subject property. No further changes were identified since 2009.

WEST

Properties to the west of the subject property in the late 1800s consisted of marshland. By 1912, two residential dwellings were present to the west and northwest across the roadway (then named Vernam Avenue) and the remainder of the westerly adjacent properties consisted of vacant lots. By 1933, additional residential dwellings were present to the northwest and west (not adjacent). According to the Sanborn Maps, in 1956 the eastern portion of the Resort Nursing Home was constructed adjacent to the west of the subject property and the western portion of the nursing home was constructed in 1973. No substantial changes to this area have occurred since the construction of the nursing home.

4.3 Previously Prepared Environmental Reports

AECOM inquired about existing environmental reports associated with the subject property. Previously prepared environmental reports were not identified during this assessment. Neither of the pastors indicated that to their knowledge, there were no previous environmental assessments or reports associated with the subject property.

5. Database and Records Review

5.1 User Provided Information

Section 6 of the ASTM Standard states that certain tasks, which will help to determine the possibility of RECs associated with the subject property, are generally conducted by the ESA report user. This includes the following: reviewing title records for environmental liens or activity and land use limitations and considering awareness of any specialized knowledge (e.g., information about previous ownership or environmental litigation), experience related to RECs at the subject property, or significant reduction in the purchase price of the subject property. Per the agreed scope-of-work, information related to these items should be provided by the ESA report user to AECOM. To assist the user in gathering information that may be material to identifying RECs, AECOM has provided the Client (the users) with the User Questionnaire from the ASTM Standard; however, at this time the completed form has not been returned for inclusion in this report. This data gap is not expected to represent a significant limitation to this investigation based on other documentation reviewed as part of the Phase I ESA.

5.2 Title Records/Environmental Liens

Per the agreed upon scope of work, a chain-of-title and an environmental lien search were not performed as part of this assessment.

5.3 Database Information

In accordance with the scope of work and ASTM Standard E-1527-13, a search of various governmental databases was conducted by EDR. The site-specific environmental database report was reviewed to evaluate if soil and or groundwater from an on-site and/or off-site sources of concern has the potential to impact the subject property. The database abbreviations are provided in the site-specific environmental database report.

The database report includes various reports detailing database information for each of the sites identified/geocoded within the specified radius. Additional sites were identified within the database report; however EDR was not able to map them to specific locations due to insufficient/contradicting address information. These sites were included in the database report as "orphan" sites. Based upon AECOM's review, no orphan sites were identified. A summary of AECOM's review and analysis of the site-specific environmental database report is presented below. A copy of the database report is provided in Appendix B.

Based on AECOM's research, the subject property is not located on or within a 1-mile radius of tribal lands.

5.3.1 Subject Property

The subject property was not identified in the site-specific environmental database report.

5.3.2 Surrounding Sites

According to the environmental database report, numerous sites (over 60) were identified within their respective ASTM and/or EDR search distances from the subject property. Based on AECOM's

review of these database listings, none of these sites are expected to present a REC to the subject property based on their distance from the subject property, regulatory status (i.e. closed, no violations found), media impacted (i.e. soil only), and/or topographical position from the subject property (i.e. down-gradient or cross-gradient

5.4 Vapor Encroachment Screening

AECOM conducted a Tier 1 vapor encroachment screening (VES) as part of this assessment. This screening was conducted in general accordance with the ASTM E2600 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* dated October 2015 (ASTM E2600). The objective of the VES was to determine if a VEC exists or if a VEC does not exist.

5.4.1 Subject Property

No on-site sources of vapor encroachment (e.g. UST, contaminated soil, groundwater plume, etc.) were identified during this assessment. Based on this information, a VEC due to an on-site source does not appear to exist.

5.4.2 Off-site

To conduct the VES of the nearby area, AECOM conducted a detailed review and analysis of the site-specific environmental database report with particular focus on the follow two types of sites:

1. Off-site properties that are impacted by chlorinated volatile organic compounds (VOCs) and/or semi-volatile-organic compounds (SVOCs) and are located within approximately 1,750 feet of the subject property, and
2. Off-site properties that are impacted by petroleum hydrocarbons and are located within approximately 525 feet of the subject property.

The following paragraph summarizes the results of AECOM's VES of the nearby area.

A review of the site-specific environmental database indicates that no chlorinated VOC/SVOC sites and 12 petroleum hydrocarbon impacted sites are located with the above-described radii of the subject property. However, all 12 petroleum hydrocarbon-impacted sites can be ruled out due to their regulatory status (i.e. regulatory closure has been issued), media impacted (i.e. soil only), and/or topographical position from the subject property (i.e. down-gradient or cross-gradient).

5.5 Agency File Review

5.5.1 Local

AECOM submitted Freedom of Information Act (FOIA) requests to the NYCDEP and Fire Department of the City of New York. As of the date of this report, responses to AECOM's FOIA requests have not been received. Based on AECOM's research to date, AECOM does not anticipate the response (if any) from these agencies to our FOIA request will significantly alter the conclusions or recommendations of this report. However, if information is received from these FOIA requests that significantly impacts the conclusions of this report, this information will be forwarded upon receipt.

5.5.2 State

In addition, AECOM submitted FOIA requests to the NYSDEC and the NYSDOH. As of the date of this report, responses to AECOM's FOIA requests to the NYSDEC and the NYSDOH have not been received. Based on AECOM's research to date, AECOM does not anticipate the response (if any) from these agencies to our FOIA requests will significantly alter the conclusions or recommendations of this report. However, if information is received from these FOIA requests that significantly impacts the conclusions of this report, this information will be forwarded upon receipt.

AECOM also reviewed the following databases, in addition to those identified in Section 5.3.2:

- New York State Department of Environmental Conservation, Bulk Storage Database Search. The subject property was not identified in the database.
- New York State Department of Environmental Conservation, Spill Incident Database Search. The subject property was not identified in the database.

5.5.3 Federal

AECOM searched the U.S. EPA's Envirofacts and Superfund Enterprise Management System (SEMS) online databases. The SEMS database replaced the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) which has since been retired. SEMS includes the same data fields and content as CERCLIS. The Envirofacts database retrieves information obtained from 17 national systems, including the CERCLIS, Superfund program (NPL sites), hazardous waste sites, and potential hazardous waste sites. The subject property was not listed on the Envirofacts or SEMS databases.

6. Findings and Opinions

AECOM performed a Phase I ESA of the subject property in accordance with the scope and limitations of ASTM Practice E 1527-13, which meets the requirements of Title 40, Code of Federal Regulations Part 312 and is intended to constitute *all appropriate inquiry* for purposes of the landowner liability protections. Any exceptions to, or deletions from, this practice are described in Section 1.3 through 1.5 of this report.

The following sections summarize the findings and opinions of this Phase I ESA of the subject property.

6.1 Recognized Environmental Conditions

The following RECs were identified during this assessment:

- Hurricane Sandy in 2012 severely flooded the Far Rockaway area which resulted in spills and discharges of heating oil and other chemical products (i.e., cleaning fluids, paints, cleaning solvents) from residential and commercial properties throughout the area. In the addition, the development of Far Rockaway has resulted in the importation of fill material as the area was historical a marsh as identified on historical topographic maps. Therefore, due to the history of area including the potential for migration of contamination from off-site sources and urban fill, the possibility exists for subsurface contamination on and in immediate vicinity of subject parcel to be present.

6.2 Controlled Recognized Environmental Conditions

Based on the above-described activities, no CRECs were identified in connection with the subject property.

6.3 Historical Recognized Environmental Conditions

Based on the above-described activities, no HRECs were identified in connection with the subject property.

6.4 De Minimis Conditions

The following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (wood pallets, lumber, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- AECOM observed six motor vehicles on the subject property, with all but one being either abandoned or out of use. The abandoned or out of use vehicles an ambulance, a utility van, two passenger car, and a motorcycle. The vehicles are presumed by AECOM to include fluids such as gasoline and motor oil. The bus is used by the God's Battalion Pentecostal Assembly Church (owner of the subject property) to transport parishioners to various locations and events in the area. Minor stains were observed around the area where the bus and the utility van were parked.

7. Conclusions

We have performed a Phase I ESA in accordance with the scope and limitations of ASTM Practice E 1527-13 of 426 – 444 Beach 67th Street, New York, Queens County, New York, the subject property. Any exception to, or deletions from, this practice are described in Sections 1.3 through 1.5 of this report. This assessment has revealed no evidence of RECs or CRECs in connection with the property except the following:

- Hurricane Sandy in 2012 severely flooded the Far Rockaway area which resulted in spills and discharges of heating oil and other chemical products (i.e., cleaning fluids, paints, cleaning solvents) from residential and commercial properties throughout the area. In the addition, the development of Far Rockaway has resulted in the importation of fill material as the area was historical a marsh as identified on historical topographic maps. Therefore, due to the history of area including the potential for migration of contamination from off-site sources and urban fill, the possibility exists for subsurface contamination on and in immediate vicinity of subject parcel to be present.

The following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (wood pallets, lumber, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- AECOM observed six motor vehicles on the subject property, with all but one being either abandoned or out of use. The abandoned or out of use vehicles an ambulance, a utility van, two passenger car, and a motorcycle. The vehicles are presumed by AECOM to include fluids such as gasoline and motor oil. The bus is used by the God's Battalion Pentecostal Assembly Church (owner of the subject property) to transport parishioners to various locations and events in the area. Minor stains were observed around the area where the bus and the utility van were parked.

8. Environmental Professional Statement

Mr. Abrams was the Environmental Professional (EP) for this project. Mr. Abrams' EP statement is below and his resume is provided in Appendix C:

I declare that, to the best of our professional knowledge and belief, I meet the definition of an EP as defined in §312.10 of 40 Code of Federal Regulations (CFR) and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Signature: _____ Date: July 25, 2018

9. References

9.1 Persons Interviewed

Cockfield, Alfred , Senior Pastor, God's Battalion of Prayer Church, 661 Linden Boulevard, Brooklyn, New York 12203, (718) 774-5447. Provided site walk escort and site history on June 28, 2018.

Cockfield, David, Senior Pastor, Battalion Pentecostal Assembly Church, 454 Beach 67th Street, Arverne, New York 11692, (718) 634-3178. Provided site walk escort and site history on June 28, 2018.

9.2 Agencies Contacted

Environmental Protection Agency Envirofacts database - http://www.epa.gov/enviro/

Environmental Protection Agency Superfund Enterprise Management System (SEMS) database, https://cumulis.epa.gov/supercpad/cursites/srchsites.cfm.

Fire Department of the City of New York, Public Records Unit / Tanks Section, 9 MetroTech Center, Brooklyn, New York 11201-3857. (718) 999-2441 or 2442.

New York City Department of Buildings. Building permits accessed online at: http://www.nyc.gov/html/dob/html/home/home.html

New York City Department of Finance. Review of Digital Tax Maps. System accessed online at: http://www1.nyc.gov/subject property/finance/taxes/property-digital-tax-map.page

New York State Department of Environmental Conservation, Bulk Storage Database Search, bulk storage information pertaining to the subject property, retrieved online at http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4

New York State Department of Environmental Conservation, Spill Incidents Database Search, spill information pertaining to the subject property, retrieved online at http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=2

New York State Department of Environmental Conservation, Office of General Counsel, 625 Broadway, Albany, New York 12233-1500.

New York State Department of Health, 59-17 Junction Boulevard, Corona, New York 11368.

9.3 Documents Reviewed

ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, dated November 2013. www.astm.org.

ASTM E2600-15, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, dated October 2015. www.astm.org.

Soren, Julian, 1971. Ground-Water and Geohydrologic Conditions in Queens County, Long Island, New York. U.S. Geological Survey Water Supply Paper 2001-A.

EDR 7.5 Minute Topographic Maps, prepared for Battalion Pentecostal Assembly Church, 426-444 Beach 67th Street, Arverne, NY 11692, dated June 28, 2018. Inquiry number 5347021.4. Topographic Maps 1897, 1898, 1900, 1947, 1954, 1969, and 2013. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Aerial Photos Decade Package prepared for Battalion Pentecostal Assembly Church, 426-444 Beach 67th Street, Arverne, NY 11692, dated June 28, 2018. Inquiry number 5347021.9. Aerial photographs dated 1924, 1951, 1954, 1961, 1966, 1974, 1976, 1984, 1991, 1995, 2008, 2011, and 2015. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR City Directory Abstract prepared for prepared for Battalion Pentecostal Assembly Church, 426-444 Beach 67th Street, Arverne, NY 11692, dated June 28, 2018. Inquiry number 5347021.5. City directories were reviewed from 1920 - 2014 in approximately 3 to 5 year intervals. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Radius Map with GeoCheck®, prepared for Battalion Pentecostal Assembly Church, 426-444 Beach 67th Street, Arverne, NY 11692, dated June 27, 2018. Inquiry number 5347021.2s. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Sanborn Map Report, prepared for Battalion Pentecostal Assembly Church, 426-444 Beach 67th Street, Arverne, NY 11692, dated June 27, 2018. Inquiry number 5347021.3. Sanborn Maps dated 1912, 1933, 1950, 1981, 1983, 1986, 1987, 1988, 1989, 1991 – 1996, 1999, and 2001 – 2006. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

Google Earth website, www.google.earth.com. This information was reviewed online by Mr. Nelson Abrams with AECOM on July 16, 2018.

Appendix F: CEQR No. 08DCP065Q Revised Negative Declaration

E-215

DEPARTMENT OF CITY PLANNING
CITY OF NEW YORK

OFFICE OF THE CHAIR

REVISED NEGATIVE DECLARATION

Supersedes Negative Declaration issued on April 21, 2008

Project Identification
CEQR No. 08DCP065Q
ULURP No. C080371ZMQ, N080372ZRQ,
N080373ZRQ, 080455HUQ
SEQRA Classification: Type I

Lead Agency
City Planning Commission
22 Reade Street
New York, NY 10007
Contact: Robert Dobruskin
(212) 720-3423

Name, Description, and Location of Proposal:

Rockaway Neighborhoods Rezoning

A Negative Declaration was issued for the above-referenced action on April 21, 2008. The Negative Declaration included an (E) designation (E-215) for hazardous materials and air quality.

Subsequent to the issuance of the April 21, 2008 Negative Declaration, the City Planning Commission considered two modifications to the proposed zoning map change:

1. The originally proposed R7A district on Beach 105th Street and Rockaway Beach Boulevard will be modified to an R5D district. R5D reflects the zoning already proposed along the more upland corridors of Rockaway Beach Boulevard and Beach Channel Drive and the context of recent development in the area. R5D districts encourage development of three to four story buildings at a maximum FAR of 2.0.

2. A portion of the originally proposed R4A district south of Plainview Avenue between Beach 18th Street and Beach 17th; and a portion of originally proposed R4-1 district south of New Haven Avenue between Beach 17th Street and Beach 15th Street will be modified to retain existing R5 zoning.

This revised EAS was prepared to analyze the above modifications considered by the City Planning Commission and includes editorial and typographical changes in the EAS.

As a result of the modifications, the (E) designation for air quality would be revised for the following locations:

- Block 16176, Lot 1 (Projected Development Site 13)
- Block 16178, Lot 65 (Potential Development Site 25)

Amanda M. Burden, FAICP, *Chair*
22 Reade Street, New York, N.Y. 10007-1216
Phone (212) 720-3200 Fax (212) 720-3219
http://www.nyc.gov/planning

- Block 16178, Lot 80 (Potential Development Site 26)

The modified environmental requirements of the (E) designation are described below.

The modified proposal will amend the zoning map affecting all or portions of 280 blocks in Rockaway, Queens Community District 14. The proposed zoning changes take place in the neighborhoods of Somerville, Edgemere and Far Rockaway on the eastern end of the peninsula, and Rockaway Park and Rockaway Beach in the western section. The eastern rezoning area is generally bounded by Beach 72nd Street to the west, Jamaica Bay and Rockaway Freeway to the north, the Nassau County line to the east and Beach Channel Drive and the boardwalk to the south. The western rezoning area is generally bounded by Beach 130th Street to the west, Jamaica Bay and Rockaway Freeway to the north, Beach 86th Street to the east and the Atlantic Ocean boardwalk to the south.

The originally proposed R7A on Rockaway Beach Boulevard will be modified to R5D. R5D will reflect the zoning already proposed along the more upland corridors of Rockaway Beach Boulevard and Beach Channel Drive and the context of recent development in the area. R5D districts encourage development of three to four story buildings at a maximum FAR of 2.0. A second modification will retain an existing R5 district two block on portions between Beach 17th Street and Beach 15th Street to the south of Caffrey Avenue. The existing R5 district will allow new residential buildings to be developed as planned in conjunction with the expansion Yeshiva Darchei Torah.

The amendments to the Zoning Map, as modified, are as follows:

- A change from a C3 district to R4, R4-1, R4A districts;
- A change from an R2 district to an R2X district;
- A change from an R3-1 district to an R3X district;
- A change from an R3-2 district to R3X, R4-1, R4A, R5A, R5D districts;
- A change from an R3A district to an R3X district;
- A change from an R4 district to C4-3A, M1-1, R3X, R4-1, R4A, R4B, R5D, R7A districts;
- A change from an R4-1 district to R3X, R4A districts;
- A change from an R4A district to an R3X district;
- A change from an R5 district to R3A, R4, R4-1, R4A, R5A, R5B, R5D, R7A districts;
- A change from an R6 district to C4-3A, C4-4, R3A, R4-1, R4A, R5, R5A, R5B, R5D, R6A districts;
- A change from a C1-2 district to a C1-3 district; A change from an C2-2 district to a C2-3 district;
- New C1-3 and C2-3 commercial overlays along B. 116th Street between Beach Channel Drive and the Ocean Promenade, portions of Rockaway Beach Boulevard between B. 116th and 108th Streets, between B. 86th and 102nd Streets, and between B. 59th and 68th Streets.

Zoning Text Amendment (N 080372 ZRQ)

An R2X district is proposed to be mapped on 22 blocks at the eastern edge of the Far Rockaway rezoning area, an area predominantly developed with single family detached homes on lots that are at least 30 feet in width. Currently the R2X district can only be mapped in the Special Ocean Parkway District in Brooklyn. This proposed text amendment would modify Section 21-12 of the Zoning

Resolution to allow designation of an R2X district in Queens, Community District 14.

Zoning Text Amendments

N 080372 ZRQ: An R2X district is proposed to be mapped on 22 blocks at the eastern edge of the Far Rockaway rezoning area, an area predominantly developed with single family detached homes on lots that are at least 30 feet in width. Currently the R2X district can only be mapped in the Special Ocean Parkway District in Brooklyn. This proposed text amendment would modify Section 21-12 of the Zoning Resolution to allow designation of an R2X district in Queens, Community District 14.

N 080373 ZRQ: The proposed text amendment would modify Section 25-00 of the Zoning Resolution to apply the accessory off-street parking regulations of an R5 district to R6 and R7 districts and commercial districts with a residential equivalent of R6 or R7. This text amendment will not effect development in R6 and R7 districts in urban renewal areas.

The proposed text amendment would affect two areas proposed to be zoned to R7A in the Rockaway Beach and Rockaway Park communities and two areas proposed to be rezoned to R6A in the Rockaway Beach and Far Rockaway communities. There would be no affect on the proposed C4-3A and C4-4 districts which are located in the Edgemere and Arverne Urban Renewal Areas, or C4-2 districts in Downtown Rockaway.

The Department of Housing Preservation and Development submitted a ULURP application to amend the Edgemere Urban Renewal Plan (080455HUQ). The Plan was originally adopted, and disposition approval granted, on September 18, 1997. The proposed amendment will revise the Plan so as to make it consistent with the Rockaway area rezoning proposed by the Department of City Planning. The rezoning affects three blocks (Block 15825, 15852, 15853); two projected sites and one potential site in the urban renewal area that are designated for commercial/residential use.

The proposed action is projected to result in a net increase of 558 residential units, an increase of 43,139 square feet of commercial space and a decrease of 19,926 square feet of community facility space. A total of 15 projected development sites and 20 potential development sites have been identified in the area.

The proposed contextual zoning is intended to preserve the scale and character of the individual Rockaway neighborhoods and ensure that future residential development would be consistent with the surrounding neighborhood's building patterns. In the areas characterized by one- and two-family homes, contextual zoning will limit the densities for future development.

To avoid the potential for impacts related to hazardous materials and air quality, the proposed rezoning includes (E) designations (E-215).

The (E) designations for hazardous materials would be placed on some of the development sites. These sites are comprised of the following parcels:

Block	Lots
15852	60, 64, 68, 84, 86, 88
15901	8, 57
15907	65, 67, 80
16011	105
15913	67, 70

16013	1
16014	1
16038	68, 70
16155	1, 5
16156	1, 6, 7, 8
16159	94, 95, 96, 97, 98, 99, 100, 101, 102, 103
16173	28
16176	1
16178	1, 65, 80
16188	15, 75

On the sites receiving (E) designations for hazardous materials, the contamination can be classified as petroleum based, non-petroleum based or both. The NYCDEP has developed protocols for both petroleum and non-petroleum based, or both. The NYCDEP has developed protocols for both petroleum- and non-petroleum-based (E) designated sites that are required to be followed in order to address possible contamination. The placement of the (E) designation on the zoning map would eliminate the potential for significant adverse impacts from hazardous materials and would ensure that appropriate testing and remediation, if needed, would be undertaken. The text of the (E) designation is as follows:

Task 1-Sampling Protocol

A. Petroleum

A soil, soil gas, and groundwater testing protocol (including a description of methods), and a site map with all sampling location represented clearly and precisely, must be submitted to the NYCDEP by the fee owner(s) of the lot which is restricted by this (E) designation, for review and approval.

A site map with the sampling locations clearly identified and a testing protocol with a description of methods, for soil, soil gas, and groundwater, must be submitted by the fee owner(s), of the lot which is restricted by the (E) designation, to the NYCDEP for review and approval.

B. Non-Petroleum

The fee owner(s) of the lot restricted by this (E) designation will be required to prepare a scope of work for any sampling and testing needed to determine if contamination exists and to what extent remediation may be required. The scope of work will include all relevant supporting documentation, including site plans and sampling locations. This scope of work will be submitted to NYCDEP for review and approval prior to implementation. It will be reviewed to ensure that an adequate number of samples will be collected and that appropriate parameters are selected for laboratory analysis. For all non-petroleum (E) designated sites, the three generic NYCDEP soil and groundwater sampling protocols should be followed.

A scope of work for any sampling and testing to be completed, which will determine the extent of on-site contamination and the required remediation, must be prepared by the fee owner(s) of the lot restricted by this (E) designation. The scope of work will include the following: site plans, sampling

locations, and all other relevant supporting documentation. The scope of work must be submitted to the NYCDEP for review and confirmation that an adequate testing protocol (i.e., number of samples collected, appropriate parameters for laboratory analysis) has been prepared. The NYCDEP must approve the scope of work before it can be implemented.

For non-petroleum (E) designated sites, one of the three generic soil and groundwater sampling protocols prepared by the NYCDEP should be followed.

The protocols are based on three types of releases to soil and groundwater sampling protocols prepared by the NYCDEP should be followed.

The protocols are based on three types of releases to soil and groundwater, including: the release of a solid hazardous material to ground surface; the release of a liquid hazardous material to the ground surface; and the release of a hazardous material to the subsurface (i.e., storage tank or piping). The type of release defines the areas of soil to be sampled from surface, near-surface, to subsurface. Additionally, it determines the need for groundwater sampling.

A written approval of the sampling protocol must be received from the NYCDEP before commencement of sampling activities. Sample site quantity and location should be determined so as to adequately characterize the site, the source of contamination, and the condition of the remainder of the site. After review of the sampling data, the characterization should have been complete enough to adequately determine what remediation strategy (if any) is necessary. Upon request, NYCDEP will provide guidelines and criteria for choosing sampling sites and performing sampling.

Finally, a Health and Safety Plan must be devised and approved by the NYCDEP before the commencement of any on-site activities.

Task 2-Remediation Determination and Protocol

After sample collection and laboratory analysis have been completed on the soil and/or groundwater samples collected in Task 1, a summary of the data and findings in the form of a written report must be presented to the NYCDEP for review and approval. The NYCDEP will provide a determination as to whether remediation is necessary.

If it is determined that no remediation activities are necessary, a written notice will be released to that effect. However, if it is the NYCDEP's determination that remediation is necessary the fee owner(s) of the lot restricted by the (E) designation must submit a proposed remediation plan to the NYCDEP for review and approval. Once approval has been obtain, and the work completed, the fee owner(s) of the lot restricted by the (E) designation must provide proof to the NYCDEP that the work has been completed satisfactorily.

With the placement of the (E) designations on the above block and lots, no impacts related to hazardous materials are anticipated.

To avoid the potential for impacts related to air quality, the proposed rezoning includes (E) designations for air quality. Accordingly, (E) designations will be mapped on the following parcels:

Block 15852, Lots 60, 64, 68, 84, 86, 88
Block 15901, Lots 8, 57
Block 15907, Lots 65, 67, 80
Block 16011, Lot 105
Block 16013, Lot 1
Block 16014, Lot 1
Block 16155, Lots 1, 5
Block 16156, Lots 1, 6, 7, 8
Block 16159, Lots 94, 95, 96, 97, 98, 99, 100, 101, 102, 103
Block 16173, Lot 28
Block 16174, Lots 22, 47
Block 16176, Lot 1
Block 16178, Lots 1, 65, 80
Block 16188, Lots 15, 17, 19, 21, 23, 25, 28, 30, 34, 62, 66, 68, 70, 75
Block 16226, Lot 25

The text for the (E) designations is as follows:

Block 15901, Lots 8, 57 (Projected Development Site 3)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 108 and 62 feet for Oil No. 4 and No. 2 from the lot line facing Beach 62nd Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 15907, Lots 65, 67, 80 (Projected Development Site 4)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 36 and 7 feet for Oil No. 4 and No. 2 from the lot line facing Beach 62nd Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16011, Lot 105 and Block 16013, Lot 1 (Projected Development Site 5)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 128 and 92 feet for Oil No. 4 and Oil No. 2 from the lot line facing Beach 62nd Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16014, Lot 1 (Projected Development Site 6)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least

82 and 62 feet for Oil No. 4 and No. 2 from the lot line facing Beach 59th Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16155, Lots 1, 5 (Projected Development Site 9)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 10 feet for Oil No. 4 from the lot line facing Beach 100th Street, or use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16156, Lots 6, 7, 8 (Projected Development Site 10)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 62 and 46 feet for Oil No. 4 and Oil No. 2 from the lot line facing Rockaway Beach Boulevard, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16174, Lot 22 (Projected Development Site 12)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 36 and 20 feet for Oil No. 4 and Oil No. 2 from the lot line facing Shore Front Parkway, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16176, Lot 1 (Projected Development Site 13)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 109 and 76 feet for Oil No. 4 and Oil No. 2 from the lot line facing Beach 105th Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lots 25, 28, 62 (Projected Development Site 14)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16226, Lot 25 (Projected Development Site 15)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 121 and 89 feet for Oil No. 4 and Oil No. 2 from the lot line facing Ocean Promenade, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 15852, Lots 64, 68 (Potential Development Site 16)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 82 and 62 feet for Oil No. 4 and Oil No. 2 from the lot line facing Beach 44th Street, or use

Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 15852, Lots 60, 84, 86, 88 (Potential Development Site 17)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 72 and 59 feet for Oil No. 4 and Oil No. 2 from the lot line facing Beach 43rd Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16156, Lot 1 (Potential Development Site 20)
Any new residential and/or commercial development on the above-referenced properties must use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16159, Lots 94, 95, 96, 97, 98, 99, 100, 101, 102, 103 (Potential Development Site 21)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 62 and 43 feet for Oil No. 4 and Oil No. 2 from the lot lines facing Rockaway Beach Boulevard and Beach 101st Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16173, Lot 28 (Potential Development Site 22)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 66 and 52 feet for Oil No. 4 and Oil No. 2 from the lot line facing Shore Front Parkway, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16174, Lot 47 (Potential Development Site 23)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 30 feet for Oil No. 4 from the lot line facing Rockaway Beach Boulevard, or use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16178, Lot 1 (Potential Development Site 24)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 128 and 92 feet for Oil No. 4 and No. 2 from the lot line facing Beach 106th Street, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16178, Lot 65 (Potential Development Site 25)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16178, Lot 80 (Potential Development Site 26).
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lots 15, 75 (Potential Development Site 27)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 17 (Potential Development Site 28)
Any new residential and/or commercial development on the above-referenced properties must use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lots 19, 21 (Potential Development Site 29)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 23 (Potential Development Site 30)
Any new residential and/or commercial development on the above-referenced properties must use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 30 (Potential Development Site 31)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 34 (Potential Development Site 32)
Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 105 and 75 feet for Oil No. 4 and No. 2 from the lot line facing Rockaway Beach Boulevard, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 66 (Potential Development Site 33)
Any new residential and/or commercial development on the above-referenced properties must use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 68 (Potential Development Site 34)
Any new residential and/or commercial development on the above-referenced properties must use Oil No. 2 or Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

Block 16188, Lot 70 (Potential Development Site 35)
Any new residential and/or commercial development on the above-referenced properties

must ensure that the heating, ventilating and air conditioning stack(s) are located exactly 16 feet for Oil No. 2 from the lot line facing Rockaway Beach Boulevard, or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

With the placement of the (E) designations on the above blocks and lots, no impacts related to stationary source air quality would be expected.

Statement of No Significant Effect:

The Environmental Assessment and Review Division of the Department of City Planning have completed its technical review of the Environmental Assessment Statement dated April 18, 2008 prepared in connection with ULURP Nos. C080371ZMQ, N080372ZRQ, N080373ZRQ. On behalf of the City Planning Commission, the Environmental Assessment and Review Division has determined that the proposed action will have no significant effect on the quality of the environment.

Supporting Statement:

The above determination is based on an environmental assessment which finds that:

1. The (E) designations for air quality and hazardous materials would ensure that no significant adverse impacts due to air quality or hazardous materials would result from the proposed action.

2. No other significant adverse effects on the environment which would require an Environmental Impact Statement are foreseeable.

This Revised Negative Declaration has been prepared in accordance with Article 8 of the Environmental Conservation Law 6NYCRR part 617.

Should you have any questions pertaining to this Negative Declaration, you may contact Sharon Pope at (212) 720-3201.

James Merani, R.A., Deputy Director
Environmental Assessment & Review Division
Department of City Planning

Date: 07/21/08

Amanda M. Burden, FAICP, Chair
City Planning Commission

Date: 07/23/08

Appendix G: Noise Monitoring Backup

Noise Job Field Sheet

Name of Project: Beach 67th Street 2020082

Project Address: 4-42 beach 67th Street Queens, NY

Date(s) of Field Work: ~~11/7/19~~ 10/28/20

Personnel: Zach Landis & Alex McClean

Project Specific Scope of Work:

2 x 1-hour locations AM, Midday, PM
Site Photos as discussed with Kevin

Maximum Billable Hours for the Day: 15

I. Start of Noise Monitoring Day

Departure Time: 0530 Arrival Time: 0705

Weather Conditions (temp, wind speed, precipitation): Overcast, Low/No wind, 60

Meter Type: Casella Meter Serial #: 1488256 Meter Location: 1
Meter Type: Casella Meter Serial #: 1274486 Meter Location: 2
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 2383985 Meters used on: 1
Calibrator Serial #: 1090999 Meters used on: 2
Calibrator Serial #: _____ Meters used on: _____
Were Photos Taken of Each Location? (Y) / N *Discuss specific photo instructions w/ Project Manager

**On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.*

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

1 Meter Serial #: 1488256 Time: 07:27 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 7:22 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

1 Meter Serial #: 1488256 Time: 8:31 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 8:35 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	7:30	8:30
2	7:30	8:30

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	23	44	2	2	4	0
2	23	33	4	2	3	0

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

Planes over head = IIII

Please place noise meters in their respective cases between sessions to avoid damage.

III. Midday Session 12:00 PM – 1:30 PM

Before Measurement:

1 Meter Serial #: 1488256 Time: 1156 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 1150 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

1 Meter Serial #: 1488256 Time: 1300 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 1305 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	1200	1300
2	1200	1300

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	43	64	1	1	0	0
2	51	47	6	1	0	0

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

Planes - 7

Local Food pick up for COVID Relief @ church parking Lot
↳ Significant impact on foot + Passenger Car traffic

Please place noise meters in their respective cases between sessions to avoid damage.

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

1 Meter Serial #: 1488256 Time: 16:26 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 16:20 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

1 Meter Serial #: 1488256 Time: ~~16~~ 17:30 Calibration Passed at 114 dB? (Y) / N
2 Meter Serial #: 1274486 Time: 17:31 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	16:30	17:30
2	16:30	17:30

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	26	36	3	0	2	0
2	43	31	3	0	0	0

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):
Planes - 2

Please place noise meters in their respective cases between sessions to avoid damage.

V. End of Noise Monitoring Day

- Please return all noise meters to their cases.
- Do not return dead batteries to the cases, throw them out.
- Did you take photos? (Y) / N
- Did you complete the site sketch? (Y) / N
- If a meter(s) was rented, please scan in calibration documents.

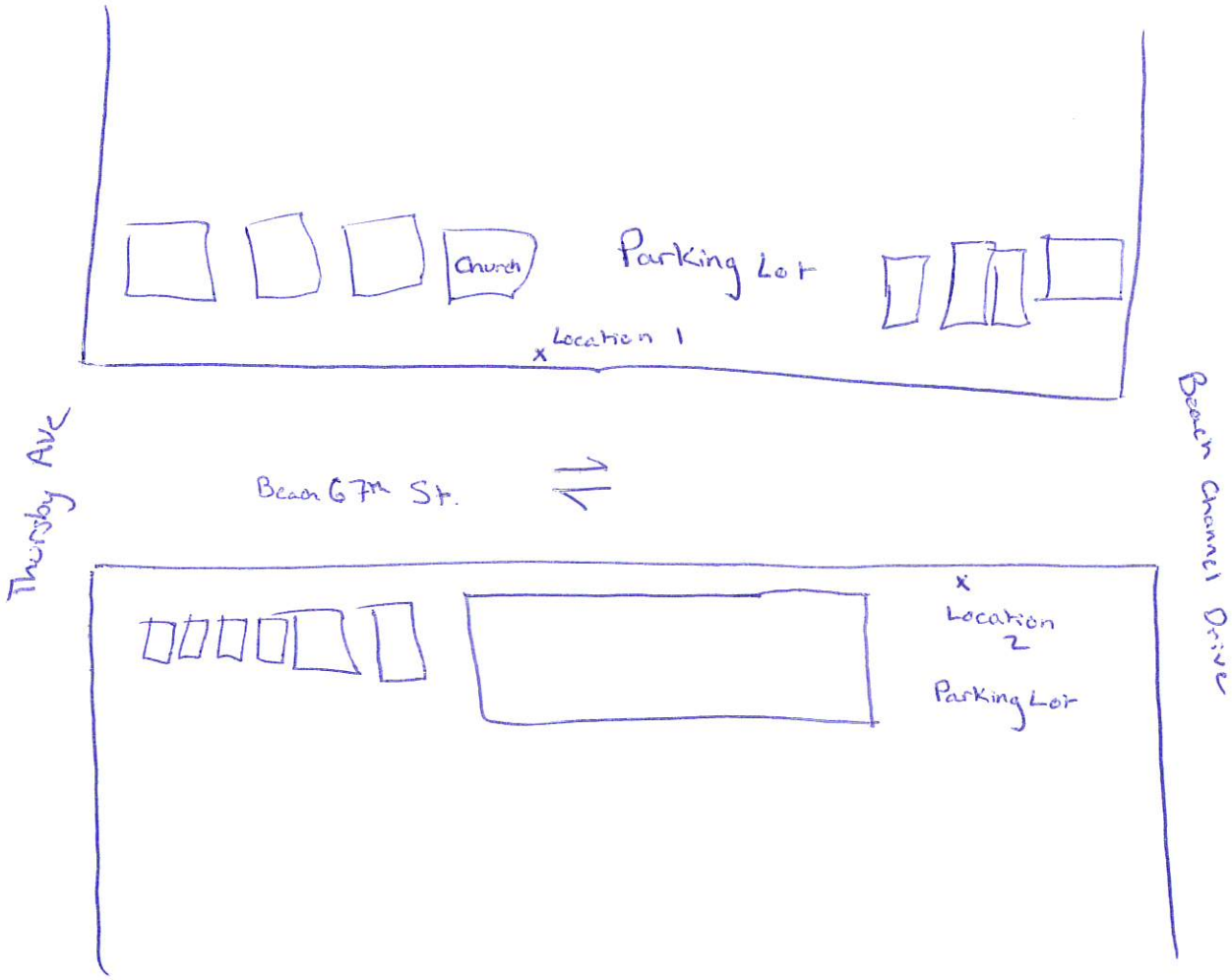
Anything of note/concern for the day: _____

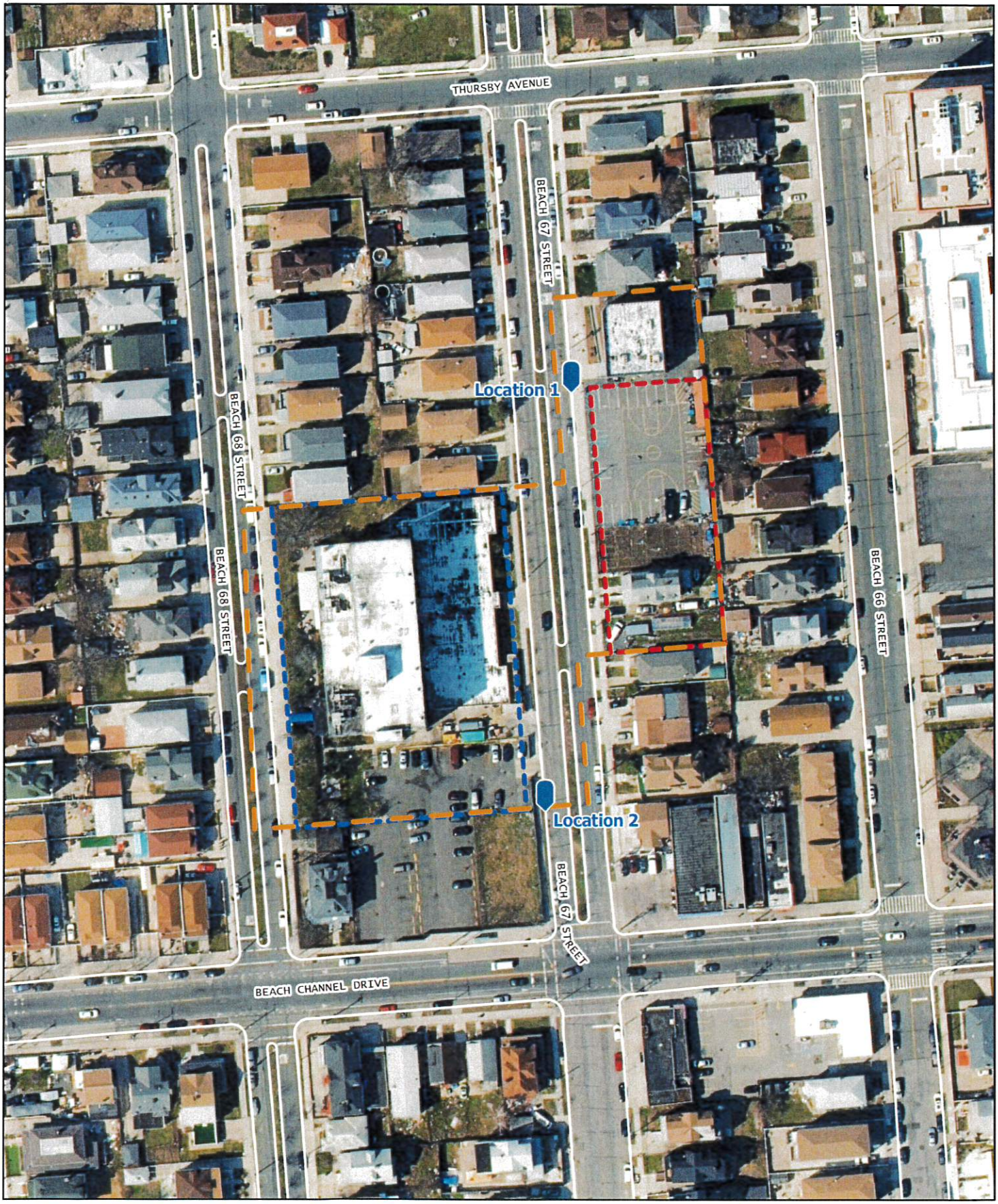
_____

_____

Departure Time: 17:45 Arrival Time: 19:45

Total Time to Be Billed: _____


Church
Parking Lot
Location 1
Thursday Ave
Beach 67th St.
Beach Channel Drive
Location 2
Parking Lot



Legend

- Projected Development Site 1
- Projected Development Site 2
- Rezoning Area
- Noise Monitoring Locations

230 US Feet

N

Casella CEL Ltd.

Report On CEL-63X

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	71.5 dB	Result
LASmax	90 dB	LAS 50%	58.5 dB	
LASmin	48.5 dB	LAS 90%	53 dB	
Start Date & Time	10/28/2020 7:30:17 AM	Calibration (Before) Date	10/28/2020 7:22:57 AM	
Duration	00:59:57 HH:MM:SS	Calibration (After) Date	10/28/2020 8:35:01 AM	
LAeq	67.1 dB	Calibration Drift	0.0 dB	
End Date & Time	10/28/2020 8:30:14 AM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	63 dB	Result
LASmax	88.5 dB	LAS 50%	56.5 dB	
LASmin	49.1 dB	LAS 90%	52.5 dB	
Start Date & Time	10/28/2020 4:30:14 PM	Calibration (Before) Date	10/28/2020 1:05:16 PM	
Duration	01:00:21 HH:MM:SS	Calibration (After) Date	10/28/2020 5:31:46 PM	
LAeq	63.4 dB	Calibration Drift	0.4 dB	
End Date & Time	10/28/2020 5:30:35 PM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	63.5 dB	Result
LASmax	76.4 dB	LAS 50%	56 dB	
LASmin	48.1 dB	LAS 90%	52 dB	
Start Date & Time	10/28/2020 12:00:09 PM	Calibration (Before) Date	10/28/2020 11:50:36 AM	
Duration	01:00:04 HH:MM:SS	Calibration (After) Date	10/28/2020 1:05:16 PM	
LAeq	60.9 dB	Calibration Drift	0.1 dB	
End Date & Time	10/28/2020 1:00:13 PM	Battery Low	No	
Notes				

Casella CEL Ltd.

Report On CEL-63X

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	71.5 dB	Result
LASmax	90 dB	LAS 50%	58.5 dB	
LASmin	48.5 dB	LAS 90%	53 dB	
Start Date & Time	10/28/2020 7:30:17 AM	Calibration (Before) Date	10/28/2020 7:22:57 AM	
Duration	00:59:57 HH:MM:SS	Calibration (After) Date	10/28/2020 8:35:01 AM	
LAeq	67.1 dB	Calibration Drift	0.0 dB	
End Date & Time	10/28/2020 8:30:14 AM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	63 dB	Result
LASmax	88.5 dB	LAS 50%	56.5 dB	
LASmin	49.1 dB	LAS 90%	52.5 dB	
Start Date & Time	10/28/2020 4:30:14 PM	Calibration (Before) Date	10/28/2020 1:05:16 PM	
Duration	01:00:21 HH:MM:SS	Calibration (After) Date	10/28/2020 5:31:46 PM	
LAeq	63.4 dB	Calibration Drift	0.4 dB	
End Date & Time	10/28/2020 5:30:35 PM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	1274486	LAS 10%	63.5 dB	Result
LASmax	76.4 dB	LAS 50%	56 dB	
LASmin	48.1 dB	LAS 90%	52 dB	
Start Date & Time	10/28/2020 12:00:09 PM	Calibration (Before) Date	10/28/2020 11:50:36 AM	
Duration	01:00:04 HH:MM:SS	Calibration (After) Date	10/28/2020 1:05:16 PM	
LAeq	60.9 dB	Calibration Drift	0.1 dB	
End Date & Time	10/28/2020 1:00:13 PM	Battery Low	No	
Notes				