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2510 CONEY ISLAND AVENUE REZONING

Environmental Assessment Statement

Address: 2510 Coney Island Ave, Brooklyn, New York 11233

Block 7159; Lots p/o 111, 115, p/o 120, 123, 128, and 130

Brooklyn Community District 15

CEQR Reference: 22DCP138K

ULURP Reference: 230128ZMK, N230129ZR

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

Prepared for:
2510 LLC

Prepared by:
GZA GeoEnvironmental, Inc.

Date Submitted:
October 30, 2024

55 Lane Road | Fairfield, NJ 07004
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EAS SHORT FORM

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

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

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* 2510 Coney Island Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP138K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
230128ZMK, N230129ZRK	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			2510 L.L.C.		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Stephanie Shellooe, AICP, Director of EARD			Kevin WIlliams, GZA GeoEnvironmental		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Lane Road, Suite 507		
CITY New York	STATE NY	ZIP 10271	CITY Fairfield	STATE NJ	ZIP 07004
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 973-774-3529	EMAIL kevin.williams@gza.com	

5. *Project Description*

2510/18 C.I.A. L.L.C. (the "Applicant") proposes a zoning map amendment to rezone 826 Avenue V, 2500, 2508, 2510, 2520, and 2524 Coney Island Avenue, Block 7159, Lot p/o 111, 115, p/o 120, 123, 128 and 130 (the "Affected Area"), in the Sheepshead Bay neighborhood within Brooklyn Community District 15, from R4 and C8-1 zoning districts to an R7D/C2-4 zoning district. In addition, the Applicant proposes a text amendment to Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing ("MIH") Areas for Community District 15, Brooklyn to establish an MIH Area coterminous with the Affected Area (The "Proposed Actions"). The Applicant proposes mapping both Option 1 and Option 2 within the Affected Area to provide maximum flexibility for the future development of nonapplicant controlled sites. The Proposed Actions would facilitate the development of 2510 Coney Island Avenue (Block 7159, Lot 123) ("Projected Development Site 1") with a new eleven-story mixed residential and commercial building with approximately 60 dwelling units, including approximately 16 permanently affordable units (the "Proposed Development"). The Proposed Development would also provide approximately 24 parking spaces and 31 bicycle spaces.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 15	STREET ADDRESS 2510 Coney Island Avenue
TAX BLOCK(S) AND LOT(S) Block 7159, Lots p/o 111, 115, p/o 120, 123, 128, and 130		ZIP CODE 11223
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS west side of Coney Island Avenue south of Avenue V		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R4, C8-1, Special Ocean Parkway District		ZONING SECTIONAL MAP NUMBER 28c

6. *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 Zoning text amendment to map a Mandatory Inclusionary Housing Area (ZR Appendix F)

***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 ☐ Cogeneration Facility ☐ Title V Permit

Other City Approvals Subject to CEQR (check all that apply)
☐ LEGISLATION
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:
☐ FUNDING OF CONSTRUCTION, specify:
☐ POLICY OR PLAN, specify:
☐ FUNDING OF PROGRAMS, specify:
☐ PERMITS, specify:

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:

7. *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.): 36,065
Waterbody area (sq. ft) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): 36,065
Other, describe (sq. ft.):

8. *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): 212,918
(Increment of 180,318)
NUMBER OF BUILDINGS: 4
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Site 1- 67,883 gsf, Site 2-35,604 gsf, Site 3- 72,471 gsf, Site 4- 36,960 gsf
HEIGHT OF EACH BUILDING (ft.): 115
NUMBER OF STORIES OF EACH BUILDING: 11

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: 11,020
The total square feet not owned or controlled by the applicant: 25,045

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 permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 36,065 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 540,000 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 36,065 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	174,897	38,021 (increment of 5,421)	0	0
Type (*e.g.,* retail, office, school)	192 units	UG 6 local retail	N/A	N/A

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 511 NUMBER OF ADDITIONAL WORKERS: 114

Provide a brief explanation of how these numbers were determined: 2.66 persons per DU in Brooklyn CD15 per 2020 US census; 3 employees per thousand square feet of retail space

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2030

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 16 months for Projected Site 1, followed by gap of 18 months before simultaneous 16 months of construction for Projected Sites 2-4

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO IF MULTIPLE PHASES, HOW MANY? 2

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Considering the time required for the environmental review and land use approval process, assuming a construction period of approximately 16 months from demolition to the completion of the interior core and shell, or 17 months and 3 weeks from demolition to the completion of interior finishes, the proposed development (Projected Development Site 1) is expected to be completed by 2027.

However, as the rezoning is also expected to induce development on three non-applicant owned sites, for conservative purposes, a build year and an analysis year of 2030 is assumed for this project. Projected Development Sites 2-4 would begin demolition 18 months after completion of the interior core and shell on Projected Site 1, with a construction period of approximately 16 from demolition to interior core and shell completion, or 19 months from demolition to completion of interior finishes, and TCO by February of 2030.

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

☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:

Part II: TECHNICAL ANALYSIS

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

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☒	☐
(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.		
(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 Appendix A		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
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, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Early Childhood Programs:** 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)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
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?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(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.		
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?	☐	☒
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 proposed 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 Protection Plan Project Tracking Form, and submit according to its instructions. See Appendix E		
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) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) 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?	☐	☒
(d) 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 the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) 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?	☒	☐
(f) 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)?	☒	☐
(g) 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?	☐	☒
(h) 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?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See EAS Section 2.6	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the proposed 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?	☐	☒

	YES	NO
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 11,190		
○ 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?	☐	☒
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): 26,976,710 MBtu's		
(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 screening analyses, attach appropriate 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, bus trips, or 50 Citywide Ferry Service ferry 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), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ 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, or Citywide Ferry Service landing?	☒	☐
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 EAS Section 2.8	☒	☐
(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?	☐	☒
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) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 114 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?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		

	YES	NO
(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. No significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, and therefore a public health analysis is not warranted		
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. See EAS Section 2.10		
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 EAS Section 2.11		

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	DATE
Kevin WIlliams, AICP, PP/ GZA	September 24, 2024

SIGNATURE Kevin Williams

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:

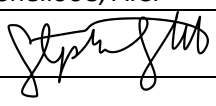
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental 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**
Stephanie Shellooe, AICP	November 1, 2024

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would not have a significant adverse impact on the environment. Reasons supporting this determination are noted below.

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, 2510/18 C.I.A L.L.C., is seeking a zoning map amendment to rezone existing R4 and C8-1 zoning districts within the Special Ocean Parkway District to an R7D/C2-4 zoning district, as well as a zoning text amendment to Appendix F of the Zoning Resolution ("ZR") to establish a Mandatory Inclusionary Housing ("MIH") area (the "Proposed Actions). The Proposed Actions would affect Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the "Affected Area") located in the Sheepshead Bay neighborhood of Brooklyn, Community District 15 and would facilitate the "Proposed Project" or "Projected Development Site 1". The Proposed Project on the applicant-controlled Lot 123 would comprise an 11-story 73,854 gross square foot ("gsf") mixed-use building with a cellar, consisting of approximately 6,439 gsf of commercial floor area and 56,735 gsf of residential floor area, including 60 dwelling units ("DUs"), 25-30% (15-18) of which would be affordable pursuant to MIH. 24 parking spaces and 31 bicycle parking spaces would be provided at the cellar level. In order to present a conservative CEQR analysis, a Reasonable Worst-Case Development Scenario ("RWCDS") was identified that differs from the Proposed Project on the applicant-controlled Projected Development Site 1 and also identified three additional development sites: Projected Development Site 2 (Block 7159, Lots 128 and 130), Projected Development Site 3 (Block 7159, Lot 115), and Projected Development Site 3 (Block 7159, Lot 120), all of which are not controlled by the Applicant. In the EAS, it is assumed that Projected Development Site 1 would comprise a 115-foot tall, 67,883 gsf development consisting of 12,122 gsf of commercial floor area and 55,761 gsf of residential floor area and 61 DUs, 15-18 of which would be affordable pursuant to MIH. 24 parking spaces would be provided in a subsurface parking garage. Projected Development Site 2 would comprise a 115-foot tall 35,604 gsf building, consisting of 6,358 gsf of commercial floor area and 29,246 gsf of residential floor area, including 32 DUs, 8-10 of which would be affordable pursuant to MIH. 13 parking spaces would be provided in a subsurface parking garage. Projected Development Site 3 would consist of a 115-foot tall 72,471 gsf development consisting of 12,941 gsf of commercial floor area and 59,530 gsf of residential floor area, including 66 DUs, 17-20 of which would be affordable pursuant to MIH. Projected Development Site 4 would comprise a 115-foot tall 36,960 gsf development consisting of 6,600 gsf of commercial floor area and 30,360 gsf of residential floor area, including 33 DUs, 8-10 of which would be affordable pursuant to MIH. 13 parking spaces would be provided in a subsurface parking garage.

The Proposed Actions would allow for the productive redevelopment of the Affected Area with new mixed residential and commercial buildings on four Projected Development Sites and the proposed land uses are compatible with the surrounding area which is predominantly developed with residential, institutional, and commercial uses. Therefore, the Proposed Actions would not generate land uses that would be incompatible with surrounding uses. The Proposed Actions would induce development consistent with nearby ground floor retail and adjacent residential multifamily apartment buildings, while maintaining the residential character of nearby side streets, and the proposed zoning district would be mapped at the confluence of Avenue V and Coney Island Avenue. Coney Island Avenue is a wide street with mixed uses and is well served by public transit, which is appropriate for a higher density of mixed residential and commercial uses. Additionally, consistency with the NYC Waterfront Revitalization Program (WRP) in included in this EAS. The WRP Policy Consistency Assessment Form demonstrates that the proposed development is consistent with the policies of the WRP (WRP# 18-181). Therefore, the Proposed Actions would not result in significant adverse impacts to land use, zoning, and public policy, and no further analysis is warranted.

Open Space

A detailed analysis of Open Space is included in the EAS. The quantitative analysis indicates that the Open Space Ratio in the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition. Despite the fact that the existing Open Space Ratio in the study area (both Active and Passive) is below the goals referenced in the *2021 CEQR Technical Manual,* the qualitative analysis reveals a moderate utilization rate of existing active open space resources, all of which are in acceptable condition, and multiple Planned Capital Improvements of the active open spaces, as well as additional open space resources just outside of the study area. Lastly, the Proposed Development on Projected Development Site 1 would provide on-site amenities for residents including private terraces and balconies, and a rooftop recreational open space area as a building wide amenity for future residents. The moderate utilization of the existing open space resources, the proximity to open space resources that are not considered within the Study Area, and the proposed resources to be provided for residential tenants on Projected Development Site 1 would help offset the low open space ration within the Study Area. Therefore, the Proposed Actions would not result in a significant adverse impact to open space and no further analysis is warranted.

Transportation

Because multiple locations were estimated to exceed 200 new pedestrians during the weekday midday peak hour, weekday PM peak hour, and the Saturday midday peak hour, a detailed pedestrian element level of service ("LOS") analysis related to transportation is included in the EAS. Based on the analysis, all pedestrian elements are projected to operate at LOS C or better. As such, according to the significant adverse impact criteria defined for pedestrian elements in the *2021 CEQR Technical Manual,* the Proposed Actions would not result in any significant adverse impacts related to transportation and no further analysis is warranted.

Project Name: 2510 Coney Island Avenue Rezoning
CEQR # 22DCP138K
SEQRA Classification: Unlisted

Urban Design and Visual Resources

A detailed analysis of Urban Design and Visual Resources is included in the EAS. As the Projected Development Sites would be built within the existing lot footprints of the respective lots, the development in the With-Action Scenario would not alter or disrupt the existing street grid or change the arrangement and orientation of streets in the area. Additionally, the Proposed Action would not permanently alter the existing sidewalks that border the Project Site to the East and North and there would be no changes to the existing sidewalk layout. Overall, the development in the Future With-Action would not alter existing streets, the street grid, streetscapes, or sidewalks. The Proposed Development on the Applicant-owned Development Site (Projected Development Site 1) would improve the current streetscape by adding street trees and improving the sidewalk along the Development Site frontage. In addition, as the current segment of Coney Island Avenue in the Affected Area is interrupted by an auto repair parking area, the Projected Development would increase the continuity of the street wall and help to activate the pedestrian realm. While the With-Action Scenario would bring additional density and height to the Study Area that does not currently exist, the Proposed Actions would not negatively affect urban design in the area. The proposed building would be set back 10 feet from the street and would have a base height of 63 feet, and neither the Proposed Project, nor the three additional Projected Development Sites, would significantly impact view corridors. The Proposed Actions would not result in significant adverse impacts to urban design and visual resources and no further analysis is warranted.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-720) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Jameson Mitchell at jmitchell@planning.nyc.gov.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE 11/1/2024
SIGNATURE	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 11/4/2024
SIGNATURE	

Project Name: 2510 Coney Island Avenue Rezoning
CEQR # 22DCP138K
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	Brooklyn	Block 7159, Lot 123
Projected Development Site 2	Brooklyn	Block 7159, Lots 128 and 130
Projected Development Site 3	Brooklyn	Block 7159, Lot 115
Projected Development Site 4	Brooklyn	Block 7159, p/o Lot 120

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-720**) would be established as part of approval of the proposed actions on **Projected Development Sites 1, 2, 3, and 4** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1		X	X
Projected Development Site 2	X	X	X
Projected Development Site 3	X	X	X
Projected Development Site 4	X	X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Sites 2, 3, and 4** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase II 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.

Air Quality

The (E) designation requirements for air quality would apply as follows:

Block 7159, Lot 123 (Projected Development Site 1): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 123 feet above grade, and that the stack is located at least 25 feet from the northern lot line of Block 7159, Lot 123 to avoid any potential significant adverse air quality impacts.

Block 7159, Lots 128 and 130 (Projected Development Site 2): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 121 feet above grade, and that the stack is located at least 30 feet from the northern lot line of Block 7159, Lot 128 to avoid any potential significant adverse air quality impacts.

Block 7159, Lot 115 (Projected Development Site 3): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 121 feet above grade, and that the stack is located at least 50 feet from the southern lot line of Block 7159, Lot 115 to avoid any potential significant adverse air quality impacts.

Block 7159, Lot 120 (Projected Development Site 4): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 123 feet above grade, and that the stack is located at least 20 feet from the southern lot line of Block 7159, Lot 115 and at least 20 feet from the northern lot line of Block 7159, Lot 123 to avoid any potential significant adverse air quality impacts.

Noise

The (E) designation requirements for noise would apply as follows:

Block 7159, Lot 123 (Projected Development Site 1): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the northern façade within 50 feet of Coney Island Avenue and a 28 dBA window/wall attenuation on the remaining portion of the northern façade, the eastern façade, the western façade, and the southern façade to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lots 128 and 130 (Projected Development Site 2): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lot 115 (Projected Development Site 3): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the eastern façade facing Coney Island Avenue and on the northern and southern facades within 50' of Coney Island Avenue and a minimum of 28 dB(A) window/wall attenuation on the remaining facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lot 120 (Projected Development Site 4): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the eastern façade facing Coney Island Avenue and on the northern and southern façades within 50 feet of Coney Island and a minimum of 28 dB(A) window/wall attenuation on the remaining facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

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Figure 1.1-1: Site Location Map

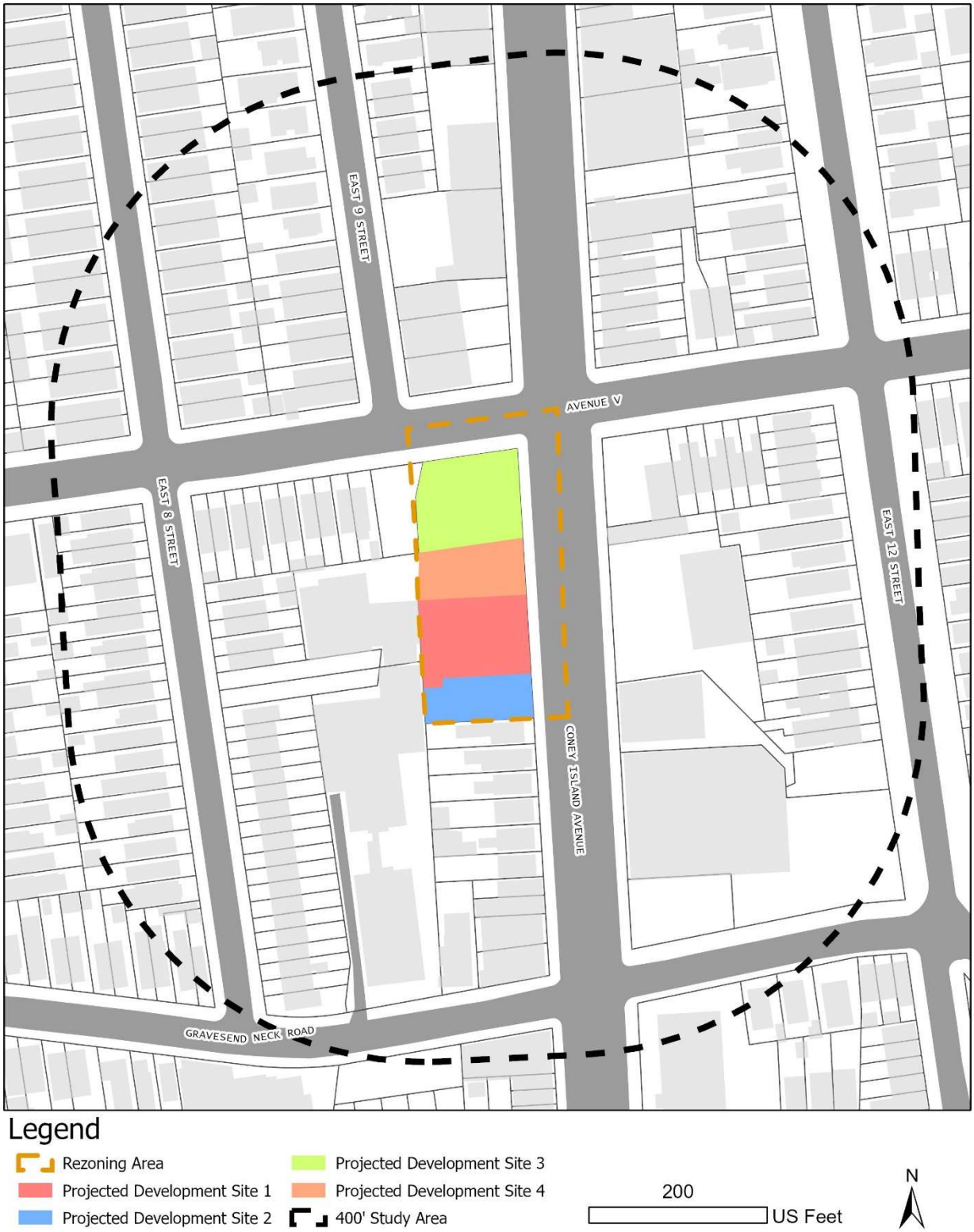


Figure 1.1-2: Existing Land Use Map



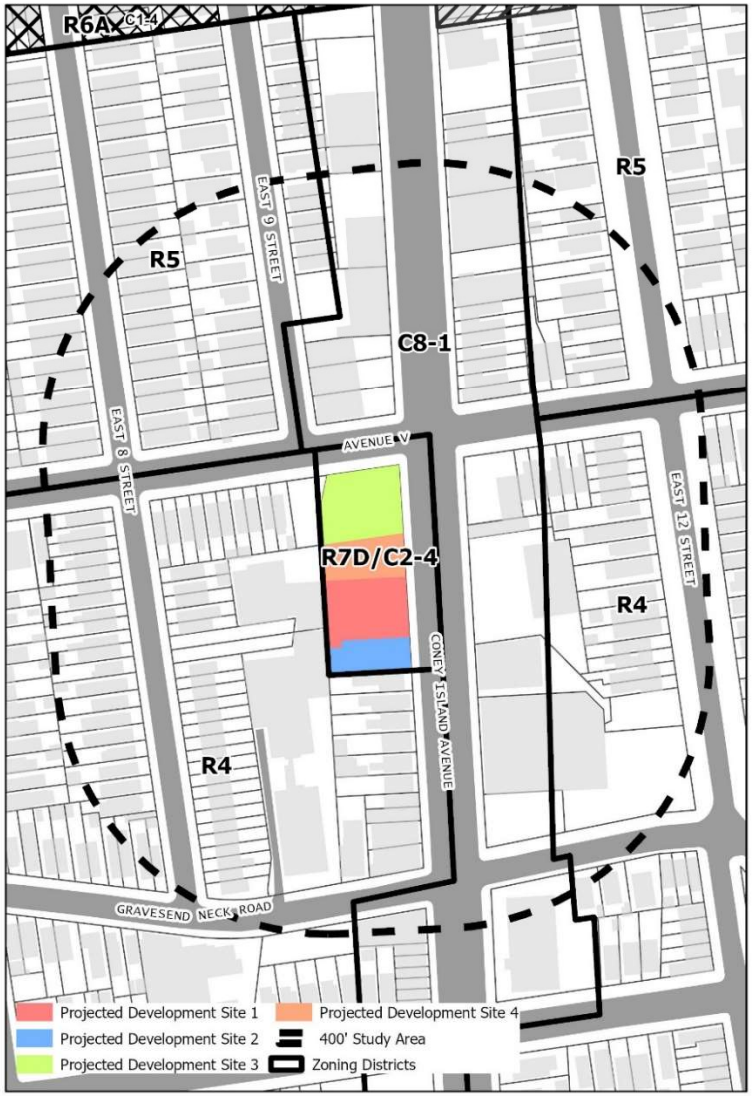
Figure 1.1-3: Zoning Map



Figure 1.1-4: Zoning Change Map



Existing R4 and C8-1 Zoning District



Proposed R7D/C2-4 Zoning District

Figure 1.1-5: Tax Map

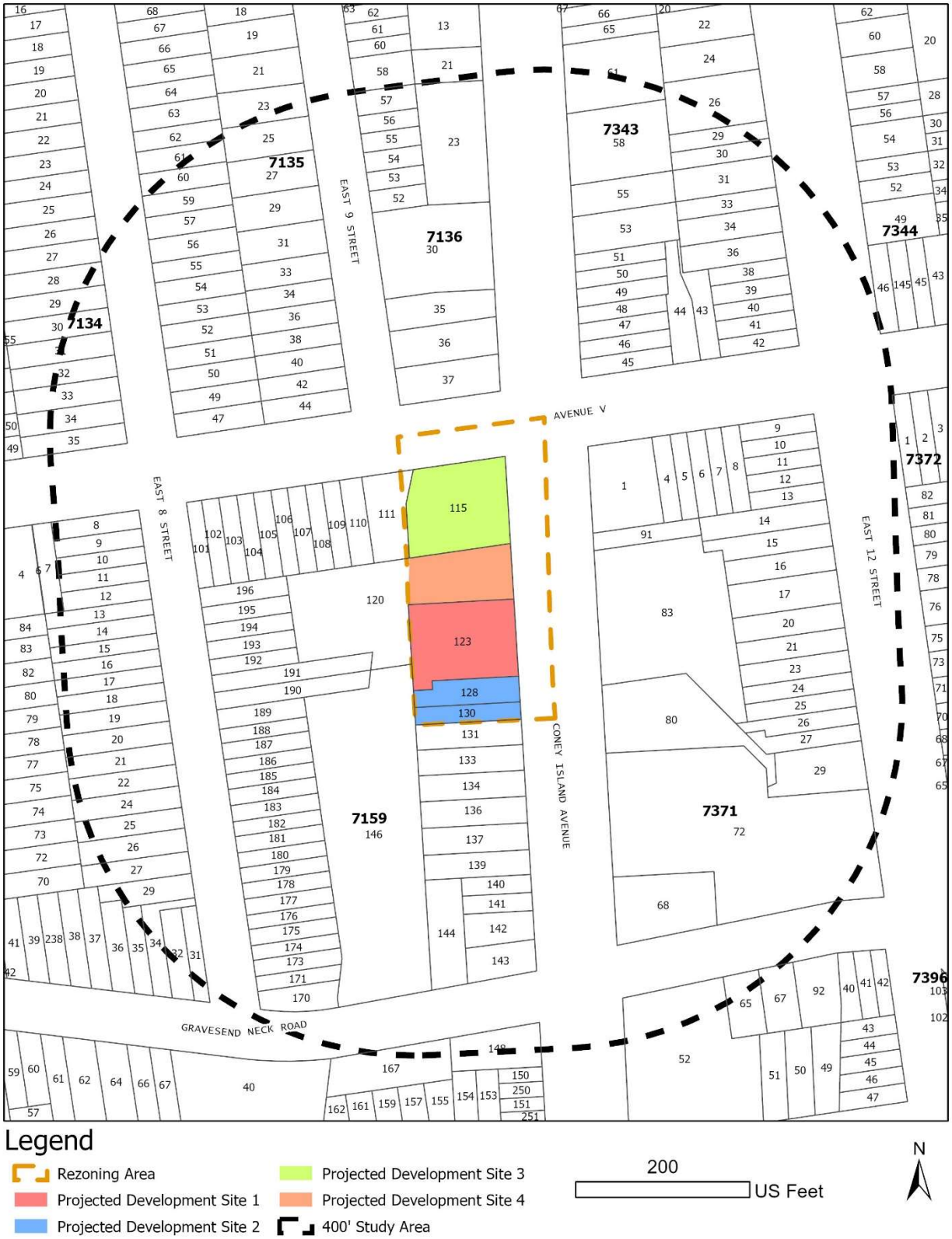


Figure 1.1-6: Site Photos Location Guide



Figure 1.1-7: Site Photos (1)



Figure 1.1-8: Site Photos (2)



Figure 1.1-9: Site Photos (3)



Figure 1.1-10 (4)



Figure 1.1-11 (5)

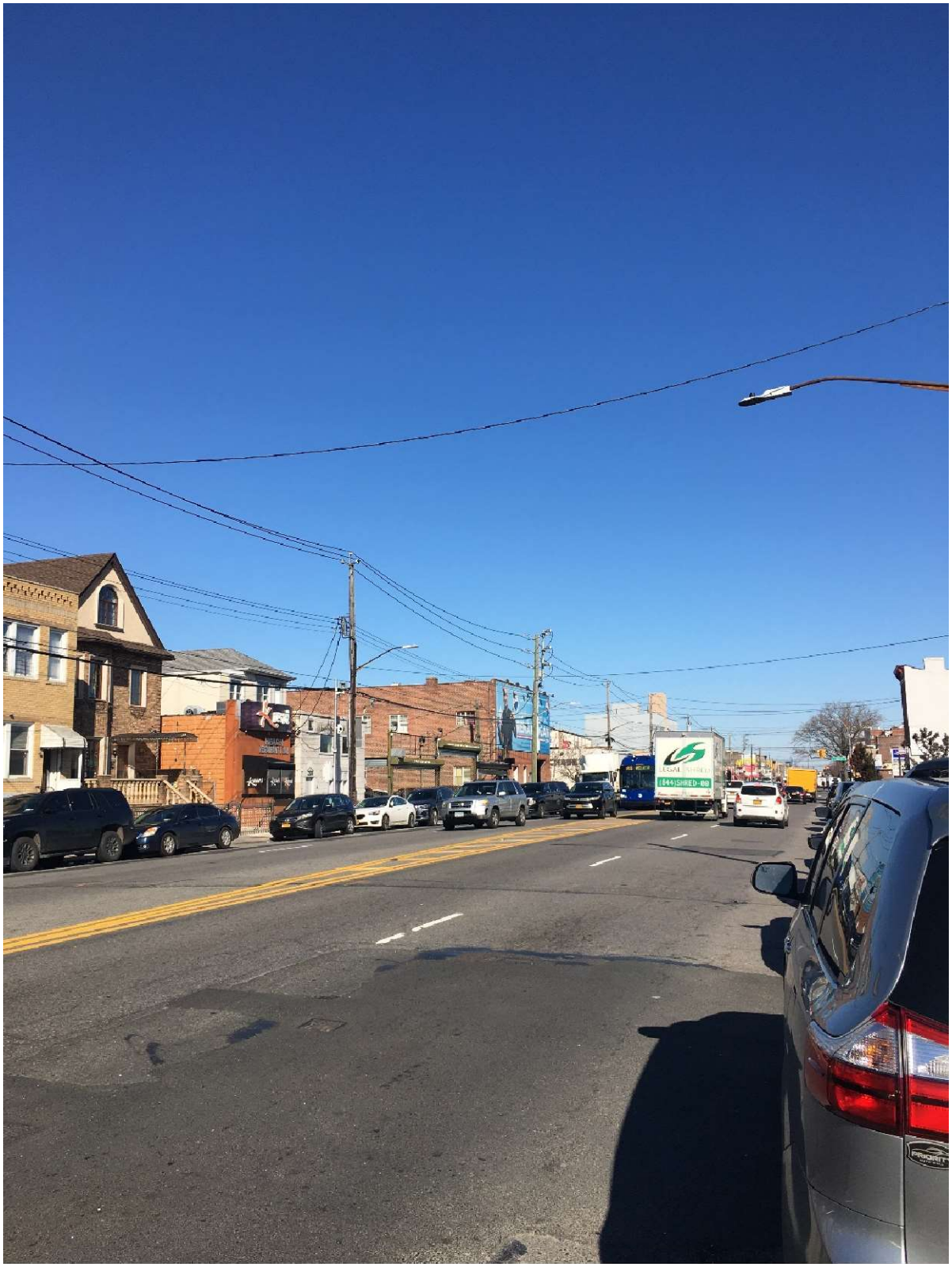


Figure 1.1-12 (6)



Figure 1.1-13 (7)



Figure 1.1-14 (8)



Figure 1.1-15 (9)



1 Project Description

1.1 Introduction

The Applicant, 2510/18 C.I.A L.L.C., is seeking a zoning map amendment and a zoning text amendment (the "Proposed Actions") over Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the "Affected Area" or "Rezoning Area") located in the Sheepshead Bay neighborhood of Brooklyn, Community District 15.

The zoning map amendment would rezone the Affected Area from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district. The zoning text amendment would affect ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 15, Brooklyn, to establish a Mandatory Inclusionary Housing ("MIH") Area to facilitate the "Proposed Project" or "Projected Development". The Proposed Project on the applicant-controlled lot (lot 123) involves the development of a new, eleven-story mixed-use building, with cellar, with approximately 73,854 gross square feet (gsf) of floor area or 61,549 zoning square feet (zsf) at an FAR of 5.58. The ground floor would contain approximately 6,439 gsf (0.58 FAR) of commercial floor area. The upper floors would contain approximately 56,735 gsf (55,110 zsf, 5.0 FAR) of residential floor area with 60 units, 25-30% (15-18)[1] of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. The building would have 24 parking spaces totaling 10,680 gsf at the cellar level. The proposed building would provide for 31 bicycle parking spaces. The entirety of the property is fronted along Coney Island Avenue.

In addition to the applicant-controlled lot (Block 7159, Lot 123), the rezoning boundary would include Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130. It is assumed and discussed below that in addition to development on the applicant-owned lot (Lot 123), development would also occur on some of these lots as a result of the Proposed Actions.

The Proposed Actions are discretionary actions subject to environmental review. The New York City (NYC) Department of City Planning (DCP) is the lead agency on behalf of the NYC City Planning Commission (CPC) for environmental review under City Environmental Quality Review (CEQR).

1.2 Background and Site History

The "Affected Area" or "Rezoning Area" is located in the Sheepshead Bay neighborhood. The existing R4 and C8-1 zoning districts have remained unchanged since they were mapped in 1961. However, the Special Ocean Parkway District was mapped over the Affected Area in 1977.

The area north of the Affected Area was included in the 2007 Sahara Restaurant Rezoning (August 22, 2007, C 050317 ZMK), which replaced the previous R5, R5/C1-3 and R5/C2-3 zoning districts with R6A/C2-3 and R6A/C1-3 zoning districts. The Sahara Restaurant Rezoning affected portions

[1] The Applicant is proposing 16 affordable units pursuant to MIH Option 1

of two blocks on the east side of Coney Island Avenue between Avenues T and V. The Sahara Restaurant Rezoning significantly increased compliance with zoning and provided new opportunities for residential expansion. The Sahara Restaurant Rezoning facilitated the expansion and use of an existing two-story restaurant and catering establishment along Coney Island Avenue, a major north-south thoroughfare lined with other highly active commercial uses and residential buildings.

1.3 Description of the Surrounding Area

The Affected Area is located in the Sheepshead Bay neighborhood, within Brooklyn Community District 15. Existing land uses within 600' of the Affected Area (the "Surrounding Area") primarily consist of one- and two-family residences. The Surrounding Area also contains public facilities and institutions, multi-family residences, mixed commercial and residential buildings, and commercial buildings. The buildings along Coney Island Avenue range from two to six stories in height and tend to be mixed residential and commercial or commercial buildings. A majority of the subject Block 7159, fronting Coney Island Avenue, is improved with one- to three-story residential and commercial buildings.

Coney Island Avenue is a two-way street going North-South, which is 100 feet wide. Avenue V is a two-way street going East-West, which is 80 feet wide. Ocean Parkway, three blocks to the west, is a major non-commercial travel corridor in Brooklyn. It is a wide street at 210-feet, with a main road providing two travel lanes in each direction and a center turning lane, as well as service roads in both directions, separated from the main road by landscaped bicycle/pedestrian paths.

There are several public institutions in the Surrounding Area. To the east of the Affected Area, across Coney Island Avenue, is the Homecrest branch of the Brooklyn Public Library. Directly south of the aforementioned public library is the Yeshivat Darchei Eres school, which serves approximately 1050 elementary, middle, and high school-aged students. Southeast of the Affected Area is the 61st Precinct police station of the NYPD. Finally, southeast of the Affected Area, there is the Starlight daycare center.

Mellett Playground, named in 1950 after two brothers who died in World War II, is a 1.093-acre park located northeast of the Affected Area. The Park opened in 1941 after it was constructed by the Works Progress Administration and it was refurbished in 1995. The Park contains handball courts, playground equipment, basketball courts, a comfort station, and benches. Ocean Parkway is located to the west of the Affected Area and was designated a scenic landmark in 1975 (LP-0871). This parkway was built to Frederick Law Olmsted and Calvert Vaux's design between 1874 and 1876 and contains 140 acres of wide, planted malls along its length for passive recreation as well as bicycle and pedestrian paths.

The existing zoning districts in the Surrounding Area include R4, C8-1, and R5 zoning districts. Furthermore, the Affected Area is within the Special Ocean Parkway District. The Special Ocean

Parkway District ("OP") is west of and includes the Affected Area, encompassing a band of blocks east and west of the Ocean Parkway between Prospect Park and Brighton Beach. It was designated in 1977 to preserve Ocean Parkway, which is designated a scenic landmark, and "to promote the most desirable use of land in this area and thus conserve the value of land". All new developments fronting on Ocean Parkway are required to have a 30-foot-deep landscaped front yard unobstructed by porches, canopies, or stairs. Only driveways or walkways may be paved. Accessory off-street parking must be completely enclosed and any new community facility development or enlargement is limited to the residential bulk regulations of the underlying zoning district, except by City Planning Commission certification.

The Affected Area is located within the Coastal Management Zone and is therefore subject to review for consistency with the New York City Waterfront Revitalization Program.

Public Transportation

There are numerous public transportation options for bus and subway service near the Affected Area. The B68 (running from Coney Island to Park Slope) and B3 (running from Bergen Beach to Gravesend) buses run within the Surrounding Area. In addition, the Avenue U and Neck Road subway stations, with Q line service, are each located within 0.5 miles to the east of the Affected Area and the Avenue U subway station, with F line service, is located within 0.75 miles to the west of the Affected Area. Finally, a bike path runs along Ocean Parkway to the west of the Affected Area.

1.4 Description of the Affected Area

The Affected Area is located in the Sheepshead Bay neighborhood within Brooklyn Community District 15. The Affected Area is bounded by Avenue V (a wide street) to the north; is bounded to the west by a line which is the prolongation of the centerline of East 9th Street running 150 feet, then to a line running parallel to and 120 feet from Coney Island Avenue; to the south by a line perpendicular to Coney Island Avenue, at a distance 300 feet south from the intersection of Coney Island Avenue and Avenue V; and Coney Island Avenue (a wide street) to the east. The proposed R7D/C2-4 zoning district and MIHA are coterminous with the Affected Area.

The Applicant-Owned Development Site

<u>The Proposed Development Site (Projected Development Site 1)</u>

Block 7159, Lot 123: Projected Development Site 1 is located at 2510 Coney Island Avenue and consists of one tax lot (Block 7159, Lot 123) of approximately 11,020 sq. ft. The Development Site is an irregularly shaped lot that has approximately 90-ft. of frontage along Coney Island Avenue and is 120-ft deep. Coney Island Avenue is a 100-foot-wide street. The Development Site is improved with two, one-story, 0.12 FAR, commercial buildings currently occupied by an automotive sales and repair business.

Non-Applicant Controlled Sites

Projected Development Site 2

Block 7159, Lot 128: It is an approximately 3,380 square foot improved lot used for a one-story commercial building inhabited by a general construction contractor, Beys Specialty Inc. It is an interior lot with 30 feet of frontage on Coney Island Avenue.

Block 7159, Lot 130: It is an approximately 2,400 square foot improved lot with a one-story retail building used by the Kasai Hibachi dining establishment. It is an interior lot with 20 feet of frontage on Coney Island Avenue.

Projected Development Site 3

Block 7159, Lot 115: It is an approximately 11,765 square foot improved lot used for a two-story office building inhabited by Chase Bank. It is a corner lot with 100 feet of frontage on Coney Island Avenue and 110 feet of frontage on Avenue V.

Projected Development Site 4

Block 7159, p/o Lot 120: It is an approximately 21,380 square foot improved lot with four two-story office buildings. The Certificates of Occupancy for the site include uses for offices, storage of building materials, repair and maintenance shop, and contactors establishment. It is used for a laser hair removal business, offices, a radio station, and a wholesale auto parts supplier. It is an interior lot with 60 feet of frontage on Coney Island Avenue.

Lots not part of any projected development

Block 7159, p/o Lot 111: It is an approximately 4,133 square foot unimproved lot used for vehicular parking. It is an interior lot with approximately 55.75 feet of frontage on Avenue V. A very small portion of Lot 111 is within the Affected Area, and the proposed rezoning would have a negligible effect on the development potential of this site.

1.5 Description of the Proposed Project

The Applicant intends to develop a new, eleven-story mixed-use building, with cellar, with approximately 73,854 gsf of floor area including cellar parking area (61,549 zsf; 5.58 FAR) on the applicant-controlled lot (block 7159, lot 123). The ground floor would contain approximately 6,439 gsf (0.58 FAR) of commercial floor area. The upper floors would contain approximately 56,735 gsf (55,110 zsf, 5.0 FAR) of residential floor area with up to 60 units, 25-30% (15-18) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. The Projected Development would provide 24 vehicular parking spaces and 31 bicycle parking spaces, totaling 10,680 gsf at the cellar level.

1.6 Action(s) Necessary to Facilitate the Project

The actions necessary to facilitate construction of the Projected Development are approvals of:

(1) a zoning map amendment changing R4 and C8-1 zoning districts to an R7D/C2-4 zoning district within the Affected Area; and

(2) a text amendment to establish an MIH Area with MIH Option 1 and Option 2 within the Affected Area.

1.7 Purpose and Need

The Affected Area is located in the Sheepshead Bay neighborhood. The existing R4 and C8-1 zoning districts have remained unchanged since they were mapped in 1961 and do not permit the necessary FAR which would enable the Applicant to construct his Projected Development to its desired height and bulk as R4 districts only have a residential FAR of 0.75, while C8-1 districts have an FAR of 1.0 for commercial uses, and do not permit residential uses.

The Proposed Rezoning to an R7D/C2-4 zoning district would enable the redevelopment of the Project Site and other sites within the Affected Area at a density suited for its location on a major street, with good access to public transportation and local commercial services. The mapping of a MIHA within the Affected Area would ensure that new development includes a substantial amount of much-needed permanently affordable housing.

Rationale for the R7D/C2-4 Zoning District at the Affected Area

The Proposed Rezoning would provide new opportunities for affordable and market-rate housing development in an area with increasingly unaffordable, stagnant, and aging housing stock. According to 2006-2010 and 2012-2016 American Community Survey statistics, total housing units grew by 4.6 percent in the local Census Tract encompassing the Affected Area, Brooklyn 392, over that time span. The Projected Development would add 60 new housing units to help meet demand in an area where over 90 percent of housing units were built before 1970. Furthermore, approximately 16 permanently affordable housing units would be added in a neighborhood where the cost of housing has been rising rapidly and over 50 percent of households pay more than 35 percent of their income in rent.

Mapping the proposed district would further the City's goals by promoting development on underutilized property proximate to an existing moderate-density residential community and public transit. The affected Area is primarily developed with low-rise buildings and would benefit from the development of mixed-use residential buildings to help meet this demand for additional housing.

The Proposed Rezoning would thus promote the development of new medium-density housing with active ground floor commercial uses that would continue to serve the neighborhood, provide jobs, and further activate the streetscape along Coney Island Avenue. This is a corridor that the City Planning Commission highlighted as a street well suited for apartment building construction in the Sahara Restaurant Rezoning. The Proposed Rezoning would provide for the productive use of underutilized, non-conforming property, thereby increasing land values in

accordance with the goals of the Special Ocean Parkway District. The rezoning would make the existing buildings conforming and provide for moderate growth in an area proximate to transit.

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

The proposed text amendment of ZR Appendix F is necessary to establish an MIH Area, which would require new developments to set aside 25-30 percent of the residential floor area for affordable housing. MIH Option 1 requires an affordable housing set aside of 25 percent of the residential floor area at an average of 60 percent of AMI with 10 percent at 40 percent AMI. MIH Option 2 requires an affordable housing set aside of 30 percent of the residential floor area at an average of 80 percent AMI.

1.8 Analysis Framework

The analysis framework compares the incremental difference between the proposed and potential development under the Proposed Actions (Future With-Action Conditions) and the development which could occur under the existing zoning (Future No-Action Conditions) by the build year specified below. 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 Affected Area. 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 in order 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 considered to be the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario actually 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 Scenario) and the future with the project in operation (With-Action Scenario).

Build Year

Considering the time required for the environmental review and land use approval process, assuming a construction period of approximately 16 months from demolition to the completion of the interior core and shell, or 17 months and 3 weeks from demolition to the completion of interior finishes, the proposed development (Projected Development Site 1) is expected to be completed by 2027.

However, as the rezoning is also expected to induce development on three non-applicant owned sites, for conservative purposes, a build year and an analysis year of 2030 is assumed for this project. Projected Development Sites 2-4 would begin demolition 18 months after completion of the interior core and shell on Projected Site 1, with a construction period of approximately 16

from demolition to interior core and shell completion, or 19 months from demolition to completion of interior finishes, and TCO by February of 2030.

Future Without the Proposed Actions (No-Action Conditions)

Currently, Block 7159, Lots 128 and 130 contain legal non-conforming (grandfathered) commercial uses which can legally remain in the No-Action Scenario.

All sites, including the Applicant Controlled site on Block 7159, Lot 123, are not projected to be developed in the Future Without the Proposed Actions (No-Action Scenario).

Future With the Proposed Actions (With-Action Conditions)

Given the Proposed Rezoning would add a significant amount of available FAR on the lots to be included in the Proposed Rezoning; the following assumptions have been made about Projected Development Sites.

- Projected Development Site 1 - (Applicant Owned) Block 7159, Lot 123
- Projected Development Site 2 - Block 7159, Lots 128 and 130
- Projected Development Site 3 - Block 7159, Lot 115
- Projected Development Site 4 - Block 7159, p/o Lot 120

Additionally, while p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Action. For Lot 111, the portion of the lot in the Affected Area makes up less than 30 percent of the total lot area, and the Proposed Actions would have a negligible effect on development potential. Therefore, it is assumed that this portion of this lot would remain unchanged in the With-Action Scenario. Data for the lots located in the Affected Area are shown in **Table 1.8-1**.

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

Projected Developments	Existing Conditions				No-Action Conditions				With-Action Conditions				Increment		
	Zoning	Res. (gsf)	DU	Com. (gsf)	Zoning	Res. (gsf)	DU	Com. (gsf)	Zoning	Res. (gsf)	DU	Com. (gsf)	Res. (gsf)	DU	Com. (gsf)
Projected Site 1	R4	0	0	11,020	R4	0	0	11,020	R7D/C2-4	55,761	61	12,122	55,761	61	1,102
Projected Site 2		0	0	6,380		0	0	6,380		29,246	32	6,358	29,246	32	-22
Projected Site 3	C8-1	0	0	7,200	C8-1	0	0	7,200		59,530	66	12,941	59,530	66	5,741
Projected Site 4	R4/C8-1	0	0	8,000	R4/C8-1	0	0	8,000		30,360	33	6,600	30,360	33	-1,400
Total		**0**	**0**	**32,600**		**0**	**0**	**32,600**		**174,897**	**192**	**38,021**	**174,897**	**192**	**5,421**

Gsf = gross square feet
Res = Residential
DU -= Dwelling Unit
Com = Commercial

Projected Development Site 1 (Block 7159, Lot 123; Applicant-Owned Lots)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 1 assumes a full build out on the applicant-owned site. It is an 11,020-sf lot currently occupied as an auto sales lot. It is assumed that the lot would be developed with a mixed residential and commercial building with 12,122 gsf (11,020 zsf) of commercial (retail) floor area on the ground floor and cellar and 55,761 gsf (50,692 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumed that Projected Development Site 1 would have 61 dwelling units assuming 900 sf per dwelling unit housing 162 residents based on the per household averages of the subject community district. Of those 61 dwelling units, 25-30% (15-18) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (12 units) of residential floor area is assumed to be affordable at or below 60% AMI. It's assumed that 24 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

This differs from the applicant's Projected Development as it calls for more residential and commercial floor area than what the applicant is proposing.

Projected Development Site 2 (Block 7159, Lots 128 and 130; Non-Applicant Lots)

Under the With-Action Scenario, the lots would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

The with-action scenario for Projected Development Site 2 assumes that these two lots would be merged as one zoning lot and would be improved with a full build out mixed-use building. Under R7D/C2-4 zoning guidelines, it is assumed that Projected Site 2, a combined 5,780 sf lot, would be developed with a mixed residential and commercial building with 6,358 gsf (5,780 zsf) of commercial (retail) floor area on the ground floor and cellar and 29,246 gsf (26,588 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. The building would have 32 dwelling units assuming 900 sf per dwelling unit, 25-30% (8-10) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected, and would house 85 residents based on per household averages of the subject community district. For the purposes of Early Childhood Programs analysis, 20% (6 units) of residential floor area is assumed to be affordable at or below 60% AMI. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 3 (Block 7159, Lot 115; Non-Applicant Lot)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 3 assumes a full build out on Lot 115, an 11,765-sf lot currently improved with a 7,200-sf office building. In the With-Action Scenario, under R7D/C2-4 zoning guidelines, it is assumed that the site would be improved with a mixed-use building with 12,941 gsf (11,765 zsf) of commercial (retail) floor area on the ground floor and cellar and 59,530 gsf (54,119 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. The building would have 66 dwelling units assuming 900 sf per dwelling unit, 25-30% (17-20) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected, and would house 176 residents based on per household averages of the subject community district. For the purposes of Early Childhood Programs analysis, 20% (13 units) of residential floor area is assumed to be affordable at or below 60% AMI. 26 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 4 (Block 7159, Lot 120; Non-Applicant Lot)

Under the With-Action Scenario, the portion of the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 4 assumes that a mixed use residential and commercial building would be constructed on the portion of Lot 120 that is within the Affected Area (approximately 6,000 sf) and would be built out to an FAR of 5.6 with a height of 115 feet, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumes that the existing 2 story, 8,000 sf office building on Lot 120 that has direct frontage on Coney Island Avenue would be razed and replaced with a 36,960 gsf (33,600 zsf) building. There would be a total of 30,360 gsf (27,600 zsf) of residential floor area and a total of 6,600 gsf (6,000 zsf) of commercial floor area. The building would contain 33 dwelling units (assuming 900 sf per dwelling unit), 25-30% (8-10) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (7 units) of residential floor area is assumed to be affordable at or below 60% AMI. The building would house approximately 88 residents based on per household averages of the subject community district. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Sites Where Development Would Not Be Induced by the Proposed Actions (Block 7159 p/o Lot 111)

While p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Action. For Lot 111, the portion of the lot in

the Affected Area makes up less than 30 percent of the total lot area, and the Proposed Action would have negligible effect on development potential. Therefore, it is assumed that this portion of this lot would remain unchanged in the With-Action Scenario.

The Projected Sites and Other Affected Sites are shown above in **Figure 1.1-1**, while the RWCDS Analysis Framework is shown above in **Table 1.8-1**.

2 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 *2021 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
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Neighborhood Character
- Construction

2.1 Land Use, Zoning, and Public Policy

The *2021 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, and zoning and other public policies in relation to the Affected Area and the Surrounding Area as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Actions would permit the development of multiple family residential uses with a larger bulk and would also reduce the parking requirements for commercial uses compared to 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 New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

2.1.1 Land Use

The *CEQR Technical Manual* suggests that a land use, zoning, and public policy Study Area should generally extend 400 feet from the Affected Area. Existing land uses within approximately 400 feet of the Affected Area are presented in **Figure 2.1-1.**

Existing Conditions

Land Use Study Area

In order to assess the potential for project related impacts, the Land Use Study Area (or Surrounding Area) has been defined as the area located within a 400-radius of the Affected Area.

The Surrounding Area primarily consists of one- and two-family residences, public facilities and institutions, multi-family residences, mixed commercial and residential buildings, and commercial buildings. A majority of the subject Block 7159, fronting Coney Island Avenue, as well as blocks 7136 and 7343 to the north are improved with one- to three-story residential and commercial buildings. The buildings along Coney Island Avenue range from two to six stories in height and tend to be mixed residential and commercial or commercial buildings. With the exception of Block 7159, Lot 146, which is improved with a 100-unit multi-family elevator building, nearly all the lots in the western portion of the Study Area, west of the Affected Area, are occupied with and one two family residential uses with a few multifamily walk-up residential uses. East of the Affected Area, Block 7371 primarily consists of one-and two-family residential

buildings, PARKING, and institutional uses, including the Homecrest branch of the Brooklyn Public Library, Yeshivat Darchei Eres school, which serves approximately 1050 elementary, middle, and high school-aged students, 61st Precinct police station of the NYPD.

The mix of land use observed in the Study Area generally reflects the distribution of land use observed throughout Brooklyn CD 15, which is summarized in **Table 2.1-1**. The most prominent land use within Brooklyn CD 15 is one and two-family residential, followed by multi-family residential and institutions.

Table 2.1-1: Land Use Distribution – Brooklyn Community District 15[2]

LAND USE	PERCENT Total
Residential Uses	
1-2 Family	51.53
Multi-Family (Walk-Up)	8.31
Multi-Family (Elevator)	10.17
Mixed Residential/Commercial	4.66
Subtotal of Residential Uses	*74.67*
Non-Residential Uses	
Commercial/Office	5.54
Industrial	0.49
Transportation/Utility	3.05
Institutions	8.83
Open Space/Recreation	3.81
Parking Facilities	0.65
Vacant Land	2.51
Miscellaneous	0.44
Subtotal of Non-Residential Uses	*25.32*
TOTAL	**99.99**

*Note: Percentages may not add up to 100.0 due to rounding

[2] Community District Profiles, New York City Department of City Planning.

Figure 2.1-1: Land Use Map



Affected Area

The Affected Area includes Brooklyn Block 7159, Lots p/o 111, 115, p/o 120, 123, 128, and 130 in the Sheepshead Bay neighborhood of Brooklyn Community District 15. The existing conditions of the Affected Area are described below.

- Projected Development Site 1 -(Applicant Owned) Block 7159, Lot 123
- Projected Development Site 2 – Block 7159, Lots 128, and 130
- Projected Development Site 3- Block 7159, Lot 115
- Projected Development Site 4- Block 7159, p/o Lot 120

Projected Development Site 1 (Block 7159, Lot 123, Applicant Controlled Lot)

The Projected Development Site is located at 2510 Coney Island Avenue and consists of one tax lot (Block 7159, Lot 123) of approximately 11,020 sq. ft. The Development Site is an irregularly shaped lot that has approximately 90-ft. of frontage along Coney Island Avenue and is 120-ft. deep. The Development Site is improved with two, one-story, 0.12 FAR, net, commercial buildings currently occupied by an automotive sales and repair business.

Projected Development Site 2 (Block 7159, Lot 128 and 130)

Block 7159, Lot 128: It is an approximately 3,380 square foot improved lot used for a one-story office building inhabited by a general construction contractor, Beys Specialty Inc. It is an interior lot with 30 feet of frontage on Coney Island Avenue.

Block 7159, Lot 130: It is an approximately 2,400 square foot improved lot with a one-story retail building used by the Kasai Hibachi dining establishment. It is an interior lot with 20 feet of frontage on Coney Island Avenue.

Projected Development Site 3 (Block 7159, Lot 115)

It is an approximately 11,765 square foot improved lot used for a two-story office building inhabited by Chase Bank. It is a corner lot with 100 feet of frontage on Coney Island Avenue and 110 feet of frontage on Avenue V.

Projected Development Site 4 (Block 7159, p/o Lot 120)

It is an approximately 21,380 square foot improved lot with four two-story office buildings. The Certificates of Occupancy for the site include uses for offices, storage of building materials, repair and maintenance shop, and contactors establishment. It is used for a laser hair removal business, offices, a radio station, and a wholesale auto parts supplier. It is an interior lot with 60 feet of frontage on Coney Island Avenue.

Lots not part of any projected development (Block 7159, p/o Lot 111)

It is an approximately 4,133 square foot unimproved lot used for vehicular parking. It is an interior lot with approximately 55.75 feet of frontage on Avenue V. A small corner of Lot 111 is within the Affected Area.

Future No-Action Conditions

Land Use Study Area

There is one (1) active construction permit within 400 Feet of the Affected Area, accounting for approximately 1,161 gsf of development and 1 dwelling unit, as shown below in **Table 2.1-2**. Otherwise, there is no active major construction activity in the Surrounding Area[3].

Table 2.1-2: Active Construction within the Land Use Study Area

	Site 1
Address	818 Avenue V
Block/Lot	7159/108
DOB Job Number	B00685075-S1
Permit Issuance Date	7/6/2022
Job Type	Alteration CO
Permit Type	Construction Fence
Land Use	Residential
Additional Floor Area	1161
Additional DU	1
# of Stories	3

Affected Area

Currently, Block 7159, Lots 128 and 130 contain legal non-conforming commercial uses, which can remain in the No-Action Scenario.

All other sites, including the Applicant Controlled site on Block 7159, Lot 123, are also not projected to be developed in the Future Without the Proposed Actions (No-Action Scenario).

Future With-Action Conditions

Land Use Study Area

Land use and development patterns in the Study Area are anticipated to remain unchanged in the future with the Proposed Actions. Any new development in the Surrounding Area would be consistent with the underlying zoning regulations. The area has seen little significant development activity under existing zoning, and this trend is expected to continue.

[3] NYC DOB Active Major Construction

Affected Area

Given the Proposed Rezoning would add a significant amount of available FAR on the lots to be included in the Proposed Rezoning; the following assumptions have been made about Projected Development Sites.

- Projected Development Site 1 – (Applicant Owned) Block 7159, Lot 123
- Projected Development Site 2 – Block 7159, Lots 128 and 130
- Projected Development Site 3 – Block 7159, Lot 115
- Projected Development Site 4 – Block 7159, p/o Lot 120

Additionally, while p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Actions. For Lot 111, the portion of the lot in the Affected Area makes up less than 30 percent of the total lot area, and the Proposed Actions would have negligible effect on development potential. Therefore, it is assumed that this portion of this lot would remain unchanged in the With-Action Scenario.

Projected Development Site 1 (Block 7159, Lot 123; Applicant-Owned Lots)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 1 assumes a full build out on the applicant-owned site. It is an 11,020-sf lot currently occupied as an auto sales lot. It is assumed that the lot would be developed with a mixed residential and commercial building with 12,122 gsf (11,020 zsf) of commercial (retail) floor area on the ground floor and cellar and 55,761 gsf (50,692 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumed that Projected Development Site 1 would have 61 dwelling units assuming 900 sf per dwelling unit. Of those 61 dwelling units, 25-30% (15-18) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (12 units) of residential floor area is assumed to be affordable at or below 60% AMI. It's assumed that 24 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

This differs from the Applicant's Projected Development as it calls for more residential and commercial floor area than what the Applicant is proposing.

Projected Development Site 2 (Block 7159, Lots 128 and 130; Non-Applicant Lots)

Under the With-Action Scenario, the lots would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

The with-action scenario for Projected Development Site 2 assumes that these two lots would be merged as one zoning lot and would be improved with a full build out mixed-use building. Under R7D/C2-4 zoning guidelines, it is assumed that Projected Site 2, a combined 5,780 sf lot, would be developed with a mixed residential and commercial building with 6,358 gsf (5,780 zsf) of commercial (retail) floor area on the ground floor and cellar and 29,246 gsf (26,588 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. The building would have 32 dwelling units assuming 900 sf per dwelling unit, 25-30% (8-10) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (6 units) of residential floor area is assumed to be affordable at or below 60% AMI. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 3 (Block 7159, Lot 115; Non-Applicant Lot)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 3 assumes a full build out on Lot 115, an 11,765-sf lot currently improved with a 7,200-sf office building. In the With-Action Scenario, under R7D/C2-4 zoning guidelines, it is assumed that the site would be improved with a mixed-use building with 12,941 gsf (11,765 zsf) of commercial (retail) floor area on the ground floor and cellar and 59,530 gsf (54,119 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum height and bulk in an R7D/C2-4 zoning district. The building would have 66 dwelling units assuming 900 sf per dwelling unit, 25-30% (17-20) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (13 units) of residential floor area is assumed to be affordable at or below 60% AMI. 26 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 4 (Block 7159, Lot 120; Non-Applicant Lot)

Under the With-Action Scenario, the portion of the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 4 assumes that a mixed use residential and commercial building would be constructed on the portion of Lot 120 that is within the Affected Area (approximately 6,000 sf) and would be built out to an FAR of 5.6 with a height of 115 feet, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumes that the existing 2 story, 8,000 sf office building on Lot 120 that has direct frontage on Coney Island Avenue would be razed and replaced with a 36,960 gsf (33,600 zsf) building. There would be a total of 30,360 gsf (27,600 zsf) of residential floor area and a total of 6,600 gsf (6,000 zsf) of commercial floor area. The building would contain 33 dwelling units (assuming 900 sf per dwelling unit), 25-30% (8-10) of which

would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (7 units) of residential floor area is assumed to be affordable at or below 60% AMI. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Conclusion

Based on the analysis above, the Proposed Actions would allow for the productive redevelopment of the Affected Area with new mixed residential and commercial buildings on four Projected Development Sites. The proposed land uses are compatible with the Surrounding Area, which is predominantly developed with residential, institutional, and commercial uses. Therefore, the Proposed Actions would not generate land uses that would be incompatible with surrounding uses. No potentially significant adverse impacts related to land use are expected to occur as a result of the Proposed Actions; therefore, further analysis is not warranted.

2.1.2 Zoning

The *CEQR Technical Manual* suggests that a zoning Study Area should extend 400 feet from the Affected Area. The proposed zoning map amendment would affect the following lots: Block 7159, Lots 115, 120, 123, 128, 130, and p/o 111. The zoning map amendment would rezone the Affected Area from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district. The zoning text amendment would affect ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 15, Brooklyn, to establish a Mandatory Inclusionary Housing ("MIH") Area with MIH Option 1 and Option 2 within the Affected Area. Existing zoning districts within approximately 400 feet of the Project Site are presented in **Figure 2.1-2.**

Existing Conditions

Zoning Study Area

The zoning districts within 400 feet of the Affected Area are R4, R5, and C8-1 as illustrated in **Table 2.1-3** and discussed in detail below.

Table 2.1-3: Zoning Districts in the Surrounding Area[4]

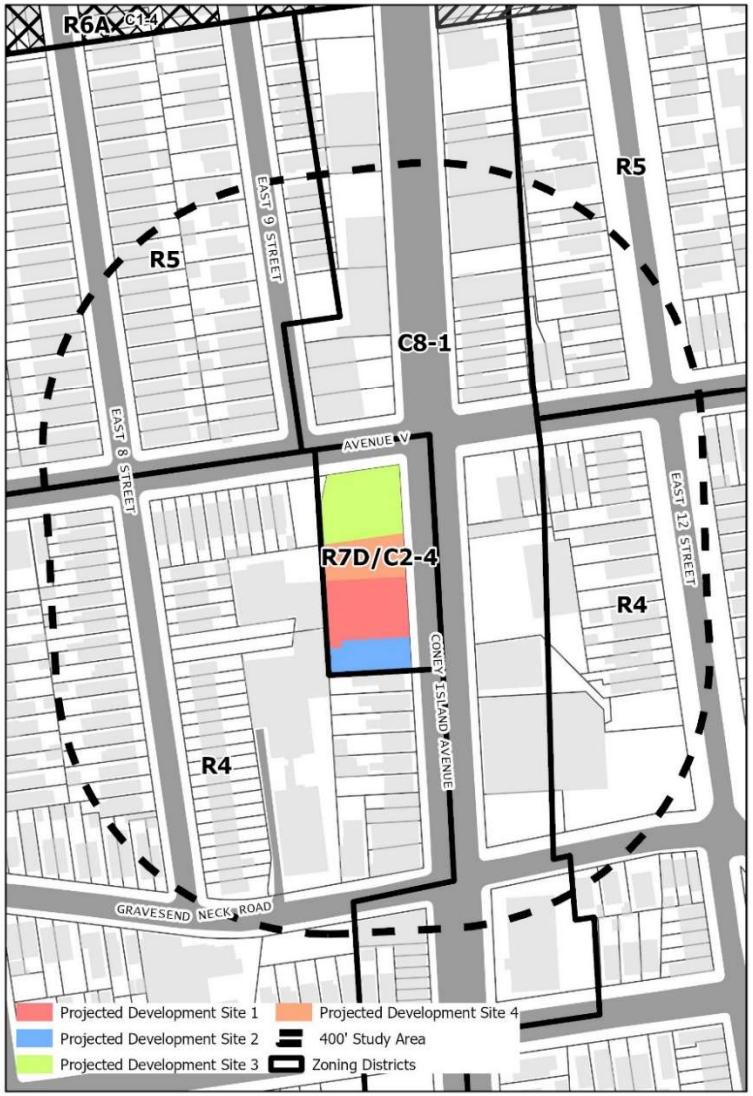
Zoning District	Type and Use Group	Floor Area Ratio (FAR)	Parking
R4	Residential UG 1-4	0.75 far FOR Residential (0.9 FAR with Attic Allowance) 2.0 FAR for Community Facility	1 per Dwelling Unit
R5	Residential UG 1-4	1.25 FAR for Residential 2.0 FAR for Community Facility	85% of Dwelling Unites
C8-1	Commercial UG 4-14 & 16	1.0 FAR for Commercial	Parking requirements vary by usage

[4] Zoning Handbook, New York City Department of City Planning, 2019

Figure 2.1-2: Zoning Change Map



Existing R4 and C8-1 Zoning District



Proposed R7D/C2-4 Zoning District

R4

Residential uses (UGs 1-2) as well as community facility uses (UG 3-4) are allowed as-of-right in R4 zoning districts. The built floor area ratio (FAR) for R4 districts ranges from 0.75 FAR for residential l uses to 1.0 for UG 3-4 community facility uses. Buildings in R4 zoning districts have a maximum building height of 35 feet, while the maximum perimeter wall height is 25 feet. There is also an R4 zoning district in the eastern portion of the Study Area across Coney Island Avenue, just to the east of the C8-1 district.

R5

Residential uses (UGs 1 and 2) as well as community facility uses (UGs 3 and 4) are allowed as-of-right in R5 zoning districts. The maximum FAR in R5 zoning districts for residential uses is 1.25 and the maximum FAR for community facility uses is 2.0. Parking is required for 85 percent of dwelling units in R5 districts and there is a maximum building height of 40 feet.

C8-1

Retail and Commercial uses (UGs 4-14) as well as community facility uses (UG 4 only) and General Service uses (UG 16) are allowed as-of-right in C8-1 zoning districts. The built floor area ratio (FAR) for C8-1 districts ranges from 1.0 FAR for commercial uses to 2.4 for UG 4 community facility uses. Buildings in C8-1 zoning districts cannot penetrate the sky exposure plane, which begins 30’ above the street line.

Ocean Parkway Special District

The Special Ocean Parkway District (OP), encompassing a band of blocks east and west of the parkway between Prospect Park and Brighton Beach, enhances the qualities of this broad landscaped road designated a scenic landmark. All new developments fronting on Ocean Parkway are required to have a 30-foot-deep landscaped front yard unobstructed by porches, canopies, or stairs. Only driveways or walkways may be paved. Accessory off-street parking must be completely enclosed, and any new community facility development or enlargement is limited to the residential bulk regulations of the underlying zoning district, except by City Planning Commission certification. The district also preserves the character of the large, detached, and semi-detached, one- and two-family homes in the areas east and west of the Parkway.

Affected Area

The Projected Development Site is in a R4 zoning district that is mapped generally along Coney Island Avenue to the east, Shore Parkway to the south, Avenue V to the north, and McDonald Avenue to the west. Parts of the Study Area, including a portion to the north of the Projected Development Site and a portion of the Study Area across Coney Island Avenue to the east, are located in a C8-1 zoning district that is mapped generally along Avenue X to the south, 100 feet east of Coney Island Avenue to the east, Avenue U to the north, and 100 feet west of Coney Island Avenue to the west. The very northern portion of the Study Area, north of Avenue V, is located

within an R5 zoning district that is generally mapped along Avenue V to the south, East 19th Street to the east, Avenue S to the north and East 5th Street to the west. The Affected Area is located within the Ocean Parkway Special District.

Future No-Action Conditions

Zoning Study Area and Affected Area

In the future without the Proposed Action, zoning changes are not expected to occur on the Projected Development Site or in the surrounding Study Area. No authorizations, certifications or other approvals would be sought from the CPC relating to the Projected Development Site. Because the 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.

Future With-Action Conditions

Zoning Study Area

Changes to zoning would only occur in the Affected Area in the future with the Proposed Actions.

Affected Area – R7D/C2-4

The Applicant is seeking a zoning map amendment and a zoning text amendment of Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the Affected Area). The zoning map amendment would rezone the Affected Area from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district. The zoning text amendment would affect ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 15, Brooklyn, to establish a Mandatory Inclusionary Housing ("MIH") Area over the Affected Area.

The Proposed Actions would facilitate the Applicant's Projected Development. In order to present a conservative assessment, the With-Action Scenario assumes that Projected Development Site 1 (Block 7159, Lot 123) would be constructed to the maximum allowable floor area in an R7D/C2-4 zoning district, which is 5.6 FAR.

Furthermore, in the interest of a conservative analysis, it is assumed that several remaining parcels of land in the Affected Area (Block 7159, Lots 128, and 130 as Projected Site 2, Lot 115 as Projected Site 3 and p/o Lot 120 as Projected Site 4) would also be developed with new mixed us retail and residential buildings. Consistent with the analysis for Block 7159, Lot 123, it is assumed these lots would be constructed to the maximum allowable floor area of 5.6 allowed under

ZQA/MIH regulations for an R7D/C2-4 zoning district, assuming the 20 percent affordable housing option.

The Proposed Actions would not have a significant impact on the extent of conformity within the current Surrounding Area and it would not adversely affect the viability of conforming uses on nearby properties. Ground floor commercial uses are commonplace throughout the Study Area. Additionally, there are adjacent existing residential districts that permit multifamily apartment buildings and existing mid-rise residential buildings adjacent to the Affected Area.

Table 2.1-4: Summary of With-Action Zoning Regulations[5]

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
C8-1	Commercial UGs 4 – 14 & 16	1.0 FAR for Commercial	Parking requirements vary by use
R4	Residential UGs 1 - 4	0.75 FAR for Residential (0.9 FAR with attic allowance) 2.0 FAR for Community Facility	1 per DU
R5	Residential UGs 1 - 4	1.25 FAR for Residential 2.0 FAR for Community Facility	85% of DU's
R7D	Residential UGs 1 - 4	5.6 FAR – Residential 4.2 FAR – Community Facility	1 per every 2 market rate dwelling units
C2-4	Commercial Overlay UGs 1 - 9 & 14	2.0 FAR – Commercial in R7A	Parking requirements vary

Conclusion

The Proposed Actions would induce development consistent with nearby ground floor retail and adjacent residential multifamily apartment buildings, while maintaining the residential character of nearby side streets. The proposed zoning district would be mapped at the confluence of Avenue V and Coney Island Avenue. Coney Island Avenue is a wide street with mixed uses and is well served by public transit, which is appropriate for a higher density of mixed residential, and commercial uses. The Proposed Actions would not adversely impact established zoning patterns or jeopardize the intent of the Zoning Resolution. Therefore, no significant adverse impacts are anticipated to zoning, and further analysis is not required.

2.1.3 Public Policy

The Project 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 Proposed Action is also not a large

[5] Zoning Handbook, New York City Department of City Planning, 2019

publicly sponsored project, and as such, consistency with the City's PlaNYC 2050 for sustainability is not warranted.

Waterfront Revitalization Program

The Project Site is located within the boundaries of the New York City Coastal Zone and is subject to CEQR discretionary review procedures; therefore, the Proposed Actions must be reviewed and assessed for consistency with the policies set forth in the New York City Waterfront Revitalization Program (WRP). The WRP establishes the City's policies for waterfront planning, preservation, and development projects to ensure consistency over the long term. The goal of the program is to maximize the benefits derived from economic development, environmental conservation, and public use of the waterfront while minimizing any potential conflicts among these objectives.

The Proposed Actions would place new mixed-use uses in a designated "Shaded X Zone" within the 0.2% annual chance floodplain (500-year flood zone) as per the 2015 FEMA Preliminary Flood Insurance Rate Maps (PFIRM).

Shaded X Zone delineates areas that have a 0.2% probability of flooding every year (also known as the "500-year floodplain"), outside the regulatory 1% annual chance flood (also known as the "100-year floodplain") but within the limits of the 0.2% annual chance flood level. Shaded X Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile. Properties in Shaded X Zone are considered to be at moderate risk of flooding under the National Flood Insurance Program (NFIP). There are no current NYC Building Code or FEMA flood insurance purchase requirements for buildings in the Shaded X Zone.

The WRP Consistency Assessment Form (CAF) was completed (see **Appendix A**) to determine the consistency of the Proposed Action with the Waterfront Revitalization Program's (WRP's) ten policies. Based on the information provided in the CAF, a detailed methodology and policy response is provided below, which incorporates the findings of the Proposed Actions' consistency with the applicable WRP Policies (Policy 1 and 6) and Sub-Policies (Policy 1.1, 1.3, 1.5, 6.1, 6.2).

Based on the information provided in the WRP Form, the Proposed Project requires assessment relative to the following policies:

Policy 1: Support and Facilitate Commercial and Residential Development in Areas Well-Suited to Such Development

Sub-Policy 1.1: Encourage commercial and residential development in appropriate coastal zone areas.

Criteria that should be considered to determine areas appropriate for reuse through public and private actions include: compatibility with the continued functioning of the designated Special Natural Waterfront Areas, the Arthur Kill Ecologically Sensitive Maritime and Industrial Area, or

Significant Maritime and Industrial Areas, where applicable; the absence of unique or significant natural features or, if present, the potential for compatible development; the presence of substantial vacant or underused land; proximity to existing residential or commercial uses; the potential for strengthening upland residential or commercial areas and for opening up the waterfront to the public; transportation access; the maritime and industrial jobs potentially displaced or created; and the new opportunities created by redevelopment. Public actions— such as property disposition, urban renewal plans, and infrastructure provision—should facilitate redevelopment of underused property to promote housing and economic development and enhance the city's tax base, subject to consideration of Policy 2, where applicable.

The Proposed Actions are consistent with this policy. It would allow redevelopment of underutilized land long a major commercial corridor, Coney Island Avenue, which is in close proximity to established and newly emerging commercial and retail areas that is well served by public transit, local commercial services, and community facilities.

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

Encourage development at a density compatible with the capacity of surrounding roadways, mass transit, and essential community services such as public schools. Lack of adequate local infrastructure need not preclude development, but it may suggest the need to upgrade or expand inadequate or deteriorated local infrastructure.

The Proposed Actions are consistent with this policy. The project would redevelop underutilized land for retail and residential uses with higher density in close proximity to high-capacity roadways, mass transit infrastructure, and would integrate the site into the surrounding residential and commercial area.

Sub-Policy 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.

Residential, commercial, and other non-industrial projects that comply with Article 6 Chapter 2 of the New York City Zoning Resolution satisfy the consistency requirements for Policy 1.2. If the project is not subject to the Zoning Resolution, the standards of Article 6 Chapter 2 of the Zoning Resolution should be used as guidelines for development and the inclusion of open space, visual access, upland connections, and water-related uses.

The Proposed Actions are consistent with this policy. Though there is no NYC Building Code requirement for new developments located in the Shaded X Zones, as discussed below under Policy 6.2, the Projected 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.

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.

Sub-Policy 6.1 Minimize 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 indicated below in **Figure 2.1-3**, the Project Site is located within the 2015 PFIRMS 0.2% annual chance floodplain (500-year flood zone). However, as shown below in **Figure 2.1-4** to **Figure 2.1-7**, which reference the New York City Panel on Climate Change (NPCC) future floodplain projections through the 2100s, the Projected Development Site is anticipated to fall within the future 1% annual chance floodplain by the 2080s.

Under Policy 6, the primary goal for projects within flood hazard areas is to reduce the risks posed by current and future flood events, mainly major storms that are likely to increase due to climate change and sea level rise.

As the Project Site falls in part within the 0.2% annual chance floodplain instead of the 1% annual chance floodplain, the proposed building would not be subject to compliance with NYC Building Code Appendix G. Appendix G only requires owners of severely damaged or destroyed buildings and new built buildings in the 1% annual chance floodplain to comply with the flood resistant construction standards of the Building Code when they rebuild or construct. However, as discussed above, since the proposed building is not located within the 1% annual chance floodplain, the building code requirements are not warranted for the proposed building. Nevertheless, as discussed under Policy 6.2 below, based on the future flood projections. The design of the Proposed Project would take the future climate change into consideration. Therefore, the Proposed Project would meet the requirements of building-scale resiliency measures to reduce the risks of damage from current and future coastal hazards and would be consistent with Policy 6.1.

Sub-Policy 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.

The following assessment was prepared in accordance with *The New York City Waterfront Revitalization Program: Climate Change Adaptation Guidance Document for Policy 6.2*[6]. The three basic steps to assessing an action's consistency with Policy 6.2 of the Waterfront Revitalization Program include identifying vulnerabilities and consequences, identifying adaptive strategies, and assessing policy consistency.

[6] https://www1.nyc.gov/assets/planning/download/pdf/planning-level/waterfront/wrp/revisions-2017/policy-62-guidance-document-nov2018.pdf

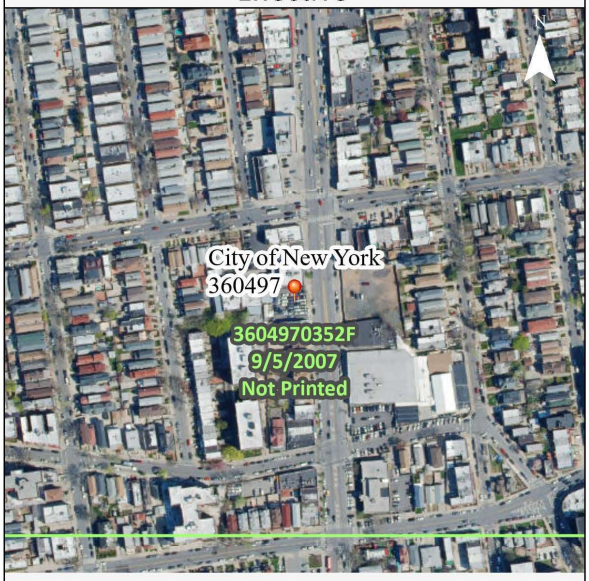
Figure 2.1-3: 2007 FIRM vs. 2015 PFIRM

Comparison of Flood Hazard

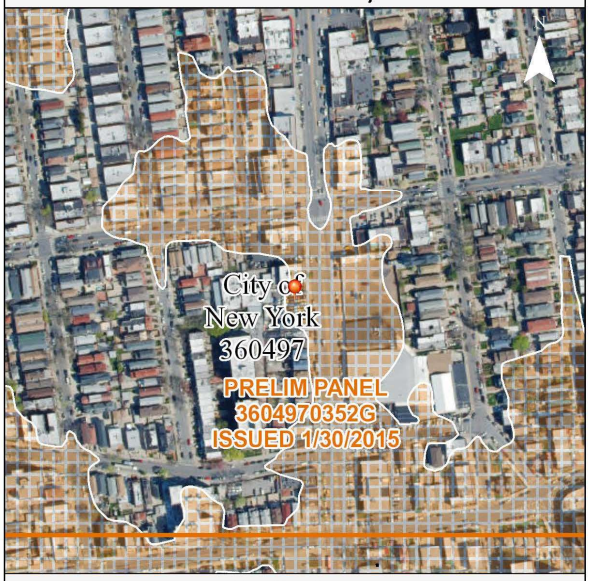
Effective & Preliminary Flood Hazards

FEMA

Effective



Preliminary



Effective	
POI Longitude/Latitude	-73.9613, 40.5955
Effective FIRM Panel	3604970352F
Effective Date	9/5/2007
Flood Zone	X
Static BFE*	Not Available
Flood Depth	Not Available
Vertical Datum	Not Available

Preliminary	
POI Longitude/Latitude	-73.9613, 40.5955
Preliminary FIRM Panel	3604970352G
Preliminary Issue Date	1/30/2015
Flood Zone	X
Estimated Static BFE*	Not Available
Estimated Flood Depth	Not Available
Vertical Datum	Not Available

* A **Base Flood Elevation** is the expected elevation of flood water during the 1% annual chance storm event. Structures below the estimated water surface elevation may experience flooding during a base flood event.

Hazard Level	Flood Hazard Zone
High Flood Hazard	**AE, A, AH, AO, VE and V Zones.** Properties in these flood zones have a 1% chance of flooding each year. This represents a 26% chance of flooding over the life of a 30-year mortgage.
Moderate Flood Hazard	**Shaded Zone X.** Properties in the moderate flood risk areas also have a chance of flooding from storm events that have a less than 1% chance of occuring each year. Moderate flood risk indicates an area that may be provided flood risk reduction due to a flood control system or an area that is prone to flooding during a 0.2% annual chance storm event. These areas may have been indicated as areas of shallow flooding by your community.
	Unshaded Zone X. Properties on higher ground and away from local flooding sources have a reduced flood risk when compared to the Moderate and High Flood Risk categories. Structures in these areas may be affected by larger storm events, in excess of the 0.2% annual chance storm event.
Low Flood Hazard	**Insurance Note:** High Risk Areas are called 'Special Flood Hazard Areas' and flood insurance is mandatory for federally backed mortgage holders. Properties in Moderate and Low Flood Risk areas may purchase flood insurance at a lower-cost rate, known as Preferred Risk Policies. See your local insurance agent or visit https://www.fema.gov/national-flood-insurance-program for more information.

Disclaimer: This report is for informational purposes only and is not authorized for official use. The positional accuracy may be compromised in some areas. Please contact your local floodplain administrator for more information or go to msc.fema.gov to view an official copy of the Flood Insurance Rate Maps.

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Figure 2.1-4: 2020s High Tide and 1% Flood Projections

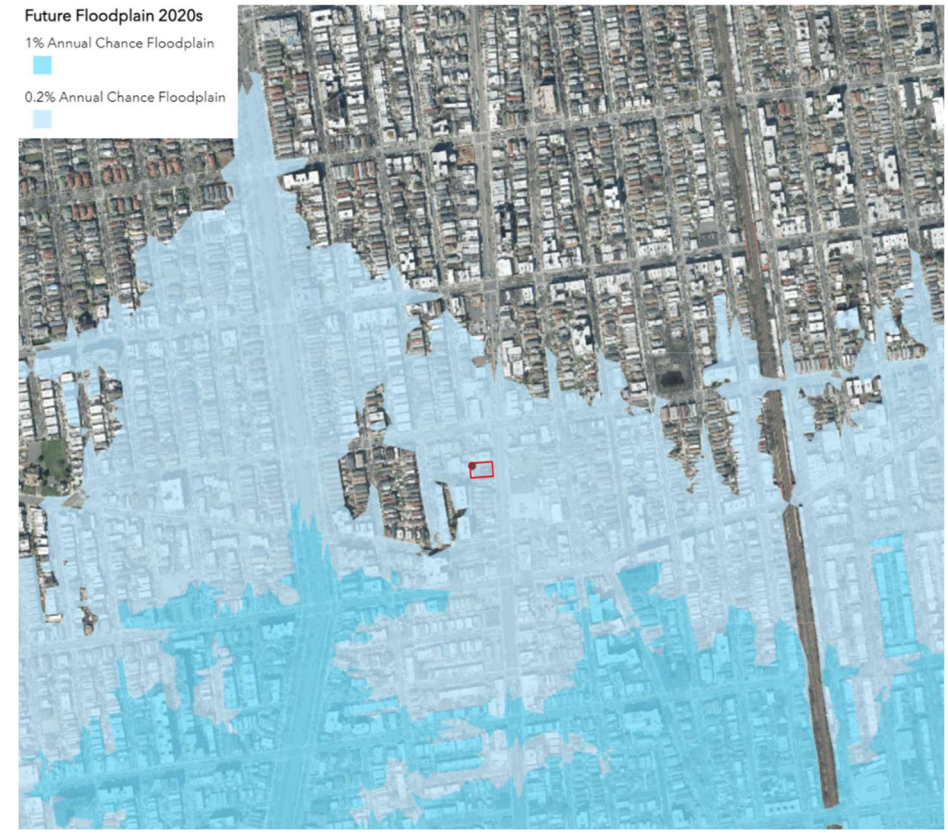




Figure 2.1-5: 2050s High Tide and 1% Flood Projections

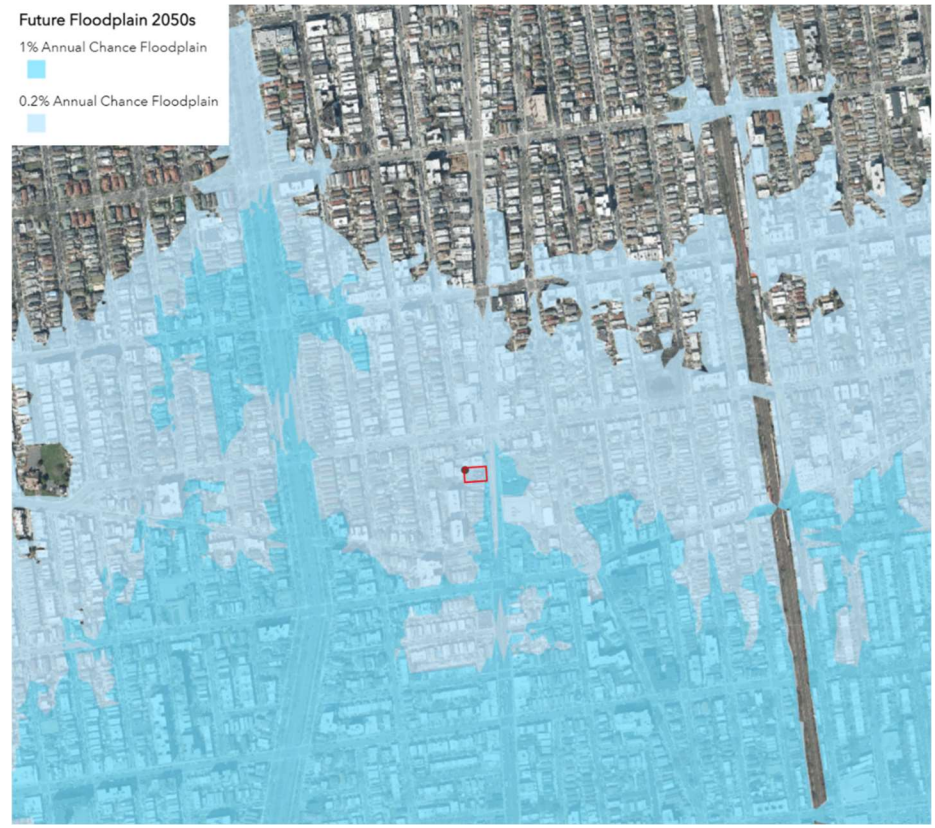




Figure 2.1-6: 2080s High Tide and 1% Flood Projections

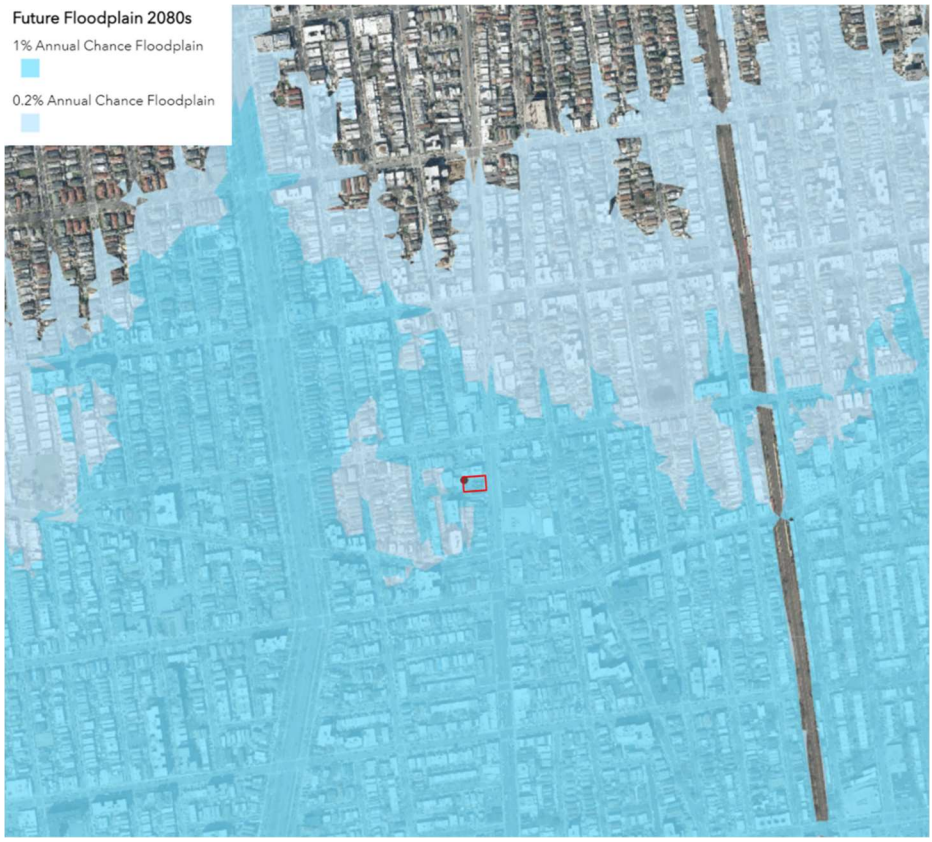
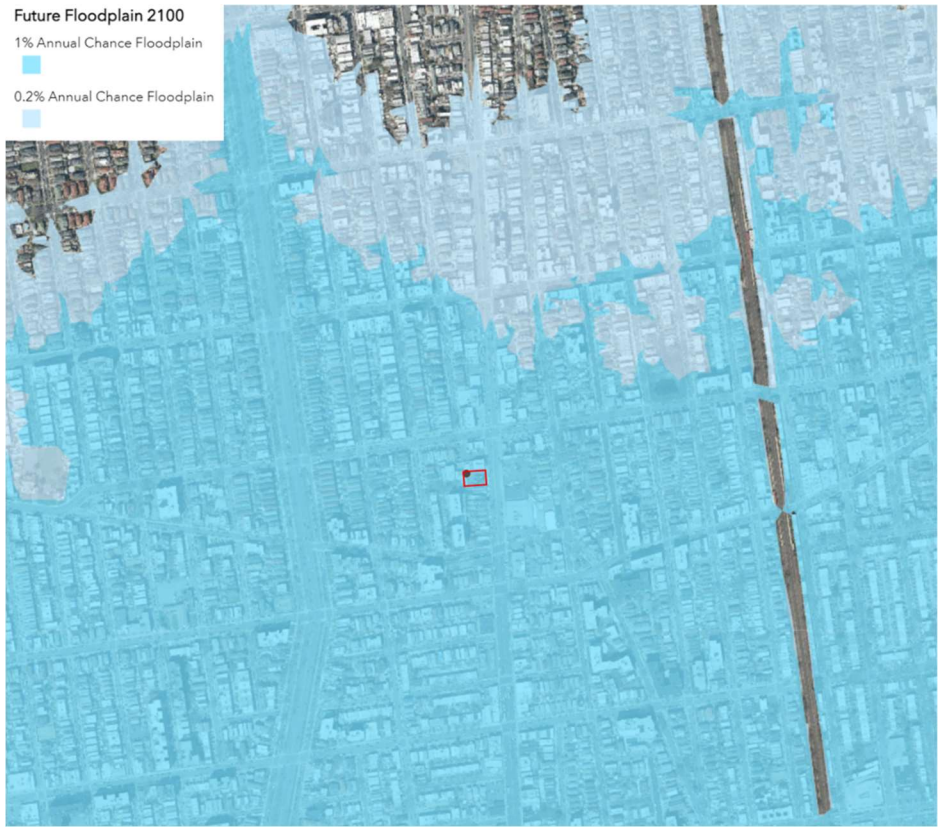




Figure 2.1-7: 2100s High Tide and 1% Flood Projections





Sub-Policy 6.2 Detailed Methodology

1. Identify Vulnerabilities and Consequences

a. Assess the Affected Area's Exposure to current and future flood risk

The Project Site is located in part within the boundaries of 0.2% annual chance floodplain pursuant to the 2015 PFIRMs. The information in the following subsections is based on the results of the completed flood evaluation worksheet, which is provided in **Appendix A**, and the flood hazard projections shown above in **Figure 2.1-4** to **Figure 2.1-7,** as well as the New York City Panel on Climate Change (NPCC) future floodplain projections through the 2100s.

The Project Site's ground floor level (base plane) is located approximately 13.5 feet in elevation (NAVD88 Datum). The Subject Building's vulnerable or critical features, which are most likely to be impacted by future flood events, are located in the cellar level. The cellar level is located approximately 15 feet below the ground elevation or negative -1.5 feet (NAVD88 Datum).

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 – Kingsborough Station (Station ID 8517756) - the mean of the higher high-water height (MHHW) is 2.46 feet. Based on the 2015 PFIRMs, the 1% flood height for the nearest AE zone is 10 feet.

Based on the results of the calculations completed in the flood evaluation worksheet using site-specific data, **Figure 2.1-8** shows the results of the MHHW and Sea Level Rise (SLR) projections and **Figure 2.1-9** shows the results of the 1% Flood Elevation and SLR projections.

Figure 2.1-8: Mean Higher High Water + SLR Projections

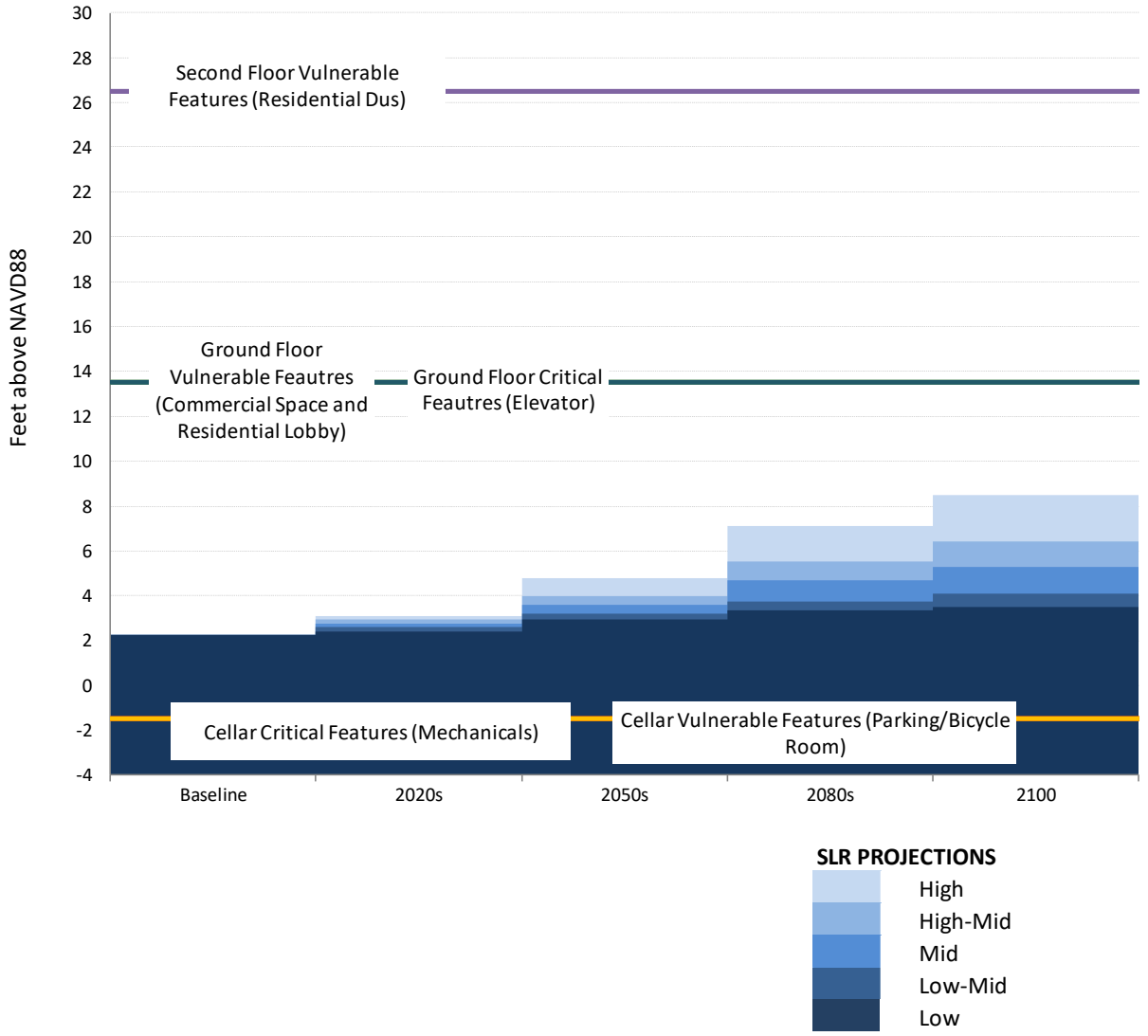
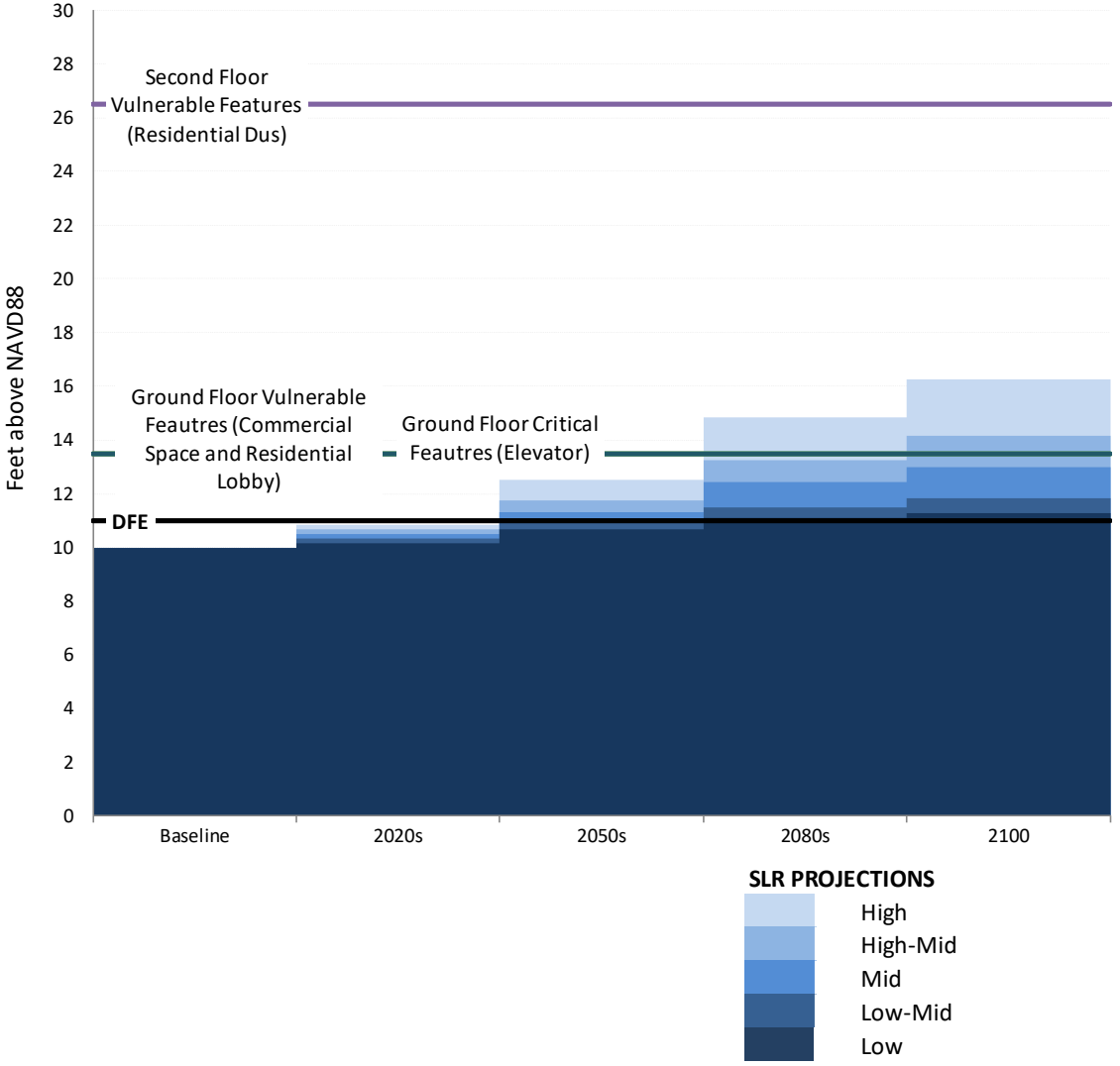


Figure 2.1-9: 1% Flood Elevation + SLR Projections



b. Identify any Project Features that may be located below the elevation of the 1% floodplain over the lifespan of the project under any SLR scenario:

As indicated in **Figure 2.1-9** above, the Proposed Development's ground-floor level has the potential to be impact by the 1% annual floodplain under high SLR projections by the 2080s, and under high-mid SLR projections by the 2100s. As shown in **Figure 2.1-6**, based on the New York City Panel on Climate Change (NPCC) future floodplain projections, the building would not be within the 1% annual chance floodplain until the 2080s. Thus, the cellar is not projected to be below the 1% annual chance flood elevation until the 2080s.

The cellar level would contain enclosed parking spaces, a mechanical room, a sprinkler room, an electrical room, bicycle parking, an elevator vestibule, and vehicle parking. The ground-floor level would contain commercial space, and a residential lobby, as well as an elevator.

c. Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of Mean Higher High Water over the lifespan of the project under any sea level rise scenario.

As indicated in **Figure 2.1-4** to **Figure 2.1-7** above, the Proposed Development would not be impacted by the MHHW under any SLR projections.

d. Identify if the project or action would facilitate the development of any vulnerable, critical, or potentially hazardous features, as defined under "Key Terms" below, within areas exposed to flooding from Mean Higher High Water or 1% Annual Chance Flood by the 2050s under the 90th percentile of sea level rise projections:

Vulnerable, Critical or Potentially Hazardous Features Pursuant to Policy 6.2 guidance[7]:

Vulnerable Features if damaged have the potential to incur significant damage if flooded.

These include any form of enclosed space within a building, including residential, commercial, industrial, or community facility land uses; enclosed parking structures; storage areas; enclosed recreational facilities; and bulkheads, revetments, piers, platforms, and other in-water infrastructure elements.

Critical Features if damaged, would have severe impacts on the project and its ability to function.

The project features that if damaged would have severe impacts on the project and its ability to function as designed. Examples include electrical utilities, building heating and cooling systems, telephone and data connection and distribution rooms, and other supporting and related building technology and utility spaces.

[7]http://www1.nyc.gov/assets/planning/download/pdf/applicants/wrp/revisions-2017/policy-62-guidance-document.pdf

Potentially Hazardous Features, if damaged or made insecure by flooding, could potentially adversely affect the health and safety of the public and the environment.

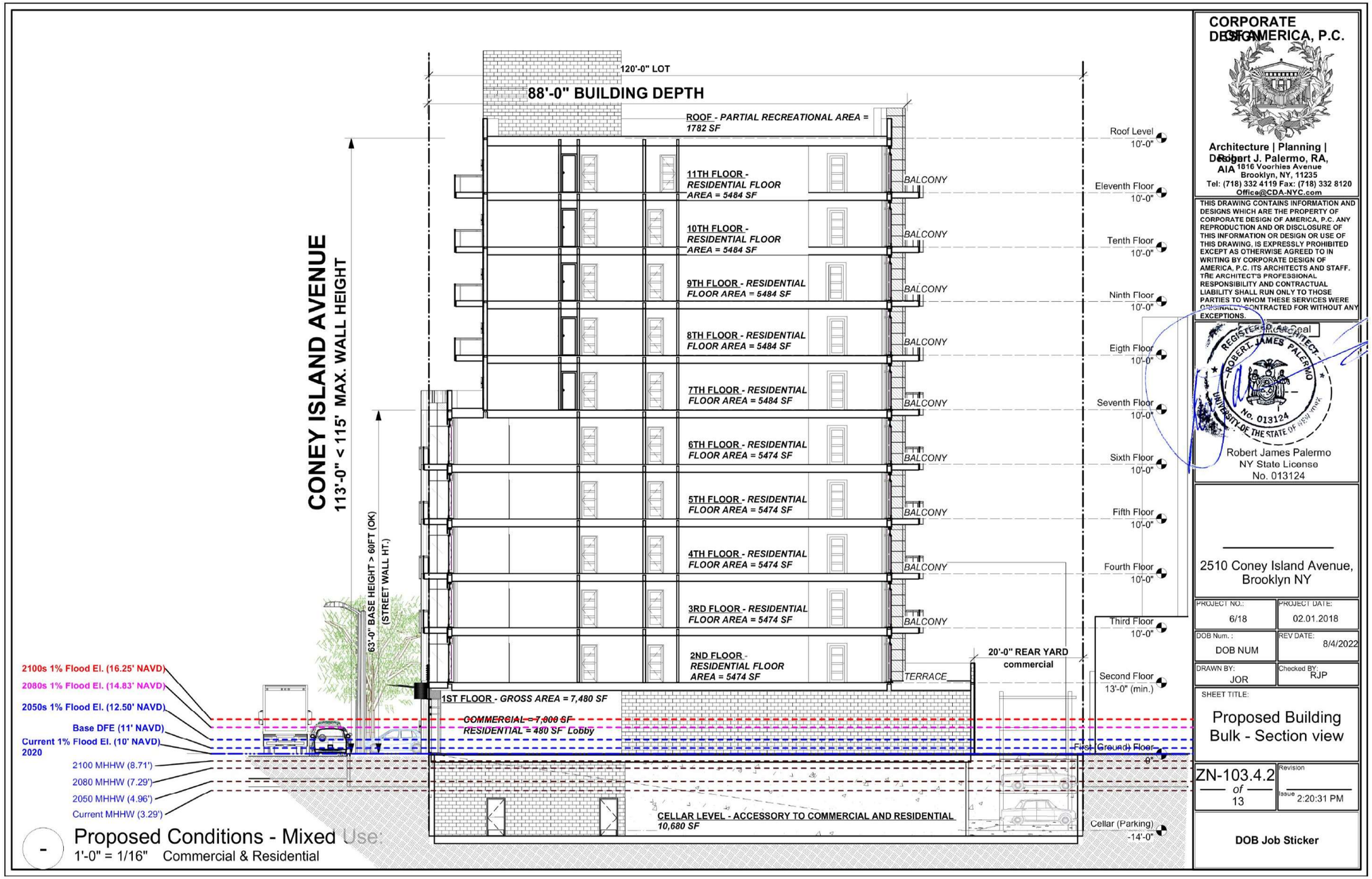
Examples include hazardous materials, including highly volatile, flammable, explosive, toxic, or water-reactive materials; and materials that have the potential to become waterborne in the event of a flood and would be dangerous to the health and safety of the public and the environment, such as the storage of construction materials, demolition debris, and aggregate materials.

As discussed above, the ground floor level would fall within the 1% annual floodplain under high SLR projections by the 2080s, and under high-mid SLR projections by the 2100s. The cellar level is anticipated to fall within the 1% flood elevation by the 2080s. **Figure 2.1-10** below shows the illustrative proposed building elevation under 90th Percentile SLR projections.

Proposed Development Building Features:

- *Cellar Level*: Based on the provided illustrative plans, the cellar level would contain enclosed parking spaces, a mechanical room, a sprinkler room, an electrical room, bicycle parking, an elevator vestibule, and vehicle parking. The vulnerable building features within the cellar level would include the walls flooring, and electrical. The mechanical closet, electrical room and sprinkler room would be considered potentially critical building features, which if damaged, would have severe impact on the project and its ability to function as designed. The cellar level would not introduce any hazardous features, materials, or substances that if made insecure, would result in a threat to public health or the environment.
- *Ground Floor Level*: Based on the provided illustrative plans, the ground floor level would contain commercial space, a residential lobby, and an elevator. The vulnerable building features within the ground floor level would include the walls flooring, and electrical. The elevator would be considered a potentially critical building feature, which if damaged, would have impact on the project and its ability to function as designed. The ground floor level would not introduce any hazardous features, materials, or substances that if made insecure, would result in a threat to public health or the environment.

Figure 2.1-10: Proposed Illustrative Building Elevation under 90th Percentile SLR Projections



Sub-Policy 6.2 Detailed Methodology (cont'd)

2. Identify Adaptive Strategies

The goal of Step 2 under WRP Policy 6.2 is to assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project's design and planning. Assess how applicable codes and regulations, planned flood damage reduction elements and adaptive measures, or likely future infrastructure investments (beyond the scope of the Proposed Project), would or would not reduce potential flood damage for any proposed vulnerable, critical, or potentially hazardous features.

The Project Site is not located within the 1% annual chance floodplain and is therefore not required to comply with Appendix G of the NYC Building Code for Flood Resistant Construction; However, because the Project Site is susceptible to the impacts of sea level rise and future flood events, it is recommended that 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

As indicated above in Policy 6.0, and under Policy 6.2, Step 1(d), based on the flood projections above, measures should be considered to increase cellar and ground-floor building-scale resilience to future flood conditions. The Proposed Development should floodproof any rooms that contain critical building features within the cellar and ground floor level, or where possible elevate these critical features to upper levels to protect the normal operation within the building in the event of future flooding events.

a. Flood Damage Reduction Elements/Controls - Building Scale Resilience Measures

Based on the future flood projections related to the 1% annual chance flood elevation, the Applicant would employ floodproofing measures for the cellar and ground floor levels as follows:

- The driveway to the cellar level, the first floor commercial level entrances and the residential lobby entrance would be protected by flood gates designed to accommodate the required opening.
- In the event of a future flood, additional flood gates would be employed directly at door entrances to cellar level utility rooms to prevent flood waters from entering or accumulating within the components during conditions of flooding.
- The cellar walls and flooring would be constructed of concrete or CMU, or other water-resistant building materials, without drywall or water-permeable facings;
- The elevator pits would include sump pumps and the elevator controls would be set to prevent the cab from lowering into floodwater.

While not required, these building-scale resiliency controls will protect the cellar and ground floor level and reduce the susceptibility of water damage to the interior spaces.

b. Flood Protection of Adjacent Sites:

The Projected Development would not increase stormwater runoff and would not introduce any hazardous features that would impact the health, safety, or welfare of surrounding residents in the event of a flood. Therefore, the Proposed Actions would not affect the flood protection of adjacent sites.

c. Assess Policy Consistency

Pursuant to Policy 6.2 Guidance, a project or action would advance the policy when:

- No new vulnerable, critical, or potentially hazardous features would be located within area flooded by current or future high tide, or current or future 0.2% annual chance flood, over the project's lifespan, or
- All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction elements or future adaptive measures within the timeframe that they would be needed.

A project or action would hinder the policy when:

- Vulnerable, critical, or potentially hazardous features would be introduced in areas that will be flooded by high tide during the project's lifespan and adaptive measures are not feasible.
- Industrial development would not be protected from 2050s high tides or the current 0.2% annual chance flood.
- Critical infrastructure would not be protected to the elevation of the 0.2% annual chance storm over its lifespan.
- Shoreline structures would not function as intended with increases in sea levels projected over their lifespan.

As discussed above, based on the future flood projections related to the 1% annual chance flood elevation, the Proposed Development would incorporate floodproofing measures to protect the cellar and ground floor level building features from future flood events. These building-scale resiliency measures and adaptive strategies would minimize the potential damage to site-specific vulnerable or critical features. In addition, construction and remediation of the site would be performed pursuant to applicable Local, State, Federal regulations and laws. Therefore, the Proposed Actions are consistent with Policy 6.2 of the Waterfront Revitalization Program and would not jeopardize the intent of the WRP.

2.2 Open Space

The *2021 CEQR Technical Manual* defines the need for an open space assessment if the Proposed Action would have a direct or indirect effect on open space resources. Direct effects would occur if the Proposed Action would result in the physical loss of a public open space; change of use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether temporary or permanent. Indirect effects would occur if the Proposed Action would result in an increase of population sufficiently large enough to noticeably diminish the ability of an area's open space to serve future population.

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.

Pursuant to Chapter 7, Section 100 of the *2021 CEQR Technical Manual*, Open Space Resources are defined as active and/or passive, and may include, but is not limited to, the following:

- Parks operated or managed by the City, State, or Federal governments and include neighborhood and regional parks, beaches, pools, golf courses, boardwalks, playgrounds, ballfields, and recreation centers that are available to the public at no cost or through a nominal fee, as in the case of recreation centers and golf courses;
- Open space designated through regulatory approvals (such as zoning), including large-scale permits that prescribe publicly accessible open space, such as public plazas;
- Outdoor schoolyards if available to the public during non-school hours;
- Publicly-accessible institutional campuses;
- Esplanades;
- Designated greenways, as shown on the City's Bike Map, and defined as multi-use pathways for non-motorized recreation and transportation along natural and manmade linear spaces such as rail and highway rights-of-way, river corridors, and waterfront spaces;
- Landscaped medians with seating;
- Housing complex grounds, if publicly accessible;
- Nature preserves, if publicly accessible;
- Gardens, if publicly accessible;
- Church yards (with seating) or cemeteries, if publicly accessible on a constant and regular basis for passive recreation such as strolling; or

- Waterfront piers used for recreation.

Methodology

According to the guidelines of the *2021 CEQR Technical Manual* for analysis of residential development, census tracts with at least half of their geographic area within a one-half mile radius of the Affected Area comprise the open space study area. Using current population figures, an open space ratio is calculated for both the future no-action and future with-action conditions, expressed as the amount of open space acreage per 1,000 user population. Typically, a comparison is made to the city's planning goal of 2.50 acres per 1,000 residents. Ideally, this would comprise 0.50 acres (20 percent) of passive space and 2.0 acres (80 percent) of active open space per 1,000 residents. For nonresidents who tend to use passive open space, for example workers taking a break in a park, the optimal ratio for nonresidential populations is 0.15 acres of passive open space per 1,000 nonresidents.

In addition to field surveys, information from the NYC Department of City Planning's Community District Needs Statements, NYC Parks Department website, and U.S. Census data were utilized in preparing the open space analysis.

2.2.1 Direct Effects

Direct effects to open space are addressed in the sections for those specific technical areas where warranted. Construction impacts to open space are not anticipated as there would be no physical loss of public open space, no change in existing open space so that it no longer serves the same user population, would not limit public access, and would not increase noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. An assessment of the effects of the Proposed Actions related to shadows on open space resources is provided in **Section 2.3: Shadows**.

2.2.2 Indirect Effects

If a project may add population to an area, demand for existing open space would typically increase. Indirect effects may occur when the population generated by a Proposed Project would be sufficiently large to noticeably dimmish the ability of an area's open space to serve the future population.

For the majority of projects, an assessment is conducted if the Proposed Project would generate more than 200 residents or 500 employees, or a similar number of other nonresidential users (such as the population introduced by a new educational institution).

The Proposed Action would potentially result in approximately 511 residents in 192 units based on an average of 2.66 persons per unit based on 2020 census data for the subject community district (Brooklyn Community District 15). The addition of approximately 511 residents is above the CEQR preliminary screening threshold level, and a preliminary analysis of open space impacts due to new residents is warranted.

2.2.3 Open Space Resources

Study Area Definition

In accordance with the guidelines established in the City's *2021 CEQR Technical Manual*, the open space Study Area is defined to analyze both the nearby open spaces and the population using those open space resources. It is generally defined by a reasonable walking distance that users would travel to reach local open spaces and recreational areas. Pursuant to the *2021 CEQR Technical Manual*, the open space Study Area includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area for residential users. As shown in **Figure 2.2-1**, the Census Tracts with 50% or more of their area within the 1/2-mile Study Area are 388, 390, 392, 394, 396, 416, 556, 580, 582, 584, 586, 588, and 590.

Kelly Park: This Park and playground contains playground equipment, fitness equipment, basketball and tennis courts, handball courts, and spray showers as well, and is located on Avenue S between East 14th and East 15th Streets.

Mellett Playground: This playground at Avenue V and East 14th Street contains both active and passive spaces including places to sit, playground equipment, handball courts, and basketball courts, as well as spray showers.

P.S. 153 Playground: This playground contains benches for sitting a well as room for children to run around, and play games, including a painted running track and a hopscotch setup.

Ocean Parkway Malls: Ocean Parkway Malls stretch along Ocean Parkway, and include room for sitting, including benches, and include bike and jogging paths.

A summary of the acreage of each open space resource is shown below in **Table 2.2-1**.

Figure 2.2-1: Open Space Study Area and Open Space Resources

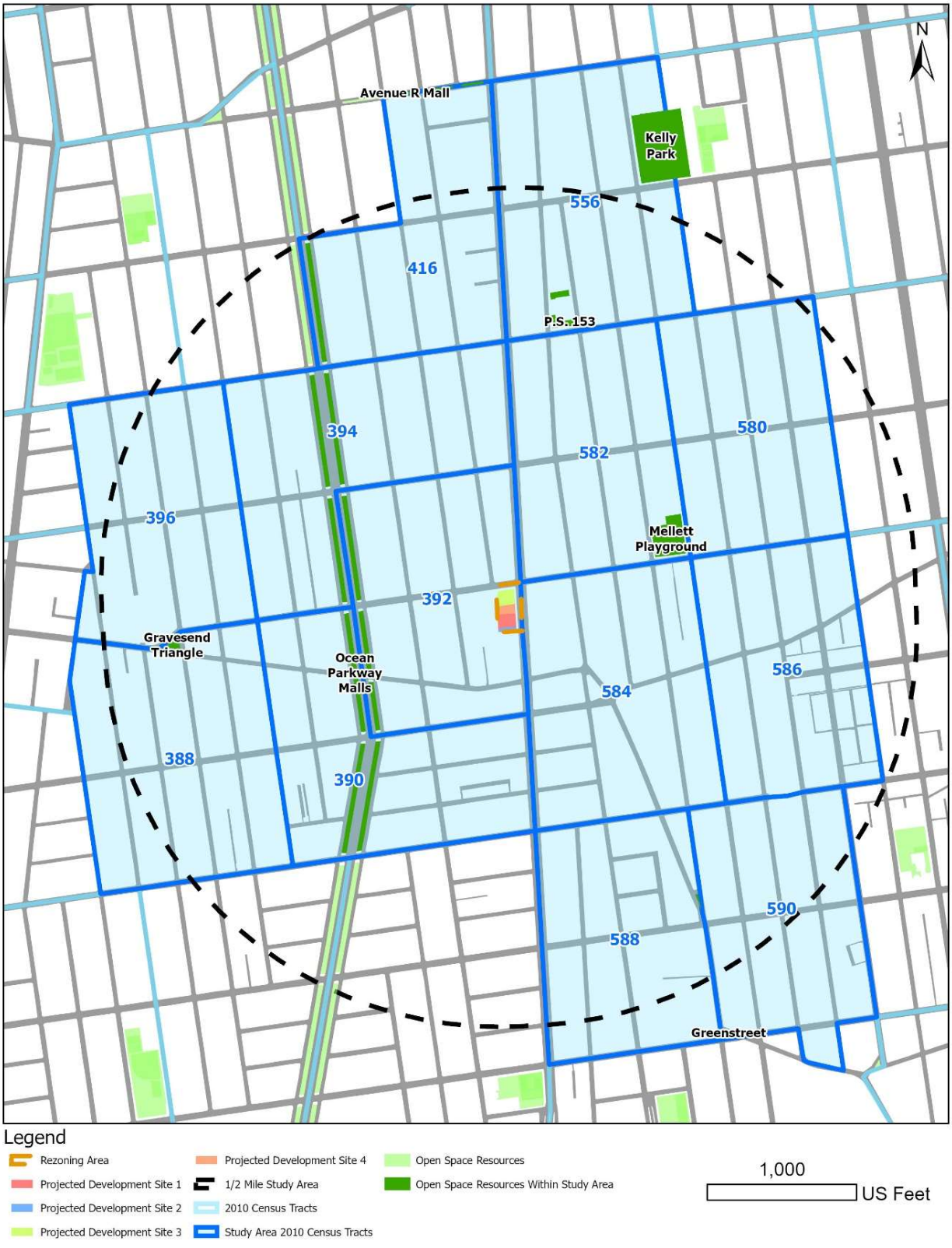


Table 2.2-1: Open Space Resources in the Study Area[8]

Key No.	Open Space Resource	Location	Size (acres)	Size (acres) Active	Size (acres) Passive
1	Kelly Park	Avenue S and E 14th Street	4.59	3.44	1.15
2	Mellett Playground	Avenue V and E 14th Street	1.06	0.80	0.27
3	P.S. 153 Playground	Avenue T and Homecrest Avenue	0.31	0.23	0.08
4	Ocean Parkway Malls	Along Ocean Parkway	5.00	3.75	1.25
		Total	**10.96**	**8.22**	**2.74**

2.2.4 Preliminary Quantitative Open Space Assessment

Existing Conditions

According to 2020 Census data, there are a total of approximately 37,943 residents in the Study Area, as shown in **Table 2.2-2** below**.** The Study Area contains a total of 4 open space resources, as depicted also in **Figure 2.2-1** and listed in **Table 2.2-1** above. All these resources are accessible to the public on a constant and regular basis and as such, have been factored into the quantitative open space assessment (i.e., the open space ratio calculation). These 4 resources provide a total of 10.96 acres of open space (8.22 acres of which are active and 2.74 of which are passive).

This results in an **Existing Conditions OSR of 0.289**.

Future No-Action Conditions

The No-Action Condition for the 1/2-Mile Study Area, projecting to the 2030 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.

In the future without the Proposed Actions, the Affected Area is not expected to undergo any changes or development. However, there are known developments within the Open Space Study Area that would increase the population absent the Proposed Actions. **Table 2.2-3** shows the known developments within the Open Space Study Area.

[8] NYC Open Data, nyc.gov

Table 2.2-2: Study Area Population 2020[9]

Census Tract	Total Population
Census Tract 388, Kings County, New York	4,047
Census Tract 390, Kings County, New York	2,321
Census Tract 392, Kings County, New York	2,904
Census Tract 394, Kings County, New York	2,187
Census Tract 396, Kings County, New York	1,948
Census Tract 416, Kings County, New York	2,112
Census Tract 556, Kings County, New York	3,880
Census Tract 580, Kings County, New York	3,502
Census Tract 582, Kings County, New York	3,044
Census Tract 584, Kings County, New York	3,797
Census Tract 586, Kings County, New York	2,655
Census Tract 588, Kings County, New York	3,532
Census Tract 590, Kings County, New York	2,014
Total	**37,943**

Table 2.2-3: Known Developments in Open Space Study Area[10]

Address	BBL	# of Dwelling Units
2033 East 17th Street	Brooklyn Block 7322, Lot 67	6
1215 Doone Court	Brooklyn Block 7413, Lot 84	4
2468 East 11th Street	Brooklyn Block 7411, Lot 36	4
	Total	**14**
	Average Household Size	2.66
	Known Development Population	**37**

The Existing Conditions population of 37,943 would be grown to the 2030 Future No-Action Condition to which this Known Development Population described above in **Table 2.2-3** are added resulting in a Future No-Action Condition population of approximately 37,980. As there are no known or projected open space developments in the Study Area during this time period, the Existing Conditions total acreage of 10.96 will continue into the Future No-Action Conditions. This results in a **Future No-Action Condition OSR of 0.289.**

[9] 2020 Census Data
[10] NYC Construction Dashboard

Future With-Action Conditions

The Proposed Actions would introduce 192 dwelling units, which at an average household size of 2.66 results in a total of 511 additional residents in the Study Area. Therefore, the Future With-Action Scenario Population in the Study Area would be approximately 38,491. The Change in population and OSR from Existing to No-Action and to With-Action are shown below in **Table 2.2-4**.

This results in a **Future With-Action OSR of 0.285**.

Table 2.2-4: Existing, No-Action, and With-Action Population and OSR

	Existing	No-Action	With-Action
Population	37,943	37,980	38,491
Total OSR	0.289	0.289	0.285

2.2.5 Preliminary Qualitative Open Space Assessment

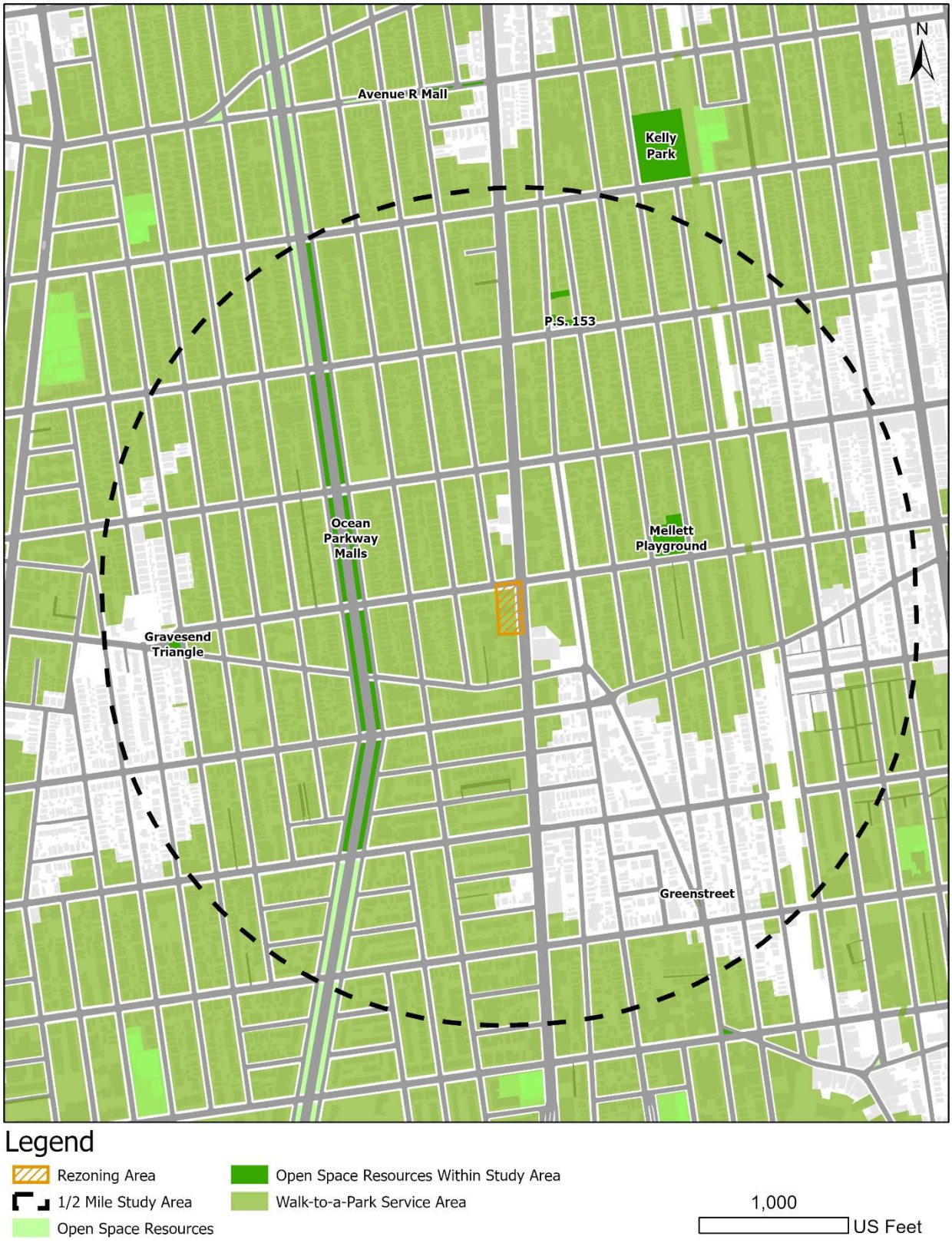
Walk to A Park Service Area

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has put forth a goal for 85 percent of New York City residents living within walking distance of a park by 2030. To help the City reach this goal, NYC Parks has a Walk to a Park initiative that focuses on increasing access to parks and open space in areas of the City where residents live further than walking distance to a park. Areas outside of Walk to a Park Service Areas are considered "walk gaps" – i.e., areas of the city that are not within walking distance to a park.

Per the *2021 CEQR Technical Manual*, part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the city within a Walk to a Park Service Area. Project sites that are located outside of a Walk to a Park Service Area (i.e., located in a known walk gap areas) suggests there is a need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the city with inadequate park access, potentially leading to a significant impact. While the focus of the Walk to a Park initiative is on residents living within walking distance to a park, projects that create a non-residential population (e.g., new workers) should also review if the project is located within a known walk gap and assess if the project would generate a new non-residential population within areas of the City with inadequate access to open space resources. As per the *2021 CEQR Technical Manual*, when determining if a detailed open space assessment is warranted, the preliminary assessment should include a discussion of the Project Site's proximity to nearby regional parks, or other substantial open space resources located within or just outside the 1/2-mile study area boundary.

As shown below in **Figure 2.2-2**, the Affected Area is located within a Walk to a Park Service Area.

Figure 2.2-2: Walk to A Park Service Area Assessment



Nearby Open Space Resources Outside of the Study Area

While not included in the calculation of OSR in the analysis above, several open space resources are located immediately adjacent to the 0.5-mile open space study area but are not accounted for in the OSR calculations as they lie outside of the census tracts contained within the study area. These additional resources include the playgrounds adjacent to P.S. 255 and I.S. 234 on East 17th Street, MacDonald Playground, and Homecrest Playground on East 12th Street.

2.2.6 Preliminary Open Space Assessment Conclusion

Pursuant to the *2021 CEQR Technical Manual*, projects expected to result in a decrease in the open space ratio should consider the following to determine if a more detailed analysis is warranted:

- Projects in study areas where the open space ratio approaches or exceeds the City's planning goal of 2.5 acres per 1,000 residents, may generally tolerate up to a five percent decrease of the open space ratio before considering the need for more detailed analysis.
- For projects in study areas where the open space ratio is not near the City's planning goal of 2.5 acres per 1,000 residents, the percentage decrease in open space ratio is weighed against how the open space ratio of the study area compares to the City's planning goal for open space. Table 7-1 of the *2021 CEQR Technical Manual* (**Table 2.2-5** below) provides general guidelines for ranges of open space ratios and acceptable percentage changes.
- Projects that have an effect on a nonresidential population's use of passive open space would not follow the guidelines presented in the below table, and should consider the need for a detailed assessment based on a comparison of the open space ratio to the optimal ratio of 0.15 acres of passive space per 1,000 nonresidents. Projects that lead to the non-residential open space ratio to drop below the optimal ratio of 0.15 acres of passive open space per 1,000 non-residents may warrant a more detailed assessment.

The Future With-Action OSR of 0.285 is below the City's planning goal of 2.5 acres per 1,000 residents, and represents an approximately 1.33% decrease relative to the Future No-Action OSR of 0.289. Using **Table 2.2-5** below, the Proposed Actions would warrant a detailed analysis of open space.

As discussed above, although the area has a relatively low OSR and the OSR decrease induced by the Proposed Actions would be 1.33%, there are additional open space resources located within walking distance of the Affected Area. However, based on the screening thresholds for preliminary open space assessment (see **Table 2.2-5** below), a detailed assessment is provided below.

Table 2.2-5: Preliminary Assessment Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percentage Change in Open Space Ratio
2.01 to 2.50* or greater	5%
1.51 to 2.00	4%
1.01 to 1.50	3%
0.51 to 1.00	2%
0.50 or Less	1%
*2.5 OSR is the planning goal in NYC	

2.2.7 Detailed Open Space Assessment

A detailed open space analysis typically breaks down the study area population by age group and details the amount and quality of various types of open space to assess the availability of particular types of open space for particular age groups. In conducting this assessment, the analysis focusses on where shortfalls in open space exist now (or in the future), to identify whether the shortfalls are a result of the project. Where it is clear from the outset that the project would affect a particular type of open space or particular age group, the analysis may focus on those issues.

Study Area Population Age Group Assessment

The age distribution of the existing population is relied upon as an indicator of types of open space that may be most utilized by the population. The detailed population assessment breaks down the total study area population calculated in the Preliminary Assessment above by 6 age groups: 4-year-old and younger, 5-year-old to 9-year-old, 10-year-old to 14-year-old, 15-year-old to 19-year-old, 20-year-old to 64-year-old, and 65-year-old and above. The total persons of each age group and the percentage of the age group within the total study area population are then summarized as each age group represents a different type of open space user.

The Existing conditions study area population broken down by age group, which represent different types of open space users. For example, young children typically use tot lots, while other age groups may use a variety of active and passive facilities. As shown below in **Table 2.2-6**, residents between the ages of 20 and 64 comprise approximately 57% of the population, and adults over 65 account for approximately 16% of the population. In general, these population segments are typically expected to utilize passive open space. Children and teenagers (0 to 19 years old) account for approximately 28% of the study area population, and children under the age of 5 account for approximately 9% of the population. These population segments are typically expected to utilize active open space areas, including playgrounds, ball courts, and sports fields.

Table 2.2-6: Study Area Population Age Groups

Age Group	Population	% Total
Under 5 years	3,539	9%
5 to 9 years	2,310	6%
10 to 14 years	2,369	6%
15 to 19 years	2,325	6%
20 to 64 years	21,629	57%
65 and above	5,942	16%
Total	**38,114**	**100%**

Source: 2016-2020 American Community Survey Census Data

Study Area Open Space Assessment

Open spaces are classified as "active" or "passive" by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways and picnicking areas. However, some passive spaces can be used for both passive and active recreation, such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging or rollerblading.

The name, address, ownership, acreage, active and passive acreage, and features of each publicly accessible open space in the study area is included in **Table 2.2-7** below. Descriptions of the characteristics of the open space facilities each age group would utilize for active use are listed below:

Toddler facilities Ages 0-4 years

- Simple play spaces with features such as sand box, climbing equipment, and seating for caregivers; under 1,000 square feet in size
- Tot lot: a complex of age-appropriate play facilities over 1,000 square feet with a range of features such as swings, slides, climbing equipment, water features, sand box, and seating for caregivers
- Unstructured play area, grassy or hard surface

Active Play facilities appropriate for children 5 to 14 years old

- Playground with a range of age-appropriate features (swings, climbing equipment, sand and water play) and seating for caregivers.
- Age size sports facilities
- Fields (turf or hard surfaced) such as soccer, softball, football, baseball
- Courts such as tennis, handball, basketball

- Unstructured space (grassy or hard surface)

Active open space appropriate for teens and adults; Ages 15 and above. Fields (turf or hard surface such as baseball, softball, soccer, football)

- Courts such as tennis, handball, basketball
- Courts such as bocci, shuffleboard, basketball, or backboards
- Skate Park facility
- Jogging and biking areas (greenways, mountain biking trail, cross country course, track)
- Unstructured spaces designed for active use

Combining data collected from site visits, the New York City Department of Education website, and the New York City Department of Parks and Recreation website, detailed assessments regarding the quality, accessibility, specific user groups of different age ranges, and utilization levels of the publicly accessible open space in the study area are summarized in **Table 2.2-8** below, which indicates that the conditions of 100% of the existing open space resources are acceptable and that the existing open spaces serve all age groups at a moderate utilization level.

Table 2.2-7: Open Space Resource Summary

Name	Use	Acreage	Active		Passive		Features
			Acres	%	Acres	%	
Kelly Park	Neighborhood Park/Jointly Operated Playground	4.59	3.44	75%	1.15	25%	BC, FE, PG, SS, TC, Be, HC, Ba
Mellett Playground	Neighborhood Park	1.06	0.80	75%	0.27	25%	BC, SS, HC, PG, Ba, Be
P.S. 153 Playground	School Yard to Playground	0.31	0.23	75%	0.08	25%	RT, Be
Ocean Parkway Malls	Mall	5	3.75	75%	1.25	25%	Bi, Be
Total		**10.96**	**8.22**	**75%**	**2.74**	**25%**	

BC = Basketball Courts; RT = Running Track; FE = Fitness Equipment; PG = Playground; SS = Spray Showers; TC = Tennis Courts; Be = Benches; HC = Handball Courts; Ba = Bathrooms; Bi = Bicycling

Table 2.2-8: Detailed Study Area Open Space Resources Review

Name	Quality[1]	Unacceptable Items	Hours of Access	User Groups	Utilization Level	Planned Capital Improvements
Kelly Park Playground Park ID B051	Acceptable	Paved Surfaces	6 AM - 9 PM	4 years and younger; 5-9; 10-14; 15-19; 20-64; 65 and older	Moderate	Changeable maze with play panels, seating area, specialized play area with musical instruments and memory game, spray feature, 2-5 and 5-12 year old play equipment, 2-5 and 5-12 year old swings, tennis courts, raised play area with climber and play houses, social tranquility area, specialized play area (nature play), archeological ADA dig table. Projected Completion Date: April 2024
Kelly Park Playground Park ID B157	Acceptable	Paved Surfaces/Trees	6 AM - 9 PM	4 years and younger; 5-9; 10-14; 15-19; 20-64; 65 and older	Moderate	Additional play area (hop scotch/painted games), swings, game tables, spray shower activator and spray shower reconstruction, new tot tables, drinking fountains, benches, and 2-5 year old play area. Completed September 2023
Mellett Playground	Acceptable	-	6 AM - 9 PM	4 years and younger; 5-9; 10-14; 15-19; 20-64; 65 and older	Moderate	Play units 5-12 year old and 2-5 year old, bottle filler and hi/low drinking fountain, swings, benches, safety surface, spray showers, game tables and chairs. Projected Construction Completion Date: June 2022 (Complete) This project will reconstruct the basketball and handball courts and construct new pickleball courts, synthetic turf and walking track in Mellett Playground. Projected Procurement Completion Date: May 2025
P.S. 153 Playground	Acceptable	-	Weekday: School Close Until Dusk; Weekend & Holidays: 8 AM Until Dusk	4 years and younger; 5-9; 10-14; 15-19; 20-64; 65 and older	Moderate	-
Ocean Parkway Malls	Acceptable	-	24 Hours	5-9; 10-14; 15-19; 20-64; 65 and older	Moderate	This project will reconstruct the bike path on the west side of the Ocean Parkway Malls from Avenue R to Avenue X. Projected Completion Date: November 2024

1. Per NYC Department of Parks and Recreation Inspections

Open Space Adequacy Assessment

The adequacy assessment references the open space data gathered above to provide an evaluation of the study area's existing open space conditions relative to the open space needs of the study area users. As previously shown in **Table 2.2-1** and **Table 2.2-8**, the study area contains 10.96 acres of existing open space for all age groups, of which approximately 8.22 acres are available for active use and approximately 2.74 acres are available for passive use. As previously described, the study area has total residential population of approximately 37,943. Based on this information, the following open space ratios are calculated to determine the existing adequacy of open spaces:

- The study area has an overall open space ratio of 0.289 acres per 1,000 residents. This ratio is far below the planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents, per the *2021 CEQR Technical Manual*.
- The active open space ratio is 0.217 acres per 1,000 residents, which is far below the planning guideline of 2.0 acres of active open space per 1,000 residents, per the *2021 CEQR Technical Manual*.
- The passive open space ratio is 0.072 acres per 1,000 residents, which is far below the planning goal of 0.5 acres passive open space per 1,000 residents specified in the *2021 CEQR Technical Manual*.

As such, the study area currently has a shortfall of both active and passive open space resources to serve the residential population, both far below the citywide planning goal pursuant to *2021 CEQR Technical Manual*. As a result, the assessment below provides a quantitative and qualitative assessment of open space resources.

Quantitative Analysis

As noted in the *2021 CEQR Technical Manual*, a Proposed Action is considered to have a significant adverse open space impact when:

- There would be a direct displacement or alteration of existing open space within the study area that has a significant adverse effect on existing users (e.g., an action would result in a net loss of publicly accessible open space).
- The project would reduce the open space ratio by more than the general guidelines for the open space percentage change that are presented in **Table 2.2-9** below (Table 7-5 in *2021 CEQR Technical Manual*). Projects which result in a percentage change greater than the guideline shown for the corresponding calculated open space ratio range may be considered significant, as these reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

- Projects that would reduce the open space ratio for a nonresidential population would not follow the guidelines presented in **Table 2.2-9**, but rather consider the project's effect on passive open space in the study area. The more the open space ratio falls below the optimal ratio of 0.15 acres of passive space per 1,000 population, the more likely the decrease would lead to a significant impact.

Table 2.2-9: **Detailed Assessment Percentage Change Guidance**

Total Open Space Ratio Range	Active Open Space Ratio Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50* Or greater	1.61 to 2.0* Or greater	0.41 to 0.50* Or greater	5%
1.51 to 2.00	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or Less	0.01 to 0.40	0.01 to 0.10	1%

*2.5 OSR is the planning goal in NYC, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR

Future No-Action Condition

Population

As shown above in **Table 2.2-4**, under the Future No-Action Condition, Study Area population is projected to be 37,980.

Open Space Resources

By the build year of 2030, NYCDPR will have completed the following changes to open spaces within the study area as part of the currently active projects:

- Kelly Park Playground Reconstruction (Park ID B051): This project will reconstruct and expand the playground in Kelly Park, including play equipment, spray shower, swings, seating areas, benches, security lighting, fencing, drainage and water supply, electrical service, and plantings. As this project is a reconstruction, it will not add further acreage to the Open Space Resources, but will improve the quality of the existing resources considerably. Currently, the project is under the construction phase with an expected completion date in April 2024.

- Mellet Playground Multi-Purpose Play Area and Handball Reconstruction: This project will reconstruct the basketball and handball courts and construct new pickleball courts, synthetic turf and walking track in Mellett Playground. Currently, this project is under the procurement stage with a projected procurement completion date of May 2025.
- Ocean Parkway Malls Bike Path Reconstruction: This project will reconstruct the bike path on the west side of the Ocean Parkway Malls from Avenue R to Avenue X. As this project is a reconstruction, it will not add further acreage to the Open Space Resources, but will improve the quality of the existing resources. Currently, the project is under the construction phase with an expected completion date in November 2024.

Overall, the open space within the study area under the Future No-Action Condition would remain the same as under the existing conditions, which would be 10.96 acres of overall open space (8.22 acres for active uses and 2.74 acres for passive uses) as shown in **Table 2.2-1** above. As such, the Future No-Action OSRs would be as such:

- The overall open space ratio of 0.289 acres per 1,000 residents for the Future No-Action Condition would remain considerably below the *2021 CEQR Technical Manual* targeted goal of 2.5 acres of combined active and passive open space per 1,000 residents.
- The active open space ratio of 0.216 acres per 1,000 residents for the Future No-Action Condition would remain far below the *2021 CEQR Technical Manual* targeted goal of 2.0 acres of active open space per 1,000 residents.
- The passive open space ratio of 0.072 acres per 1,000 residents for the Future No-Action Condition would remain far below the *2021 CEQR Technical Manual* target goal of 0.5 acres of passive open space per 1,000 residents.

Both active and passive Open Space Rations experience a decrease under the Future No-Action Conditions, falling farther below the targeted goals. In the future without the Proposed Actions, the open space shortage within the study area would remain.

Future With-Action Condition

Population

As shown above in **Table 2.2-4**, under the Future With-Action Condition, Study Area population is projected to be 38,491.

Open Space Resources

Since the Proposed Development would result in a considerable increase in residential population, the total, active, and passive Open Space Ratios for residential populations within the study area under the existing conditions, Future No-Action Condition, and Future With-Action Condition were summarized in **Table 2.2-10** below, using the population and open space acreage data identified above.

As **Table 2.2-10** indicates, in the Future With-Action, the study area would have a total of 10.96 acres of open space available for the projected 38,491 residents; 8.22 for active recreation and 2.74 for passive recreation. The Proposed Actions would not directly displace or alter any existing or planned open spaces. As such, the Future With-Action OSRs would be as such:

- The overall open space ratio under the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition and would amount to 0.285 acres per 1,000 residents, considerably below the *2021 CEQR Technical Manual* targeted goal of 2.5 acres of combined active and passive open space per 1,000 residents. This reduction of 1.33% exceeds the threshold in Table 7-5 of the *2021 CEQR Technical Manual*, which lists 1% decrease for total open space ratios within areas with combined open space ratios less than 0.50 acres per 1,000 residents.
- The active open space ratio under the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition and would be 0.214 acres per 1,000 residents, far below the *2021 CEQR Technical Manual* targeted goal of 2.0 acres. This reduction of 1.33% exceeds the threshold in Table 7-5 of the *2021 CEQR Technical Manual*, which lists 1% decrease for active open space ratios within areas with active open space ratios between 0.01 and 0.40 acres per 1,000 residents.
- The passive open space ratio under the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition and would be 0.071 acres per 1,000 residents, far below the *2021 CEQR Technical Manual* targeted goal of 0.5 acres. This reduction of 1.33% exceeds the threshold in Table 7-5 of the *2021 CEQR Technical Manual*, which lists 1% decrease for passive open space ratios within areas with passive open space ratios between 0.01 and 0.40 acres per 1,000 residents.

Thus, the study area would have a deficit of total Open Space, active Open Space, and passive Open Space in the Future With-Action conditions.

Table 2.2-10: Study Area Combined, Active, and Passive Open Space Ratios

	Population	Open Space Acreage			Open Space Acreage		
		Total	Active	Passive	Total	Active	Passive
Planning Goal/ CEQR Guideline					2.5	2.0	0.5
Existing Conditions	37,943	10.96	8.22	2.74	0.289	0.217	0.072
Future No-Action Conditions	37,980	10.96	8.22	2.74	0.289	0.216	0.072
Future With-Action Conditions	38,491	10.96	8.22	2.74	0.285	0.214	0.071
Change from Future No-Action Conditions to Future With-Action Conditions					**-1.33%**	**-1.33%**	**-1.33%**

Qualitative Assessment

With respect to qualitative effects, the following factors are useful in determining whether a Proposed Action would result in a significant adverse impact to open space conditions:

- A Proposed Action would have a significant physical effect on an existing or proposed open space due to an increase in shadows, noise, air pollutant emissions, or odors compared to the future without action conditions.
- A Proposed Action causes a qualitative impact such as might occur when the overall open space ratio is adequate, but a specific user group (such as young children or basketball players) would be adversely affected by being underserved or there would be conflicts in the utilization of open space.

The Proposed Actions would not cause increased shadows, noise, or air pollutant emissions that would affect the usefulness of any open space within the study area, whether on a permanent or temporary basis. Furthermore, the Proposed Actions would not change the use of a publicly accessible open space so that it no longer serves the same user population, nor would it limit public access to any open spaces.

The amounts of total, active, and passive open space resources in the study area with the Proposed Actions are, and would continue to be, deficient in comparison to New York City guidelines. In the Future With-Action, the percent changes of Active OSR and Passive OSR as the result of the Proposed Development would not be different. Thus, it is not projected that one group would have a relatively higher adverse impact on specific user groups more prone to utilization of active Open Space.

The research conducted for this EAS indicates that the existing open spaces in the study area have moderate utilization levels and appear to have the capacity to serve additional users. As summarized in **Table 2.2-8**, the information from the New York City Department of Parks and Recreation indicates that 100% of the open spaces in the Study Area are in acceptable condition. The structural items, such as play equipment, benches, safety surfaces, and fences, are all in proper working function, with a recent reconstruction completed at Mellett Playground and Kelly Park Playground (Park ID B157). Further, as mentioned in the Future No-Action Condition section, currently there are three Planned Capital Improvement projects within the Study Area, which are going to improve the conditions of some of the Open Spaces (Mellet Playground, Kelly Park Playground, and Ocean Parkway Malls).

Although some Open Space resources outside of the Study Area are not included in the open space ratio calculations, they are important to mention in the qualitative assessment of impact significance. While 5 acres of the Ocean Parkway Malls are within the 0.5-mile Open Space Study Area, these malls contain a total of 140 acres of public open space. In addition, several open space resources are located immediately adjacent to the 0.5-mile open space study area but are not accounted for in the OSR calculations as they lie outside of the census tracts contained within the study area. These additional resources include the playgrounds adjacent to P.S. 255 and I.S. 234 on East 17th Street, MacDonald Playground, and Homecrest Playground on East 12th Street. Lastly, the Proposed Development on Projected Development Site 1 would provide on-site amenities for residents including private terraces and balconies on the second floor, a common

second-floor terrace, private balconies for the 3rd-6th floor residential dwelling units, private terraces and balconies on the seventh floor, private balconies for the 8th-11th floor residential dwelling units, and a 1,782 square foot recreational open space area on the roof as a building wide amenity for residents.

Therefore, future residents of the Affected Area would have access to a range of open space resources, including resources just outside of the Open Space Study Area, and for residents of Projected Development Site 1, resources that would be incorporated into the Proposed Development as amenities for tenant use. These additional open spaces would substantially offset the projected deficit of open space in the Study Area.

Based on the detailed assessment of open space resources above, it can be concluded that the Proposed Actions would not be expected to have significant adverse impacts to open space resources.

2.2.8 Detailed Open Space Assessment Conclusion

The quantitative analysis indicates that the Open Space Ratio in the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition. Despite the fact that the existing Open Space Ratio in the study area (both Active and Passive) is far below the goals established in the *2021 CEQR Technical Manual*, the qualitative analysis reveals a moderate utilization rate of existing active open space resources, all in acceptable condition, and multiple Planned Capital Improvements of the active open spaces, and additional open space resources just outside of the Study Area. Lastly, the Proposed Development on Projected Development Site 1 would provide on-site amenities for residents including private terraces and balconies, and a rooftop recreational open space area as a building wide amenity for future residents.

To summarize, the moderate utilization of the existing open space resources, the proximity to open space resources that are not considered within the Study Area, and the proposed resources to be provided for residential tenants on Projected Development Site 1 would help mitigate the open space deficiency within the Study Area. Therefore, the Proposed Actions would not result in a significant adverse impact on open space resources within the Study Area, and further analysis is not warranted.

2.3 Shadows

The *2021 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 Actions 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.

The duration and dimensions of shadows are determined by the geographic location of the area from which the shadow is cast and the 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 farther 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.

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. 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, places containing no seating areas and no vegetation, no unusual or historic plantings, or containing 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 *CEQR Technical Manual* guidance.

Methodology

This preliminary analysis of shadows follows the guidelines set forth in the *2021 CEQR Technical Manual* for a preliminary assessment (Section 310). According to the *2021 CEQR Technical Manual*, a preliminary shadow assessment includes the development of a base map showing the site location in relationship to any sunlight-sensitive resources as per guidelines provided in the *2021 CEQR Technical Manual*. Following these guidelines, the longest shadow Study Area is determined, and a Tier 1 screening assessment is conducted to determine if any sunlight-sensitive resources fall within the Study Area. If no resources are identified, no further analysis would be required. If sunlight-sensitive resources lay within the longest shadow Study Area, the next tier of screening assessment should be conducted. This preliminary assessment includes a basic description of the Proposed Project that would be facilitated by the Proposed Actions in order to determine whether a more detailed assessment would be appropriate.

Analysis Framework

The Projected Development Sites 1 through 4 are located on Block 7159, Lots 115, p/o 120, 123, 128, and 130 in the Sheepshead Bay neighborhood of Brooklyn, Community District 15. The maximum permitted building height within the proposed R7D/C2-4 zoning district is 11 stories or 115 feet with qualified ground floor, while the existing buildings on the four Projected Development Sites only have building heights ranging from approximately 15 feet to 30 feet. As all of the proposed buildings on the four Projected Development Sites would result in an incremental change in height greater than 50 feet, a preliminary assessment for shadows is warranted.

2.3.1 Tier 1 Shadow Screening Assessment

Under the Future With-Action Condition, Projected Development Site 1-4 could each be developed with new buildings having a maximum height of 115 feet. A 15-foot bulkhead is added on top of the maximum building height for a more conservative analysis result. As such, the longest action-induced shadow would be approximately 559 feet (4.3 x 130 feet) in length. The first step in a shadow analysis is to determine there are any sunlight sensitive resources located within the length of the 559-ft radius measured from the Projected Development Sites.

As **Figure 2.3-1** shows below, there are no sunlight sensitive resources within the longest shadow Study Area. Accordingly, a Tier 2 screening assessment is not required.

2.3.2 Conclusion

No sunlight-sensitive resources were identified within the longest shadow Study Area of Projected Development Sites 1-4. Accordingly, the Proposed Actions would not result in significant adverse impact related to shadows and no further analysis is warranted.

Figure 2.3-1: Tier 1 Shadow Screening Assessment



2.4 Historic and Cultural Resources

An assessment of historic and cultural resources is usually necessary for projects that are located in close proximity to 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.

Methodology

Archaeological and architectural resources usually need to be assessed for projects that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site.

For projects that may affect historic or cultural resources, the first step in evaluating a project's potential effects on historic resources is to consider what area the project might affect and then identify historic resources—whether officially recognized or eligible for such recognition—within that area. The area of subsurface work for development under the Proposed Action is considered the impact area for archaeological resources while the Study Area for architectural resources is the area in which any resources may be affected by the project, which is defined by the radius of 400 feet from the borders of the project site for most proposals.

After the Study Areas have been established, all known archaeological and architectural resources within the Study Areas are identified, and the potential for unknown resources is investigated. It is recommended that lead agencies and applicants contact LPC for archaeological and architectural resources review. Based on the report from LPC, if any listed historic or cultural resources are located in the Study Areas, then further analysis of the project's impact on these resources must be performed. The Proposed Action's effects on any designated or potential archaeological and architectural resources are then analyzed under Existing, No-Action, and With-Action condition. The assessment specifically considers whether the project may result in disturbance or destruction of those archaeological and architectural resources as a result of the Proposed Actions.

2.4.1 Architectural Resources

Per *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 project site plus an approximately 400-foot radius around the Proposed Action area.

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 architectural resources were found in the Affected Area that were considered historic or significant.

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. The New York City Landmarks and Preservation Commission (LPC) was contacted for their review on the potential impacts on any architectural resources in the area. A response was received on August 28th, 2020, indicating no properties within the Affected Area had any architectural significance (**Appendix B**).

2.4.2 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* requires 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 sites within the Affected Area have been previously disturbed. Further, utilizing the NYS Office of Parks, Recreation and Historic Preservation's "Cultural Resource Information System" (CRIS) mapper, the Affected Area does not fall within an archaeologically sensitive area. LPC was contacted for their opinion on the potential impacts of any architectural resources in the area. A response was received on August 28th, 2020 that several properties within the Affected Area (Block 7159, Lots 115, 120, 123, 128, 130) have archaeological significance. The response from LPC is below:

"LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from the Reformed Dutch Church cemetery on the project site. Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary."

Based on the LPC's recommendation, a Phase IA Documentary Research and Archaeological Assessment was undertaken. Below is a summary of the report.

Introduction to Phase IA Report

Chrysalis Archaeological Consultants, Inc (Chrysalis) was retained by 2510/18 C.I.A. LLC to undertake a Phase IA Documentary Research and Archaeological Assessment report for 2510 Coney Island Avenue, Brooklyn, Kings County, New York. The City of New York Landmarks Preservation Commission (NYC LPC) determined that Block 7159 Lots 115, 120, 123, 128, 130 have potential archaeological significance, and recommended this survey. A key factor in the area's potential archaeological sensitivity is the site's possible association with the Dutch Reformed Church and Gravesend village. The purpose of this Phase IA is to determine if the Affected Area has the potential to retain significant archaeological cultural resources.

The Affected Area lies approximately 0.6 miles east of the historic village of Gravesend, settled in 1643. The Affected Area appears to have occupied meadowland that remained undeveloped into the nineteenth century. In 1844, the Dutch Reformed Church of Gravesend purchased a lot encompassing the Affected Area for construction of a parsonage. The parsonage and its outbuilding lay southwest of the Affected Area. The Affected Area was undeveloped until between 1920 and 1930, when a mix of residential and commercial buildings and a paved lot were constructed across the area. Environmental remediation in 2007 removed three underground storage tanks and revealed sandy subsoil in parts of the Affected Area. Three of the early twentieth century buildings on site were razed between 2008 and 2009, and the Affected Area was stripped and re-paved from 2011 to 2012.

Prehistoric archaeological sensitivity is considered low based on the relatively sparse distribution of known prehistoric sites near the Affected Area and the extensive disturbances to the entire Affected Area from early twentieth century construction and twenty-first century modifications to Lot 123 and the surrounding lots. Historic archaeological sensitivity is also considered low based on the lack of documented historic development within the Affected Area and the extensive disturbance to the Affected Area from twentieth century construction and twenty-first century modification. No additional archaeological work is recommended.

All work for this study was conducted in accordance with the NYC LPC's Guidelines for Archaeological Work in New York City (NYC LPC 2018) and the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) guidelines (New York Archaeological Council [NYAC] 1994; 2000; 2002), which are subsequent to the National Historic Preservation Act (NHPA) of 1966, as amended, the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800), the New York State Historic Preservation Act (SHPA), the (New York) State Environmental Quality Review Act (SEQRA), the (New York) City Environmental Quality Review Act (CEQRA).

An initial review by NYC LPC determined that the five lots cited in the rezoning application - including the project sponsor's Lot 123 and the non-applicant owned Lots 115, 120, 128, and 130

have potential archaeological significance (NYC LPC 2020). While Lots 115, 120, 128, and 130 are cited in the rezoning application, only Lot 123 is within the project APE based on the extent of the Projected Development. In consideration of this, the following report defines Block 7159, Lot 123 as the "Affected Area" and APE. Lots 115, 120, 128, and 130 have contextual relevancy to the development of Block 7159, but they are not part of the Proposed Project APE as defined by current project plans.

Conclusions of the Phase IA Report

The Affected Area APE includes Block 7159 Lot 123. Prehistoric sites have been documented just over one mile from the Affected Area, although heightened prehistoric sensitivity in this portion of southeastern Brooklyn has generally been confined to areas of higher elevation overlooking marine resource access points. The Affected Area's elevation appears to have been relatively flat when first documented in the Contact Period, with access to tidelands and Coney Island Creek approximately 0.5 miles to the south and Squam Creek approximately 0.7 miles to the west. These waterways were filled by the 1930s.

While this region of southern Brooklyn was developed in 1643 as the town of Gravesend, the well-documented village core lay approximately 0.6 miles to the west of the APE, at the intersection of modern Village Road East and Gravesend Neck Road. The wider area surrounding Gravesend village, including the general Affected Area, was divided into farm plots, and used as agricultural land. The general Affected Area was on farmland owned by Dirck and Maria Lake at least as early as 1795. The Lake or Spicer families likely controlled this land from Gravesend's seventeenth-century founding, but records do not clearly define their ownership boundaries before this time. The Lake family conveyed land including the Affected Area to the Trustees of the Reformed Protestant Dutch Church of Gravesend in 1844 for construction of a parsonage built that same year. However, maps indicate the parsonage and its single documented outbuilding lay southwest of the general Affected Area, which remained undeveloped into the twentieth century.

The Affected Area's first documented development was construction of three structures on the property's south and western sides between 1920 and 1930. A fourth western, rear structure appears to have been added to the lot by 1954. The lot remained paved around these structures through the twentieth century. In 2007, environmental remediation at the western rear of the APE included excavation to collect soil samples and to remove two underground hydraulic fluid tanks and an underground petroleum storage tank, with impacts up to 10' below ground surface (HES 2008) (Map X). From 2008-2009, the two southern structures and one western structure in the project APE were razed. The entire Lot 123 project APE except for an extant western rear structure was stripped, cleared, and re-paved from 2011-2012.

Prehistoric sensitivity is low, as construction has extended over the entire Affected Area in the form of multiple structures, a paved car lot across the unbuilt areas, subsurface storage tanks, and twenty-first century stripping and re-paving. These activities have likely impacted soils

beyond the depth of deposition of prehistoric materials. Excavation from 2007 remediation work indicated the western portion of the APE is underlaid by sandy subsoils or fill soils. Historic sensitivity is also low, as there is no documented historic development at the Affected Area before 1920-1930 construction of three structures at the south and west sides of the APE. These structures were all razed from 2008-2009. Construction and demolition of these buildings, installation of the now-remediated sump and underground storage tank, and paving and re-paving the unbuilt portions of the lot likely impacted the Affected Area soils beyond the depth of deposition of any historic archaeological materials that might have been related to less documented types of land use, such as agricultural use.

Prehistoric and historic archaeological sensitivity for the Affected Area is low based on the extent of modern impacts to the area soils from construction across the project APE and the lack of documented historic site development within the APE. Given this assessment, no further archaeological work is recommended for the current project.

2.4.3 Conclusion

According to the *CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a Proposed Action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. The project would result in in-ground disturbance to develop the proposed mixed-use building with cellar space for parking as well as three other Projected Development Sites in the Affected Area. 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 August 28th, 2020, LPC indicated that the Study Area does not contain any sites or buildings of known architectural significance (see **Appendix B**). In a letter dated December 1st 2020, the LPC indicated that after their review of the Phase IA, there are no further archaeological concerns for these lots (See **Appendix B**). Thus, the Proposed Project is not anticipated to result in significant adverse impacts to sensitive s archaeological resources and no further analysis is required.

2.5 Urban Design and Visual Resources

According to the *2021 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 *2021 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action 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.

The Proposed Rezoning of the Affected Area from R4 and C8-1 to R7D and C2-4 would alter permitted uses, bulk, and height within the Affected Area. Therefore, further analysis is warranted. The differences between existing and proposed zoning, with regards to those aspects of zoning affecting urban design, are presented in the following **Table 2.5-1**.

As shown below, under the existing R4 zoning, UG 1-4 is permitted with a maximum FAR of 0.90 (with attic allowance) and 2.0 FAR for community facility uses. The maximum height allowed under R4 zoning is 35 feet. Under the existing C8-1 zoning, UG 4-14 and 16 is permitted with a maximum FAR of 1.0 for commercial use, and 2.40 for community facility. The maximum height allowed under C8-1 zoning is governed by the sky exposure plane 1:1 with a minimum front wall height of 30 feet or 3 stories above street line (whichever is less).

Under the proposed R7D zoning, UG 1-4 is permitted with a maximum FAR of 5.6 for residential and 4.2 for community facility. The maximum height allowed under R7D zoning is 110' with MIH or 115' with a qualifying ground floor. Under the proposed C2-4 zoning, UG 1-9 and 14 is permitted with a maximum FAR of 2.0. The maximum height allowed under the proposed C2-4 zoning district is governed by the sky exposure plane. When mapped over an R7D zoning district, the sky exposure plane ratio is 2.7:1 for a narrow street, and 5.6:1 for a wide street, with a minimum front wall height of 60 feet or 4 stories above street line (whichever is less).

Table 2.5-1: No-Action and With-Action Zoning

	No-Action		With-Action	
Zoning	R4	C8-1	R7D	C2-4
Permitted Uses	UG 1-4	UG 4-14 & 16	UG 1-4	1-9 & 14
Maximum FAR	0.75 Residential 0.90 Residential (with Attic Allowance)	1.0 Commercial	5.6 Residential	2.0 Commercial
	2.0 Community Facility	2.40 Community Facility	4.2 Community Facility	
Maximum Height	35 feet	Governed by Sky Exposure plane (1:1) with a minimum front wall height of 30 feet or 3 stories above street line (whichever is less)	110 feet with MIH units, 115 feet with a qualifying ground floor	Governed by Sky Exposure plane (2.7:1 on narrow street or 5.6:1 on wide street) with a minimum front wall height of 60 feet or 4 stories above street line (whichever is less)

2.5.1 Existing Conditions

This Study Area is generally bound by the midblock point between Avenue U and Avenue V to the north, East 12th Street to the east, the midpoint between East 7th Street and East 8th Street to the west, and Gravesend Neck Road to the south.

Projected Development Site 1 (Block 7159, Lot 123)

Lot 123 is presently unimproved with 11,020 square feet of vehicle parking and equipment storage with a built FAR of 0.14.

Projected Development Site 2 (Block 7159, Lots 128 & 130)

Lot 128 is presently improved with a one-story office building with a built FAR of 1.56. Lot 130 is presently improved with a one-story commercial building occupied by Kasai Hibachi Restaurant and Bar with a built FAR of 0.46.

Projected Development Site 3 (Block 7159, Lot 115)

Lot 115 is improved with a two-story office building occupied by Chase with a built FAR of 0.62.

Projected Development Site 4 (Block 7159, Lot 120)

Lot 120 is presently improved with four two-story office buildings. The Certificates of Occupancy for the site include uses for offices, storage of building materials, repair and maintenance shop, and contactors establishment. It is used for a laser hair removal business, offices, a radio station, and a wholesale auto parts supplier. It is an interior lot with 60 feet of frontage on Coney Island Avenue.

The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, and isolated vacant land or parking uses. Several vacant lots exist within the Study Area (Block 7371, Lot 83 and Block 7159, Lot 57). The commercial uses are comprised of Use Group 6 retail establishments such as a pharmacy, a gas station, a security system supplier, and other local retail uses such as law offices, a florist, a bank, and a liquor store.

The residential uses in the Study Area range from single and multi-family walk up buildings ranging from 2 to 3 stories in the western portion of the Study Area to mid-rise five to six story apartment buildings to the central and southern portions of the Study Area. The street grid is disrupted by East 8th Street, East 9th Street, and Homecrest Avenue which end in dead ends at Gravesend Neck, Avenue V, and Gravesend Neck Road, respectively. Additionally, the triangular block created by the intersections of Avenue W and East 12th Street, Avenue, Gravesend Neck Road, and Sheepshead Bay Road, and Gravesend Neck and East 12th Street disrupts the normal grid pattern.

The cohesion of the Study Area is disrupted by Coney Island Avenue, a heavily trafficked four-lane wide arterial road with turning bays that influences the visual character and urban design exhibited by the Study Area. It is classified as "Principal Arterial Other" and Local Truck Route by the New York State and New York City Departments of Transportation, respectively.

The Study Area does not contain any parks or open space or contain any notable natural features. The Study Area does not contain historic resources and is generally void of visual resources.

The street hierarchy includes several different functional classifications. Gravesend Neck Road and Sheepshead Bay Road are classified as Minor Collector while Coney Island Avenue is classified as Principal Arterial Other. All other roadways in the Study Area are classified as local roads. Additionally, Coney Island Avenue is categorized as "Local Truck Routes" by the New York City Department of Transportation.

2.5.2 Future No-Action Conditions

No material change to the bulk or general urban design of the existing structures within the affected area are anticipated in the Future No-Action Condition by the analysis year of 2030. While retail establishments and other buildings in the area may change tenants, 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 changes to the area's views will occur, and no significant adverse

changes to the area's urban character are anticipated. Street level views of the Future No-Action conditions are shown below in **Figure 2.5-2** and **Figure 2.5-3**.

2.5.3 Future With-Action Conditions

Under the Future With-Action Scenario, the Proposed Actions would amend the zoning map to change the existing R4 and C8-1 district to an R7D/C2-4 district. The With-Action Scenario assumes all Projected Development Sites (1, 2, 3, and 4) would be developed to the maximum FAR of 5.6. They would be a total of 115 feet tall, with a 10-foot setback at 95 feet in base height. The frontages of Projected Development Site 3 lie on both Coney Island Avenue and Avenue V, while Projected Development Sites 1, 2, & 4 have frontage only on Coney Island Avenue.

R7D districts are medium-density contextual districts that permit residential and community facility uses. In MIH areas, R7D zoning district permit residential use at a maximum FAR of 5.6 and community facility uses up to 4.2 FAR. The maximum height allowed under R7D zoning is 110' with MIH or 115' with a qualifying ground floor. R7D zoning districts were mapped as a medium-high density district that could be mapped along both narrow and wide streets. Examples in Brooklyn include: Myrtle Avenue, Fulton Street, Sutter Avenue, Cortelyou Road, and Bedford Avenue. Coney Island Avenue is a 100-foot wide street within easy walking distance to transit. This location is perfect for new density that would accommodate MIH.

Under the proposed C2-4 zoning, UG 1-9 and 14 is permitted with a maximum FAR of 2.0. The maximum height allowed under the proposed C2-4 zoning district is governed by the sky exposure plane. When mapped over an R7D zoning district, the sky exposure plane ratio is 2.7:1 for a narrow street, and 5.6:1 for a wide street, with a maximum front wall height of 60 feet or 4 stories above street line (whichever is less).

Mapping the proposed zoning districts would further the City's goals by promoting development on underutilized property proximate to an existing moderate-density residential community and public transit. The Surrounding Area is undergoing a substantial rise in price, strongly correlated with an inadequate supply of housing that is unable to match demand. The Affected Area is a significantly underutilized area primarily developed with low-rise buildings and would benefit from the development of mixed-use residential buildings to help meet this demand for additional housing.

The Proposed Actions would thus promote the development of new medium-density housing with active ground floor commercial uses that would continue to serve the neighborhood, provide jobs, and further activate the streetscape along Coney Island Avenue. This is a corridor that the City Planning Commission highlighted as a street well suited for apartment building construction in the Sahara Restaurant Rezoning (C 050317 ZMK, effective September 25, 2007). The proposed rezoning would provide for the productive use of underutilized, non-conforming property. The rezoning would make the existing buildings within the Affected Area conforming and provide for moderate growth in an area proximate to transit.

Projected Development Site 1 (Block 7159, Lot 123; Applicant-Owned Lots)

The Future With-Action Scenario for Projected Development Site 1 assumes a full build out on the Applicant owned site. It is an 11,020-sf lot currently occupied as an auto sales lot. It is assumed that the lot would be developed with a mixed residential and commercial building with 12,122 gsf (11,020 zsf) of commercial (retail) floor area on the ground floor and cellar and 55,761 gsf (50,692 zsf) of residential floor area above. The building would have a height of 115 feet, which is the maximum in an R7D zoning district and would have an FAR of 5.6 which is the maximum FAR in an R7D district. It's assumed that 24 parking spaces would be provided for the market rate residential units in a below-grade accessory parking garage.

Projected Development Site 2 (Block 7159, Lots 128 and 130; Non-Applicant Lots)

The Future With-Action Scenario for Projected Development Site 2 assumes that these two lots would be merged as one zoning lot and would be improved with a full build out mixed-use building. Under R7D/C2-4 zoning guidelines, it is assumed that Projected Site 2, a combined 5,780 sf lot, would be developed with a mixed residential and commercial building with 6,358 gsf (5,780 zsf) of commercial (retail) floor area on the ground floor and 29,246 gsf (26,588 zsf) of residential floor area above. The building would have a height of 115 feet, which is the maximum in an R7D zoning district and would have an FAR of 5.6 which is the maximum FAR in an R7D district. The building would provide 13 parking spaces for the market rate residential units in a below-grade accessory parking garage.

Projected Development Site 3 (Block 7159, Lot 115; Non-Applicant Lot)

The Future With-Action Scenario for Projected Development Site 3 assumes a full build out on Lot 115, an 11,765-sf lot currently improved with a 7,200-sf office building. In the With-Action Scenario, under R7D/C2-4 zoning guidelines, it is assumed that the site would be improved with a mixed-use building with 12,941 gsf (11,765 zsf) of commercial (retail) floor area on the ground floor and 59,530 gsf (54,119 zsf) of residential floor area above. The building would have a height of 115 feet, which is the maximum in an R7D zoning district and would have an FAR of 5.6 which is the maximum FAR in an R7D district. The building would provide 26 parking spaces for the market rate residential units in a below-grade accessory parking garage.

Projected Development Site 4 (Block 7159, Lot 120)

The Future With-Action Scenario for Projected Development Site 4 assumes that a mixed use residential and commercial building would be constructed on the portion of Lot 120 that is within the Affected Area (Approximately 6,000 sf) and would be built out to an FAR of 5.6 with a height of 115 feet, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumes that the existing 2 story, 8,000 sf office building on Lot 120 that has direct frontage on Coney Island Avenue would be razed and replaced with a 36,960 gsf (33,600 zsf) building. There would be a total of 30,360 gsf (27,600 zsf) of residential floor area and a total of 6,600 gsf (6,000 zsf) of

commercial floor area. The building would provide 13 parking spaces for the market rate residential units in a below-grade accessory parking garage.

Sites Where Development Would Not Be Induced by the Proposed Actions (Block 7159 p/o Lot 111)

Additionally, while p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Action. For Lot 111, the portion of the lot in the Affected Area makes up less than 30 percent of the total lot area, and the Proposed Action would have negligible effect on development potential. Therefore, it is assumed that this portion of the lot would remain unchanged in the With-Action Scenario.

The photo locations where urban design massings were prepared to demonstrate the Future No-Action and Future With-Action built form are shown in **Figure 2.5-1** below. **Figure 2.5-2** and **Figure 2.5-3** highlight the future With-Action Scenario of both the applicant-owned and non-applicant owned sites.

Figure 2.5-1: Urban Design Study Area – Site Photo Locations



Figure 2.5-2: View 1 – Coney Island Avenue Looking Northwest towards the Affected Area
(Photo Location shown in Figure 2.5-1)



Existing/Future No-Action Scenario

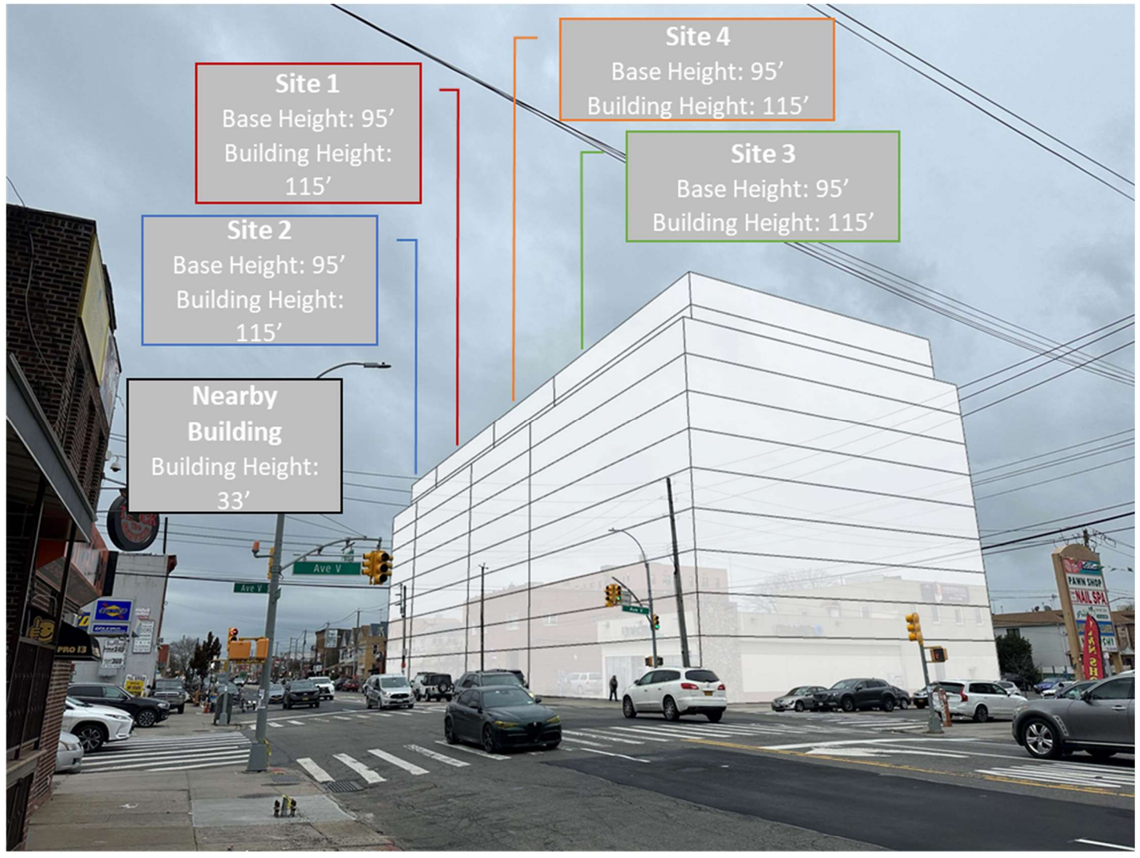


Future With-Action Scenario

Figure 2.5-3: View 2 – Looking south near the intersection of Avenue V and Coney Island Avenue (Photo Location shown in Figure 2.5-1)



Existing/Future No-Action Scenario



Future With-Action Scenario

2.5.4 Conclusion

As the Projected Development Sites would be built within the existing lot footprints of the respective lots, the development in the With-Action Scenario would not alter or disrupt the existing street grid or change the arrangement and orientation of streets in the area. Additionally, the Proposed Action would not permanently alter the existing sidewalks that border the Project Site to the East and North. Furthermore, there would be no changes to the existing sidewalk layout. Overall, the development in the Future With-Action would not alter existing streets, street grid, streetscape, and sidewalks.

Although the development under the With-Action Scenario would have more bulk and height compared to existing low to mid rise buildings in the Study Area, the buildings would be uniformly massed towards wide streets, with frontage along Coney Island Avenue and Avenue V. Furthermore, the additional density in the With-Action Scenario allows for the opportunity to produce more affordable housing, which would be unattainable in the No-Action Scenario. The Proposed Development on the Applicant-owned Development Site (Projected Development Site 1) would improve the current streetscape by adding street trees and improving the sidewalk along the Development Site frontage. In addition, as the current segment of Coney Island Avenue in the Affected Area is interrupted by the parking/auto repair parking area, the Projected Development would increase the continuity of the street wall and activate the pedestrian realm.

While the With-Action Scenario would bring a density (up to 11 stories and 115 feet) to the Study Area that does not currently exist, the Proposed Actions would not negatively affect urban design in the area. Although the Proposed Development would be the tallest building in the study area, the proposed building would be setback 10’ from the street, and would have a base height of 63’, resulting in a more human-scaled building from a pedestrian view.

There are no architecturally significant buildings in the area and the building would not significantly affect any views. While the proposed building would change the pedestrian experience on Coney Island Avenue, Avenue V, and other roadways, significant adverse impacts to urban design and visual resources are not forecast due to the zoning map change. The Proposed Actions would not result in any conditions that would merit further detailed assessment of urban design and visual resources. While no other 11-story buildings are located within the Study Area, several other four to six story 40 to 60-foot mid-rise buildings are found in the surrounding Study Area. The proposed rezoning would provide for the productive use of underutilized, non-conforming property. The Proposed Actions would also not block any view corridors or views to/from any natural areas with rare or defining features, as the proposed building is contained to the subject site. Therefore, the Proposed Actions are not expected to result in any significant adverse urban design or visual resource related impacts.

2.6 Hazardous Materials

For hazardous materials, the goal for CEQR is to determine whether the proposed project may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts. If significant adverse impacts are identified, CEQR requires that the impacts be disclosed and mitigated or avoided to the greatest extent practicable. 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 *2021 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.

Methodology

The hazardous materials assessment begins with a Phase I Environmental Site Assessment (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 *2021 CEQR Technical Manual*, the Phase I ESA is conducted in accordance with the standards established by the current ASTM Phase I 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. If a potential Recognized Environmental Conditions (RECs) 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.

2.6.1 Summary of the Phase I Environmental Site Assessment

As the Proposed Actions would result in in-ground disturbance, a Phase I Environmental Site Assessment (ESA) was conducted for the applicant-owned Projected Development Site 1 (Block 7159, Lot 123).

AECOM Technical Services, Inc. (AECOM) performed a Phase I Environmental Site Assessment (ESA) of an automotive repair facility located at 2510 Coney Island Avenue, Brooklyn, New York (subject property or Projected Development Site 1). The April 2020 Phase I ESA[11] was performed in accordance with the scope and limitations of ASTM Standard Practice Designation E 1527-13 for ESAs.

[11] A database report was obtained for the Projected Development Site in July 2022 to determine if there are any deviations from the findings or conditions of the April 2020 Phase I ESA. Based on a review of the July 2022 database report, there are no new conditions that would result in changes to the findings of the April 2020 Phase I ESA.

The site visit occurred on February 19, 2020. The approximately 0.25-acre subject property is a "rectangular-shaped" lot that contains a vacant automobile repair shop, an office trailer, and currently has multiple parked automobiles on asphalt pavement. According to the site contact, at present the subject property is mainly used for parking; however, at the time of AECOM's site reconnaissance, a neighborhood mechanic was conducting minor auto repairs on-site. The southern and eastern portions of the subject property have a security fence, with the eastern side of the fence constructed to roll up to allow access into the subject property from Coney Island Avenue. During the site visit, no visual evidence of underground storage tanks (USTs, e.g., vent pipes, fill ports), potable water wells, monitoring wells, dry wells, septic tanks, or leach fields was observed on the subject property. The subject property does contain an oil/water separator under the hydraulic lift within the repair shop and stormwater retention tanks located under the asphalt pavement. Both underground vessels are connected to the New York City Department of Environmental Protection's (NYCDEP) combined stormwater and sanitary sewer system.

The subject property is in a mixed residential and commercial section of Brooklyn. The subject property is bordered to the north by a warehouse, beyond which are a bank and residential dwellings located along Avenue V. The subject property is bordered by Coney Island Avenue to the east, beyond which is a vacant lot which was formerly occupied by a car dealership. The subject property is bordered to the south by an office building for a construction company, beyond which is a restaurant, followed by residential dwellings. The subject property is bordered to the west by warehouse buildings with an apartment complex and residential dwellings located to the southwest and northwest, respectively. A Sunoco gasoline service station is located approximately 120 feet northeast of the subject property. 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 the subject property was vacant in 1906. By 1924, four residential dwellings were located on the southern portion of the property and Sanborn® Fire Insurance Maps (Sanborn maps) identify the subject property under the addresses 2512, 2514 and 2516. There are no significant changes until 1968 when an automotive garage is identified in the northwest portion of the subject property which appears to be consistent with the configuration and size of the existing auto repair shop building. By 1981, the northern portion of the subject property is identified as "Used Auto Sales. By 1993 the northern portion of the subject property is identified as being used for auto repair, and in 1994, the residential building in the southwest corner was no longer present and was being used for vehicle parking/storage. A 2007 Phase I ESA report reviewed indicates that the auto repair shop contained a 500-gallon UST (contents not indicated), a second suspected UST based on the presence of a damaged fill port, and underground hydraulic storage tanks for an automobile lift. There are no significant changes until 2009 when the previous dwellings located in the southeastern portion of the subject property are no longer present. By 2010, the undeveloped portions of the subject property appear overgrown with vegetation. In addition, a debris pile is evident east of the on-site building and multiple open-top, circular features are evident in the northeastern portion of

the property. By 2011, the current office trailer is present to the south of the auto repair shop. Between February and June 2012, the subject property appears to have been graded and repaved into its current configuration. Additional details pertaining to the subject property's historical use as an auto repair facility are discussed in the recognized environmental conditions (RECs) section below.

The subject property is not identified on the environmental database search report (EDR) obtained for this project. According to the environmental database report, numerous (over 150) sites were identified within their respective ASTM and/or EDR search distances from the subject property. Based on AECOM's review and analysis of the database listings, none of the surrounding sites is expected to present a 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) with the exception of the site described below.

The following RECs were identified during this assessment:

- The subject property has been used for the sale and/or repair of automobiles from as early as 1965. A 2007 Phase I ESA indicates a 500-gallon UST of unreported contents, a second suspect UST, an underground hydraulic lift system, floor drains, and a sump were observed at the subject property and were identified as RECs. These features were subsequently addressed during Phase II activities performed in 2007 and no volatile organic compounds (VOCs) or semivolatile organic compounds (SVOCs) were detected above standards in soil samples collected from these areas; however, metals were detected above standards in the soil sample collected from an on-site sump and VOCs and SVOCs were detected in groundwater collected from temporary monitoring wells installed on-site. No documentation was provided with respect to removal of the reported USTs, hydraulic lift system, floor drains, or sump; however, evidence of these features was not observed on-site during AECOM's site reconnaissance. The lack of confirmatory sampling information from removal activities as well as the previous groundwater impacts and the continued use of the property for automobile repair activities, are considered a REC and a vapor encroachment condition (VEC) may exist.
- **The Sunoco Service Station** at 2489 Coney Island Avenue is located 120 feet northeast and presumed to be topographically cross to upgradient of the subject property. This site is currently a gasoline station and performs automotive repairs. Historical documents indicate the site has been used as a filling station and/or auto service station from at least 1965. Historical documentation and regulatory database information indicate that 12 USTs that were installed in 1952 or 1974 were closed in 1990 and one UST in 2007. In 1988, six of these tanks which were manifolded together had a tank test failure and Spill No. 8709423 was opened. However, following installation of a soil vapor extraction (SVE) system and groundwater monitoring through 2006, the case was closed in May 2006. Tanks that are currently in service include three, 4,000-gallon gasoline USTs, one, 1,000-

gallon fuel oil UST, and one, 1,000-gallon waste oil UST which were installed in 1990. Based on proximity, gradient and age of the USTs currently active at this site and unknown hazardous material storage and handling practices associated with auto repair operations, this site is considered a REC, in AECOM's opinion.

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

The following *de minimis* conditions (DMCs) were identified during this assessment:

- *De minimis* trash and miscellaneous debris (used tires, old automobile parts, etc.) were found stored in various areas of the subject property. No staining was observed in the vicinity of this debris. Based on the lack of staining, this debris is considered a DMC.
- *De minimis* petroleum staining was observed on the floor and along the wall of the auto repair shop ranging in size between 3 and 24 inches. Due to the limited extent and good condition of the concrete, this staining is considered a DMC.

2.6.2 Summary of the Phase II Environmental Site Investigation

Equity Environmental Engineering, LLC (Equity) performed the following scope of work at the applicant-owned Projected Development Site 1 on September 8 and 9, 2022:

1. Equity oversaw a surface geophysics survey, conducted by Blood Hound, LLC, to scan and mark out the location of any subsurface utilities and or anomalies situated within the project area;
2. Advancement of seven soil borings across the Subject Property with two soil samples collected from each boring;
3. Conversion of four of the soil borings to one-inch, temporary monitoring wells with one groundwater sample collected from each of the wells;
4. Installation of six soil vapor sampling points where samples were collected over a two-hour duration.

<u>Results</u>

- Numerous SVOCs, Pesticides, PCBs, metals, and PFAS were detected above the Restricted Residential Use criteria for soil and numerous SVOCs, PCBs, PFAS, dissolved and total metals were detected above the TOGS criteria for groundwater.
- Distribution of contaminants were fairly uniform among the sample area, and indicated that the presence of similar compounds in both groundwater and soils. This could be the result of off-gassing from the groundwater to the soil.
- There is a correlation between the soil and groundwater analytical results for the SVOCs, PCBs, and metals.
- There is no correlation between soil and soil vapor or groundwater and soil vapor

2.6.3 Summary of the Remedial Action Workplan

Based on the proposed development plan and the Phase II analytical results, the following tasks comprise the proposed Remedial Action Workplan (RAWP).

1. Preparation of a Community Protection Statement and performance of all required NYC VCP (Voluntary Cleanup Program) Citizen Participation activities according to an approved Citizen Participation Plan.

2. Soil from within the proposed building footprint will be excavated to the extent necessary for construction with proper disposal at an offsite disposal facility. The proposed depth of excavation is 14-feet and will result in approximately 8,480 tons of soil to dispose. The soil will be characterized for proper disposal. Trucking of the soil will be logged as required including the license plate, company, manifest number, destination, etc.

3. During the soil excavation and or movement onsite, a CAMP (Community Air Monitoring Program) will be implemented to monitor the site for potential offsite migration of dust and volatile organic emissions for the soil. The program is in accordance with the NYSDEC Division of Environmental Remediation DER-10. The CAMP will consist of upwind and downwind monitoring stations onsite with preset limits above which alarms will be triggered for mitigative measures to be taken. The CAMP data will be provided to the DEP in periodic construction reports and the RAR (Remedial Action Report).

4. A vapor barrier will be installed under the proposed building slab and on the sidewalls of the foundation. The vapor barrier, W.R. Grace Florprufe 120 or equivalent, will be designed in conjunction with the proposed building architect and be at least 20 mils thick. A geosynthetic liner or 2-inch-thick foam core will be placed between the sub-grade and the vapor barrier. The barrier will be installed under the entire slab and be anchored into the foundation walls with a batten strip or anchor bolts as shown on Figure 4. The seams will overlap as required by the vendor and taped. Pipe penetrations will be sealed with liquid Bithuthene or equivalent. Specifications of the proposed barrier shall be forwarded to the DEP for review and approval prior to construction. A vapor barrier will be used onsite unless the DEP approved an amendment that does not require it. The proposed vapor barrier system should be used unless an amendment is approved by DEP.

5. Where Upon completion of excavation for construction, endpoint soil samples will be collected from the base of the excavation.

6. If localized excavation extends into the groundwater table and dewatering is required, dewatering will be conducted in compliance with city, state, and federal laws and regulations. Extracted groundwater will either be containerized for off-site licensed/permitted disposal and/or if dewatering into the NYC storm/sewer drains is planned and will occur during the proposed construction, a NYCDEP Sewer Discharge Permit will be obtained prior to start of any dewatering activities onsite.

Soils Excavation and Soils Management

If excavated soil is stockpiled onsite, it will be done on and covered with plastic sheeting and anchored when the stockpile is not in use. This includes any petroleum contaminated soil if observed onsite.

The excavated material shall be properly handled, transported, and disposed of in accordance with applicable local, state, and federal laws and regulations. Dust suppression will be maintained by the contractor during soil excavation and grading operations. Dust suppression methodology that will be implemented is the use of a dedicated water spray.

Should any USTs (Underground Storage Tanks) or ASTs (Above ground Storage Tanks) (including dispensers, piping, and fill-ports) be found during the site excavation they will be properly managed and closed/removed in accordance with applicable local, state, and federal laws and regulations.

Backfill

Any areas of the site to be landscaped or not capped with an impervious surface must have a minimum of two feet of DEP approved clean fill imported from an approved facility/source and graded across the landscaped/grass areas. The clean fill must be segregated at the source/facility, have qualified environmental personnel collect representative samples at a frequency of one (1) sample for every 250 cubic yards, analyze the samples for Target Compound List VOCs by EPA Method 8260, SVOCs by EPA Method 8270, pesticides by EPA Method 8081, PCBs by EPA Method 8082, and TAL metals by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory, and compared to the NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs. A clean fill report will be submitted to the NYDEP for review and approval prior to importation and placement on-site. The report will include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and a comparison of soil analytical results.

CHASP

A Construction Health and Safety Plan (CHASP) was also prepared for NYC DEP review and concurrence, and outlines standard health and safety procedures for the construction of the proposed building and focuses on the work related to the removal of contaminated soils and the vapor intrusion mitigation activities.

Upon completion of the clean fill investigation activities for clean fill to be used within the two feet clean soil cover, the Applicant should submit a detailed clean fill report for DEP review and approval prior to importation and placement on-site. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375). If dewatering into New York City storm/sewer drains will occur during the proposed construction, a New York City Department of

Environmental Protection Sewer Discharge Permit must be obtained prior to the start of any dewatering activities at the site.

2.6.4 Conclusion

By letter dated November 15, 2022 (see **Appendix H**), the NYCDEP found the November 2022 RAWP and CHASP acceptable, as long as the information referenced in the November 2022 NYCDEP letter is incorporated into the RAWP and CHASP. A revised RAP and CHASP dated November 21, 2022, have been submitted to the NYCDEP. Upon completion of the activities detailed in the RAWP, a Professional Engineer (P.E.) certified Remedial Closure Report will be submitted for DEP review and approval for the proposed project. The P.E. certified Remedial Closure Report will indicate that all remedial requirements have been properly implemented (i.e., transportation/disposal manifests for removal and disposal of soil in accordance with applicable local, state, and federal laws and regulations; installation of vapor barrier; two feet of DEP approved certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt, etc.). With the above remedial measures in-place, the potential for significant environmental impact associated with hazardous materials would be mitigated for Projected Development Site 1 (Applicant owned).

To preclude the potential for significant adverse impact on the non-applicant owned Projected Development Site 2 (Block 7159, Lot 128 and 130), Projected Development Site 3 (Block 7159, Lot 115), and Projected Development Site 4 (Block 7159, Lot 120), 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 properties. 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 (OER). With these provisions in place, the Proposed Actions would not result in the potential for significant adverse impact related to Hazardous Materials.

The text of the (E) designation would be as follows:

(E) Designation (E-720)

Projected Development Site 2 (Block 7159, Lot 128 and 130), Projected Development Site 3 (Block 7159, Lot 115), and Projected Development Site 4 (Block 7159, Lot 120)

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase II 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.

2.7 Transportation

Pursuant to *CEQR Technical Manual* methodology, a transportation assessment may be necessary when a Proposed Action would alter the transportation network by closing, opening, or realigning an element of the transportation system such as a roadway, pedestrian way, or transit route, or if it would generate new trips on the transportation network. The objective of the transportation analyses is to determine whether a Proposed Project may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement.

Methodology

The *CEQR Technical Manual* states that a preliminary trip generation assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the Projected Development would result in fewer than the following increments:

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders (or 50 bus trips in a single direction on a single route during a peak hour); or
- 200 peak hour pedestrian trips.

The *CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted. This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network, as well as an assessment of transportation safety in the Study Area.

Analysis

Future No-Action Condition

Existing conditions are expected to remain in the future No-Action Condition as it relates to transportation analysis.

Future With-Action Condition

The incremental change in land use for Sites 1 - 4 from the future No-Action Condition to the future With-Action Condition are detailed below in **Table 2.7-1**.

Table 2.7-1: Increment Summary Table

Components	Projected Site 1 (Block 7159, Lot 123)				Projected Site 2 (Block 7159, Lots 128/130)				Projected Site 3 (Block 7159, Lot 115)				Projected Site 4 (Block 7159, Lot 120)				Total			
	Increment		Development		Increment		Development		Increment		Development		Increment		Development		Increment		Development	
Residential (Market Rate)	49	DU	49	DU	26	DU	26	DU	53	DU	53	DU	26	DU	26	DU	154	DU	154	DU
Residential (Affordable)	12	DU	12	DU	6	DU	6	DU	13	DU	13	DU	7	DU	7	DU	38	DU	38	DU
Local Retail	12,122	SF	12,122	SF	6,358	SF	6,358	SF	12,941	SF	12,941	SF	6,600	SF	6,600	SF	38,021	SF	38,021	SF
Auto Sales	-11,020	SF	0	SF	0	SF	0	SF	0	SF	0	SF	0	SF	0	SF	-11,020	SF	0	SF
Office	0	SF	0	SF	-5,280	SF	0	SF	-7,200	SF	0	SF	0	SF	0	SF	-12,480	SF	0	SF
Restaurant	0	SF	0	SF	-1,100	SF	0	SF	0	SF	0	SF	0	SF	0	SF	-1,100	SF	0	SF
Warehouse	0	SF	0	SF	0	SF	0	SF	0	SF	0	SF	-8,000	SF	0	SF	-8,000	SF	0	SF

Source: Reasonable Worst Case Development Scenario, Department of City Planning

2.7.1 Preliminary Assessment

Based on the Affected Area's location, it is within Traffic Zone 3, according to Table 16-1 of the *2020 CEQR Technical Manual*. In this zone, a residential development of fewer than 200 residential units, 15,000 square feet of local retail, or 25,000 square feet of community facility space, or a weighted average below 1.00 of any of the above, typically does not warrant further assessment of the potential for adverse effects on Transportation. Incremental development under the Proposed Actions, compared to No-Action conditions, would consist of 192 more residential dwelling units (0.96 weighted average) and an increase of 19,000 GSF of local retail space (1.27 weighted average), a decrease of 12,480 GSF of office space (-0.125 weighted average), and a decrease of 1,100 GSF of restaurant space (-0.11 weighted average), which results in a weighted average of 1.99 for the Proposed Actions. Therefore, a Tier 1 trip generation is required.

Transportation Planning Assumptions

Residential

The daily person trip generation rate, temporal distributions, and truck trip generation rates are from the *2020 CEQR Technical Manual*. Directional distributions are from the Broadway Triangle, FEIS 2009 as used for the East New York Rezoning FEIS, 2016. Modal split estimates and AM/PM auto occupancy were derived from Journey-to-Work (JTW) data from the American Community Survey (ACS) (2015-2019) for Brooklyn census tracts 390, 392, 394, 582 and 584 that contains 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.

Local Retail

The daily person trip generation rate, temporal distributions, and truck trip generation rates are from the 2020 CEQR Technical Manual. Directional distributions are from the Broadway Triangle, FEIS 2009 as used for the East New York Rezoning FEIS, 2016. The modal split estimates and vehicle occupancy are based on NYCDOT modal split survey for local retail in Brooklyn Transit Zone. Linked trip credits of 15% and 5% were applied to the weekday AM and PM peak hours, respectively.

Auto Sales

The daily person trip generation rate, temporal distributions, and directional distributions are from a NYCDOT trip generation survey. The modal split estimates, vehicle occupancy, and truck trip generation rates are from the West 57th Street Rezoning FEIS, 2001 as used for East New York Rezoning FEIS, 2016.

Office

The daily person trip generation rate and temporal distributions and truck trip generation rates are from the *2020 CEQR Technical Manual*. The directional distributions are from the Broadway

Triangle, FEIS 2009 as used for the East New York Rezoning FEIS, 2016. The modal split estimates and vehicle occupancy are based on the 2012-2016 CTTP Reverse Journey to Work data for Brooklyn census tracts 390, 392, 394, 582 and 584.

Restaurant

The daily person trip generation rate, temporal distributions, directional distributions, modal split estimates, vehicle occupancy, and truck trip generation rates are based on data from Brooklyn Bridge Park Project FEIS, 2005 as used for the East New York Rezoning FEIS, 2016.

Warehouse

The daily person trip generation rate was calculated from the ITE Trip Generation Handbook, 9th Edition, Land Use Code 150 (Warehousing) with a 1.51 adjustment factor based on a NYCDOT trip generation survey. The temporal distributions and directional distributions are based on data from ITE Trip Generation Handbook, 9th Edition, Land Use Code 150 (Warehousing). The modal split estimates and vehicle occupancy are based on the 2012-2016 CTTP Reverse Journey to Work data for Brooklyn census tracts 390, 392, 394, 582 and 584. The weekday truck trip generation rates are from the ITE Trip Generation Handbook, 9th Edition, Land Use Code 150 (Warehousing) with a 1.51 adjustment factor based on a NYCDOT trip generation survey. The Saturday truck trip generation rates are adjusted as per the ratio between weekday and Saturday based on the information from ITE Trip Generation Handbook, 10th Edition, Land Use code 150 (Warehousing).

As **Table 2.7-2** shows, the assumption of the travel factors is determined based on the listed data sources. **Table 2.7-3** shows the person trips, vehicular trips, and pedestrian trips generated from the trip factors in **Table 2.7-2**.

Table 2.7-2: Transportation Demand Factors

Land Use:	Residential		Local Retail		Auto Sales		Office		Restaurant		Warehouse	
Trip Generation:	(1)		(1)		(13)		(1)		(7)		(9,11)	
Daily Person Trips												
Weekday	8.075		205.0		13.00		18.0		173.0		2.36	
Saturday	9.6		240.0		13.00		3.9		139.0		0.20	
	per dwelling unit		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Temporal Distribution:	(1)		(1)		(13)		(1)		(7)		(9)	
AM	10.0%		3.0%		1.0%		12.0%		1.0%		10.0%	
MD	5.0%		19.0%		10.0%		15.0%		13.7%		9.0%	
PM	11.0%		10.0%		9.0%		14.0%		7.7%		11.0%	
SAT	8.0%		10.0%		10.0%		17.0%		11.6%		33.0%	
In/Out Splits:	(5)		(5)		(13)		(5)		(7)		(9)	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	15.0%	85.0%	50.0%	50.0%	78.0%	22.0%	96.0%	4.0%	94.0%	6.0%	77.0%	23.0%
MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	39.0%	61.0%	65.0%	35.0%	53.0%	47.0%
PM	70.0%	30.0%	50.0%	50.0%	35.0%	65.0%	5.0%	95.0%	65.0%	35.0%	27.0%	73.0%
SAT	50.0%	50.0%	55.0%	45.0%	50.0%	50.0%	60.0%	40.0%	63.0%	37.0%	64.0%	36.0%
Modal Splits:	(2)		(10)		(8)		(6)		(7)		(6)	
	All Periods		**All Periods**		**All Periods**		**All Periods**		**All Periods**		**All Periods**	
Auto	38.4%		11.0%		100.0%		67.3%		30.0%		67.3%	
Taxi/FHV	0.2%		0.0%		0.0%		0.6%		5.0%		0.6%	
Subway	48.1%		3.0%		0.0%		12.7%		15.0%		12.7%	
Bus	4.8%		2.0%		0.0%		7.4%		15.0%		7.4%	
Bicycle	1.1%		0.0%		0.0%		0.2%		0.0%		0.2%	
Walk	7.4%		84.0%		0.0%		11.7%		35.0%		11.7%	
	99.9%		100.0%		100.0%		100.0%		100.0%		100.0%	
Vehicle Occupancy:	(2,3,4)		(10)		(8)		(3,6)		(7)		(3,6)	
	AM/PM	**MD/SAT**	**All Periods**		**All Periods**		**All Periods**		**All Periods**		**All Periods**	
Auto	1.22	1.71	1.20		1.30		1.08		2.20		1.08	
Taxi/FHV	1.22	1.71	1.20		1.50		1.08		2.30		1.08	
Truck Trip Generation:	(1)		(1)		(8)		(1)		(7)		(9,11,12)	
Daily Truck Trips												
Weekday	0.06		0.35		0.15		0.32		3.60		0.91	
Saturday	0.02		0.04		0.15		0.01		3.60		0.08	
	per dwelling unit		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
AM	12.0%		8.0%		9.6%		10.0%		6.0%		9.9%	
MD	9.0%		11.0%		11.0%		11.0%		6.0%		8.0%	
PM	2.0%		2.0%		1.0%		2.0%		1.0%		7.0%	
SAT	9.0%		11.0%		11.0%		11.0%		0.0%		28.0%	
Truck In/Out Splits	(1)		(1)		(8)		(1)		(7)		(9,13)	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	67.0%	33.0%
MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	57.0%	43.0%
PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	60.0%	40.0%
SAT	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	42.0%	58.0%

Sources:

1 Based on data from *City Environmental Quality Review (CEQR) Technical Manual*, 2020

2 Based on ACS 2015-2019 5-Year Means of Transportation to Work, Brooklyn Census Tracts 390, 392, 394, 582 and 584

3 Taxi/FHV occupancy assumed to be the same as passenger vehicles

4 Midday and Saturday vehicle occupancy determined by applying a multiplier (1.4) to the AM/PM rate as used for *East New York Rezoning FEIS,*2016

5 Based on data from *Broadway Triangle FEIS*, 2009 as used for *East New York Rezoning FEIS*, 2016

6 Based on 2012-2016 CTTP Reverse Journey to Work data for Brooklyn Census Tracts 390, 392, 394, 582 and 584

7 Based on data from *Brooklyn Bridge Park Project FEIS*, 2005 as used for *East New York Rezoning FEIS,* 2016

8 Based on data from *West 57th Street Rezoning FEIS*, 2001 as used for *East New York Rezoning FEIS* 2016

9 Based on data from ITE Trip Generation Handbook, 10th Edition, Land Use Code 150 (Warehousing)

10 Based on NYCDOT modal split survey for local retail in Brooklyn Transit Zone

11 Trip Generation rate includes a 1.51 adjustment factor per NYCDOT Trip Generation Survey

12 Adjusted as per the ratio between weekday and Saturday based on the information from ITE Trip Generation Handbook, 10th Edition, Land Use code 150 (Warehousing)

13 NYCDOT Trip Generation Survey

2.7.2 CEQR Transportation Analysis Screening

The *CEQR Technical Manual* provides a methodology for evaluating the potential impacts of a Proposed Project on the transportation system. In accordance with the 2020 *CEQR Technical Manual*, a Level 1 screening assessment includes a trip generation analysis to determine whether the project would result in more than 50 vehicle trip-ends, 200 subway/rail or bus transit riders, or 200 pedestrian trips in a peak hour. The Level 2 screening is a trip assignment review that assigns the project-generated trips to specific intersections, transit lines, and pedestrian elements and identifies intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 bus trips in a single direction on a single route, or 200 passengers at a subway station or line during any analysis peak hour which would require detailed analyses.

Table 2.7-3 shows the Total Trip Generation projected for the Projected Development.

Table 2.7-3: Total Project Generated Trips

Land Use:		With Action Development				No-Action Development								Total	
		Residential		Local Retail		Auto Sales		Office		Restaurant		Warehouse			
	Size:	192 du		38,021 gsf		11,020 gsf		12,480 gsf		1,100 gsf		8,000 gsf			
Peak Hour Trips:															
	AM	156		199		1		27		2		2		323	
	Midday	76		1,481		14		33		26		2		1,482	
	PM	171		741		13		31		15		2		851	
	Saturday	148		913		14		9		18		1		1,019	
Person Trips:														**Net**	
		In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	Auto	8	51	11	11	1	0	17	0	1	0	1	0	-1	62
	Taxi/FHV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	12	64	3	3	0	0	3	0	0	0	0	0	12	67
	Public Bus	0	6	2	2	0	0	2	0	0	0	0	0	0	8
	Walk	0	10	84	84	0	0	3	0	1	0	0	0	80	94
	Total	20	131	100	100	1	0	25	0	2	0	1	0	91	231
Midday	Auto	15	15	82	82	7	7	9	14	5	3	1	1	75	72
	Taxi/FHV	0	0	0	0	0	0	0	0	1	0	0	0	-1	0
	Subway	17	17	23	23	0	0	2	2	3	1	0	0	35	37
	Public Bus	1	1	15	15	0	0	1	2	3	1	0	0	12	13
	Walk	2	2	622	622	0	0	2	2	6	3	0	0	616	619
	Total	35	35	742	742	7	7	14	20	18	8	1	1	737	741
PM	Auto	46	20	41	41	5	8	1	20	3	2	0	1	78	30
	Taxi/FHV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	59	25	12	12	0	0	0	4	1	1	0	0	70	32
	Public Bus	5	2	7	7	0	0	0	2	1	1	0	0	11	6
	Walk	8	4	311	311	0	0	0	3	3	2	0	0	316	310
	Total	118	51	371	371	5	8	1	29	8	6	0	1	475	378
Saturday	Auto	29	29	56	45	7	7	4	2	3	2	0	0	71	63
	Taxi/FHV	0	0	0	0	0	0	0	0	1	0	0	0	-1	0
	Subway	35	35	16	12	0	0	0	0	2	1	0	0	49	46
	Public Bus	2	2	10	8	0	0	0	0	2	1	0	0	10	9
	Walk	5	0	422	346	0	0	0	0	4	2	0	0	423	349
	Total	71	66	504	411	7	7	4	2	12	6	0	0	552	467
Vehicle Trips:														**Total Balanced**	
		In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	Auto	8	42	10	10	1	0	15	0	0	0	1	0	1	52
	Taxi/FHV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi/FHV (Balanced)	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
	Total	8	42	10	10	1	0	15	0	0	0	1	0	1	52
Midday	Auto	13	13	69	69	5	5	9	13	2	1	1	1	65	62
	Taxi/FHV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi/FHV (Balanced)	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
	Total	13	13	69	69	5	5	9	13	2	1	1	1	65	62
PM	Auto	38	16	35	35	4	6	1	18	1	1	0	1	67	25
	Taxi/FHV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi/FHV (Balanced)	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
	Total	38	16	35	35	4	6	1	18	1	1	0	1	67	25
Saturday	Auto	35	35	68	55	9	9	4	2	7	4	0	0	83	75
	Taxi/FHV	0	0	0	0	0	0	0	0	2	0	0	0	-2	0
	Taxi/FHV (Balanced)	0	0	0	0	0	0	0	0	2	2	0	0	-2	-2
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	35	35	68	55	9	9	4	2	9	6	0	0	81	73

Note (1): A 15% AM and 5% PM peak hour Linked Trip credit was applied to Local Retail peak hour trips.

Level 1 Screening Assessment

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 trucks were converted to Passenger Car Equivalents (PCE) as per the 2020 *CEQR Technical Manual*. Incremental project-generated trip ends are detailed below in **Table 2.7-4**.

Traffic

As shown in **Table 2.7-4**, the Proposed Projects would generate greater than 50 vehicle trips during all peak hours. As this exceeds the Level 1 threshold of 50 vehicle trip-ends, a Level 2 screening assessment would be warranted for these peak hours. For the purpose of assigning vehicle trips, it was assumed that all auto trips except the market rate housing would park off site since only a limited number of on-site parking spaces would be provided.

Subway

As shown in **Table 2.7-4**, the Proposed Project would not generate greater than 200 subway trips during any of the peak hours. Therefore, a Level 2 screening assessment would not be warranted for these peak hours.

Bus

As shown in **Table 2.7-4**, the Proposed Project would generate fewer than 200 MTA bus trips during all of the peak hours. Therefore, a Level 2 screening assessment would not be warranted for these peak hours.

Pedestrian

In addition to walk-only trips, all bus and subway trips generated by the Proposed Project would begin or end as pedestrian trips. For the purpose of assigning pedestrian trips, it was conservatively assumed that all auto trips would park on-street, and would all constitute walk trips, even though some on-site parking would be provided. All taxi pick-up/drop-offs were assumed to occur at the entrance to the building, and as such, no walk trips were assigned to the pedestrian network for this mode. The Proposed Project would exceed the Level 1 threshold of 200 trips during all the peak hours as shown in **Table 2.7-4**. Therefore, a Level 2 screening assessment would be warranted for these peak hours.

Table 2.7-4: Project Generated Trip Ends

Components	Auto	Taxi (Balanced)	Truck (1.5 PCE)*	Total Vehicles	Subway	Public Bus	Walk/Other	On-Street Parking Walk Trips	Total Walk
Weekday AM Peak Hour	53	0	0	53	79	8	174	44	305
Weekday Midday Peak Hour	127	0	0	127	72	25	1,235	204	1,536
Weekday PM Peak Hour	92	0	0	92	102	17	626	122	867
Saturday Midday Peak Hour	158	-4	0	154	95	19	772	135	1,021

Notes: Truck 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.

Level 2 Screening Assessment

As part of the Level 2 screening assessment, project-generated trips were assigned to specific intersections and pedestrian elements near the project site. Further quantified analyses to assess the potential impacts of the Proposed Action on the transportation system would be warranted if the trip assignments were to identify key intersections incurring 50 or more peak hour vehicle-trips, pedestrian elements incurring 200 or more peak hour pedestrian-trips, or Subway Stations or lines incurring 200 or more peak hour trips.

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. Journey to Work data based on ACS 2015-2019 5-Year Means of Transportation to Work, Brooklyn Census Tracts 390, 392, 394, 582 and 584 would be used for the residential uses, Reverse Journey to Work data based on the 2012-2016 CTTP for Brooklyn Census Tracts 390, 392, 394, 582 and 584 would be used for the office and warehouse uses, and population density would be used for the local retail, restaurant, and auto sales uses to determine origin and destination patterns. This methodology is discussed below in more detail.

Level 2 Vehicular Assignment Assumptions

Vehicular trips were assigned to an origin/destination zone using the appropriate Census data by land use to either the North, East, South, or West of the rezoning area and routed accordingly along the local roadway network. All vehicles except for the market rate housing would park off site since only a limited number of on-site parking spaces would be provided.

Level 2 Vehicular Assignment Results

Table 2.7-5 shows the number of vehicles assigned to area intersections for the weekday AM peak hour, weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour as the proposed rezoning. As shown in **Table 2.7-5** none of the intersections would be projected-to meet the 50-vehicle threshold during any of the peak hours. As a result, a quantitative analysis would not be warranted at any locations during these time periods as shown in **Table 2.7-5**. Project generated vehicle movement maps are in **Appendix C**.

Table 2.7-5: Vehicular Intersection Summary

Intersection	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Avenue U and Ocean Parkway	9	20	17	21
Avenue U and Ocean Parkway NB Service Road	7	16	11	16
Avenue U and East 7th Street	6	17	13	18
Avenue U and East 8th Street	9	22	14	22
Avenue U and East 9th Street	5	19	12	17
Avenue U and Coney Island Avenue	9	31	21	27
Avenue U and East 12th Street	2	14	8	13
Avenue U and Homecrest Avenue	4	12	6	12
Avenue U and East 13th Street	1	7	3	8
Avenue V and Ocean Parkway	10	20	19	25
Avenue V and Ocean Parkway NB Service Road	8	19	17	25
Avenue V and East 7th Street	11	22	20	30
Avenue V and East 8th Street	16	24	32	43
Avenue V and East 9th Street	9	17	31	34
Avenue V and Coney Island Avenue	18	36	48	44
Avenue V and East 12th Street	4	12	8	17
Avenue V and Homecrest Avenue	4	13	8	17
Avenue V and East 13th Street	1	6	5	9
Gravesend Neck Road and Ocean Parkway	11	16	18	25
Gravesend Neck Road and Ocean Parkway NB Service Road	9	14	13	20
Gravesend Neck Road and East 7th Street	11	19	18	26
Gravesend Neck Road and East 8th Street	13	17	23	31
Gravesend Neck Road and Coney Island Avenue	33	30	29	44
Gravesend Neck Road and East 12th Street	5	5	1	8
Gravesend Neck Road and Sheepshead Bay Road/Avenue W	6	10	5	12
Gravesend Neck Road and Homecrest Avenue	5	10	4	11
Gravesend Neck Road and East 13th Street	3	7	3	9
Avenue W and Ocean Parkway	17	23	22	37
Avenue W and Ocean Parkway NB Service Road	8	11	7	15
Avenue W and East 7th Street	8	11	9	15
Avenue W and Coney Island Avenue	15	17	19	30
Avenue W and East 12th Street	5	8	4	10
Note: Intersections with greater than 50 new trips are shaded				

Level 2 Pedestrian Assignment Assumptions

Incremental pedestrian trips resulting from the Proposed Project would exceed the CEQR Level-1 screening threshold during the Weekday AM, Midday, PM, and Saturday Midday peak hours. As shown in **Table 2.7-4**, the proposed rezoning generate 174, 1,235, 626, and 772 walk-only pedestrian trips during the weekday AM peak hour, weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour, respectively. In addition, all auto, bus, and subway trips have a pedestrian component with these trips passing through pedestrian elements within the rezoning area. As a result, the total pedestrian trips (all modes) generated by the proposed rezoning would be 305, 1,536, 867, 1,021 pedestrian trips during the weekday AM, weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour, respectively.

Pedestrian 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 using the appropriate Census data by land use to either the North, East, South, or West of the rezoning area and routed accordingly along the local pedestrian network. All vehicles were assumed to park on-street with the exception for the market rate housing. The auto trip pedestrians walking between the development sites and on-street parking spaces were distributed the same as walk-only trips. Bus and subway trips were routed to the B68, and B3 buses and the Q train stations at Avenue U and Neck Road by land use using the appropriate Census data.

Level 2 Pedestrian Assignment Results

Total pedestrian volumes were calculated for pedestrian elements (sidewalk, crosswalks, and corners) within the study area. As shown in **Table 2.7-6**, the south crosswalk at the Avenue V and Coney Island Avenue intersection would be estimated to exceed 200 new pedestrians during the weekday midday peak hour. In addition, the west crosswalk at the Avenue V and Coney Island Avenue intersection would be estimated to exceed 200 new pedestrians during the weekday midday and PM peak hours and the Saturday midday peak hour.

As shown in **Table 2.7-7**, the west sidewalk on Coney Island Avenue (between Avenue V and Gravesend Neck Road) would be estimated to exceed 200 new pedestrians both north and south of the Projected Sites 1, 2, and 4 entrances during the weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hours. The south sidewalk on Avenue V (between Coney Island Avenue and East 8th Street) east of the Projected Site 3 entrance would be estimated to exceed 200 new pedestrians during the weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour. In addition, the south sidewalk on Avenue V (between Coney Island Avenue and East 8th Street) west of the Projected Site 3 entrance and the north sidewalk on Avenue V (between Coney Island Avenue and East 8th Street) would be estimated to exceed 200 new pedestrians during the weekday midday peak hour. As such, quantitative analyses would be warranted at these locations during these periods.

As shown in **Table 2.7-8**, the following corners at the Gravesend Neck Road and Coney Island Avenue intersection exceed 200 new pedestrians: the northwest corner during the weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour and the southwest corner during the weekday midday peak hour. At the Avenue V and Coney Island Avenue intersection, the following corners would exceed 200 new pedestrians: northwest corner during the weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour, northeast corner during the weekday midday peak hour, southeast corner during the weekday and Saturday midday peak hours, and the southwest corner during the weekday AM peak hour, weekday midday peak hour, weekday PM peak hour, and Saturday midday peak hour. Project generated pedestrian movement maps are in **Appendix C**. All pedestrian analysis locations are presented in **Figure 2.7-1**.

Table 2.7-6: Crosswalk Projected Pedestrian Trip Summary

Crosswalks	Pedestrian Trips (All)			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Avenue V and Coney Island Avenue				
West Crosswalk	96	392	241	301
South Crosswalk	55	163	75	148

Note: Shaded cells exceed 200 peak hour pedestrian trip ends.

Table 2.7-7: Sidewalk Projected Pedestrian Trip Summary

Sidewalks	Pedestrian Trips (All)			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Avenue V				
South sidewalk between East 8th Street and Coney Island Avenue, West of Site 3 Entrance	26	290	99	143
North sidewalk between Coney Island Avenue and East 12th Street	42	210	114	149
South sidewalk between East 8th Street and Coney Island Avenue, East of Site 3 Entrance	97	528	310	370
Coney Island Avenue				
West sidewalk between Avenue V and Gravesend Neck Road, North of Project site entrances	145	779	435	538
West sidewalk between Avenue V and Gravesend Neck Road, South of Project site entrances	60	441	230	221

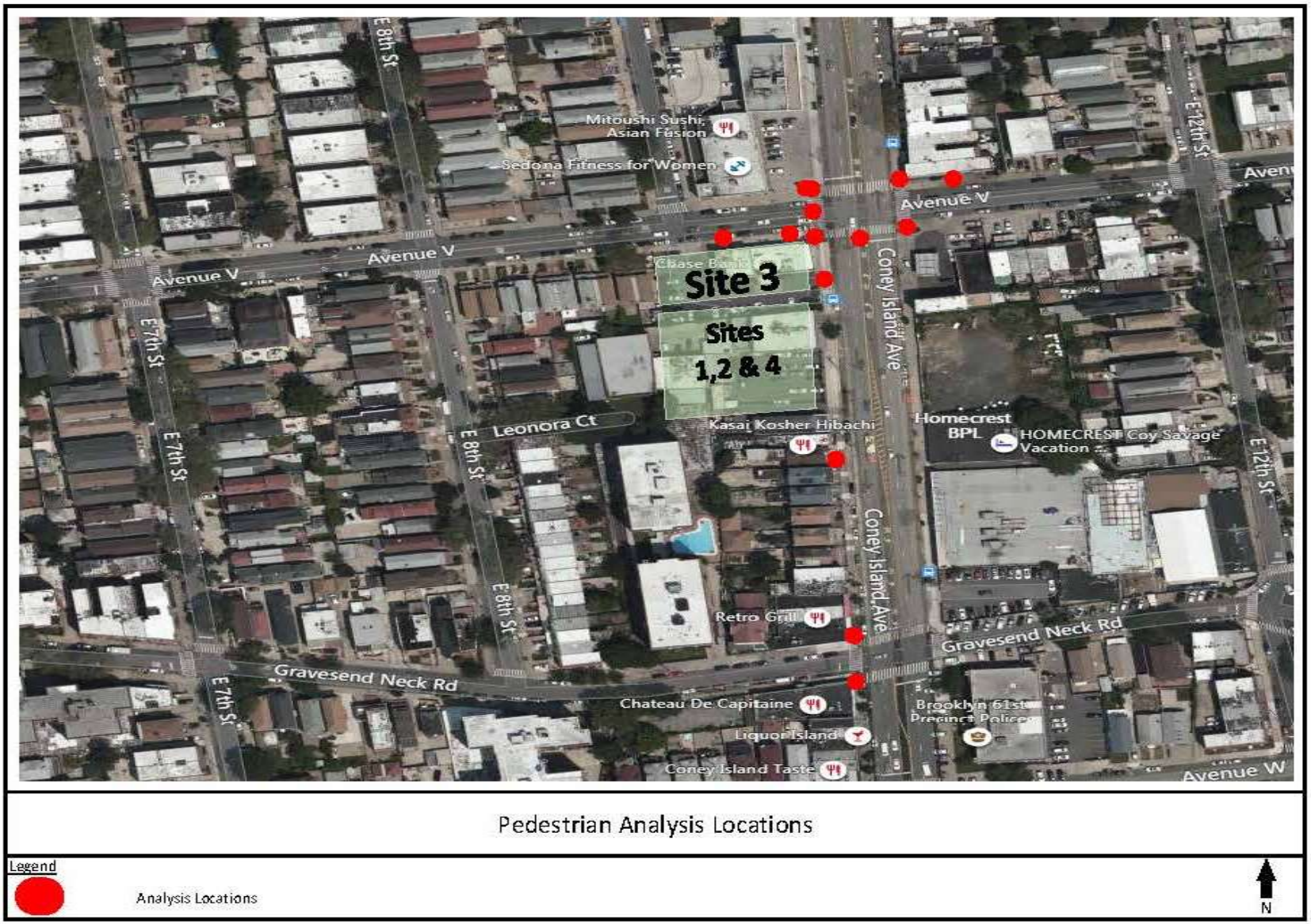
Note: Shaded cells exceed 200 peak hour pedestrian trip ends.

Table 2.7-8: Corner Projected Pedestrian Trip Summary

Corners	Pedestrian Trips (All)			
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
Gravesend Neck Road and Coney Island Avenue				
Northwest Corner	69	430	223	263
Southwest Corner	39	233	120	144
Avenue V and Coney Island Avenue				
Northwest Corner	95	392	241	301
Northeast Corner	67	224	145	164
Southeast Corner	68	316	191	214
Southwest Corner	202	1006	588	709

Note: Shaded cells exceed 200 peak hour pedestrian trip ends.

Figure 2.7-1: Pedestrian LOS Locations



Parking

In order to determine the hourly project generated off-street parking demand, 24-hour parking accumulation tables were developed for the proposed market rate housing using the transportation planning factors data provided in **Table 2.7-2** and the trip generation data found in **Table 2.7-9**. The land use specific hourly temporal distributions were derived from the 2004 No. 7 Subway Extension-Hudson Yard Rezoning and Development Program Final Generic Environmental Impact Statement (FGEIS) for residential.

A total of 76 off-street parking spaces are proposed for the four Projected Sites. Specifically, 24 spaces are proposed for Projected Site 1, 13 spaces are proposed for Projected Site 2, 26 spaces are proposed for Projected Site 3, and 13 spaces are proposed for Projected Site 4. It was assumed that all market rate housing vehicles to be generated by the Projected Sites would park in off-street parking. Conversely, all vehicles generated by the affordable housing for Projected Sites would be accommodated at on-street parking locations.

As identified in **Table 2.7-9**, the total hourly demand for off-street parking was calculated for the 24-hour weekday period. Based on the data, the project generated demand for off-street parking for the market rate housing can be accommodated throughout a weekday at each individual site and for the sites combined. There are no projected parking issues in the study area on Saturdays.

Table 2.7-9: Project Generated Off Street Parking Demand

Time	Market Rate Residential				Total
	Site 1	Site 2	Site 3	Site 4	
12-1 AM	21	11	22	11	66
1-2 AM	21	11	22	11	66
2-3 AM	21	11	22	11	66
3-4 AM	21	11	22	11	65
4-5 AM	21	11	22	11	65
5-6 AM	21	11	22	11	65
6-7 AM	20	11	21	11	63
7-8 AM	17	9	18	9	53
8-9 AM	8	4	8	4	25
9-10 AM	4	2	4	2	13
10-11 AM	4	2	3	2	10
11-12 PM	4	2	3	2	10
12-1 PM	4	2	3	2	10
1-2 PM	4	2	3	2	10
2-3 PM	4	2	3	2	10
3-4 PM	5	2	5	2	14
4-5 PM	8	4	8	4	26
5-6 PM	14	7	14	7	43
6-7 PM	19	10	19	10	58
7-8 PM	22	11	23	11	67
8-9 PM	23	12	24	12	72
9-10 PM	21	11	22	11	66
10-11 PM	21	11	22	11	66
11-12 AM	21	11	22	11	66

2.7.3 CEQR Pedestrian Analysis Methodology

Peak 15-minute pedestrian flow conditions during the weekday AM, midday, PM, and Saturday midday peak hours are analyzed using the 2000 *Highway Capacity Manual* methodology and procedures outlined in the *2021 CEQR Technical Manual*. The congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian volume concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. A “time-space” analysis

methodology is employed to effectively evaluate these facilities, which considers the traffic light cycle at intersections.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience.

Table 2.7-10 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the Highway Capacity Manual methodology adapted in the *2021 CEQR Technical Manual*.

Table 2.7-10: LOS Criteria for Crosswalks, Corner Areas, and Sidewalks

LOS	Crosswalk/Corner Condition	Crosswalk/Corner Area Criteria (sf/ped)	Platoon Sidewalk Criteria (sf/ped)
A	Unrestricted	> 60	> 530.1
B	Slightly Restricted	> 40.1 to 60	> 90.1 to 530
C	Restricted but fluid	> 24.1 to 40	> 40.1 to 90
D	Restricted, necessary to continuously alter walking stride and direction	> 15.1 to 24	> 23.1 to 40
E	Severely restricted	> 8.1 to 15	> 11.1 to 23
F	Forward progress only by shuffling, no reverse movement possible	$\leq$ 8	$\leq$ 11

Source: 2021 *CEQR Technical Manual*.

The *2021 CEQR Technical Manual* impact criteria for a non-CBD location are used to identify significant adverse impacts associated with the proposed project. These criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the Future No-Action condition is greater than 44.3 square feet per pedestrian (sf/ped) and the average pedestrian space under the Future With-Action condition is 40.0 sf/ped or less (LOS D or worse). If the average pedestrian space under the Future With-Action condition is greater than 40.0 sf/ped (LOS C or better), the impact should not be considered significant. If the Future No-Action pedestrian space is between 6.4 and 44.3 sf/ped, a reduction in pedestrian space under the Future With-Action condition should be considered significant based on **Table 2.7-11**, which shows a sliding scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the Future No-Action condition.

Table 2.7-11: Significant Impact Criteria for Sidewalks W/Platooned Flow in Non-CBD Location

Future No-Action Condition Pedestrian Flow (sf/ped)	Future With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
Free Flow	Future With-Action Condition ≤ 40.0
43.5 to 44.3	Reduction ≥ 4.3
42.5 to 43.4	Reduction ≥ 4.2
41.6 to 42.4	Reduction ≥ 4.1
40.6 to 41.5	Reduction ≥ 4.0
39.7 to 40.5	Reduction ≥ 3.9
38.7 to 39.6	Reduction ≥ 3.8
37.8 to 38.6	Reduction ≥ 3.7
36.8 to 37.7	Reduction ≥ 3.6
35.9 to 36.7	Reduction ≥ 3.5
34.9 to 35.8	Reduction ≥ 3.4
34.0 to 34.8	Reduction ≥ 3.3
33.0 to 33.9	Reduction ≥ 3.2
32.1 to 32.9	Reduction ≥ 3.1
31.1 to 32.0	Reduction ≥ 3.0
30.2 to 31.0	Reduction ≥ 2.9
29.2 to 30.1	Reduction ≥ 2.8
28.3 to 29.1	Reduction ≥ 2.7
27.3 to 28.2	Reduction ≥ 2.6
26.4 to 27.2	Reduction ≥ 2.5
25.4 to 26.3	Reduction ≥ 2.4
24.5 to 25.3	Reduction ≥ 2.3
23.5 to 24.4	Reduction ≥ 2.2
22.6 to 23.4	Reduction ≥ 2.1
21.6 to 22.5	Reduction ≥ 2.0
20.7 to 21.5	Reduction ≥ 1.9
19.7 to 20.6	Reduction ≥ 1.8
18.8 to 19.6	Reduction ≥ 1.7
17.8 to 18.7	Reduction ≥ 1.6
16.9 to 17.7	Reduction ≥ 1.5
15.9 to 16.8	Reduction ≥ 1.4
15.0 to 15.8	Reduction ≥ 1.3
14.0 to 14.9	Reduction ≥ 1.2
13.1 to 13.9	Reduction ≥ 1.1
12.1 to 13.0	Reduction ≥ 1.0
11.2 to 12.0	Reduction ≥ 0.9
10.2 to 11.1	Reduction ≥ 0.8
9.3 to 10.1	Reduction ≥ 0.7
8.3 to 9.2	Reduction ≥ 0.6
7.4 to 8.2	Reduction ≥ 0.5
6.4 to 7.3	Reduction ≥ 0.9
< 6.4	Reduction ≥ 0.3

Source: 2021 *CEQR Technical Manual*.

If the reduction in pedestrian space is less than the value in Table 2.7-12, the impact is not considered significant. If the average pedestrian space under the Future No-Action condition is less than 6.4 sf/ped, then a reduction in pedestrian space greater than or equal to 0.3 sf/ped under the Future With-Action condition should be considered significant.

The *2021 CEQR Technical Manual* significant impact criteria for corners and crosswalks in non-CBD locations is used to determine whether significant adverse impacts are projected to occur due to the rezoning. Generally, if average square feet per pedestrian deteriorates to a value within the acceptable LOS range (C or better) under the Future With-Action condition, there is no significant impact. If the pedestrian space deteriorates to LOS D or worse, a sliding scale is used to determine whether the impact is considered significant. **Table 2.7-12** details the significant impact criteria for corners and crosswalks in non-CBD locations.

Table 2.7-12: Significant Impact Criteria for Corners and Crosswalks in Non-CBD Locations

Future No-Action Condition Pedestrian (Ped) Space (sf/ped)	Future With-Action Condition Ped Space Reduction to be Considered Significant Impact (sf/ped)
>26.6	Future With-Action Condition ≤ 24.0
25.8 to 26.6	Reduction ≥ 2.6
24.9 to 25.7	Reduction ≥ 2.5
24.0 to 24.8	Reduction ≥ 2.4
23.1 to 23.9	Reduction ≥ 2.3
22.2 to 23.0	Reduction ≥ 2.2
21.3 to 22.1	Reduction ≥ 2.1
20.4 to 21.2	Reduction ≥ 2.0
19.5 to 20.3	Reduction ≥ 1.9
18.6 to 19.4	Reduction ≥ 1.8
17.7 to 18.5	Reduction ≥ 1.7
16.8 to 17.6	Reduction ≥ 1.6
15.9 to 16.7	Reduction ≥ 1.5
15.0 to 15.8	Reduction ≥ 1.4
14.1 to 14.9	Reduction ≥ 1.3
13.2 to 14.0	Reduction ≥ 1.2
12.3 to 13.1	Reduction ≥ 1.1
11.4 to 12.2	Reduction ≥ 1.0
10.5 to 11.3	Reduction ≥ 0.9
9.6 to 10.4	Reduction ≥ 0.8
8.7 to 9.5	Reduction ≥ 0.7
7.8 to 8.6	Reduction ≥ 0.6
6.9 to 7.7	Reduction ≥ 0.5
6.0 to 6.8	Reduction ≥ 0.4
5.1 to 5.9	Reduction ≥ 0.3
< 5.1	Reduction ≥ 0.2

Source: 2021 *CEQR Technical Manual*.

2.7.4 Detailed Levels of Service Analysis

Existing Condition

Data Collection

Traffic turning movement counts (TMCs) were performed at the two study area intersections (Avenue V and Coney Island Avenue, and Gravesend Neck Road and Coney Island Avenue) during three weekday peak periods (AM, midday, and PM) on Tuesday, June 21, 2022, and during the midday peak period on Saturday, June 25, 2022. Vehicle classifications were collected for five categories including cars, trucks, buses, pedestrians, and bicycles. Pedestrian counts were performed at the pedestrian analysis locations simultaneously to the TMCs. Traffic and pedestrian counts were summarized in 15-minute increments.

Pedestrian counts were combined and summarized across the study area during each peak period to determine the individual peak hours. The existing pedestrian volumes at each study area element during the following pedestrian peak hours are summarized in **Table 2.7-13**.

- Weekday AM Peak Hour: 8:15 - 9:15 AM.
- Weekday Midday Peak Hour: 1:00 - 2:00 PM.
- Weekday PM Peak Hour: 4:15 - 5:15 PM.
- Saturday Midday Peak Hour: 11:00 AM - 12:00 PM.

Traffic signal timing data was obtained from the NYCDOT and was compared to the prevailing field conditions. An inventory of the study area pedestrian elements (sidewalks, crosswalks, and corners) was also performed including lengths, widths, obstructions, etc.

Analysis Results

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 (sf) per pedestrian (ft2/p). To calculate pedestrian space, effective crosswalk widths and corner areas, hourly pedestrian volumes (crosswalk, corner, and sidewalk), conflicting hourly turning vehicles, average walking speed (3.5 feet/second or 3.0 feet/second if 20% of pedestrians are seniors and/or school children or the intersection is in a Senior Pedestrian Focus Area), and signal timing are required. Based on the existing condition pedestrian analysis results provided in

Table 2.7-14, all pedestrian elements operate at LOS B or better during all four time periods.

Table 2.7-13: Existing Condition Pedestrian Volumes

Pedestrian Element	Direction	Location	AM	Midday	PM	Saturday
	Avenue V and Coney Island Avenue					
Crosswalk	South		63	33	31	43
	West		72	83	112	70
Sidewalk	North East	EW	27	28	25	41
	South West	NS	80	129	121	104
		EW	29	36	28	30
Corner	North East		13	12	10	14
	South East		13	10	5	7
	South West		45	73	73	43
	North West		2	12	19	27
	Gravesend Neck Road and Coney Island Avenue					
Sidewalk	North West	NS	72	98	126	85
Corner	South West		4	21	19	6
	North West		25	18	36	13

Table 2.7-14: Existing Condition Pedestrian Analysis Results

Pedestrian Element	Direction	Location	AM		Midday		PM		Saturday	
			LOS	sf/ped	LOS	sf/ped	LOS	sf/ped	LOS	sf/ped
Avenue V and Coney Island Avenue										
Crosswalk	South		A	284.6	A	544.6	A	362.4	A	447.8
	West		A	511.1	A	259.1	A	290.5	A	326.3
Sidewalk	North East	EW	A	864.0	A	864.0	A	864.0	A	576.0
	South West	NS	B	229.9	B	167.7	B	188.0	B	188.0
		EW	A	750.0	A	613.6	A	750.0	A	449.9
Corner	North East		A	718.3	A	971.7	A	689.1	A	756.6
	South East		A	1091.7	A	1693.4	A	1216.2	A	1191.1
	South West		A	1096.7	A	1017.5	A	858.4	A	1291.7
	North West		A	1037.3	A	937.8	A	672.6	A	957.4
Gravesend Neck Road and Coney Island Avenue										
Sidewalk	North West	NS	B	314.9	B	251.9	B	204.2	B	279.9
Corner	South West		A	944.7	A	595.7	A	713.9	A	883.2
	North West		A	784.2	A	608.7	A	631.2	A	846.3

No-Action Condition

Volume Development

The future without the Proposed Actions (the "No-Action Condition") builds on the Existing Condition analysis by incorporating background growth, other nearby projects expected to be completed by the analysis year (2030), potential trips generated by the Project Site under the current zoning, and anticipated changes in the transportation network. The No-Action Condition analysis focuses on conditions in 2030, when the Proposed Project is expected to be complete. The analysis of the No-Action Condition serves as the baseline to which the future condition with the project (the "With-Action Condition") will be compared to identify potential impacts.

The *2021 CEQR Technical Manual* guidelines (Table 16-4) provide an annual background growth rate for this area of Brooklyn ("Other Brooklyn") of 0.50 percent for the first five years and 0.25 percent for the years beyond. The annual growth rates were applied, for five years, to the 2022 Existing Condition volumes to develop the 2030 No-Action Condition background pedestrian volumes. No background developments or transportation network improvement projects were included. The No-Action Condition pedestrian volumes at each study area element during the four pedestrian peak hours are summarized in **Table 2.7-15**.

Analysis Results

Based on the No-Action Condition pedestrian analysis results provided in

Table 2.7-16, all pedestrian elements are projected to operate at LOS B or better during all four time periods.

Table 2.7-15: No-Action and With-Action Condition Pedestrian Volumes

Pedestrian Element	Direction	Location	AM		Midday		PM		Saturday	
			No Action	With-Action	No Action	With-Action	No Action	With-Action	No Action	With-Action
Avenue V and Coney Island Avenue										
Crosswalk	South		65	120	34	269	32	145	44	192
	West		74	170	86	478	116	357	72	373
Sidewalk	North East	EW	28	70	29	239	26	140	42	191
	South West	NS	83	228	133	912	125	560	107	645
		East of Site 3	30	127	37	565	29	339	31	401
		West of Site 3	30	69	37	218	29	124	31	164
Corner	North East		13	80	12	236	10	155	14	178
	South East		13	81	10	326	5	196	7	221
	South West		46	248	75	1081	75	663	44	753
	North West		2	97	12	404	20	261	28	329
Gravesend Neck Road and Coney Island Avenue										
Sidewalk	North West	NS	74	134	101	542	130	348	88	309
Corner	South West		4	43	22	255	20	140	6	150
	North West		26	95	19	449	37	260	13	276

Table 2.7-16: No-Action Condition Pedestrian Analysis Results

Pedestrian Element	Direction	Location	AM		Midday		PM		Saturday	
			LOS	sf/ped	LOS	sf/ped	LOS	sf/ped	LOS	sf/ped
Avenue V and Coney Island Avenue										
Crosswalk	South		A	275.0	A	527.1	A	350.0	A	433.4
	West		A	493.9	A	250.8	A	280.7	A	315.8
Sidewalk	North East	EW	A	836.3	A	836.3	A	836.3	A	557.5
	South West	NS	B	222.5	B	162.3	B	182.0	B	182.0
		EW	A	726.0	A	594.0	A	726.0	A	435.6
Corner	North East		A	694.7	A	940.2	A	666.5	A	732.0
	South East		A	1056.4	A	1638.8	A	1176.9	A	1152.6
	South West		A	1061.1	A	984.6	A	830.5	A	1250.0
	North West		A	1003.6	A	907.4	A	650.6	A	926.4
Gravesend Neck Road and Coney Island Avenue										
Sidewalk	North West	NS	B	304.8	B	243.8	B	197.7	B	271.0
Corner	South West		A	913.9	A	576.5	A	690.9	A	854.6
	North West		A	758.7	A	588.9	A	610.7	A	818.9

With-Action Condition

Project generated pedestrian trips were assigned to study area pedestrian elements based on their origins and destinations (to/from subway/bus stops, to/from parked cars, to/from surrounding residential blocks). These project generated pedestrian trips were added to the No-Action Condition pedestrian volumes at each study area element during the four pedestrian peak hours to yield the With-Action Condition pedestrian volumes as summarized in **Table 2.7-15**.

The future With-Action pedestrian conditions were analyzed to determine the effect of new pedestrian trips on pedestrian elements in the study area. Both study area intersections are in a Senior Pedestrian Focus Area (SPFA). Therefore, a free-flow walking speed of 3.0 ft/s, as identified in the official NYCDOT signal timing sheets for each intersection, was used in the sidewalk and crosswalk analyses. The future With-Action Condition pedestrian analysis results in **Table 2.7-17** were compared to the No-Action Condition results in

Table 2.7-16 to identify potential impacts. Based on the With-Action Condition pedestrian analysis results provided in **Table 2.7-17**, all pedestrian elements are projected to operate at LOS C or better. As such, according to the significant adverse impact criteria defined for pedestrian elements in the *2021 CEQR Technical Manual*, the Proposed Project would not result in any significant adverse impacts.

Table 2.7-17: With-Action Condition Pedestrian Analysis Results

Pedestrian Element	Direction	Location	AM		Midday		PM		Saturday	
			LOS	sf/ped	LOS	sf/ped	LOS	sf/ped	LOS	sf/ped
Avenue V and Coney Island Avenue										
Crosswalk	South		A	147.8	A	66.3	A	72.3	A	92.3
	West		A	217.8	B	41.8	A	87.2	B	57.8
Sidewalk	North East	EW	B	333.7	B	101.0	B	154.3	B	123.3
	South West	NS	B	210.7	C	61.5	B	105.8	C	78.8
		EW East of Site 3	A	702.4	B	160.1	B	253.9	B	137.8
		EW West of Site 3	B	388.6	C	83.0	B	164.0	C	77.3
Corner	North East		A	323.3	A	141.5	A	227.9	A	159.2
	South East		A	491.5	A	186.9	A	231.3	A	179.9
	South West		A	365.2	A	101.3	A	166.7	A	155.8
	North West		A	253.3	A	99.7	A	169.1	A	146.2
Gravesend Neck Road and Coney Island Avenue										
Sidewalk	North West	NS	B	168.6	C	45.0	C	73.6	C	76.7
Corner	South West		A	445.4	A	120.9	A	193.7	A	194.6
	North West		A	357.6	A	95.4	A	164.2	A	155.3

2.7.5 Safety Analysis

An evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations as per CEQR Technical Manual guidelines. A high crash location is defined as a Vision Zero priority intersection, or a location with five or more pedestrian/bicyclist injury crashes in any consecutive twelve months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero Priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive twelve months of the most recent three-year period for which data are available should be identified as a high crash location. For these locations, crash trends would be identified to determine whether project vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic and pedestrian volumes, crash types, and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety would be identified and coordinate with NYCDOT.

Crash data for pedestrians and vehicles were obtained from NYCDOT for the period between January 1, 2017 and December 31, 2019 for the study area intersections. The data was summarized by the total number of reportable crashes involving fatalities, and injuries during the study period. An annual breakdown of vehicular crashes with pedestrians and bicycles at each location was also compiled. A summary of the intersections within the study area with at least one crash during the three-year period is provided in **Table 2.7-18**. During the three-year period, a total of 29 reportable and non-reportable crashes, 0 fatality, 20 injuries, 3 pedestrian, and 4 bicyclist-related crashes occurred at the study area intersections.

It should be noted that both study area intersections on Coney Island Avenue are in a SPFA. SPFAs are identified based on the density of senior pedestrian crashes resulting in fatalities or severe injuries. Within these areas, walking speeds for sidewalks and crosswalks are generally slower than other comparable facilities throughout New York City to account for the higher percentage of senior pedestrians. Each of these locations were evaluated to determine whether it was considered a high-crash location. A rolling annual total of crash data did not identify any study area intersections as high crash locations in terms of total crashes within a consecutive 12-month period.

Table 2.7-18: Summary of Intersection Crash Locations

Intersection		Study Period						Crashes by Year						Ped + Bike
N-S Roadway	E-W Roadway	Crashes by Year			Crashes	Fatalities	Injuries	Pedestrian			Bicycle			12 Consecutive Month
		2017	2018	2019	Total	Total	Total	2017	2018	2019	2017	2018	2019	maximum
Coney Island Avenue	Avenue V	7	9	6	22	0	15	1	0	0	1	1	0	2
Coney Island Avenue	Gravesend Neck Road	1	3	3	7	0	5	0	1	1	1	1	0	2
Total		8	12	9	29	0	20	1	1	1	2	2	0	4
Source:	NYC DOT January 1st, 2017, to December 31st, 2019 crash data.													
Note:	High Crash Locations are highlighted													

2.7.6 Conclusion

Based on the detailed assignment of vehicular trips, no vehicular intersections exceed *2020 CEQR Technical Manual* thresholds. Therefore, a vehicular Level-of-Service analysis is not warranted.

Based on the parking assessment, the project generated demand for off-street parking for the market rate housing can be accommodated throughout a weekday at each individual site and for the sites combined. There are no projected parking issues in the study area on Saturdays.

Based on the detailed assignment of pedestrian trips the following pedestrian elements were selected for detailed LOS Analysis:

Crosswalks

- Avenue V and Coney Island Avenue south crosswalk
- Avenue V and Coney Island Avenue west crosswalk

Sidewalks

- South sidewalk of Avenue V between East 8th Street and Coney Island Avenue, West of Site 3 entrance
- North sidewalk of Avenue V between Coney Island Avenue and East 12th Street
- South sidewalk of Avenue V between East 8th Street and Coney Island Avenue, East of Site 3 entrance
- West sidewalk of Coney Island Avenue between Avenue V and Gravesend Neck Road, north of Project Site entrances
- West sidewalk of Coney Island Avenue between Avenue V and Gravesend Neck Road, south of Project Site entrances.

Corners

- Gravesend Neck Road and Coney Island Avenue
    - Northwest Corner
    - Southwest Corner
- Avenue V and Coney Island Avenue
    - Northwest Corner
    - Northeast Corner
    - Southeast Corner
    - Southwest Corner

Based on the completed detailed LOS Analysis, no significant adverse impact is predicted to any of the above listed pedestrian elements. Therefore, no further analysis is warranted.

2.8 Air Quality

When assessing the potential for air quality significant impacts, the *2021 CEQR Technical Manual* seeks to determine a Proposed Action's effect on ambient air quality, or the quality of the surrounding air. Ambient air can be affected by motor vehicles, referred to as "mobile sources," or by fixed facilities, referred to as "stationary sources." This can occur during operation and/or construction of a project being proposed. The pollutants of concern include six criteria pollutants, which are the most common pollutants, and hazardous air pollutants (HAPs), air toxics or toxic air pollutants known as noncriteria pollutants.

The *2021 CEQR Technical Manual* generally recommends an assessment of the potential impact of mobile sources on air quality when an action increases traffic or causes a redistribution of traffic flows, creates any other mobile sources of pollutants (such as diesel train usage), or adds new uses near mobile sources (e.g., roadways, parking lots, garages). The CEQR Technical Manual generally recommends assessments when new stationary sources of pollutants are created, when a new use might be affected by existing stationary sources, or when stationary sources are added near existing sources and the combined dispersion of emissions would impact surrounding areas.

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered.

Methodology

Mobile Sources

According to the *2021 CEQR Technical Manual*, projects, whether site- specific or generic, may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic; create any other mobile sources of pollutants (such as diesel trains, helicopters etc.); or add new uses near mobile sources (roadways, garages, parking lots, etc.). Projects requiring further assessment include:

- Projects that would result in placement of operable windows, balconies, air intakes or intake vents generally within 200 feet of an atypical source of vehicular pollutants.
- Projects that would result in the creation of a fully or partially covered roadway, would exacerbate traffic conditions on such a roadway, or would add new uses near such a roadway.
- Projects that would generate peak hour auto traffic or divert existing peak hour traffic of 170 or more auto trips in this area of the City.

- Projects that would generate peak hour heavy- duty diesel vehicle traffic or its equivalent in vehicular emissions resulting from 12 or more heavy-duty diesel vehicles (HDDVs) for paved roads with average daily traffic of fewer than 5,000 vehicles, 19 or more HDDVs for collector roads, 23 or more HDDVs for principal and minor arterials, or 23 or more HDDVs for expressways and limited-access roads.
- Projects that would result in new sensitive uses (e.g., schools or hospitals) adjacent to large existing parking facilities or parking garage exhaust vents.
- Projects that would result in parking facilities or applications requesting the grant of a special permit or authorization for parking facilities; or projects that would result in a sizable number of other mobile sources of pollution (e.g., a heliport or a new railroad terminal).
- Projects that would substantially increase the vehicle miles traveled in a large area.

Stationary Sources

According to the *2021 CEQR Technical Manual*, projects may result in stationary source air quality impacts and require stationary source impact analysis when one or more of the following occurs:

- Projects that would use fossil fuels (i.e., fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems (note that single-building projects may be able to perform a screening analysis rather than detailed stationary source analyses;
- Projects that would create major or large emission sources including, but not limited to, the following:
    - solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants. Major sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. Large sources are identified as sources located at facilities which require a State facility permit.
- Projects that would result in new uses (particularly schools, hospitals, parks, and residences) located near a major or large emission source.
- Projects that would include medical, chemical, or research labs.
- Projects that would result in new uses being located near medical, chemical, or research labs.
- Projects that would include operation of manufacturing or processing facilities.
- Projects that would result in new uses (particularly schools, hospitals, parks, and residences) within 400 feet of manufacturing or processing facilities.

- Projects that would result in potentially significant odors. This includes, but is not limited to, solid waste management facilities, water pollution control plants (i.e., sewage treatment plants), and incinerators.
- Projects that would result in new uses near an odor-producing facility.
- Projects that would create "non-point" sources, such as unpaved surfaces and storage piles that could result in fugitive dust.
- Projects that would result in new uses near non-point sources

Analysis Framework

Future No-Action Conditions

In the future without the Proposed Action existing conditions are expected to continue.

Future With-Action Conditions

Projected Development Site 1 (Block 7159, Lot 123; Applicant-Owned Lots)

Projected Development Site 1 assumes a full build out on the applicant-owned site. It is an 11,020-sf lot currently occupied as an auto sales lot. It is assumed that the lot would be developed with a mixed residential and commercial building with 12,122 gsf (11,020 zsf) of commercial (retail) floor area on the ground floor and cellar and 55,761 gsf (50,692 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6. It assumed that Projected Development Site 1 would include 61 dwelling units and 24 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 2 (Block 7159, Lots 128 and 130; Non-Applicant Lots)

The with-action scenario for Projected Development Site 2 assumes that these two lots would be merged as one zoning lot and would be improved with a full build out mixed-use building. Under R7D/C2-4 zoning guidelines, it is assumed that Projected Site 2, a combined 5,780 sf lot, would be developed with a mixed residential and commercial building with 6,358 gsf (5,780 zsf) of commercial (retail) floor area on the ground floor and cellar and 29,246 gsf (26,588 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6. The building would include 32 dwelling units and 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 3 (Block 7159, Lot 115; Non-Applicant Lot)

Projected Development Site 3 assumes a full build out on Lot 115, an 11,765-sf lot currently improved with a 7,200-sf office building. In the With-Action Scenario, under R7D/C2-4 zoning guidelines, it is assumed that the site would be improved with a mixed-use building with 12,941 gsf (11,765 zsf) of commercial (retail) floor area on the ground floor and cellar and 59,530 gsf (54,119 zsf) of residential floor area above. The building would have a height of 115 feet and an

FAR of 5.6. The building would include 66 dwelling units and 26 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 4 (Block 7159, Lot 120; Non-Applicant Lot)

Projected Development Site 4 assumes that a mixed use residential and commercial building would be constructed on the portion of Lot 120 that is within the Affected Area (approximately 6,000 sf) and would be built out to an FAR of 5.6 with a height of 115 feet. It assumes that the existing 2 story, 8,000 sf office building on Lot 120 that has direct frontage on Coney Island Avenue would be razed and replaced with a 36,960 gsf (33,600 zsf) building. There would be a total of 30,360 gsf (27,600 zsf) of residential floor area and a total of 6,600 gsf (6,000 zsf) of commercial floor area. The building would include 33 dwelling units and 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Air Quality Standards, Regulations, and Benchmarks

Criteria Pollutants

The EPA has established national ambient air quality standards (NAAQS) for seven of the most common air pollutants—known as "criteria" pollutants. The presence of these pollutants in ambient air is generally due to diverse and widespread sources of emissions. The NAAQS primary standards are designed to protect public health with an adequate margin of safety. The NAAQS secondary standards are designed to protect the public welfare from adverse effects, including those related to effects on soils, water, vegetation, visibility, and other aspects. As required by the Clean Air Act, EPA periodically conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to the criteria air pollutants. The NAAQS have been adopted as the ambient air quality standards for the State of New York.

Determination of significant impact related to criteria pollutants accounts for pollutants concentrations in the ambient air. i.e., background concentrations. The New York State Department of Environmental Conservation (NYSDEC) measures air pollutants concentrations at more than 50 sites across the state. The primary NAAQS and background concentrations of the pollutants that a detailed analysis was required for from the nearest federally-mandated monitoring station(s) are presented in **Table 2.8-1.**

Table 2.8-1: NAAQS and Background Concentration

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2 (1)	1-Hour	188 µg/m^3	103.6 µg/m^3	Queens College
	Annual	100 µg/m^3	26.8 µg/m^3	
$PM_{2.5}$ (2)	24-Hour	35 µg/m^3	19.2 µg/m^3	Division Street
	Annual	12 µg/m^3	9.1 µg/m^3	

1. NYSDEC (2019). New York State Ambient Air Quality Report for 2019, <https://www.dec.ny.gov/chemical/8406.html#Quality>.
2. NYSDEC (2020). New York State Ambient Air Quality Report for 2020, <https://www.dec.ny.gov/chemical/8406.html#Quality>.
3. µg/m^3 – microgram per meter cube; ppm – parts per million.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply the *de minimis* criteria for CO from mobile sources and for $PM_{2.5}$. The *de minimis* criteria set allowable incremental increase in CO and $PM_{2.5}$ concentrations that would result as a consequence of a proposed project. The *de minimis* for $PM_{2.5}$ is as follows:

- 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).
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 µg/m^3 at any receptor location for stationary sources.

Accordingly, 24-hour PM2.5 *de minimis* is a concentration increment of 7.90 µg/m^3, and annual $PM^{2.5}$ concentration increments of 0.3 µg/m^3 for stationary source and 0.1 µg/m^3 for mobile source on a neighborhood scale. As CO detailed analysis was not required, CO *de minimis* is not shown.

Non-Criteria Pollutants

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the NYSDEC has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. These include hazardous air pollutants (HAPs) which are also regulated by the EPA. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table (February 12, 2021 publication), where AGC/SGC refers to Annual and Short-term

Guideline Concentrations. In addition, DAR-1 also includes standard for pollutants cumulative risk assessment.

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

2.8.1 Mobile Sources

The Proposed Action would not result in operable windows or air intakes within 200 feet of an atypical roadway. The project would not create a new sensitive receptor adjacent to large parking facilities. The project would not result in creation of a large new parking facility that would warrant an assessment of emissions. The project would not result in any other mobile sources of pollution, and would not significantly increase vehicle miles traveled in a large area. It would not result in creation of a covered roadway or affect any covered roadway. Peak hour trip generation is below the 170-car threshold identified in Section 17-210 of the *2021 CEQR Technical Manual* as potentially warranting further assessment as described above in Section 2.7. However, the project would generate HDDV equivalent traffic volume more than 12 – 23 per hour depending on the road types.

HDDV Screening

Using the worksheet provided in the *2021 CEQR Technical Manual*, project-generated auto and truck trips were screened referencing the vehicular trip generation and vehicular trip assignment provided in Section 2.7 and **Appendix C** at the surrounding Study Area street segments. All autos were assumed to be LDGT1 class vehicles based on guidance from the Department of City Planning (DCP) on similar projects. **Table 2.8-2** shows the project-generated Auto and Truck Trips at each Study Area street segment and the results of the *CEQR Technical Manual* Equivalent Truck Calculation for each peak-hour period.

As shown below in **Table 2.8-2**, four (4) intersections fail the HDDV screening threshold. Accordingly, further analysis is warranted.

Table 2.8-2: HDDV Screening

Intersection	HDDV Threshold	Weekday AM Peak Hour Vehicles	Weekday Midday Peak Hour Vehicles	Weekday PM Peak Hour Vehicles	Saturday Midday Peak Hour Vehicles	Maximum Peak Hour Vehicles	Equivalent trucks	Pass/Fail
Avenue U and Ocean Parkway	23	9	20	17	21	21	0.92	Pass
Avenue U and Ocean Parkway NB Service Road	23	7	16	11	16	16	0.70	Pass
Avenue U and East 7th Street	23	6	17	13	18	18	0.79	Pass
Avenue U and East 8t Street	23	9	22	14	22	22	0.97	Pass
Avenue U and East 9th Street	23	5	19	12	17	19	0.84	Pass
Avenue U and Coney Island Avenue	23	9	31	21	27	31	1.37	Pass
Avenue U and East 12th Street	23	2	14	8	13	14	0.62	Pass
Avenue U and Homecrest Avenue	23	4	12	6	12	12	0.53	Pass
Avenue U and East 13th Street	23	1	7	3	8	8	0.35	Pass
Avenue V and Ocean Parkway	23	10	20	19	25	25	1.10	Pass
Avenue V and Ocean Parkway NB Service Road	12.46	8	19	17	25	25	12.05	Pass
Avenue V and East 7th Street	**12.46**	**11**	**22**	**20**	**30**	**30**	**14.46**	**Fail**
Avenue V and East 8th Street	**12.46**	**16**	**24**	**32**	**43**	**43**	**20.73**	**Fail**
Avenue V and East 9th Street	**12.46**	**9**	**17**	**31**	**34**	**34**	**16.39**	**Fail**
Avenue V and Coney Island Avenue	23	18	36	48	44	48	2.11	Pass
Avenue V and East 12th Street	12.46	4	12	8	17	17	8.20	Pass
Avenue V and Homecrest Avenue	12.46	4	13	8	17	17	8.20	Pass
Avenue V and East 13th Street	12.46	1	6	5	9	9	4.34	Pass
Gravesend Neck Road and Ocean Parkway	23	11	16	18	25	25	1.10	Pass
Gravesend Neck Road and Ocean Parkway NB Service Road	19.27	9	14	13	20	20	3.98	Pass
Gravesend Neck Road and East 7th Street	19.27	11	19	18	26	26	5.17	Pass
Gravesend Neck Road and East 8th Street	19.27	13	17	23	31	31	6.16	Pass
Gravesend Neck Road and Coney Island Avenue	23	33	30	29	44	44	1.94	Pass
Gravesend Neck Road and East 12th Street	19.27	5	5	1	8	8	1.59	Pass
Gravesend Neck Road and Sheepshead Bay Road/Avenue W	19.27	6	10	5	12	12	2.39	Pass
Gravesend Neck Road and Homecrest Avenue	19.27	5	10	4	11	11	2.19	Pass
Gravesend Neck Road and East 13th Street	19.27	3	7	3	9	9	1.79	Pass
Avenue W and Ocean Parkway	23	17	23	22	37	37	1.63	Pass
Avenue W and Ocean Parkway NB Service Road	12.46	8	11	7	15	15	7.23	Pass
Avenue W and East 7th Street	12.46	8	11	9	15	15	7.23	Pass
Avenue W and Coney Island Avenue	**12.46**	**15**	**17**	**19**	**30**	**30**	**14.46**	**Fail**
Avenue W and East 12th Street	12.46	5	8	4	10	10	4.82	Pass

*Bold font denote intersections that exceed the HDDV screening thresholds
*The project increment would include no (0) trucks

Detailed Intersection Analysis

As shown in **Table 2.8-2**, the maximum equivalent truck was projected at the intersection of Avenue V and East 8th Street, and therefore, the intersection was selected for detailed analysis. A Tier 1 approach, applying the Saturday peak hour period traffic, was used in the analysis. Data from the noise analysis for this project, provided in Section 2.9, was used to derive the existing traffic on Avenue V (vehicle count and class). The eastbound/westbound traffic distribution on Avenue V was derived from the New York State Department of Transportation (NYSDOT) data for Avenue U (Station 021149). Existing traffic volume on East 15th Street, a one-way northbound direction roadway, obtained from the NYSDOT data for Station 024154, was assumed for East 8th Street, and vehicle classification on East 16th Street (NYSDOT Station 024156) was applied for the roadway (East 15th and 16th Street have approximately equal volume between 12-1 PM).

Annual background growth rate, obtained from the *CEQR Technical Manual,* was used to project the No-Action traffic from the existing traffic. The action-generated incremental volumes by vehicle type were added to the No-Action scenario traffic volumes to project the With-Action scenario traffic volumes by vehicle type.

The EPA's Mobile Vehicle Emission Simulator (MOVES3 version) was utilized to predict vehicular emissions. MOVES inputs of inspection/maintenance, fuel data, age distribution, and meteorology were obtained from NYSDEC. The Kings County projected vehicle population database, part of MOVES3 database, was used to further classify vehicle types (e.g., intercity bus, transit bus, and school bus). In addition, $PM_{2.5}$ emissions of dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (annual fugitive dust emission is negligible, based on similar types of analysis under CEQR). Fugitive dust emissions were calculated using the methodology in the EPA's AP-42 manual,[12] where a conservative assumption of "dry" road condition was used (precipitation reduced silt loading). A silt loading factor of 0.4 g/m^2 for local roadways was applied in the analysis, based on value in the *CEQR Technical Manual*.

The dispersion analysis was conducted using EPA's CAL3QHCR dispersion model version 13196. The model specified settling and deposition velocities of 0-meter per second, 60-minute averaging time, and urban surface roughness of 108-centimeter corresponding to single family residential land use, which is generally the most conservative assumption. The map application built into Lakes Environmental, Inc. CALRoad commercial version of CAL3QHC/R was used to spatially locate links and receptors. Roadway segments were modeled as free flowing, at grade, links. Receptors for the short-term analysis were placed on the sidewalks around the modeled intersection, and receptors for the annual timeframe analysis were placed 15-meter from the roadways curb sides. $PM_{2.5}$ concentrations were predicted with model-ready John F. Kennedy

[12] EPA. Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1: Paved Roads Chapter 13: Miscellaneous Sources https://www3.epa.gov/ttn/chief/ap42. January 2011.

Airport meteorology data, obtained from the New York City Department of City Planning (DCP) for another project.

The potential for significant adverse impact was evaluated utilizing the *CEQR Technical Manual de minimis* criteria. **Table 2.8-3** shows the results of the dispersion analysis.

Table 2.8-3: $PM_{2.5}$ Dispersion Analysis Results at The Intersection of Avenue V and East 8th Street

Pollutant	Increment (modeled) Concentration (µg/m³)	*de minimis* Concentration (µg/m³)
24-Hour	5.10	7.90
Annual	0.03	0.1

Note:
1. Annual $PM_{2.5}$ concentration increment corresponds to the difference between the With-Action and No-Action concentrations.

As shown in **Table 2.8-3**, the Proposed Actions' incremental $PM_{2.5}$ concentration would not exceed the *CEQR Technical Manual de minimis* criteria. Therefore, no significant adverse air quality impacts from mobile sources are expected at intersections located near the Proposed Project.

2.8.2 Stationary Sources

Heating and Hot Water Systems

The heating/hot water, ventilation, and air conditioning (HVAC) systems analysis considers the potential for emissions from the HVAC system(s) of a proposed action(s) to result in development that significantly impacts existing land uses (project-on-existing), and the potential of a proposed project to significantly impact each other (project-on-project). Based on the *CEQR Technical Manual*, a preliminary screening assessment is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system(s) boiler emissions can be significant. A detailed analysis is required if the screening assessment failed.

Screening Assessment

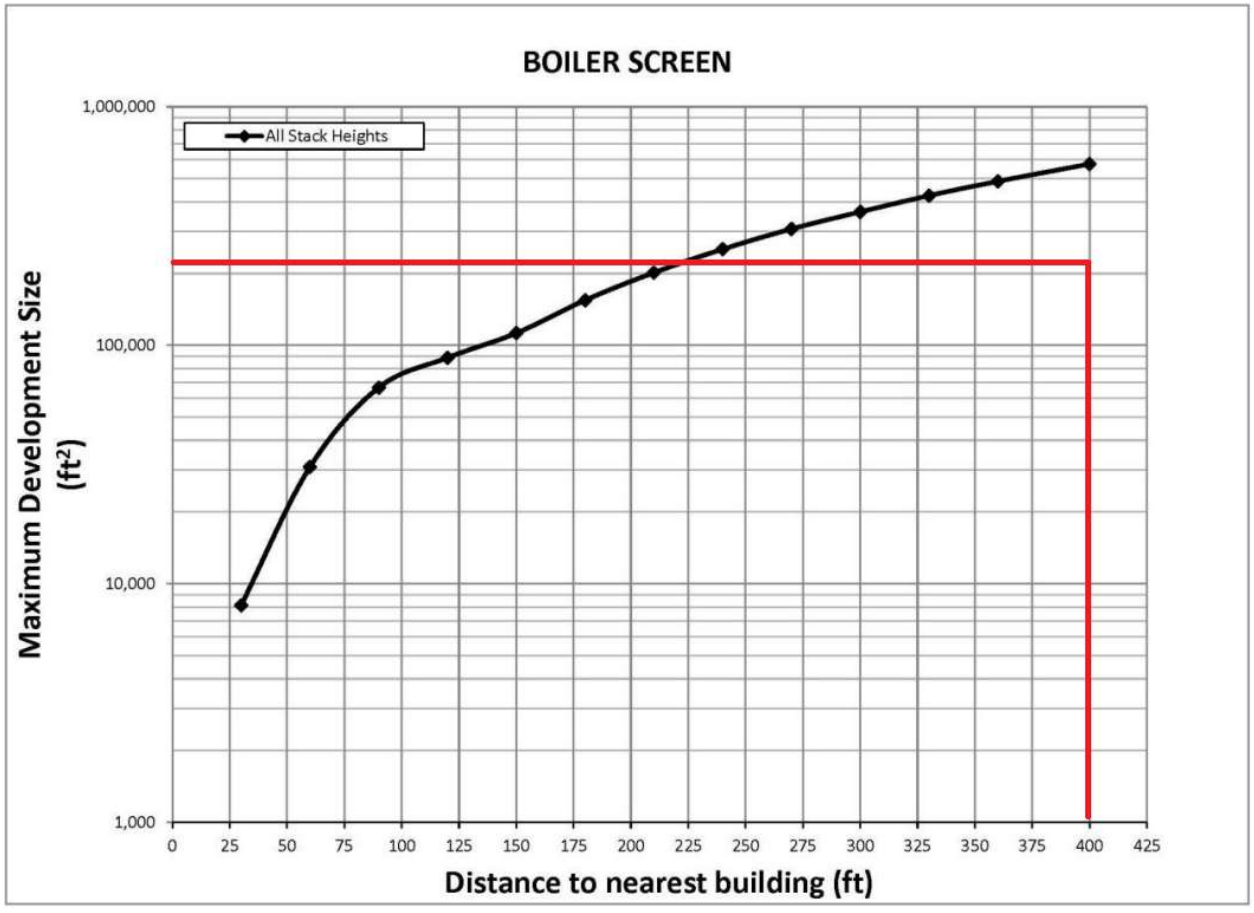
The potential for the heat and hot water system(s) to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used by the HVAC system, the height of the stack venting the emissions, the distance to the nearest building of similar or greater height, and the building's use and the square footage of the development that would be served by the system, both of which effect the amount of fossil fuel consumed. The *CEQR Technical Manual* screening assessment is based on these factors. In addition, the CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height.

The *2021 CEQR Technical Manual* Figure 17-3 nomograph was used for the screening assessment. This stationary source screen is a generic screen for heat and hot water systems. The nomograph

depicts the size of the development versus the distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. In addition, as screening analysis is only applicable to a single smokestack, for the purposes of a cumulative screening analysis emissions from multiple stacks were combined in a single stack situated as close as possible to the receiving building. The following screening assessments were conducted:

1. Project on Existing Land Uses: Based on the methodology above, the Projected Development Sites 1, 2, 3, and 4 Reasonable Worst Case Development Scenario (RWCDS) gsf, excluding the parking dedicated gsf, were combined and analyzed as a 115-foot-tall residential building, containing 212,918 gsf. A distance of 400 feet was applied as no other building in the area is equal or greater in height (115-foot high). **Figure 2.8-1** (using Figure 17-3 of the *CEQR Technical Manual)* shows the project-on-existing screening analysis nomograph.

Figure 2.8-1: Cumulative Project on Existing Land Uses – HVAC Screen



As seen in the screening analysis (see **Figure 2.8-1**), using the nomograph provided in the *CEQR Technical Manual*, the Proposed Actions cumulative RWCDS gsf would fall below the curve. As such, the Proposed Actions passes the HVAC screening assessment on existing land uses.

2. Project on Projected: As each Projected Development Site is adjacent to at least one other Projected Development Site (less than 30 feet), the screening analysis is not applicable, and a detailed analysis is required.

Detailed Analysis

Lakes Environmental, Inc. MPI version 22112 executable was used in the AERMOD detailed analysis. The MPI executable takes advantage of computers with multiple processors, reducing run-time significantly. Lakes Environmental, Inc. adjusted the US EPA AERMOD source code and recompiled the model to parallelize the processing of receptors. The latest MPI executable (used in the analysis) modified EPA's AERMOD latest executable model version 22112. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The model was run with the regulatory default option, where applicable, and for both with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses were conducted using five consecutive years of meteorological data (2016-2020), obtained from the NYSDEC. Surface data used in the analysis is from John F. Kennedy Airport, upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Population in Brooklyn, obtained from the New York City Department of City Planning (DCP) 2020 annual report, was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

Natural gas would be the type of fossil fuel, if any, used in the Projected Development Sites HVAC systems. The pollutants of concern of natural gas-fueled boilers are NO_2 and $PM_{2.5}$. The Projected Development Sites HVAC systems' total energy capacities were calculated based on the RWCDSs gsf and an energy consumption rate of 60.3 thousand Btu per gsf per year.[13] Pollutants emission factors published in the EPA AP-42 manual for external combustion sources were used to calculate each development HVAC system emissions. All fuel was assumed to be consumed during the 100-day (or 2,400 hour) heating season. **Table 2.8-4** shows the project increment building's HVAC systems short-term and annual emission rates.

[13] Energy Information Administration (2022). "Table US1. Total Energy Consumption, Expenditures, and Intensities, 2005 Part 1: Housing Unit Characteristics and Energy Usage Indicators." *2005 Residential Energy Consumption Survey: Energy Consumption and Expenditures Tables.*

Table 2.8-4: Project increment buildings HVAC Systems Short-term and Annual Emission Rates

Site ID	Floor Area; Roof Height	Boiler's Energy Intensity (MMBtu); Fuel Used	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Projected Development Site 1	67,883 gsf; 115 ft	1.7 MMBtu; Natural gas	NO_2	2.11E-02	5.77E-03
			$PM_{2.5}$	1.60E-03	4.39E-04
Projected Development Site 2	35,604 gsf; 115 ft	0.9 MMBtu; Natural gas	NO_2	1.11E-02	3.03E-03
			$PM_{2.5}$	8.40E-04	2.30E-04
Projected Development Site 3	72,471 gsf; 115 ft	1.8 MMBtu; Natural gas	NO_2	2.25E-02	6.16E-03
			$PM_{2.5}$	1.71E-03	4.68E-04
Projected Development Site 4	36,960 gsf; 115 ft	0.9 MMBtu; Natural gas	NO_2	1.15E-02	3.14E-03
			$PM_{2.5}$	8.72E-04	2.39E-04

The boilers stacks' diameters and stack exit temperatures were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour).[14] Boiler stacks were initially placed 3 feet above the roofline and as close as possible to the receiving building. A stack set back distance and/or raising the stack was specified if impact was predicted.

The Development Sites were modeled as buildings that cover their entire lot area(s) (wall façade placed on the outer lot line(s)) and raise to the heights shown in **Table 2.8-4**. Buildings in the surrounding area were accounted for in the downwash effect on plume dispersions (BPIP). Receptors on the receiving building were placed on all wall façade from the ground floor to the roof-top height in spaced intervals.

The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset) was used to process buildings' base elevations. The base elevations of receptors and stacks were set to their buildings' base elevations. Existing buildings in the area were accounted for in the model.

One-hour NO_2 was predicted using a Tier 2 approaches. For determining compliance with the 1-hour NO_2 standard, the EPA has developed a three-tiered modeling approach. Tier 1 approach assumes a full conversion of NOx to NO_2, which is the most conservative approach. Tier 2 Ambient Ratio Method 2 (ARM 2) assumes ambient equilibrium between NO and NO_2. ARM 2 adjusts the modeled NOx concentrations based on an empirical relationship between ambient NOx and ambient NO_2 concentrations. Tier 3, which is the most precise approach, accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. For the Tier 2 approach, the default minimum and maximum ambient of 0.5 and 0.9, respectively, were applied.

[14] DEP "CA Permit" database obtained from the New York City Department of City Planning, February 2020.

NO_2 modeled concentrations were added to the background concentrations, and the results evaluated with the NAAQS. $PM_{2.5}$ modeled concentrations were evaluated with the *de minimis* for stationary source. The HVAC dispersions analysis results are shown in **Table 2.8-5**.

Table 2.8-5: HVAC Dispersion Analysis Results

Pollutant	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Evaluated Concentration ($\mu g/m^3$)	Threshold Concentration ($\mu g/m^3$)	Standard
Cumulative Project-on-Projected Development Site 1					
1-hour NO_2	82.33	103.59	185.9	188	NAAQS
Annual NO_2	1.74	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	1.77	19.2	1.8	7.90	*de minimis*
Annual $PM_{2.5}$	0.13	9.1	0.13	0.3	*de minimis*
Cumulative Project-on-Projected Development Site 2					
1-hour NO_2	78.31	103.59	181.9	188	NAAQS
Annual NO_2	1.30	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	2.00	19.2	2.0	7.90	*de minimis*
Annual $PM_{2.5}$	0.10	9.1	0.10	0.3	*de minimis*
Cumulative Project-on-Projected Development Site 3					
1-hour NO_2	72.08	103.59	175.7	188	NAAQS
Annual NO_2	1.10	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	1.53	19.2	1.5	7.90	*de minimis*
Annual $PM_{2.5}$	0.09	9.1	0.09	0.3	*de minimis*
Cumulative Project-on-Projected Development Site 4					
1-hour NO_2	76.86	103.59	180.4	188	NAAQS
Annual NO_2	1.70	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	2.01	19.2	2.0	7.90	*de minimis*
Annual $PM_{2.5}$	0.14	9.1	0.14	0.3	*de minimis*

As shown in **Table 2.8-5**, NO_2 predicted concentrations are within the NAAQS and $PM_{2.5}$ concentrations do not exceed the *de minimis*. These results were predicted with certain requirements to ensure that no impact(s) would occur. The environmental requirements (E-Designations) related to air quality that are placed on the properties are specified in the Conclusion section of this chapter.

Industrial Sources

A preliminary screening was conducted to determine if there are any potential sources of industrial process emissions that could affect project occupants.

400-Foot Study Area

A search of potential industrial sites was performed to identify any NYC DEP, and USEPA1 Air Quality Permits issued within 400 feet of the Affected Area. This Study Area and uses, preliminarily identified as manufacturing or industrial based on NYCDCP MAPPLUTO database,

are identified in **Figure 2.8-2**. This search was performed to determine if hazardous air toxics would have the potential to impact the proposed development.

As shown below in **Table 2.8-6**, there are two sites (Site ID 1/2 and Site ID 4/5) with expired industrial permits. An investigation was conducted to affirm the findings of the industrial search, and to identify any uses with potential unpermitted industrial process emissions. With the exception of Site ID 4/5 discussed below, no additional uses were identified with potential unpermitted industrial process emissions.

Site ID 1/2 – 2533 Coney Island Avenue (Block 7371, Lot 72)

This site was identified as having two industrial permits (PA016992 and PA017092). These permits were registered to Popular Ford Sales Inc. for tail pipe exhaust and expired in 1998 (PA016992) and 2004 (PA017092). The site is now occupied by a Yeshiva. As this use is no longer present, no further analysis of this site is required.

Site ID 4/5 – 2447 Coney Island Avenue (Block 7343, Lot 61)

The site is currently occupied by Ben and Nino Auto Repair and was identified as having two expired industrial permits (PB011311 and PW002718). PW002718 expired in 2019 for an Autobody Spray Booth registered to Matthew Habib. PB011311 expired in 2020 for Autobody Miscellaneous registered to Ben&Amp, Nino Auto Repair Shop. In addition, Ben & Nino Auto Repair has an active (no expiration date) NYSDEC permit (Facility DEC ID 2-6107-00692) for limited auto collision work, only parts and components painted, not whole cars, with less than 10 quarts stored on the premises. However, the auto body shop is located 401 feet from the nearest development site. Accordingly, further analysis of this site is not required.

Table 2.8-6: 400 Foot Study Area Air Toxics Screening Results

Site ID	Block	Lot	Address	Land Use	Owner	Expired Industrial Permit	Active Industrial Permit	Current Use
1	7371	72	2533 Coney Island Avenue	Public Facility/Institution	YESHIVAT DARCHE ERES, INC.	PA016992	NA	Yeshiva
2	7371	72	2533 Coney Island Avenue	Public Facility/Institution	YESHIVAT DARCHE ERES, INC.	PA017092	NA	Yeshiva
4	7343	61	2447 Coney Island Avenue	Commercial	2447 Realty Corp.	PB011311	NA	Ben and Nino Auto Repair
5	7343	61	2447 Coney Island Avenue	Commercial	2447 Realty Corp.	PW002718	NA	Ben and Nino Auto Repair

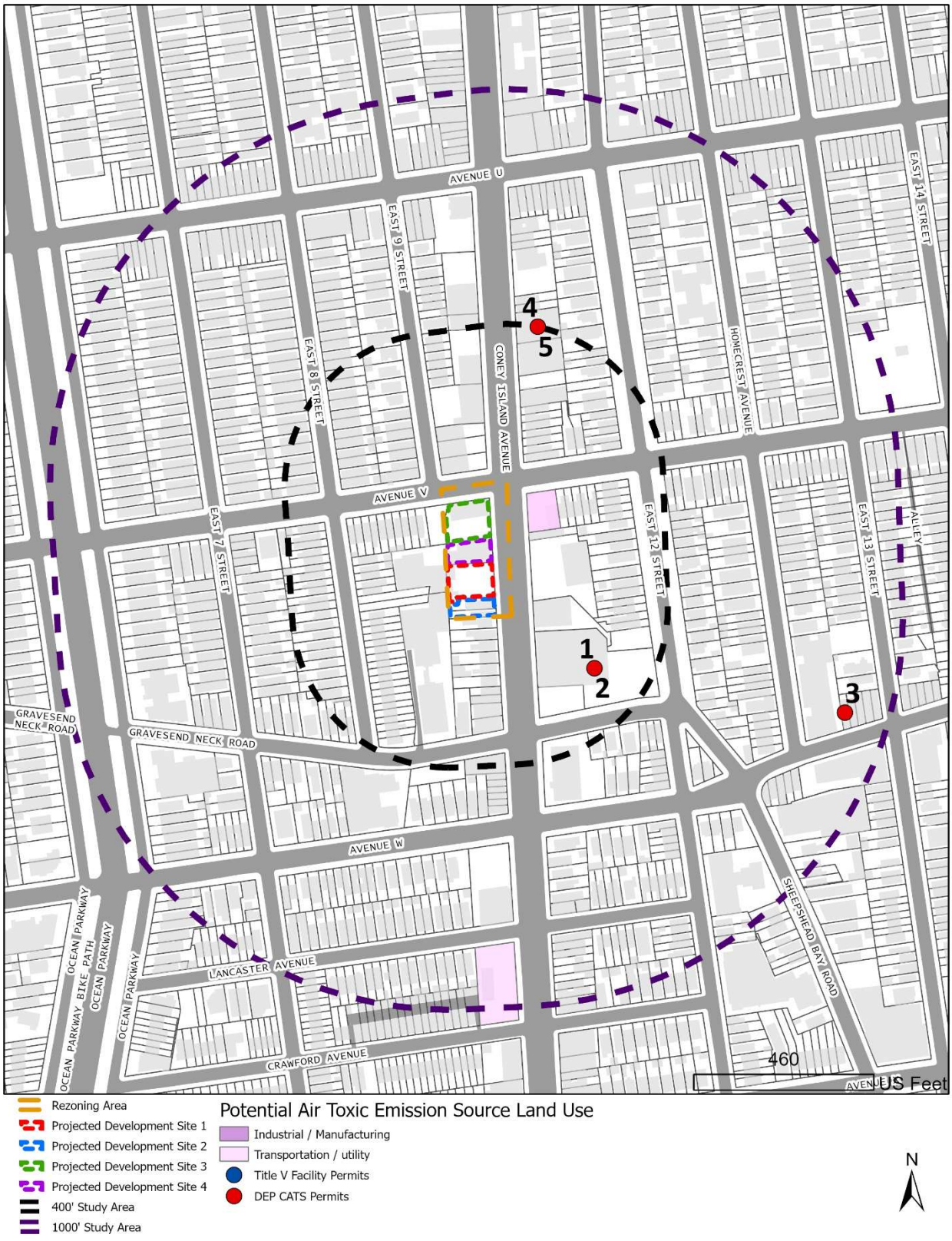
*Note Site 3 is outside the 400 Foot Study Area

1,000-Foot Study Area

A search of the EPA Envirofacts ICIS-AIR database and the Toxics Release Inventory (TRI) was conducted for all parcels within the 400 and 1000-foot Study Area. The Envirofacts ICIS Air Database contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The Toxics Release Inventory (TRI) is a publicly available database containing information on toxic chemical releases and other waste management activities in the United States.

As shown in **Figure 2.8-2** below, the search did not identify any large sources of industrial emissions or odor producing facilities within 1,000 feet of the Affected Area. As such, no further analysis of large emissions sources is warranted.

Figure 2.8-2: Air Toxics 400 Foot and 1,000 Foot Study Area



2.8.3 Conclusion

No significant adverse air quality impact was predicted in the analysis. The result of the analysis is as follows:

- Based on the analysis completed above, no significant adverse impact related to industrial or mobile source emissions were anticipated as a result of the Proposed Actions.
- No significant impact was predicted in the HVAC analysis with the project increment buildings using natural gas as the type of fossil fuel and requirements for the locations of the HVAC stacks.

Accordingly, based on the results of the analyses described above, the following (E) Designation would be required:

(E) Designation (E-720)

Block 7159, Lot 123 (Projected Development Site 1): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 123 feet above grade, and that the stack is located at least 25 feet from the northern lot line of Block 7159, Lot 123 to avoid any potential significant adverse air quality impacts.

Block 7159, Lots 128 and 130 (Projected Development Site 2): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 121 feet above grade, and that the stack is located at least 30 feet from the northern lot line of Block 7159, Lot 128 to avoid any potential significant adverse air quality impacts.

Block 7159, Lot 115 (Projected Development Site 3): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest tier and at least 121 feet above grade, and that the stack is located at least 50 feet from the southern lot line of Block 7159, Lot 115 to avoid any potential significant adverse air quality impacts.

Block 7159, Lot 120 (Projected Development Site 4): Any new residential and/or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment, ensure that the HVAC system and hot water equipment stack is located at the building's highest

tier and at least 123 feet above grade, and that the stack is located at least 20 feet from the southern lot line of Block 7159, Lot 115 and at least 20 feet from the northern lot line of Block 7159, Lot 123 to avoid any potential significant adverse air quality impacts.

2.9 Noise

Introduction

The Applicant seeks a zoning map amendment and a zoning text amendment (the "Proposed Actions") over Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the "Affected Area" or "Rezoning Area") located in the Sheepshead Bay neighborhood of Brooklyn, Community District 15.

The zoning map amendment would rezone the Affected Area from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district. The Applicant also proposes a zoning text amendment to amend Zoning Resolution Appendix F: Inclusionary Housing Designated Areas for Brooklyn Community District 15 to establish the Affected Area as a Mandatory Inclusionary Housing (MIH) Designated Area.

The With-Action Scenario assumes four Projected Development Sites (Projected Site 1 – applicant-owned Block 7159, Lot 123; Projected Site 2 – Block 7159, Lots 128 and 130; Projected Site 3 – Block 7159, Lot 115; and Projected Site 4 – Block 7159, Lot 120) would be developed to the maximum FAR of 5.6. The buildings would be a total of 115 feet tall, with a 10-foot setback at 95 feet in base height. The frontages of Projected Development Site 3 lie on both Coney Island Avenue and Avenue V, while Projected Development Sites 1, 2, & 4 have frontage only on Coney Island Avenue.

Framework of the 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 2.9-1** notes the decibel levels of common noise sources.

Table 2.9-1: Noise Levels of Common Sources[15]

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.	

The following are typical human perceptions of dB(A) relative to changes in noise level:

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

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law. 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

[15] Source: *2021 CEQR Technical Manual*

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.

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.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.
- 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_{dn} is the day-night equivalent sound level, defined as a 24-hour continuous Leq with a 10 dB adjustment added to all hourly noise levels recorded between the hours of 10 PM and 7 AM. This 10 dB addition accounts for the extra sensitivity people have to noise during typical sleeping hours.
- DNL is the annual average day-night average sound level. Aircraft noise around airports is usually mapped out in terms of DNL, which are normally depicted as noise contours on a map.

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.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the CEQR noise exposure guidelines for exterior noise levels. As shown in **Table 2.9-2** 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 L_{10} noise levels 45 dBA or below and interior L_{dn} noise levels 40 dBA or below depending on the noise sources as shown below in **Table 2.9-3**.

Table 2.9-2: 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	----------DNL ≤ 60 dBA----------		----------60 < DNL ≤ 65 dBA----------		(I) 65 < DNL ≤ 75 dBA		---------- 75 dBA < DNL ----------
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 comply with Impact Thresholds detailed in Section 410.

[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 bands).

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

Table 2.9-3: Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	70 < L10 ≤ 73	73 < L10 ≤ 76	76 < L10 ≤ 78	78 < L10 ≤ 80	80 < L10
Aircraft[A]	65 < DNL ≤ 68	68 < DNL ≤ 71	71 < DNL ≤ 73	73 < DNL ≤ 75	75 < DNL
Train	65 < Ldn ≤ 68	68 < Ldn ≤ 71	71 < Ldn ≤ 73	73 < Ldn ≤ 75	75 < Ldn
Attenuation[B]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	See Note c

Note:

A. DNL descriptor based on average values of Ldn over a year period.
B. The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
C. The required attenuation value is the difference between Lbuild and Linterior, using the appropriate noise descriptor Where:
Lbuild is the projected noise level under the build condition rounded up to the whole number
Linterior is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

2.9.1 Initial Impact Screening and Analysis Framework

Future No-Action Condition

No new development or change in noise conditions within the Affected Area or the immediate surrounding area is projected in the Future No-Action Condition.

Future With-Action Condition

Under the Future With-Action Scenario, the Proposed Actions would amend the zoning map to change the existing R4 and C8-1 district to an R7D-C2-4 district. Projected Development Site 2 (Block 7159, Lots 128 & 130) assumes that these two lots would be merged as one zoning lot. The With-Action Scenario assumes all Projected Development Sites (1, 2, 3, and 4) would be developed to the maximum FAR of 5.6. They would be a total of 115 feet tall, with a 10-foot setback at 95 feet in base height. The frontages of Projected Development Site 3 lie on both Coney Island Avenue and Avenue V, while Projected Development Sites 1, 2, & 4 have frontage only on Coney Island Avenue.

The *CEQR Technical Manual* recommends an analysis of two principal types of noise sources: mobile sources; and stationary sources.

Stationary Sources

The *CEQR Technical Manual* states that based upon previous studies, unless existing ambient noise levels are very low and/or stationary source levels are very high (and there are no structures that provide shielding), it is unusual for stationary sources to have significant impacts at distances beyond 1,500 feet. A detailed analysis may be appropriate if the Proposed Project would: cause a substantial stationary source (i.e., unenclosed mechanical equipment for manufacturing or building ventilation purposes, playground, etc.) to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor; or introduce a receptor in an area with high ambient noise levels resulting from stationary sources, such as unenclosed manufacturing activities or other loud uses. Machinery, mechanical equipment, heating, ventilating and air-conditioning units, loudspeakers, new loading docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor and is unenclosed.

No unenclosed stationary noise sources of concern were observed during field inspections. As the Projected Development Sites are not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. Additionally, it is assumed that the building mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building mechanical equipment.

Mobile Sources

The noise analysis presented in this chapter focuses on the operational noise effects of the Proposed Action to determine the level of building attenuation necessary to ensure that interior noise levels satisfy CEQR requirements. The Proposed Action is not expected to increase existing noise passenger car equivalents (PCEs) by greater than 100%, and would therefore not result in significant adverse noise impacts associated with project-generated vehicles.

2.9.2 Noise Monitoring Results

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 for 20-minute periods. The weather conditions were normal with calm wind and were considered suitable for ambient noise measurements. The noise monitoring locations are shown in **Figure 2.9-1** to **Figure 2.9-4** below.

The noise measurements were conducted at the following locations:

- Location 1: Avenue V in front of Projected Development Site 3;
- Location 2: Coney Island Avenue in front of Projected Development Site 3;
- Location 3: Coney Island Avenue in front of Projected Development Site 1.

Noise monitoring was conducted using a 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 around the Affected Area constitute a worst-case condition for noise. Noise meter calibration certification and back up data are provided in **Appendix G**.

Figure 2.9-1: Noise Monitoring Locations



Figure 2.9-2: Noise Monitoring Location (1)



Figure 2.9-3: Noise Monitor Location (2)



Figure 2.9-4: Noise Monitor Location (3)



Existing Conditions

Monitoring was conducted during typical midweek conditions, on Tuesday, September 20, 2022. **Table 2.9-4**: to **Table 2.9-6** below contains the results for the measurements taken at Location 1 to Location 3, respectively. The traffic volumes (vehicle counts) and vehicle classifications taken during peak vehicular travel periods [morning (AM), noon (MD), and evening (PM)] concurrent with noise monitoring at each noise monitoring location are shown below in **Table 2.9-7** to **Table 2.9-9**, respectively.

Table 2.9-4: Noise Levels in dBA at Location 1

Noise Metric	Time Period		
	8:20 am – 8:40 am	12:44 pm – 1:04 pm	5:17 pm – 5:37 pm
L_{eq}	67.3	63.7	64.6
L_{max}	81.3	76.8	80.6
L_{10}	**70.5**	66.5	67.5
L_{50}	64.0	61.0	62.0
L_{90}	58.5	57.5	57.0
L_{min}	55.0	52.6	53.7

Table 2.9-5: Noise Levels in dBA at Location 2

Noise Metric	Time Period		
	7:58 am – 8:18 am	12:22 pm – 12:42 pm	4:55 pm – 5:16 pm
L_{eq}	**70.9**	69.2	69.0
L_{max}	88.2	82.4	89.1
L_{10}	**73.5**	**72.5**	**70.0**
L_{50}	67.0	66.0	66.0
L_{90}	58.5	60.0	60.5
L_{min}	54.8	55.4	56.6

Table 2.9-6: Noise Levels in dBA at Location 3

Noise Metric	Time Period		
	7:34 am – 7:54 am	12:01 pm – 12:21 pm	4:32 pm – 4:52 pm
L_{eq}	69.7	67.3	69.3
L_{max}	88.7	81.2	88.0
L_{10}	**72.5**	**71.0**	**72.0**
L_{50}	65.0	64.0	66.5
L_{90}	55.5	58.0	60.0
L_{min}	49.8	53.5	55.6

Table 2.9-7: Traffic Counts and Vehicle Classifications Location 1

	8:20 am – 8:40 am	12:44 pm – 1:04 pm	5:17 pm – 5:37 pm
Car/ Taxi	54	41	70
Van/Light Truck/SUV	139	119	132
Medium Truck	3	10	2
Heavy Truck	2	1	0
Bus	2	1	2

Table 2.9-8: Traffic Counts and Vehicle Classifications Location 2

	7:58 am – 8:18 am	12:22 pm – 12:42 pm	4:55 pm – 5:16 pm
Car/ Taxi	107	105	122
Van/Light Truck/SUV	248	172	285
Medium Truck	16	14	11
Heavy Truck	9	8	2
Bus	12	3	10

Table 2.9-9: Traffic Counts and Vehicle Classifications Location 3

	7:34 am – 7:54 am	12:01 pm – 12:21 pm	4:32 pm – 4:52 pm
Car/ Taxi	118	83	129
Van/Light Truck/SUV	232	202	243
Medium Truck	9	15	11
Heavy Truck	5	4	2
Bus	13	5	9

2.9.3 Conclusion

The *2021 CEQR Technical Manual* sets external noise exposure standards, which are classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. Table 19-3 of the *2021 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 dB(A) or lower where vehicular traffic is the noise source. For a residential or community facility use, 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 70.5 dB(A) during the AM monitoring period.
- The highest recorded L_{10} at Location 2 was 73.5 dB(A) during the AM monitoring period.
- The highest recorded L_{10} at Location 3 was 72.5 dB(A) during the AM monitoring period.

Accordingly, a 28 dB(A) window/wall attenuation will be required on the facades facing Avenue V and the southern half of the facades facing Coney Island Avenue. The northern portion of the facades facing Coney Island Avenue will require 31 dB(A) window/wall attenuation. With these

provisions in place, there is no potential for significant adverse impacts on project occupants due to noise exposure.

To preclude the potential for significant adverse impacts related to noise, (E) designations would be placed on the Projected Development Sites. The text for the E-designation is as follows (see also **Figure 2.9-5** noise attenuation diagram below):

(E) Designation (E-720)

Block 7159, Lot 123 (Projected Development Site 1): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the northern façade within 50 feet of Coney Island Avenue and a 28 dBA window/wall attenuation on the remaining portion of the northern façade, the eastern façade, the western façade, and the southern façade to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lots 128 and 130 (Projected Development Site 2): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lot 115 (Projected Development Site 3): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the eastern façade facing Coney Island Avenue and on the northern and southern facades within 50’ of Coney Island Avenue and a minimum of 28 dB(A) window/wall attenuation on the remaining facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Block 7159, Lot 120 (Projected Development Site 4): To ensure an acceptable interior noise environment, future residential and commercial office uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the eastern façade facing Coney Island Avenue and on the northern and southern façades within 50 feet of Coney Island and a minimum of 28 dB(A) window/wall attenuation on the remaining facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. 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, air conditioning.

Figure 2.9-5: Noise Attenuation Diagram*



*The above attenuation requirements are for residential or community facility uses. Commercial office uses would require attenuation 5 dBA less.

2.10 Neighborhood Character

According to the *2021 CEQR Technical Manual*, a neighborhood character assessment considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. Thus, to determine a project's effects on the neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered together. These elements may include land use, zoning, public policy, socioeconomic conditions, open space, historic and cultural resources, urban design, visual resources, shadows, transportation, and noise. The Study Area for a preliminary analysis of neighborhood character is typically consistent with the Study Areas of the relevant technical areas under CEQR that contribute to the defining elements of the neighborhood. The Study Area should generally extend to a 400-foot radius around the Affected Area.

2.10.1 Preliminary Analysis

Existing Conditions

The Affected Area includes Brooklyn Block 7159, Lots p/o Lot 111 Lot 115, p/o Lot 120, and Lots 123, 128, and 130 in the Sheepshead Bay neighborhood of Brooklyn Community District 15. The existing conditions of the Affected Area are described below.

- Projected Development Site 1 -(Applicant Owned) Block 7159, Lot 123
- Projected Development Site 2 – Block 7159, Lots 128, and 130
- Projected Development Site 3- Block 7159, Lot 115
- Projected Development Site 4- Block 7159, p/o Lot 120

The Applicant-Owned Development Site

<u>The Development Site (Projected Development Site 1)</u>

Block 7159, Lot 123: The Projected Development Site is located at 2510 Coney Island Avenue and consists of one tax lot (Block 7159, Lot 123) of approximately 11,020 sq. ft. The Development Site is an irregularly shaped lot that has approximately 90-ft. of frontage along Coney Island Avenue and is 120-ft. deep. The Development Site is improved with two, one-story, 0.12 FAR, net, commercial buildings currently occupied by an automotive sales and repair business.

Non-Applicant Controlled Sites

<u>Projected Development Site 2</u>

Block 7159, Lot 128: It is an approximately 3,380 square foot improved lot used for a one-story office building inhabited by a general construction contractor, Beys Specialty Inc. It is an interior lot with 30 feet of frontage on Coney Island Avenue.

Block 7159, Lot 130: It is an approximately 2,400 square foot improved lot with a one-story retail building used by the Kasai Hibachi dining establishment. It is an interior lot with 20 feet of frontage on Coney Island Avenue.

Projected Development Site 3

Block 7159, Lot 115: It is an approximately 11,765 square foot improved lot used for a two-story office building inhabited by Chase Bank. It is a corner lot with 100 feet of frontage on Coney Island Avenue and 110 feet of frontage on Avenue V.

Projected Development Site 4

Block 7159, p/o Lot 120: It is an approximately 21,380 square foot improved lot with four two-story office buildings. The Certificates of Occupancy for the site include uses for offices, storage of building materials, repair and maintenance shop, and contactors establishment. It is used for a laser hair removal business, offices, a radio station, and a wholesale auto parts supplier. It is an interior lot with 60 feet of frontage on Coney Island Avenue

Lots not part of any projected development

Block 7159, p/o Lot 111: It is an approximately 4,133 square foot unimproved lot used for vehicular parking. It is an interior lot with approximately 55.75 feet of frontage on Avenue V.

Open Space

The study area has total residential population of approximately 37,943. Based on this information, the following open space ratios were calculated to determine the existing adequacy of open spaces:

- The study area has an overall open space ratio of 0.289 acres per 1,000 residents. This ratio is far below the planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents, per the *2021 CEQR Technical Manual*.
- The active open space ratio is 0.217 acres per 1,000 residents, which is far below the planning guideline of 2.0 acres of active open space per 1,000 residents, per the *2021 CEQR Technical Manual*.
- The passive open space ratio is 0.072 acres per 1,000 residents, which is far below the planning goal of 0.5 acres passive open space per 1,000 residents specified in the *2021 CEQR Technical Manual*.

As such, the study area currently has a shortfall of both active and passive open space resources to serve the residential population, both far below the citywide planning goal pursuant to *2021 CEQR Technical Manual*. A quantitative and qualitative assessment of open space resources for the Study Area under existing, no action, and with action conditions was completed (*See* Section 2.2).

Shadows

An initial assessment determined that there were no sunlight-sensitive resources in the shadows Study Area.

Historic and Cultural Resources

The Proposed Actions would result in inground disturbance on Projected Development Sites. Based on a Phase IA Archaeological Assessment, LPC has determined that there is no potential for adverse impacts associated with archaeological resources.

Urban Design and Visual Resources

There is no form that ties the built environment together visually. The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, and isolated vacant land or parking uses. Several vacant lots exist within the Study Area (Block 7371, Lot 83 and Block 7159, Lot 57). The commercial uses are comprised of Use Group 6 retail establishments such as a pharmacy, a gas station, a security system supplier, and other local retail uses such as law offices, a florist, a bank, and a liquor store.

The residential uses in the Study Area range from single and multi-family walk up buildings ranging from 2 to 3 stories in the throughout and especially the western portion of the Study Area to mid-rise five to six story apartment buildings to the central and southern portions of the Affected Area. The street grid is disrupted by East 8th Street, East 9th Street, and Homecrest Avenue which end in dead ends at Gravesend Neck, Avenue V, and Gravesend Neck Road, respectively. Additionally, the triangular block created by the intersections of Avenue W and East 12th Street, Avenue W/Gravesend Neck Road and Sheepshead Bay Road, and Gravesend Neck and East 12th Street disrupts the normal grid pattern.

The cohesion of the Study Area is disrupted by Coney Island Avenue. Coney Island Avenue is a heavily trafficked four-lane with turning bay road that influences the visual character and urban design exhibited by the Study Area classified as “Principal Arterial Other” and Local Truck Route by the New York State and New York City Departments of Transportation, respectively.

The Study Area does not contain any parks or open space or contain any notable natural features. The Study Area does not contain historic resources and is generally void of visual resources.

Future No-Action Condition

Sites within the Affected Area, including the Applicant Controlled site on Block 7159, Lot 123, are not projected to be developed in the Future Without the Proposed Actions (No-Action Scenario).

Future With-Action Condition

Projected Development Site 1 (Block 7159, Lot 123; Applicant-Owned Lots)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 1 assumes a full build out on the applicant-owned site. It is an 11,020-sf lot currently occupied as an auto sales lot. It is assumed that the lot would be developed with a mixed residential and commercial building with 12,122 gsf (11,020 zsf) of commercial (retail) floor area on the ground floor and cellar and 55,761 gsf (50,692 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum bulk and height in an R7D/C2-4 zoning district. It assumed that Projected Development Site 1 would have 61 dwelling units assuming 900 sf per dwelling unit. Of those 61 dwelling units, 25-30% (15-18) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (12 units) of residential floor area is assumed to be affordable at or below 60% AMI. It's assumed that 24 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 2 (Block 7159, Lots 128 and 130; Non-Applicant Lots)

Under the With-Action Scenario, the lots would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

The with-action scenario for Projected Development Site 2 assumes that these two lots would be merged as one zoning lot and would be improved with a full build out mixed-use building. Under R7D/C2-4 zoning guidelines, it is assumed that Projected Site 2, a combined 5,780 sf lot, would be developed with a mixed residential and commercial building with 6,358 gsf (5,780 zsf) of commercial (retail) floor area on the ground floor and cellar and 29,246 gsf (26,588 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum bulk and height in an R7D/C2-4 zoning district. The building would have 32 dwelling units assuming 900 sf per dwelling unit, 25-30% (8-10) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (6 units) of residential floor area is assumed to be affordable at or below 60% AMI. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 3 (Block 7159, Lot 115; Non-Applicant Lot)

Under the With-Action Scenario, the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 3 assumes a full build out on Lot 115, an 11,765-sf lot currently improved with a 7,200-sf office building. In the With-Action Scenario, under R7D/C2-4 zoning

guidelines, it is assumed that the site would be improved with a mixed-use building with 12,941 gsf (11,765 zsf) of commercial (retail) floor area on the ground floor and cellar and 59,530 gsf (54,119 zsf) of residential floor area above. The building would have a height of 115 feet and an FAR of 5.6, which is the maximum bulk and height in an R7D/C2-4 district. The building would have 66 dwelling units assuming 900 sf per dwelling unit, 25-30% (17-20) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (13 units) of residential floor area is assumed to be affordable at or below 60% AMI. 26 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Projected Development Site 4 (Block 7159, Lot 120; Non-Applicant Lot)

Under the With-Action Scenario, the portion of the lot would be mapped as an R7D/C2-4 zoning district with a maximum FAR of 5.6 for residential, 2.0 for Commercial, and 4.2 for Community Facilities.

Projected Development Site 4 assumes that a mixed use residential and commercial building would be constructed on the portion of Lot 120 that is within the Affected Area (approximately 6,000 sf) and would be built out to an FAR of 5.6 with a height of 115 feet, which is the maximum height and bulk in an R7D/C2-4 zoning district. It assumes that the existing 2 story, 8,000 sf office building on Lot 120 that has direct frontage on Coney Island Avenue would be razed and replaced with a 36,960 gsf (33,600 zsf) building. There would be a total of 30,360 gsf (27,600 zsf) of residential floor area and a total of 6,600 gsf (6,000 zsf) of commercial floor area. The building would contain 33 dwelling units (assuming 900 sf per dwelling unit), 25-30% (8-10) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% (7 units) of residential floor area is assumed to be affordable at or below 60% AMI. 13 parking spaces would be provided for the market rate residential units in a subsurface accessory parking garage.

Sites Where Development Would Not Be Induced by the Proposed Actions (Block 7159 p/o Lot 111)

Additionally, while p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Action. For Lot 111, the portion of the lot in the Affected Area makes up less than 30 percent of the total lot area, and the Proposed Action would have negligible effect on development potential. Therefore, it is assumed that this portion of this lot would remain unchanged in the With-Action Scenario.

In order to determine the Proposed Actions' potential effects on neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered both separately and cumulatively. The examination focuses on whether a defining feature of the neighborhood's character may be significantly affected, as further described below:

Land Use, Zoning, and Public Policy

Under the With-Action Scenario, the Proposed Rezoning would amend the zoning map to change the existing R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district, which would facilitate the Applicant's Projected Development. In order to present a conservative assessment, the With-Action Scenario assumes that the Projected Development Site (Block 7159, Lot 123) would be constructed to the maximum allowable floor area in an R7D/C2-4 zoning district, which is 5.6 FAR.

Furthermore, in the interest of a conservative analysis, it is assumed that several remaining parcels of land in the Affected Area (Block 7159, Lots 128, and 130 as Projected Site 2, Lot 115 as projected Site 3 and p/o Lot 120 as Projected Site 4) would also be developed with new mixed us retail and residential buildings. Consistent with the analysis for Block 7159, Lot 123, it is assumed these lots would be constructed to the maximum allowable floor area of 5.6 allowed under ZQA/MIH regulations for an R7D/C2-4 zoning district, assuming the 20 percent affordable housing option.

The Proposed Actions would not introduce any new or non-conforming land uses or Use Groups that are not already located within the Study Area. The With-Action Scenario would see denser development of under-utilized lots, which would create a more vibrant, mixed use stretch of Coney Island Avenue. Just south of the Affected Area, there is a 100-unit apartment building which would be larger than any building that is Projected to be development under the With-Action Scenario.

The rezoning would not adversely affect surrounding land uses, nor would it be incompatible with those land uses. The Proposed Action would not alter the essential character of the neighborhood or district or substantially impair the appropriate use or development of an adjacent property, nor would it be detrimental to the public welfare or jeopardize the intent of the Zoning Resolution or the Waterfront Revitalization Program. Accordingly, no further analysis of Public Policy is warranted. As such, no significant adverse impacts with respect to land use, zoning, or public policy are expected and no further analysis is required.

Open Space

The quantitative analysis indicates that the Open Space Ratio in the Future With-Action Condition would decrease by 1.33% compared to the Future No-Action Condition. Despite the fact that the existing Open Space Ratio in the study area (both Active and Passive) is far below the goals established in the *2021 CEQR Technical Manual*, the qualitative analysis reveals a moderate utilization rate of existing active open space resources, all in acceptable condition, and multiple Planned Capital Improvements of the active open spaces, and additional open space resources just outside of the Study Area. Lastly, the Proposed Development on Projected Development Site 1 would provide on-site amenities for residents including private terraces and balconies, and a rooftop recreational open space area as a building wide amenity for future residents.

To summarize, the moderate utilization of the existing open space resources, the proximity to open space resources that are not considered within the Study Area, and the proposed resources to be provided for residential tenants on Projected Development Site 1 would help mitigate the open space deficiency within the Study Area. Therefore, the Proposed Actions would not result in a significant adverse impact on open space resources within the Study Area, and further analysis is not warranted.

Shadows

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 find the longest shadow length, the maximum height of the structure (including any rooftop mechanical equipment) was multiplied by the factor of 4.3.

A shadow radius of 4.3 times the maximum allowable heights on the Projected Development Sites 1-4 (115 feet plus bulkhead) was calculated, resulting in a shadow radius of approximately 559 feet. According to a land use check, no sunlight sensitive resources were in the area. There were no churches with stained glass windows and no open spaces. With no sunlight sensitive resources within the Tier 1 Study Area for Projected Development Sites 1-4, no additional shadow analysis is required and no significant adverse impacts are expected.

Historic and Cultural Resources

The project would result in in-ground disturbance to develop the proposed mixed-use building with cellar space for parking as well as three other Projected Development Sites in the Affected Area. 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 August 28th, 2020, LPC indicated that the Study Area does not contain any sites or buildings of known architectural significance. However, LPC indicated that several properties within the Affected Area (Block 7159, Lots 115, 120, 123, 128, 130) have archaeological significance. Accordingly, a Phase IA Documentary Research and Archaeological Assessment was conducted to determine if the Affected Area has the potential to retain significant archaeological cultural resources. In a letter dated December 1st, 2020, the LPC indicated that after their review of the Phase IA, there are no further archaeological concerns for these lots. Thus, the Proposed Project is not anticipated to result in significant adverse impacts to sensitive archaeological resources and no further analysis is required.

Urban Design and Visual Resources

As the Projected Development Sites would be built within the existing lot footprint on the Project Sites, the development in the With-Action Scenario would not alter or disrupt the existing street grid or change the arrangement and orientation of streets in the area. Additionally, the Proposed

Action would not permanently alter the existing sidewalks that border the Project Site to the East and North. Furthermore, there would not be any changes to the existing sidewalk layout. Overall, the development in the Future With-Action would not alter with the existing streets, street grid, streetscape, and sidewalks.

The development under the Future With-Action Scenario would result in a building that is larger in scale and height than buildings in the surrounding Study Area, which are typically two to six stories and 20 to 60 feet in height. As previously discussed, the With- Action scenario could result in a development of up to 10 stories and 115 feet in height. Although the development under the With-Action Scenario would be larger and taller than the existing low to mid rise buildings in the Study Area, the buildings would be uniformly massed towards wide streets, with frontage along Coney Island Avenue and Avenue V. Furthermore, the additional density in the With-Action Scenario allows for the opportunity to produce more affordable housing, which would be unattainable in the No-Action Scenario. The projected development under the With-Action Scenario would include retail uses on the ground floor. In comparison to the existing ground floor uses in the Affected Area, which include equipment storage and vehicle parking, these uses would further activate currently underused sites at the street level and improve the visual quality of the streetscape. As such, the Proposed Action would enhance the commercial corridor and view corridor along Coney Island Avenue and Avenue V by activating uses to the streetscape and promoting pedestrian activity.

While the With-Action Scenario would bring a density (up to 10 stories and 115 feet) to the Study Area that does not currently exist, the Proposed Action would not negatively affect urban design in the area. There are no architecturally significant buildings in the area and the building would not significantly affect any views of the area. While the proposed building would change views of the site as witnessed by pedestrians on Coney Island Avenue, Avenue V, and other roadways, significant adverse impacts to urban design and visual resources would not occur. The Proposed Actions would not result in any conditions that would merit further detailed assessment of urban design and visual resources. While no other 10-story buildings are located within the Study Area, several other four to six story 40 to 60-foot mid-rise buildings are found in the surrounding Study Area. The Proposed Actions would also not block any view corridors or views to/from any natural areas with rare or defining features, as the proposed building is contained to the subject site. Therefore, the Proposed Actions are not expected to result in any significant adverse urban design or visual resource related impacts.

Transportation

Based on the completed detailed Levels of Service (LOS) Analysis, no significant adverse impact is predicted to any of the pedestrian elements analyzed as part of the LOS. Therefore, no further analysis is warranted.

2.10.2 Conclusion

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; open space; 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 Actions 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.

2.11 Construction

According to the *2021 CEQR Technical Manual*, construction impacts may be analyzed for any project that involves construction or could induce construction. For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. For example, the use of a property for construction staging activities is likely to only warrant analysis if this activity continues for a period of several years. Consideration of several factors, including the location and setting of the project in relation to other uses and intensity of construction activities are used to determine if a project's construction activities warrant analysis in one or more of the following technical areas:

- Transportation
- Air Quality or Noise
- Historic and Cultural Resources
- Hazardous Materials
- Natural Resources
- Open Space
- Socioeconomic Conditions
- Community Facilities
- Land Use and Public Policy
- Neighborhood Character
- Infrastructure

A preliminary construction analysis may be required because the Projected Development would result in the following:

- Construction activities are considered long-term (Last longer than two years); or
- Short term construction activities would directly affect a technical area, such as impeding the operation of a community facility.
- Result in the closing, narrowing, impeding of traffic, transit, or obstruction of pedestrian or vehicular routes in proximity to critical land uses.
- 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.
- 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.

Analysis Framework

Future No-Action Condition

No new development within the Affected Area is projected for the Future No-Action Condition. Therefore, there is no potential for impacts associated with construction activity.

Future With-Action Condition

The Proposed Actions would result in new development on four projected development sites. These developments would replace existing uses on each site. Construction would occur over two phases beginning with Projected Site 1 within a construction period of approximately 16 months from demolition to the completion of the interior core and shell, or 17 months and 3 weeks from demolition to the completion of interior finishes, the proposed development (Projected Development Site 1) is expected to be completed by 2027.

Projected Development Sites 2-4 would begin demolition 18 months after completion of the interior core and shell on Projected Site 1, with a construction period of approximately 16 from demolition to interior core and shell completion, or 19 months from demolition to completion of interior finishes, and TCO by February of 2030. Accordingly, a build year and an analysis year of 2030 is assumed for this project.

The construction schedule is attached as **Appendix F**.

2.11.1 Preliminary Analysis

Transportation

According to the *CEQR Technical Manual*, a number of factors should be considered before determining whether a preliminary assessment of the effect of construction on transportation is needed including:

- Whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare;
- Whether the project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit; and

- Whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap, and last for more than two years overall.

Projected Development Site 3 would be constructed along Avenue V and Coney Island Avenue. Projected Development Sites 1, 2 and 4 would be constructed along Coney Island Avenue. Coney Island Avenue is a 100-foot-wide two-way principal arterial roadway. The section of Coney Island Avenue that bounds the Affected Area includes two moving travel lanes, one turning lane and curbside parking on both sides of the roadway. Avenue V is an 80-foot-wide two-way local roadway with one moving lane and curbside parking in each direction. Both Avenue V and Coney Island Avenue are considered wide streets.

The Projected Development Sites are located on an arterial roadway (Coney Island Avenue). In addition, 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 parking lanes for the staging of equipment and the movement of materials to and from the site. In addition, the sidewalks adjacent to the sites on Coney Island Avenue and Avenue V would be improved or refurbished as part of the Builders Pavement Plan. These conditions are considered routine short-term activities that may temporarily impact pedestrian flow and the temporary availability of parking spaces along these streets. However, impact to moving traffic lanes or the overall circulation of traffic is not expected to be significant given the size and associated duration of construction associated with each projected development site over the period leading up to the projected build year.

The DOT Office of Construction Mitigation and Coordination (OCMC) reviews and approves all maintenance and protection of traffic (MPT) plans which specify any planned sidewalk or lane closures and staging for all construction sites. MPT plans would be developed for any required temporary sidewalk, lane, and/or street closures to ensure the safety of the construction workers and the public passing through the area. Approval of these plans and implementation of the closures would be coordinated with DOT's OCMC. Measures specified in the MPT plans that are anticipated to be implemented would include parking space closures, safety signs, safety barriers, and construction fencing. It is anticipated that a minimum 5' alternative pedestrian path with safety barricades would be installed during periods of construction staging to safely reroute pedestrians along the sidewalk segments in front of the Projected Development Sites. In addition, staging periods and access from curbside to the Projected Development Sites would be accompanied by flagmen to assure that pedestrian and vehicular movements are managed safely.

It is anticipated that associated sidewalk reconstruction (as required for new construction projects) would occur in sections, with the sidewalk segment along Projected Development Site 1 occurring first, followed by a minimum 18-month gap before sidewalk reconstruction occurs along the frontages of Projected Development Site 2-4. Each sidewalk section is anticipated to take less than 2 weeks total for reconstruction.

In addition, is anticipated that temporary sidewalk closures and use of the parking lanes to stage materials would be required for a short-term duration in front of each Projected Development Site during construction and specifically during periods of demolition and removal of debris and staging of equipment and material However, long-term obstruction of the sidewalks or use of parking lanes would not occur. It is expected that partial closure of portions of sidewalk along Coney Island Avenue in front of Projected Development Site 1 would be required for construction staging for approximately 17 months up to interior fit out. There would be an approximately 18-month gap before partial closure of portions of sidewalk along Avenue V and Coney Island Avenue in front of Projected Development Sites 2-4 would be expected for construction staging, with a total duration of closure along these sidewalk segments of approximately 19 months up to interior fit-out. However, changes to moving traffic lanes would not be necessary. Further, as discussed in **Section 2.7.4** above, the sidewalks along Coney Island Avenue and Avenue V in front of the Projected Development Sites would operate at a Level of Service A or B under future No-Action Conditions. Therefore, high pedestrian activity along the sidewalks fronting the Projected Development Sites is not expected.

There is a B68 bus stop located on the west side of Coney Island Avenue in front of Projected Development Site 3. This is not an Applicant-controlled site. However, coordination would be required with MTA to ensure continued operation of this bus stop during construction. Further, as Projected Development Site 3 has two frontages (Coney Island Avenue and Avenue V), it is expected that construction staging would be orchestrated so as not to disrupt this bus stop.

There are several public institutions in the Surrounding Area. To the east of the Affected Area, across Coney Island Avenue, is the Homecrest branch of the Brooklyn Public Library, located approximately 95 feet from the nearest Projected Development Site (Projected Development Site 2). Directly south of the aforementioned public library is the Yeshivat Darchei Eres school, which serves approximately 1050 elementary, middle, and high school-aged students. This school is located approximately 110 feet from the nearest Projected Development Site (Projected Development Site 2). Southeast of the Affected Area, located approximately 340 feet from the nearest Projected Development Site (Projected Development Site 2), is the 61st Precinct police station of the NYPD.

The current pavement markings for crosswalks leading to and from the surrounding community facility uses would facilitate the avoidance of the potentially impacted sidewalk segments along Coney Island Avenue, as they do not provide a direct or practical route to these uses. While the sidewalk segment of Avenue V adjacent to Projected Development Site 1 may be a potential route to and from these community facility uses, as discussed above, sidewalk reconstruction would be considered short term, would be coordinated with DOT OCMC, and would include an anticipated minimum 5’ alternative pedestrian path with safety barricades that could be used be pedestrians traveling this sidewalk segment. Further, as discussed above, this sidewalk segment would operate at a LOS A under future no-action conditions. Therefore, the Proposed Actions would not disrupt the flow or safety of pedestrians.

During construction, the sites would generate trips from workers traveling to and from the construction sites, and from the movement of materials and equipment. 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 and construction truck traffic would not last for more than two years overall, and would not represent a substantial increment during the area's peak travel periods (i.e. exceed 50 vehicle trips at any intersection, 50 bus or rail transit trips on any individual line, or 200 pedestrian trips on any sidewalk element) as the Projected Development Sites individually are modest in size and require significantly less than 24 months of duration in construction.

Air Quality

According to the *CEQR Technical Manual*, an assessment of air quality for construction activities is likely not warranted if the project's construction activities:

- Are considered short-term (less than two years);
- Are not located near sensitive receptors; and
- Do not involve construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out.

Possible impacts on local air quality during construction induced by the Proposed Actions 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 would be of a short-term duration and relatively contained within a proposed site, and would 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 Actions 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. The number of construction-related vehicle trips generated by

the Proposed Actions would be relatively small and the emissions from such vehicles as well as construction equipment would occur over two phases. Phase 1 would last 16 months from the start of demolition to the completion of the interior core and shell, followed by an 18 month gap from the end of interior core and shell completion on Site 1 and the start of demolition on Sites 2-4. Phase 2 would last 16 months from the start of demolition to the completion of interior core and shell work. Additionally, construction would occur over four separate sites and therefore, construction vehicles would be dispersed throughout the Affected Area, and the mobile source emissions generated by the Proposed Actions would not be significant. Overall, the Proposed Actions would not have the potential to result in significant adverse air quality impacts.

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 Actions 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 the 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 Actions.

Historic and Cultural 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 of significance were identified within the 400-foot Study Area. Therefore, adverse construction-related impacts are not expected to any historic resource in the vicinity of the Affected Area.

2.11.2 Conclusion

Construction would be performed subject to relevant EPA, DEP, DOT and DOB codes and regulations to ensure minimal construction impacts. Construction is anticipated to occur over two phases, over four Projected Development Sites, which each phase lasting under 24 months. Accordingly, 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 Actions.

APPENDIX A

WRP FORM AND FLOOD EVALUATION WORKSHEET

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: 2510/18 C.I.A L.L.C.

Name of Applicant Representative: Equity Environmental Engineering

Address: 500 International Dr. Suite 150, Mount Olive NJ 07828

Telephone: 917-470-3077 Email: kira.xiang@equityenvironmental.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The Applicant, 2510/18 C.I.A L.L.C., is seeking a zoning map amendment from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district and a text amendment of ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 15, Brooklyn to establish a Mandatory Inclusionary Housing ("MIH") Area.

2. Purpose of activity

The Proposed Development would be a new, eleven-story mixed-use building with cellar, with approximately 61,637 square feet of floor area (5.59 FAR). The ground floor would contain approximately 6,465 square feet of retail floor area. The upper floors would contain approximately 56,816 square feet of residential floor area with 60 units (up to 16 affordable units). The building would have 46 parking spaces.

C. PROJECT LOCATION

Borough: Brooklyn Tax Block/Lot(s): Block 7159, Lots p/o 111, 115, p/o 120, 123, 128, and 130

Street Address: 2510 Coney Island Avenue

Name of water body (if located on the waterfront): _____

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

☐ City Map Amendment	☐ Zoning Certification	☐ Concession
☑ Zoning Map Amendment	☐ Zoning Authorizations	☐ 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: _____

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	☐ Funding for Construction, specify: _____
☐ Rulemaking	☐ Policy or Plan, specify: _____
☐ Construction of Public Facilities	☐ Funding of Program, specify: _____
☐ 384 (b) (4) Approval	☐ Permits, specify: _____
☐ Other, explain: _____	

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: Equity Environmental Engineering

Address: 500 International Dr, Suite 150 Mount Olive NJ 07828

Telephone: 917-470-3077 Email: kira.xiang@equityenvironmental.com

Applicant/Agent's Signature: Kira Xiang Digitally signed by Kira Xiang Date: 2020.11.02 13:33:18 -05'00'

Date: 2/9/22

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

- ☐ Copy of original signed NYC Consistency Assessment Form
- ☐ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☐ Environmental Review documents
- ☐ 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.
- ☐ 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

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	2510 Coney Island Avenue Rezoning
Location	2510 Coney Island Avenue, Brooklyn
Type(s)	☑ Residential, Commercial, Community Facility ☐ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☐ Critical Infrastructure or Facility ☐ Industrial Uses ☐ Over-water Structures ☐ Shoreline Structures ☐ Transportation ☐ Wastewater Treatment/Drainage ☐ Coastal Protection
Description	The Applicant, 2510/18 C.I.A L.L.C., is seeking a zoning map amendment and a zoning text amendment (the “Proposed Actions”) over Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the “Affected Area” or “Rezoning Area”) located in the Sheepshead Bay neighborhood of Brooklyn, Community District 15. The Proposed Project on the applicant-controlled lot (lot 123) involves the development of a new, eleven-story mixed-use building. The cellar level would contain parking, the ground floor level would contain residential lobby and commercial, and the upper floors would contain residential dwelling units
Planned Completion Date	2025
Expected Project Lifespan	100 Years +

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet."

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.26	**2.26**	**NAVD88**	*Kingsborough Station*
1% flood height	10.00	**10.00**	**NAVD88**	*2015 PFIRMs*
Design flood elevation	11.00	**11.00**	**NAVD88**	*Nearest 1% BFE + 1 foot*
As relevant:				
0.2% flood height	-->			

Data will be converted based on the following datums:

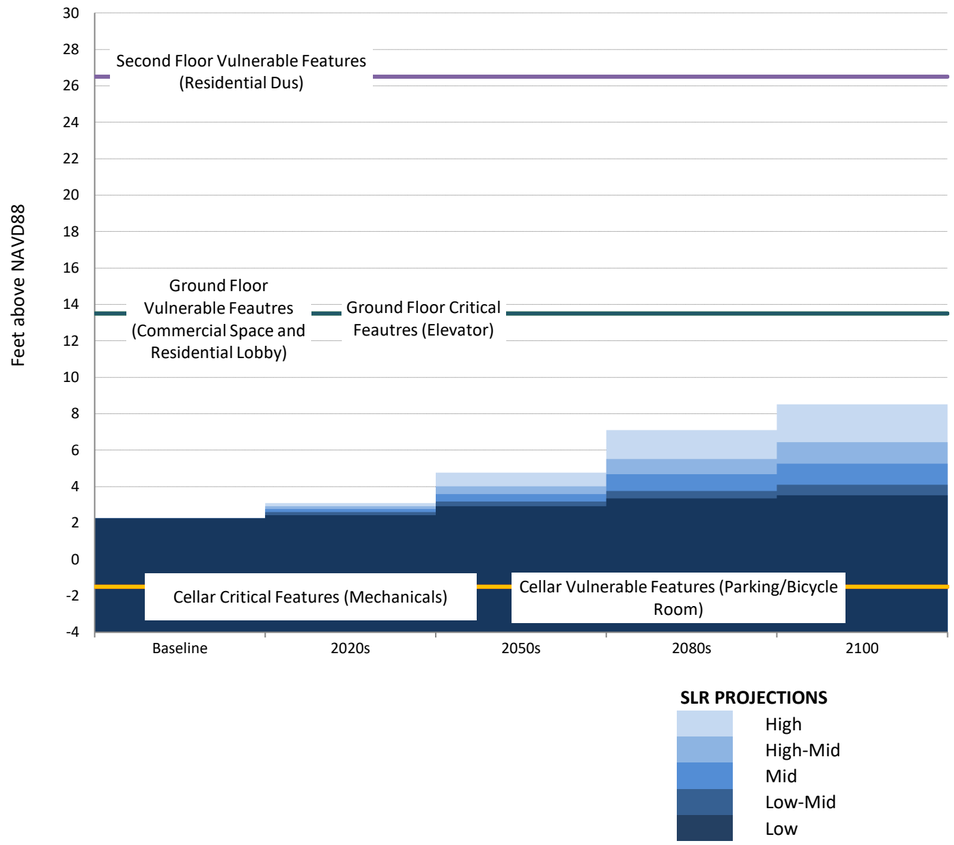
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

Describe key physical features of the project.

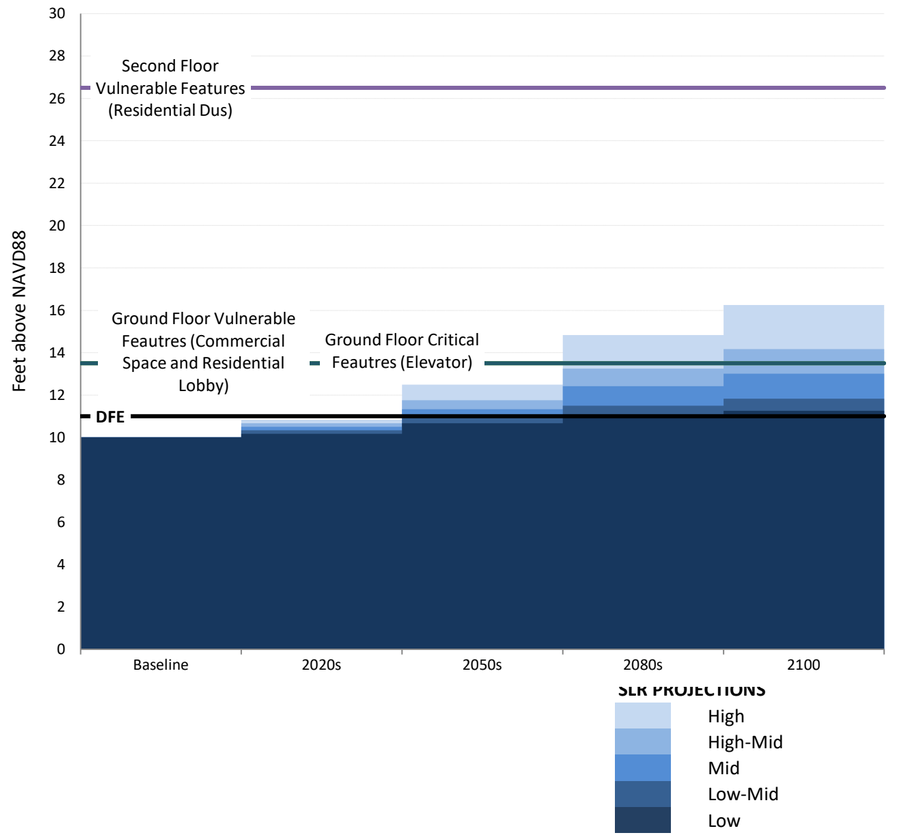
Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
Cellar Critical Features (Mechanical)	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	100 Years	-1.5	Feet	NAVD88	-1.5	-1.5	-3.8	#VALUE!
Sprinkler room, electrical room, elevator vestibule, mechanical room									
Cellar Vulnerable Features (Parking/Service R	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	100 Years	-1.5	Feet	NAVD88	-1.5	-1.5	-3.8	#VALUE!
Enclosed walls, flooring, electrical, vehicle parking and bicycle parking									
Ground Floor Vulnerable Feautres (Commerc	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	100 Years	13.5	Feet	NAVD88	13.5	13.5	11.2	#VALUE!
Description of Planned Uses and Materials									
Ground Floor Critical Feautres (Elevator)	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	100 Years	13.5	Feet	NAVD88	13.5	13.5	11.2	#VALUE!
Elevator									
Second Floor Vulnerable Features (Residenti	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	100 Years	26.5	Feet	NAVD88	26.5	26.5	24.2	#VALUE!
Enclosed walls, flooring, electrical within residential Dus									
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									

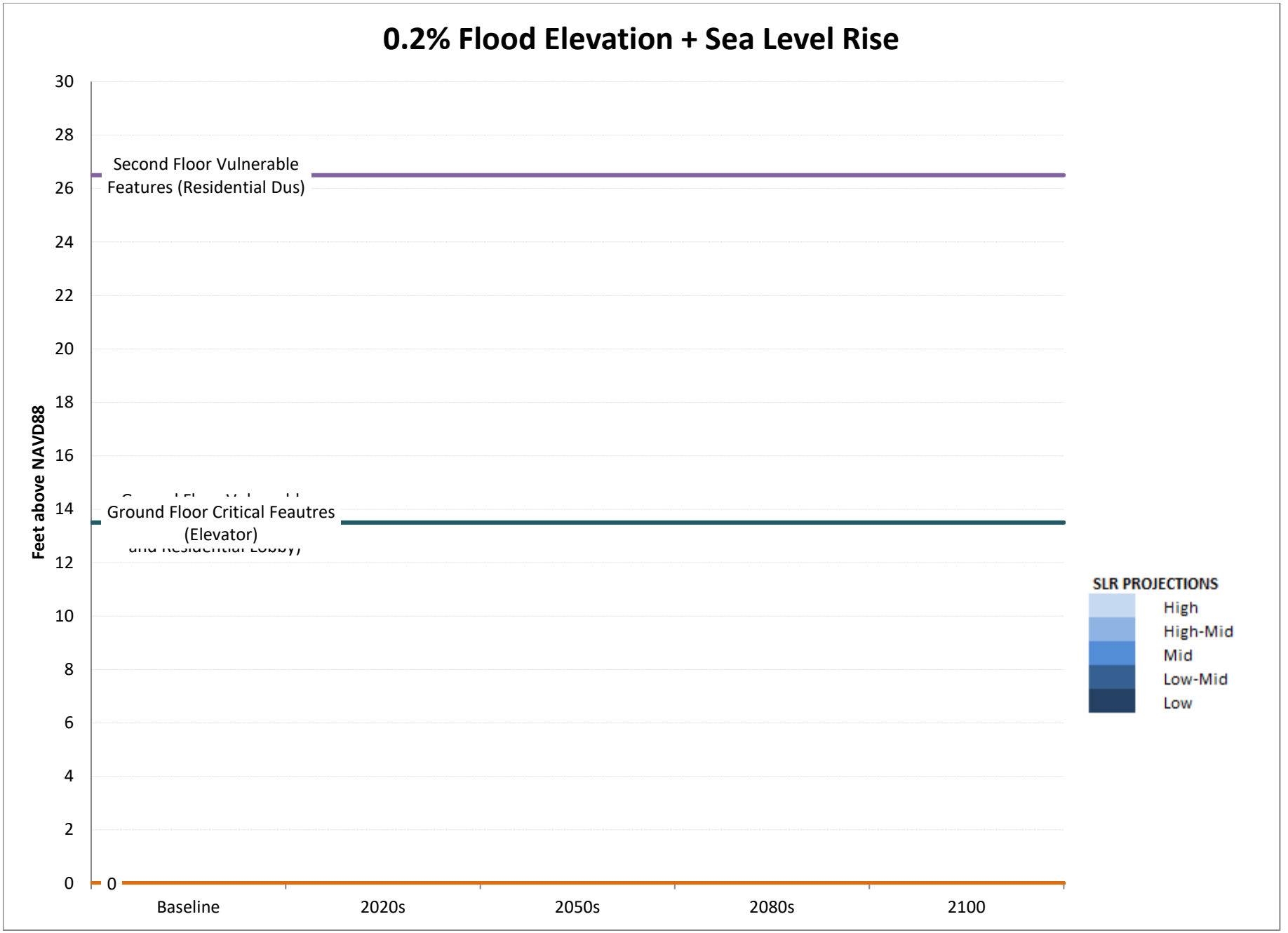
Assess project vulnerability over a range of sea level rise projections.

Mean Higher High Water + Sea Level Rise



1% Flood Elevation + Sea Level Rise




0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Second Floor Vulnerable Features (Residential Dus)
Ground Floor Critical Feautres (Elevator)
0
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

SLR (ft)

	Low	Low-Mid	Mid	High-Mid	High	
Baseline	0.00	0.00	0.00	0.00	0.00	**2014**
2020s	0.17	0.33	0.50	0.67	0.83	**2020s**
2050s	0.67	0.92	1.33	1.75	2.50	**2050s**
2080s	1.08	1.50	2.42	3.25	4.83	**2080s**
2100	1.25	1.83	3.00	4.17	6.25	**2100**

MHHW+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	2.26	2.26	2.26	2.26	2.26
2020s	2.43	2.59	2.76	2.93	3.09
2050s	2.93	3.18	3.59	4.01	4.76
2080s	3.34	3.76	4.68	5.51	7.09
2100	3.51	4.09	5.26	6.43	8.51

1%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	10.00	10.00	10.00	10.00	10.00
2020s	10.17	10.33	10.50	10.67	10.83
2050s	10.67	10.92	11.33	11.75	12.50
2080s	11.08	11.50	12.42	13.25	14.83
2100	11.25	11.83	13.00	14.17	16.25

0.2%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2020s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2050s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2080s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2100	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

	0	1
Cellar Critical Features (Mecha	-2	-1.5
Cellar Vulnerable Features (Pa	-2	-1.5
Ground Floor Vulnerable Feau	13.5	13.5
Ground Floor Critical Feautres	13.5	13.5
Second Floor Vulnerable Featu	26.5	26.5
0	0	0
0	0	0
0	0	0
DFE	11.00	11.00

SLR (in)				
Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**
8518687	Queensboro Bridge	2.27	2.60
8530095	Alpine	2.11	2.44
8516614	Glen Cove	3.72	4.05
8516990	Willets Point	3.72	4.05
8518639	Port Morris	3.33	3.66
8518699	Williamsburg Bridge	2.14	2.47
8518750	The Battery	2.28	2.61
8531680	Sandy Hook	2.41	2.74
8518490	New Rochelle	3.71	4.04
8531545	Keyport	2.66	2.99
8516891	Norton Point	2.08	2.41
8517201	North Channel	2.72	3.05
8517137	Beach Channel	2.10	2.43
8517756	Kingsborough	2.13	2.46
8519436	Great Kills	2.22	2.55
8531142	Port Reading	2.82	3.15
8519483	Bergen Point	2.56	2.89
8519050	USCG	2.28	2.61
8518902	Dyckman St	2.01	2.34
8517251	Worlds Fair Marina	3.59	3.92
8518668	Horns Hook	2.54	2.87
8518643	Randalls Island	2.60	2.93
8518526	Throggs Neck	3.68	4.01

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-200

Source
NOAA Tides and Currents
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)1 tidal epoch.




Alpine
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Dyckman St
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Glen Cove
8516614
Randalls
Island
8518643
Port
Morris
8518639
Throggs
Neck
8518526
Willets
Point
8516990
Worlds Fair
Marina
8517251
Queensboro
Bridge
8518687
Horns Hook
8518668
Williamsburg
Bridge
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The Battery
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North
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8507201
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CG
9050
Beach
Channel
8517137
Kingsborough
8517756
Sandy Hook
8531680

APPENDIX B

HISTORICAL AND CULTURAL RESOURCES

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 / LA-CEQR-K
Project: 2510 CONEY ISLAND AVENUE
Date Received: 8/20/2020

Properties with Archaeological significance:

1) 2500 CONEY ISLAND AVENUE, BBL: 3071590115
2) 2508 CONEY ISLAND AVENUE, BBL: 3071590120
3) 2510 CONEY ISLAND AVENUE, BBL: 3071590123
4) 2520 CONEY ISLAND AVENUE, BBL: 3071590128
5) 2524 CONEY ISLAND AVENUE, BBL: 3071590130

Comments:

The project sites have no architectural significance.

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

Gina Santucci 8/28/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35125_FSO_DNP_08282020.docx

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

ARCHAEOLOGY REVIEW

Project number: LA-CEQR-K (DEPARTMENT OF CITY PLANNING)
Project: 2510 CONEY ISLAND AVENUE
Date Received: 11/17/2020

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

Comments: The LPC is in receipt of the revised, "Phase IA Documentary Study and Archaeological Assessment for 2510 Coney Island Avenue, Brooklyn, Kings County, New York, Block 7159, Lots 115, 120, 123, 128 and 130," prepared by Chrysalis Archaeological Consultants and dated November 17, 2020. We note that the requested revisions have been made and now concur that there are no further archaeological concerns for these lots. Please submit a bound copy of the report to the LPC for our archives.



12/1/2020

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 35125_FSO_ALS_12012020.docx

Phase IA Documentary Study and Archaeological Assessment for 2510 Coney Island Avenue, Brooklyn, Kings County, New York, Block 7159, Lots 115, 120, 123, 128 and 130



Prepared for:
City of New York – Landmarks Preservation Commission
and
2510/18 C.I.A. LLC

Prepared by:
Alyssa Loorya, Ph.D., R.P.A.
and
Elissa Rutigliano

Edited by:
Lisa Geiger, M.A., R.P.A.
and
Christopher Ricciardi, Ph.D., R.P.A.

October 23, 2020

Phase IA Documentary Study and Archaeological Assessment for 2510 Coney Island Avenue, Brooklyn, Kings County, New York, Block 7159, Lots 115, 120, 123, 128 and 130

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October 23, 2020

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I. INTRODUCTION

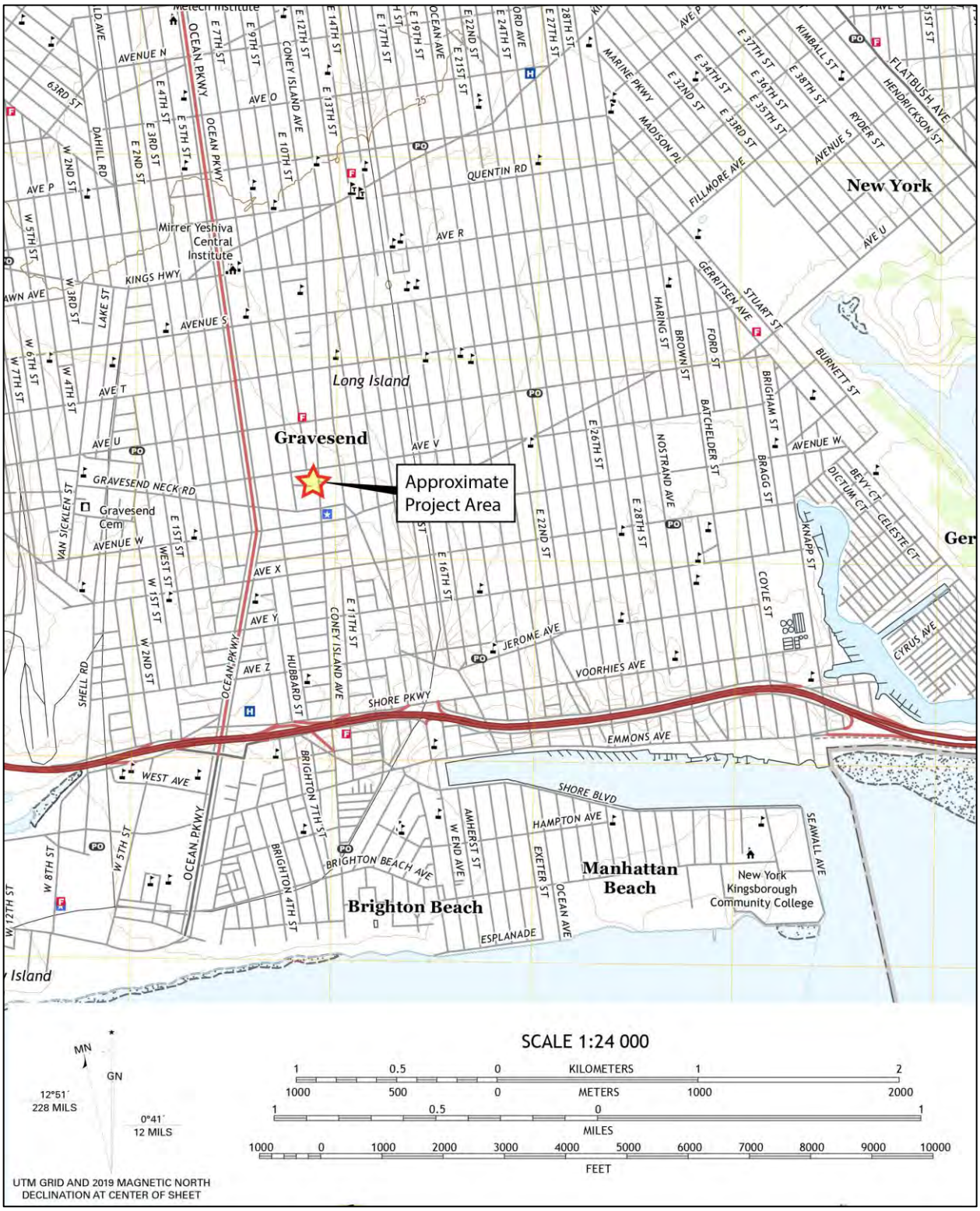
Chrysalis Archaeological Consultants, Inc (Chrysalis) was retained by 2510/18 C.I.A. LLC to undertake a Phase IA Documentary Research and Archaeological Assessment report for 2510 Coney Island Avenue, Brooklyn, Kings County, New York. The City of New York – Landmarks Preservation Commission (NYC LPC) determined that the project area, formed by Block 7159 Lot 123, and the surrounding Lots 115, 120, 123, 128, and 130 outside of the project impact area, have potential archaeological significance and recommended this survey. A key factor in the area's potential archaeological sensitivity is the site's possible association with the Dutch Reformed Church. The purpose of this Phase IA is to determine if the project area has the potential to retain significant archaeological cultural resources.

The project area was found to lie approximately 0.6 miles east of the village of Gravesend, settled in 1643. The project area appears to have occupied meadowland that remained undeveloped into the nineteenth century. In 1844, the Dutch Reformed Church of Gravesend purchased a lot encompassing the project area for construction of a parsonage. The parsonage and its outbuilding lay southwest of the project area. The project area was undeveloped until between 1920 and 1930, when a mix of residential and commercial buildings and a paved lot were constructed across the area. Environmental remediation in 2007 removed three underground storage tanks and revealed sandy subsoil in parts of the project area. Three of the early twentieth century buildings on site were razed between 2008 and 2009, and the project area was stripped and re-paved from 2011 to 2012.

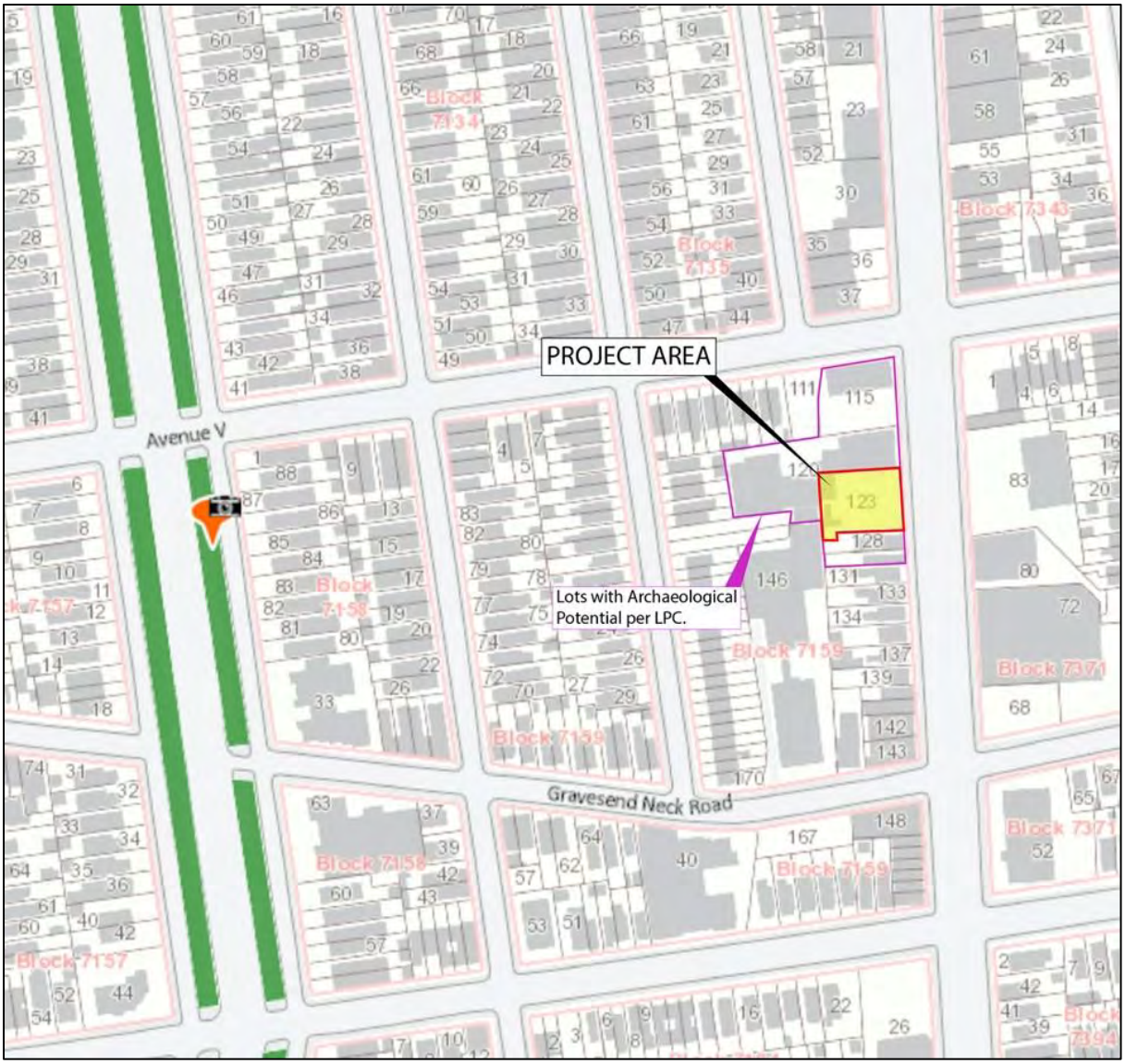
Prehistoric archaeological sensitivity is considered low based on the relatively sparse distribution of known prehistoric sites near the project area and the extensive disturbances to the entire project area from early twentieth century construction and twenty-first century modifications to Lot 123 and the surrounding lots. Historic archaeological sensitivity is also considered low based on the lack of documented historic development within the project area and the extensive disturbance to the project area from twentieth century construction and twenty-first century modification. No additional archaeological work is recommended.

All work for this study was conducted in accordance with the NYC LPC's Guidelines for Archaeological Work in New York City (NYC LPC 2018) and the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) guidelines (New York Archaeological Council [NYAC] 1994; 2000; 2002), which are subsequent to the National Historic Preservation Act (NHPA) of 1966, as amended, the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800), the New York State Historic Preservation Act (SHPA), the (New York) State Environmental Quality Review Act (SEQRA), the (New York) City Environmental Quality Review Act (CEQRA).

Alyssa Loorya, Ph.D., R.P.A., and Elissa Rutigliano authored the report. It was edited by Lisa Geiger, M.A., R.P.A. and Christopher Ricciardi, Ph.D., R.P.A.



Map 1: Detail of USGS Coney Island, NY 7.5" Topographic Quad (USGS 2019).



Map 2: OASIS street map highlighting Project Area and additional lots cited as potentially archaeologically sensitive by NYC LPC (OASIS 2020).

PROJECT DESCRIPTION

Block 7159, Lot 123 forms the entirety of the Area of Potential Effect (APE) and the basis for the client's application to rezone the block. This lot is located on the west side of Coney Island Avenue south of Avenue V. The lot is 90' wide fronting Coney Island Avenue, 100' wide at the rear, and 120' deep.

2510/18 C.I.A. LLC proposes to develop a mixed use commercial and residential structure across the lot (Figure 1). The 11-story structure will front Coney Island Avenue, with a 10'-4" easement to serve as a driveway on the south side and an 8' easement on the north side of the proposed structure. A 20' wide portion at the rear of the lot will remain undeveloped to serve as a commercial rear yard (Figure 2). The proposed cellar level will accommodate utilities and parking spaces (Figure 3).

An initial review by NYC LPC determined that the five lots cited in the rezoning application have potential archaeological significance (NYC LPC 2020). These lots are: 115, 120, 123, 128 and 130. Only Lot 123 is within the project APE, based on the proposed development. In consideration of this, the following report generally addresses all five lots cited by NYC LPC. Block 7159, Lot 123 is defined as the "project area". The five additional lots adjacent to LOT 123 listed above are collectively referred to as the "general project area". These lots have contextual relevancy to the development of Block 7159 but are not part of the proposed project APE.

PROJECT INFORMATION

Project Name	2510 Coney Island Avenue
Street Address	2510 Coney Island Avenue
Borough/Block/Lot	Block 7159: Lots 115, 120, 123, 128, and 130
Applicant Name	2510/18 C.I.A. LLC
Principal Investigator	Alyssa Loorya, Ph.D., R.P.A.



Figure 1: Proposed construction rendering.

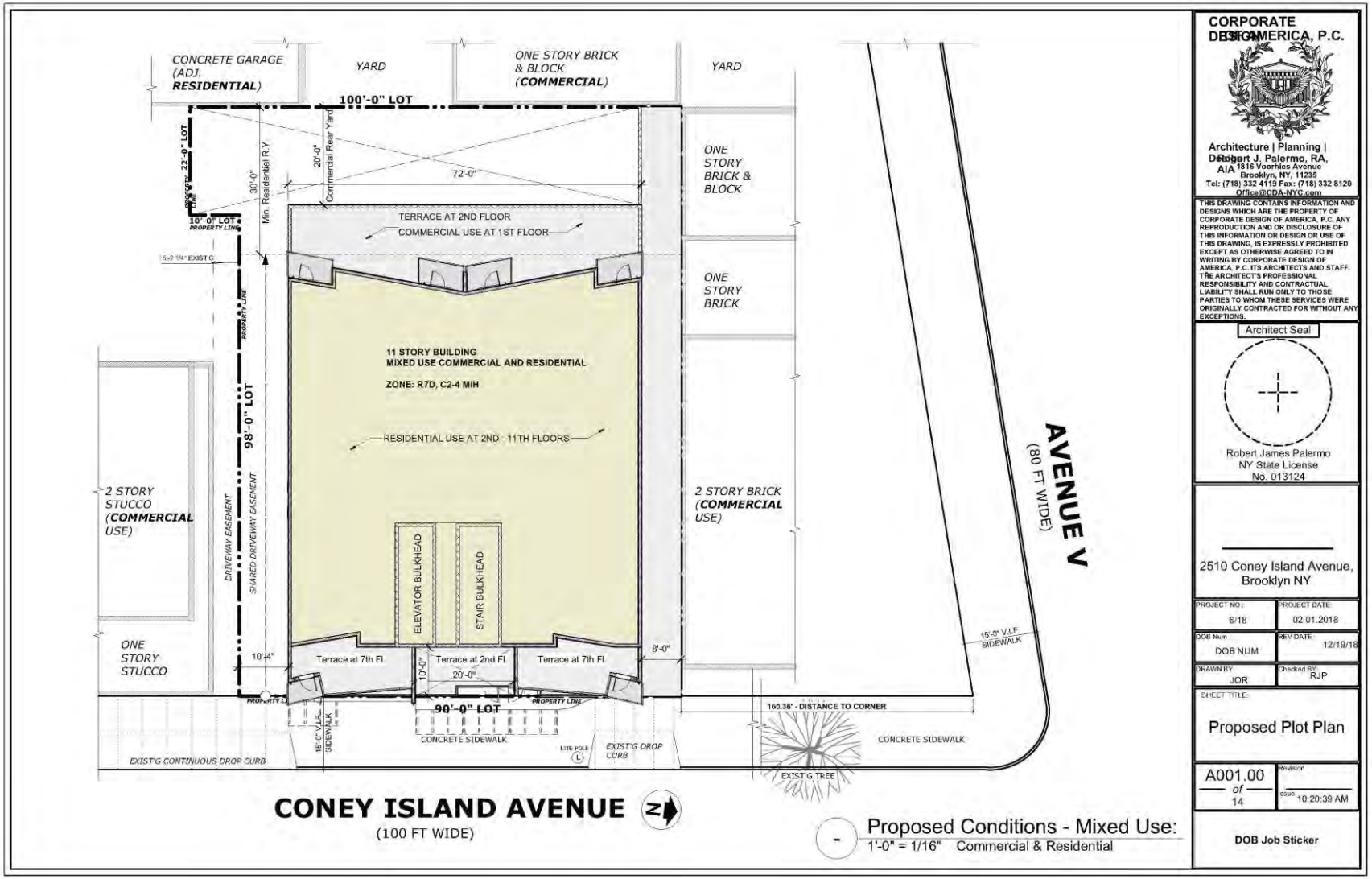


Figure 2: Proposed construction footprint.

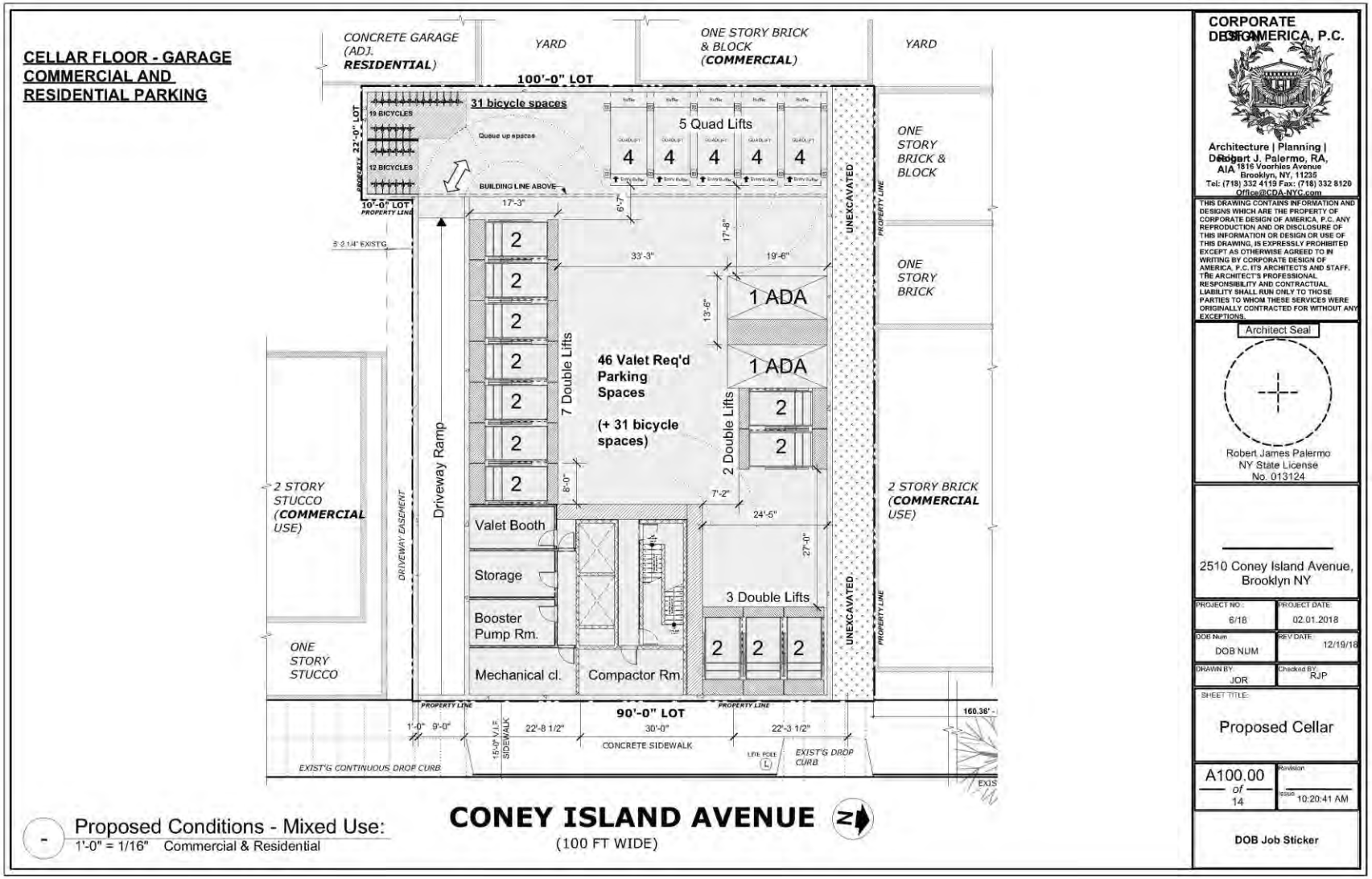


Figure 3: Proposed cellar level construction.

II. PROJECT METHODS

Standard documentary research methodologies were utilized in gathering information for this study. This included a review of existing cultural resource reports within the repositories of the NYC LPC and NY SHPO via the NY CRIS GIS system. A review of historical maps and other documentary information from online and library/museum repositories was conducted to aid in determining the history and development of the project area. Repositories utilized included the New York Public Library, the Library of Congress, New York State Archives, Brooklyn Historical Society, and David Rumsey Historical Map Collection.

Both primary and secondary source documents were consulted. Primary source records included historic maps, New York City Real Estate records, United States and New York State census records and genealogical and biographical information available from online sources (e.g. New York City Register of Births/Deaths). Other sources included historic newspapers and published histories of the area. Also incorporated is an assessment of information provided by the project developers of the proposed project plans and photography from an October 20, 2020 site visit.

It is noted that some records were not accessible due to the current COVID-19 pandemic. Specifically, Brooklyn Land Conveyance Records from 1900 – 1950 were not available.

III. SYNTHESIS OF PREVIOUS WORK

According to a search of reports filed with NYC LPC and the NY CRIS GIS system, there have been five previous archaeological assessments undertaken within a one-mile radius of the Project Area (Table 1).

In 1991 Historical Perspectives, Inc. was retained by the New York City School Construction Authority to conduct an archaeological sensitivity assessment for Block 7185 Lot 20. Although there was evidence that a pre-contact period population was present in the Brooklyn area, the APE would have been primarily a wetland, and thus was considered to have low prehistoric archaeological sensitivity. There was also no evidence in the project area for historical structures or occupation during the contact and post-contact period. No further field investigation or monitoring was recommended.

In 1998, Historical Perspectives, Inc. conducted an assessment of nine bridges in southeast Brooklyn, including the interchange with Coney Island Avenue and Ocean Avenue south of the current project area. The report recommended soil borings be conducted for the Nostrand Avenue Bridge because of prehistoric potential of elevated site near marine resources and recommended National Register status for the Mill Basin bridge, but it found lower lying areas to lack archaeological sensitivity.

In 2000, Greenhouse Consultants, Inc. prepared an archaeological sensitivity assessment of the Old Gravesend Cemetery to determine whether graves might extend beyond the established cemetery fence line, as the fence was to be replaced in the future. A general history of the site was performed using materials from the New York Public Library, the Gravesend Historical Society, and Offices of the Borough of Brooklyn. The assessment concluded that in situ graves could extend past the fence of the Gravesend Neck Road frontage and the eastern portion of the Village Road South frontage. Testing of this area before any construction work was recommended.

In 2002, a report chronicling the archaeological testing and subsequent construction monitoring of the Gravesend Cemetery fence replacement was prepared by Alyssa Loorya. M.A., R.P.A. Archaeological hand excavation was performed in two areas of the cemetery before the new fence's instillation, followed by monitoring. The archaeological excavation revealed no evidence of burials in either area. Both the excavation and monitoring at the Old Gravesend Cemetery revealed a significant disturbance along the perimeter of the cemetery. No culturally relevant material was recovered during excavation or monitoring.

In 2019, Historical Perspectives, Inc. assessed numerous green planting areas proposed in five areas of Brooklyn and Queens, including approximately one mile northwest of the current project area. This area was found to have low sensitivity for prehistoric resources based on the landscape and relatively few surrounding documented prehistoric materials, and it was found sensitive for mid-nineteenth and twentieth century residential materials based on map documented structures.

Table 1: Archaeological assessments conducted within a 1-mile radius of the project area.

YEAR	TITLE/SITE	AUTHOR	NUMBER	CONCLUSIONS
1991	Phase 1A Archaeological Assessment, NYC School Construction Authority – PS 721K, Gravesend, Brooklyn, New York	Historical Perspectives, Inc.	LPC # 1069	The APE was deemed as having insufficient evidence of prehistoric use as it was primarily a wetland and would have been an unconducive environment for a prehistoric campsite. There was also no evidence of structures or general use of the area during the historic period.
1998	Stage 1A Cultural Resources Assessment Belt Parkway Bridges Project, Brooklyn, NY. 97DOT006K	Historical Perspectives, Inc.	LPC# 874	Assessment of nine bridges in southeast Brooklyn. Recommended soil borings for Nostrand Avenue Bridge because of prehistoric potential of elevated site near marine resources.
2000	Documentary Study of the Old Gravesend Cemetery, Borough of Brooklyn, Kings County, New York	Greenhouse Consultants, Inc.	LPC # 211	The study found that evidence of prehistoric residence and activity was unlikely to be found in Old Gravesend Cemetery, due to development and modern use of the land. There was some possibility that in situ graves

YEAR	TITLE/SITE	AUTHOR	NUMBER	CONCLUSIONS
				extended beyond the fence-line of the cemetery. Archaeological testing of the Gravesend Neck Road frontage and the eastern 110 feet of the Village Road South frontage prior to construction work was recommended.
2002	Phase IB Archaeological Testing at the Gravesend Historic Cemetery, Brooklyn, New York	Chrysalis Archaeological Consultants, Inc.	LPC # 250	As a fence was being replaced around a documented cemetery, archaeological excavation and monitoring was deemed necessary by LPC. Most of the ground was deemed disturbed, and no culturally significant artifacts were revealed, nor was there evidence of in situ burials in the excavated and monitored areas.
2019	Phase IA Archaeological Resources Assessment GOSR Green Infrastructure Assessment and Implementation Project Kings & Queens Counties, New York	Historical Perspectives, Inc.	NYC DEP / 12DEP054Y OPRHP #18PR05554	Installation of green areas nearly one mile northwest of current project area. Area was found to have low sensitivity for prehistoric resources based on the landscape and relatively few surrounding documented prehistoric materials. The area was found sensitive for mid-nineteenth and twentieth century residential materials.

The subject property was also the site of 2007 Environmental Site Assessment and Remediation undertaken by HydroEnvironmental Solutions, Inc. (HES). Remediation work was conducted for two hydraulic tanks and an underground storage tank below a vehicle service garage at the western rear of Lot 123 (HES 2007a, HES 2007b). Remediation work identified a “dry well” at the southwest portion of the property, but this was considered associated with the autobody shop on site due to surface drainage ports and the presence of tetrachloroethene, a common element of metal degreasers and vehicle brake cleaners (HES 2008). Excavation for remediation and collection of 10 soil samples reached depths from 6’ to 10’ below ground surface and exposed sandy matrices without an apparent A horizon based on soil data and photographs collected.

IV. CONTEXT AND RESEARCH DESIGN

HISTORIC ENVIRONMENTAL CONTEXT

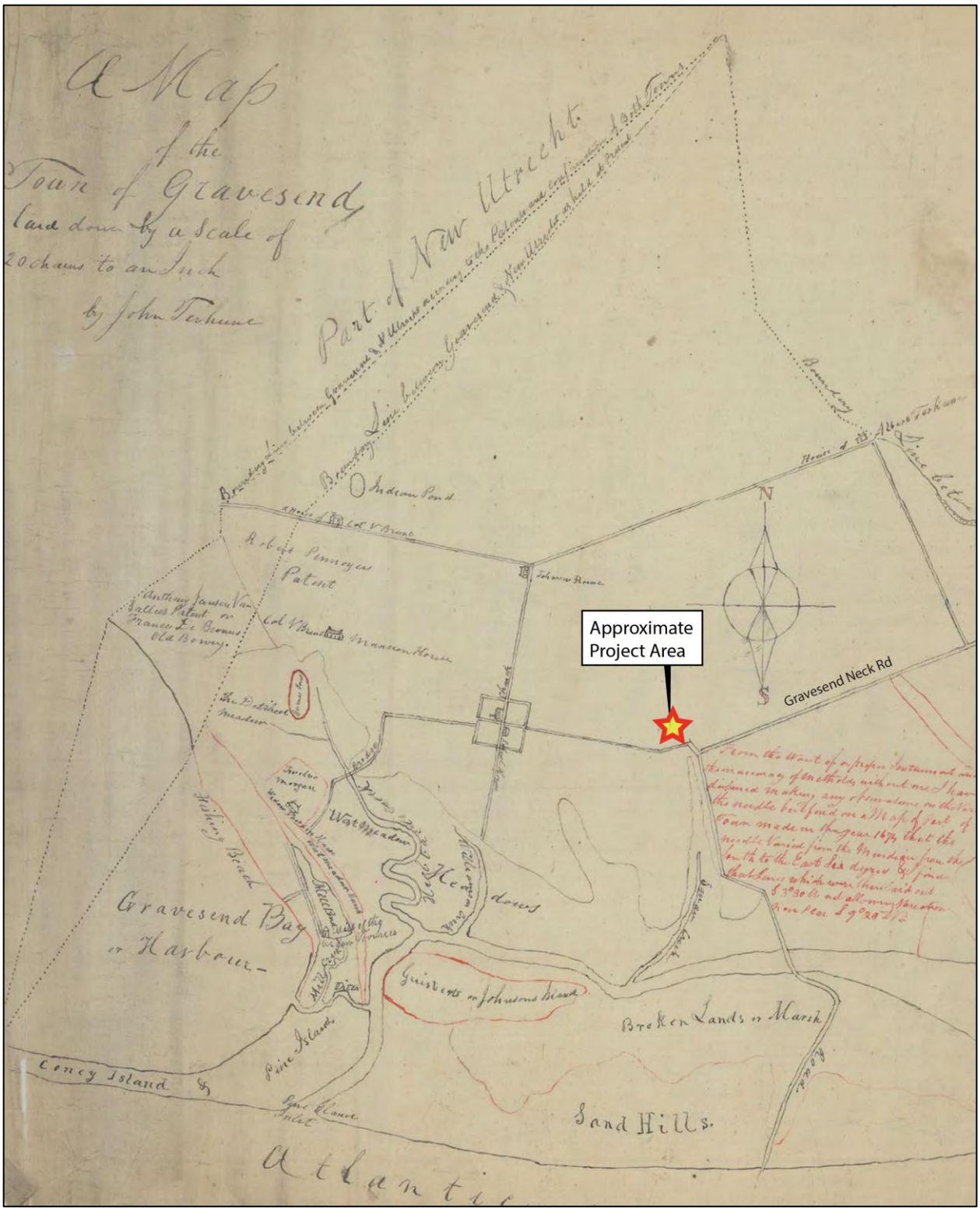
The project area is in western Long Island. Long Island comprises two spines of glacial moraine, with a broad, sandy outwash plain beyond. These moraines consist of gravel and loose rock left behind during the two most recent pulses of Wisconsin glaciation 21,000 years ago. The northern moraine, which directly abuts the North Shore of Long Island at points, is known as the Harbor Hill moraine. The more southerly moraine, known as the Ronkonkoma moraine, forms the "backbone" of Long Island; it runs primarily through the center of Long Island. The land to the south of this moraine, including the project area, is the outwash plain of the last glacier (Schuberth 1968; Eisenberg 1978; Campanella 2019).

An assessment of historic maps indicates the landscape surrounding the project area was highly modified in the nineteenth and early twentieth centuries. The project area is located in the footprint of the historic town of Gravesend in the southern part of Kings County. The town occupied a triangular area, with its base resting upon the Atlantic Ocean in the south and its apex adjoining the Town of Flatbush in the north. Located ten miles from Manhattan, the area of Gravesend is bounded to the west by New Utrecht, the east by Flatlands, and the south by Coney Island and the sea (Map 1).

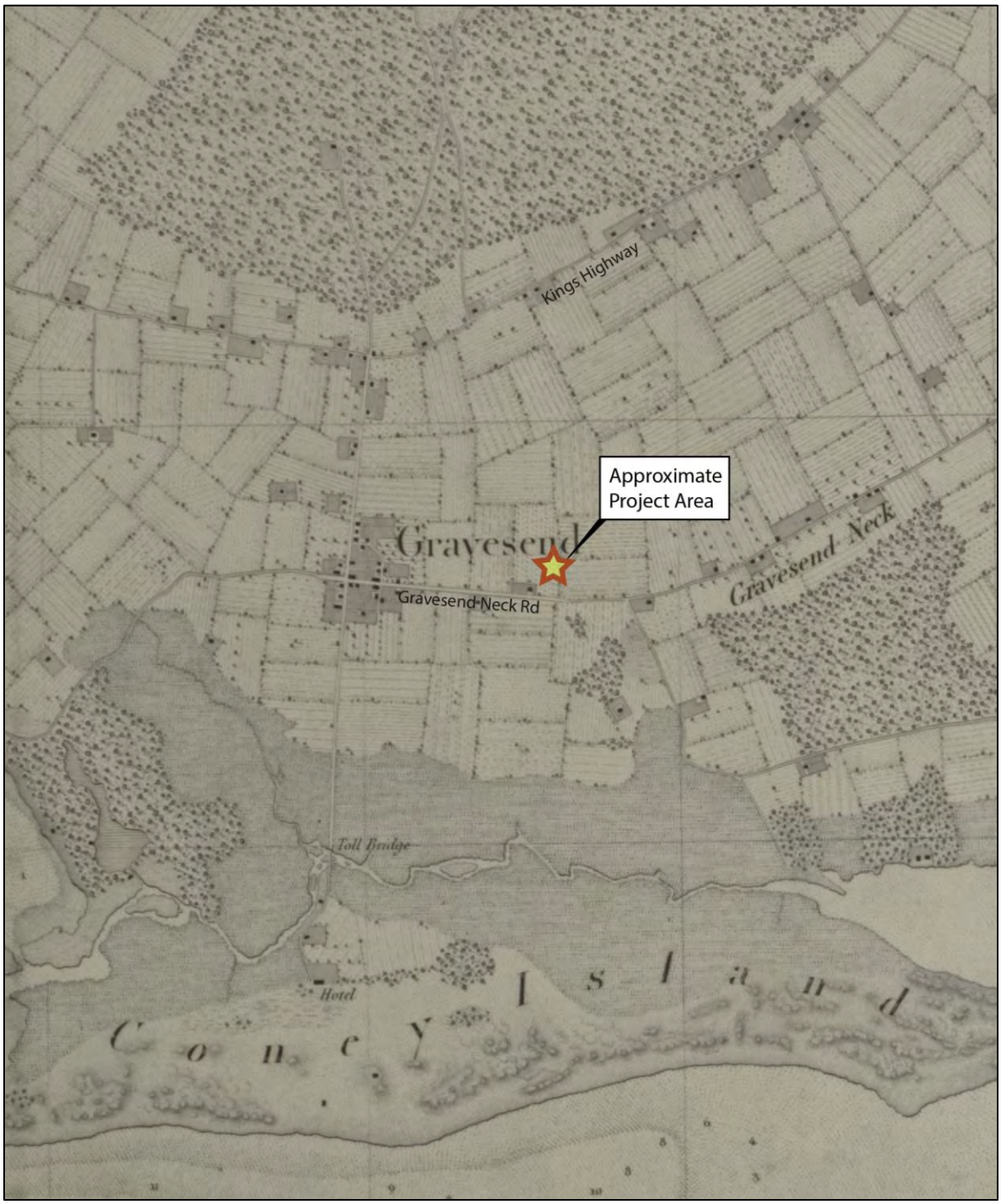
Before extensive alteration of the landscape during the nineteenth and twentieth centuries, a gently sloping plain extended south of the moraine to the ridge of hills forming the Brooklyn mainland and several barrier islands. Coney Island, due south of the project area, is one of these barrier islands. Jamaica Bay, southeast of the project area, is formed of several barrier islands. Separating these barrier islands and the mainland of western Long Island was a vast expanse of tidal marsh. Near the project area, the tidal marsh connected to Coney Island Creek and its tributaries. The closest tributary to the project area was Squam Creek, an offshoot of Coney Island Creek.

Squam Creek is referenced in Reginald Bolton’s description of the region as being in the western part of Gravesend Neck, east of the project area (Bolton 1922:231) (Map 3). The City of New York filled in Squam Creek before 1935 (New York State - Supreme Court Appellate Division–Second Department, May 1938, V. 5439:588).

The topography of the project area during the middle of the nineteenth-century was essentially flat, with elevations less than 10’ above sea level (asl). The project area was dominated by large, open fields of cleared or cultivated upland. South of the project area, beginning roughly near Avenue X/Avenue Y and extending south to Coney Island Creek, the area was comprised entirely of meadow and marshland. Gravesend Neck Road's layout had been established as little more than a wagon path, between the main village square in Gravesend and Sheepshead Bay Road. The land comprising the project area had not yet been developed. The closest building was situated southeast of the project area at the southeast corner of the junction formed by Gravesend Neck Road and Sheepshead Bay Road. The second closest building was located west of the project area along Gravesend Neck Road, closer to the main village square (Map 4) (See Section V for detailed information).



Map 3: Detail of 1674 "A map of the town of Gravesend" showing Squam Creek, with nineteenth century annotations (Terhune 1674)



Map 4: Detail of 1681 coastal map, with the project area east of the developed Gravesend core (Hassler 1681).

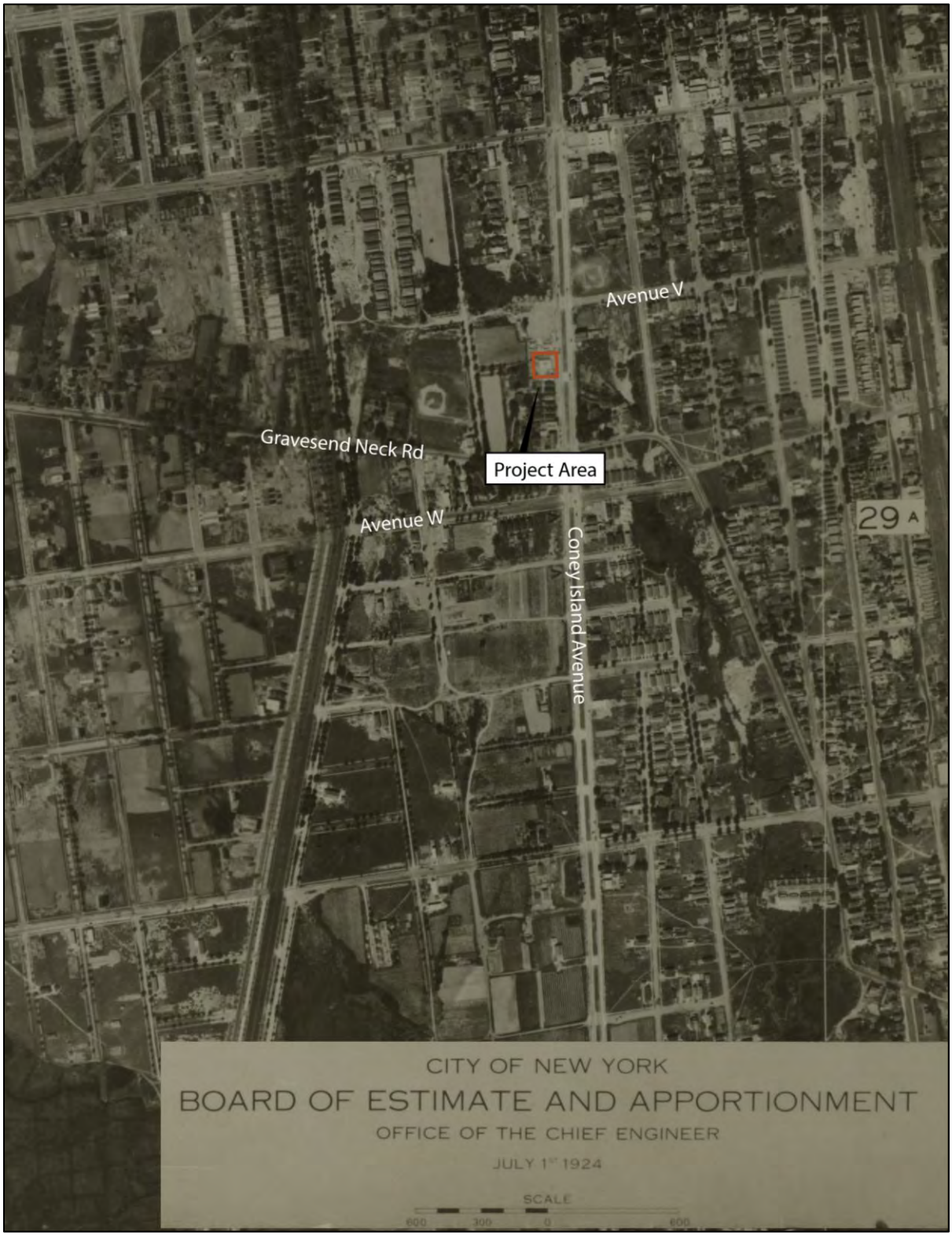


Figure 4: 1924 aerial photography (City of New York – Board of Estimate and Apportionment).

A 1924 aerial image of the area shows Gravesend on the precipice of urbanization. The project area had transformed into a light industrial landscape. The surrounding development, remnants of marshland to the south of the project area, and the present-day roadways bordering the project area are depicted. Several buildings had been constructed on Block 7159 outside the project area (Figure 4). Section V covers the regional and project area history and details development of the APE.

CURRENT CONDITIONS

The project area is currently developed within a highly urbanized area of Brooklyn's Gravesend neighborhood, named after the historic town. The area immediately surrounding the project area contains a mix of predominantly commercial and mixed-use structures, including neighborhood retail, light industrial use, and residential. Coney Island Avenue – a heavily trafficked north/south roadway – forms the project area's eastern boundary and is the principal thoroughfare in the area. In the immediate surrounding area, Avenue V is predominantly commercial and mixed-use in nature (residential/commercial retail) with mostly 1-2 story buildings containing ground floor neighborhood retail. Side streets such as East 8th Street (to the west) and East 12th Street (to the east) are mainly residential.

The general project area, inclusive of the additional 4 lots referenced by NYC LPC, is dedicated to commercial-office buildings and use. Lot 115, situated at the southwest corner formed by the intersection of Avenue V and Coney Island Avenue, is occupied by a Chase Bank building. Lot 120, fronting Coney Island Avenue, is occupied by a two-story brick industrial building. It is adjoined southerly by Lot 123 (the project area), a paved car-lot. Lot 128, fronting Coney Island Avenue, is occupied by a one-story concrete commercial building. Lot 130, fronting Coney Island Avenue, is occupied by a one-story commercial-retail building.

The project APE, Lot 123, consists of a new and used car lot, an automobile repair facility with four service bays, three commercial offices and a residential apartment. A site visit conducted October 20, 2020 found the majority of the lot covered by an asphalt paved parking area (Images 1-2). The front area of the site consists of an approximately 3,000 square foot vacant residential/commercial building next to the asphalt paved area. The rear portion of the site consists of a four-bay automobile repair garage. According to the Environmental Site Assessment, the interior service garage contained two underground hydraulic oil tanks, a sump/open pit at the entrance area of the service bays to act as a collection area for liquids spilled during automobile maintenance and repair, and a 550-gallon underground storage tank was noted beneath the left front service bay; these underground structures were removed in 2007 (HES 2007a, HES 2007b, HES 2008).

The United States Department of Agriculture (USDA) Soil Survey identifies 87.5% of the project area as UoA – Urban land, outwash (Table 2) (USDA 2020). The entire project area contains 0% to 3% slopes, which reflects the relatively flat terrain. Soil sampling undertaken by HES identified medium to coarse brown sand across the rear portion of Lot 123 (HES 2008).

Table 2: USDA Soil Survey for the project area.

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
UFA	Urban land-Flatbush complex, 0 to 3 percent slopes	0.0	1.1%
UmA	Urban land, tidal marsh substratum, 0 to 3 percent slopes	0.1	11.3%
UoA	Urban land, outwash substratum, 0 to 3 percent slopes	1.1	87.5%



Image 1: Project APE, Lot 123, facing southwest.



Image 2: Project APE, Lot 123, facing northwest.

RESEARCH DESIGN

This Phase IA documentary study has been designed to determine the history of the project area and its potential to contain significant archaeological resources. Among these are potential Native American (prehistoric) and/or historic resources. Historic period resources were specifically cited by the NYC LPC (NYC LPC 2020).

While the client has applied for rezoning of Lot 123, NYC LPC has also highlighted the surrounding Lots 115, 120, 128 and 130 as potentially sensitive. This report investigates Lot 123 as the "project area" and the five surrounding lots as the "general project area" to contextualize the block's development. The APE is limited to Lot 123, based on proposed project impacts. Research is intended to determine how the landscape changed, and when and how the block was developed, with special consideration of the general project area's relation to Gravesend and to the Dutch Reform Church and its ensuing modern development.

V. DOCUMENTARY RESEARCH RESULTS

PRE-CONTACT PERIOD

The prehistoric era covers the period from North America's first human occupation until contact with European settlers. The date of the first human occupation of North America is the subject of much dispute; however, there is evidence of human presence in the northeastern United States since approximately 15,000 B.P. following the Laurentide Ice Sheet retreat, which covered the area during the Late Wisconsin Glaciation (Kraft 1986).

Prehistoric occupation in North America is divided into three significant cultural periods: Paleo-Indian (circa 13,000 – 10,000 B.P.), Archaic (circa 10,000 – 3000 B.P.), and Woodland (circa 3000 B.P. – A.D. 1600), marked by changes in climate and the archaeological record.

Western Long Island's earliest inhabitants were small bands of organized and highly mobile hunter-gatherers. They did not establish permanent settlements but moved seasonally according to resource availability. Paleo-Indian sites reflect temporary occupation at elevated locations (offering optimal vantage opportunity for hunting) or alongside streams and rivers. Their subsistence economy would have been comprised of Pleistocene megafauna, small game, nuts, berries, and vegetal foods (Fletcher & Kintz 1979:12). Rivers, lakes, salt marshes, and other coastal environments were utilized for the abundant fish, shellfish, fowl, plant life, and other aquatic resources that could be easily procured there (Fagan 2005). Because of the need for mobility, Paleo-Indian tools and other material culture were not overly complicated or extensive, which leads to the ephemeral nature of Paleo sites in the archaeological record.

Later human occupation of western Long Island during the Archaic period, which evolved from that of a hunter-gatherer economy, was indicative of "specialized adaptations" of individuals to their environment (Fletcher & Kintz 1979:12). During the Archaic, settlement patterns remained semi-mobile as the available resources shifted throughout the year, but there was a trend towards increasingly more extended amounts of time spent in one location as water sources stabilized. Groups established base camps and moved periodically throughout a more limited territory as resources became available (McManamon et al. 2009). On western Long Island, Archaic peoples utilized a mix of forest and marine resources during the Early Archaic period. Larger prehistoric populations characterized the Late Archaic period (4000-1000 B.P.) with markedly more complex forms of settlement activity and trade relations. Late Archaic sites on western Long Island reflect seasonal occupation of hunting and butchering camps, fishing sites, and wild food collection stations (Fletcher & Kintz 1979:12-13).

The introduction of agriculture, the appearance of permanent settlements, the introduction and advancement of ceramic technology, and the prevalence of more elaborate and diverse tools typically mark the Woodland Period's onset. The advent of horticultural activities and the domestication of plants and animals was a critical factor in enabling groups to settle in one place and develop into more complex societies (Bolton 1922, Furman 1875). The Woodland populations of Long Island centered their subsistence activities around the cultivation of maize, beans, and squash; and the exploitation of marine-based resources (Fletcher & Kintz 1979:12).

The later part of the Woodland period saw complex prehistoric societies; these groups represent the first peoples that early European settlers would have encountered during their explorations to the area (Ritchie & Funk 1971). At the time of contact, Brooklyn was principally inhabited by the Canarsee, the Nayak, the Keshaechquereren, the Maereck, and the Rockaway Native American tribes. These Native American groups occupied long-term villages and seasonal camps throughout Brooklyn and western Long Island (Bull & Giordano 2007:12).

PREHISTORIC CONTEXT OF THE PROJECT AREA

Archaeological investigations of Native American sites throughout western Long Island have revealed a prehistoric settlement pattern organized around fresh-water resources, arranged proximate to tidal creeks, tidal marshes, stream banks, estuaries, and wetland areas. These locations were most likely utilized as hunting areas and collection stations for plant-based food resources. South Brooklyn was thus an ideal location for habitation.

Before the arrival of European settlers, south Brooklyn was the home of the Munsee-speaking Canarsee Native American people. The Canarsee cultivated planting fields in northern Gravesend near Indian Pond, near Avenue P and West 11th Street, and fished and clammed in Gravesend Bay's waters (Roberts et al. 2000:3). The shoreline was dominated by one longhouse, known as the settlement *Wichquawanck*, near the terminus of present-day Bay Parkway (Harris 2009:3; Roberts et al. 2000:3).

Gravesend village would be settled upon what was known to the Canarsee as *Massabarkem*, meaning “land at the many waters.” The *Massabarkem* tract extended as far east as the western part of Gravesend Neck near East 12th Street and Homecrest Avenue (Bolton 1922:163-164, 237). The eastern part of Gravesend Neck, between the now-filled Squam Creek and Shellbank Creek, was reportedly dubbed *Narrioch*, meaning “a neck land” or “a point of land” (Bolton 1922:164, 231).

Two Canarsee pathways were located in the area that would later form the original settlement of Gravesend. One led from the *Mechawanienk* trail (now roughly followed by Kings Highway) to the shores at Coney Island, generally following McDonald Avenue's path. The second path led from the shores to the main villages, like Shanscomacoke, in the east, and was the predecessor to Gravesend Neck Road (Harris 2009:3; Campanella 2019:44).

A review of the NY CRIS GIS identified two prehistoric sites just outside of a one-mile radius of the project area. Arthur C. Parker identified both during his tenure as New York State archaeologist. Just over a mile southeast of the project area near Sheepshead Bay, Parker recorded traces of shell middens and shell heaps as New York State Museum site #7877. Over a mile east of the project area and bound west by East 27th Street, Parker recorded a burial site – consisting of at least twelve burials, oyster beds, and pre-contact ceramics – as New York State Museum Site #3608. Parker made no estimate of date range or cultural affiliation for either site.

CONTACT PERIOD

The first recorded European exploration near the project area occurred in 1524, when Florentine explorer Giovanni da Verrazzano and a crew of fifty sailed into New York's harbor (Brevoort 1873:177; Ieradi 2001:10). In 1609, Henry Hudson landed at Coney Island. Hudson, an English explorer, was commissioned by the Dutch East India Company to chart a new course for Asia via the Arctic Ocean. He and his crew encountered Brooklyn's native inhabitants, most likely the Canarsee, and generally described them as being civil during their interactions. Hudson's brief visit to Brooklyn launched several consequent expeditions to the New World sponsored by the Dutch East India Company and its later iteration, the Dutch West India Company (Ieradi 2001:8-11).

The Dutch West India Company initiated the settlement of the New Netherland colony in 1624 with the establishment of Fort Amsterdam on the southern tip of Manhattan. In 1626 the Company appointed Peter Minuit as Director-General of the colony. That same year, Minuit purchased from Native American proprietors the island of Manhattan and named New Amsterdam as the colony's capital. Ten years later, Dutch colonists ventured into the greater New Netherland colony and began settling farms on western Long Island outside the city proper. Dutch exploration and settlement of western Long Island continued into the early seventeenth century. Six townships were settled under Dutch administration in present-day Kings County: Amersfoort (Flatlands), Breuckelen (Brooklyn), Boswyck (Bushwick), Gravenzande (Gravesend), Midwout (Flatbush), and New Utrecht. The first settlement, Amersfoort (Flatlands), dates to 1636. The remaining townships were established over the next two decades (Stiles 1867: 29).

HISTORIC PERIOD

Gravesend was one of the six townships established in the seventeenth century that occupied present-day Kings County, settled in 1643. The town was founded by Lady Deborah Moody, an affluent and progressive Englishwoman who arrived in North America in the spring of 1640 (Stockwell 1884:2).

Moody settled first in Massachusetts, where she was brought in front of the Quarterly Court in December 1642 for vocalizing her dissent to infant baptism. She was consequently excommunicated from the Congregational Church (Van Buskirk 1905:8). Half a year later, in June of 1643, Lady Moody and a small band of Anabaptists left Massachusetts for the Dutch colony of New Netherland.

For numerous colonists who could not find peace in New England, the neighboring Dutch colony of New Netherland offered a religious refuge (Bolton 1881:243). In New England, non-conformists to the Church of England were labeled heretics and dissenters. Inquisition was made into these individuals' private lives, and their beliefs could be criminal offenses (Stockwell 1884:2). Alternatively, the Dutch had a liberal attitude toward religious acceptance, which prevailed into policy as they established regional colonies (Bolton 1855:xiii, Campanella 2019:42). As a result, small pockets of English settlements cropped up across Dutch-owned territories. These were often made up of emigrants of various religious denominations and political dissidents from the New England colonies. These groups, whose varying faiths had left them subject to religious

persecution in the New England colonies, looked to the Dutch-ruled New Netherland as a place where they could exercise their religious principles (Jenkins 1912:251).

Lady Moody relocated to New Amsterdam, to a small settlement of English exiles that had been carved out along the East River called Deutel Bay (Stockwell 1884:2). Here she and her associates met Lieutenant Nicholas Stillwell, a Surrey-born tobacco planter who arrived in New Amsterdam in 1638 (Kearns et al. 1991:8). Banding together, Stillwell and Lady Moody endeavored to find a more permanent settlement for themselves and their associates within the colony.

This decision was well received by the Dutch administration, which was eager to establish the colony beyond the capital city. For years, the Dutch administration had been strategizing ways to attract new settlers to the outlying area (Campanella 2019:42). To incentivize settlement, the Dutch West India Company had instituted a policy in 1638 that offered land to all potential colonists, which they could hold in free "allodial proprietorship" in return for its cultivation (Bailey 1949:36). The Company then authorized Director-General Willem Kieft to purchase land from Native American proprietors. By 1639, Kieft had ambitiously acquired almost all of western Long Island in the present-day Kings County for the Dutch West India Company – their holdings extended from Rockaway Bay to the Great South Bay in Fire Island (Stiles 1867, Kent 1900).

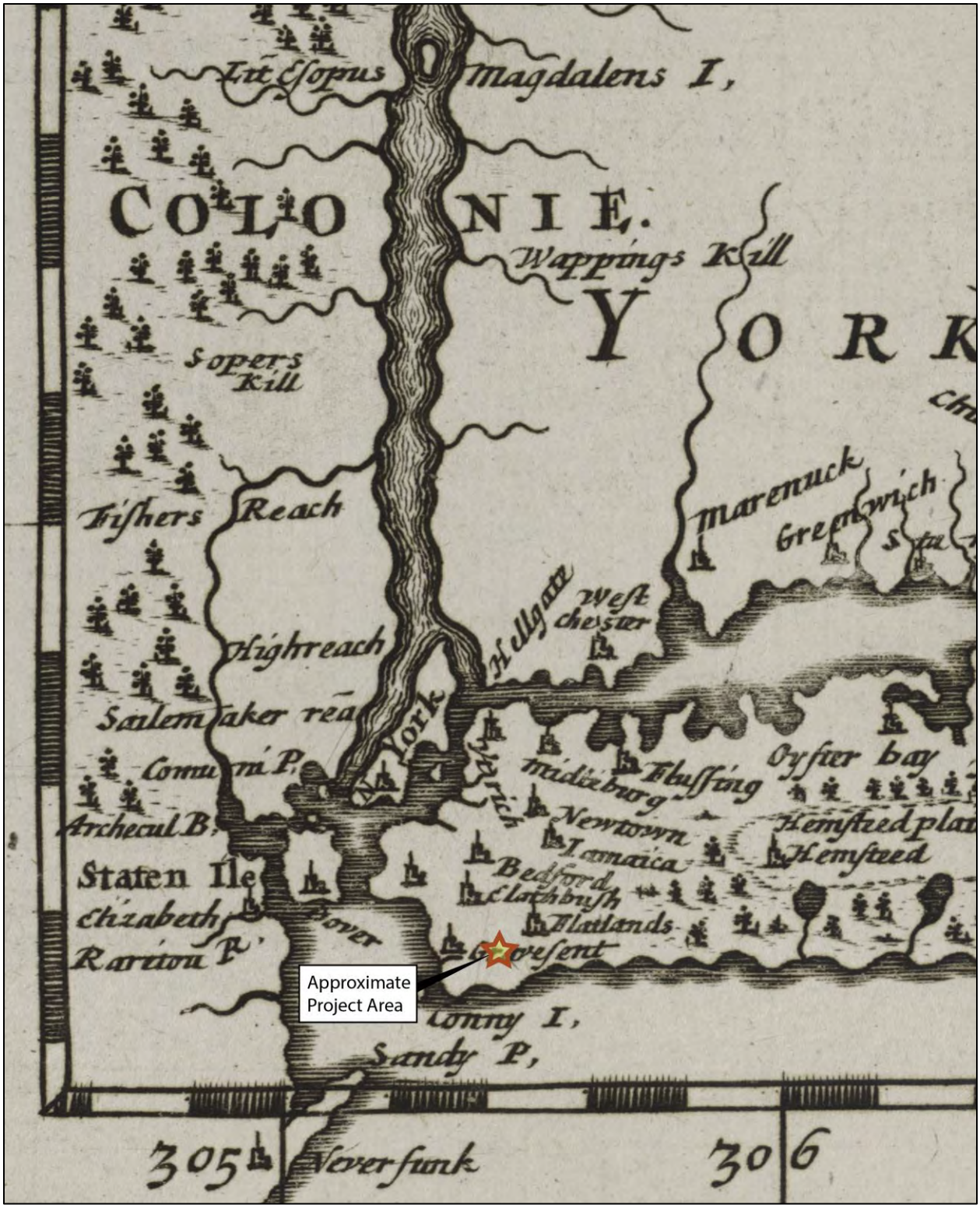
In 1643, with the promise of a future settlement on the horizon, Kieft invited Lady Moody to select a site from the Company's portfolio. She chose a tract along the westerly end of Long Island (Stilwell 1878:93). Escalating tensions between Native American groups and the European community, spurred by Kieft and the Dutch administration's provocations, left settlers on western Long Island vulnerable to the resulting raids and attacks. As a result, the western end of Long Island became unsafe for colonization, and Lady Moody's first attempt to settle the area was delayed. On December 19th, 1645, Kieft issued a patent for the land to Lady Moody for "land about the westernmost part of Long Island," encompassing the present-day neighborhoods of Gravesend, Coney Island, Bensonhurst, Brighton Beach, Manhattan Beach, and Midwood (Van Buskirk 1905:9; Harris 2009:3). The patent issued on December 19th, 1645 by Kieft to Lady Moody and her associates described the boundaries of the land as being situated about the westernmost part of Long Island, bound southerly by the main ocean and northerly at a point aligned to Indian Pond, and westerly by Coney Island creek and the plantations of Van Salee and Pennoyer, and easterly by Gerritsen's basin (Thompson 1839:438-439). Kieft named the settlement *Gravenzande* for the city in Holland along the river Maas (Stilwell 1878: 93-94).

The English settlers were not be the first to occupy the area. The western end of Long Island was home to scattered bouweries and individual plantations, each cultivated independently. Anthony Jansen van Salee was the first to settle the Gravesend area with his wife Grietje Reyniers (Campanella 2019:44). Van Salee was a Cartagena-born pirate who lived in North Africa and Holland before taking refuge in New Amsterdam circa 1630 (Stilwell 1878:213; Campanella 2019:44). In 1639, Kieft encouraged the renegade couple to remove from the capital city and leased to Van Salee roughly two-hundred acres along Gravesend Bay, between Coney Island and New Utrecht (Thompson 1839:438; Harris 2009:3).

There are two other individuals on record, independent of Lady Moody and her company, who were granted land in the Gravesend area during the years 1643-1645. On May 24th, 1644, Kieft issued a patent to Guisbert Op-Dyck for eighty-eight acres comprising Coney Island (Thompson 1839:438). On November 29th, 1645, Robert Pennoyer became the third person to hold an individual patent for land in Gravesend. Pennoyer purchased over 180 acres from the Company for a farm between the plantations of Van Salee and Lady Moody (Stockwell 1884:5). Despite some local European farm ownership, Gravesend was among the first developed towns in western Long Island in the late seventeenth century (Maps 5 and 6).



Map 5: Detail of 1680 coastal chart, with Gravesend west of the project area (Seller & De Wit 1680).



Map 6: Detail of 1681 map of New England (Flamsteed 1681).

TOWN OF GRAVESEND

Gravenzande was the first English settlement within present-day Kings County under Dutch rule (Roberts et al. 2000:5). Its charter is noteworthy as the first in New Netherland to be written in the English language and the first in the New World to name a woman as patentee (Stockwell 1884:5). Furthermore, the *Gravenzande* settlement was one of the earliest in the colony to have the privileges of religious freedom and the right to self-government written into its charter (Harris 2009:3; Campanella 2019:44).

Unlike the other Dutch settled towns within Kings County, *Gravenzande* was the only town in the region laid out according to a plan. By the spring of 1646 the center of the town, the village, was plotted out as a sixteen-acre square situated at the crossroads formed by Gravesend Avenue, now McDonald Avenue and the east-west Gravesend Neck Road. This created four quadrants, each four acres in size. The perimeters of each four-acre quadrant were subdivided into ten house lots, and the center of each quadrant was left open and undeveloped as common land (Figure 5). This resulted in forty house-lots, one for each of the original forty patentees[1] (Stockwell 1884:5)

The gridded, four-square layout ensured the village would be easily defensible. A palisade surrounded the village square for protection from increasing attacks waged by Native Americans, wolves, and wild animals. Beyond the palisade, the land was laid out to create forty triangular-shaped farm lots that radiated out from the central square. Each settler of *Gravenzande* was entitled to a house lot and its corresponding farm lot (Stilwell 1878:142; Kearns et al. 1988:21).

The common ground within the main village was dually utilized for the safekeeping of livestock and public services. The magistrate, or town clerk's office, occupied an interior lot within the southeast quadrant; and the town burial ground was established in the southwest quadrant (Stockwell 1884:27) (Figure 6). As the settlement continued to evolve, an interior lot within each respective quadrant was dedicated to a public institution (Stilwell 1878:143).

[1] Gale Harris and Benjamin M. Stillwell alternatively state that there were thirty-nine settlers (Stilwell 1878:142; Harris 2009:3)

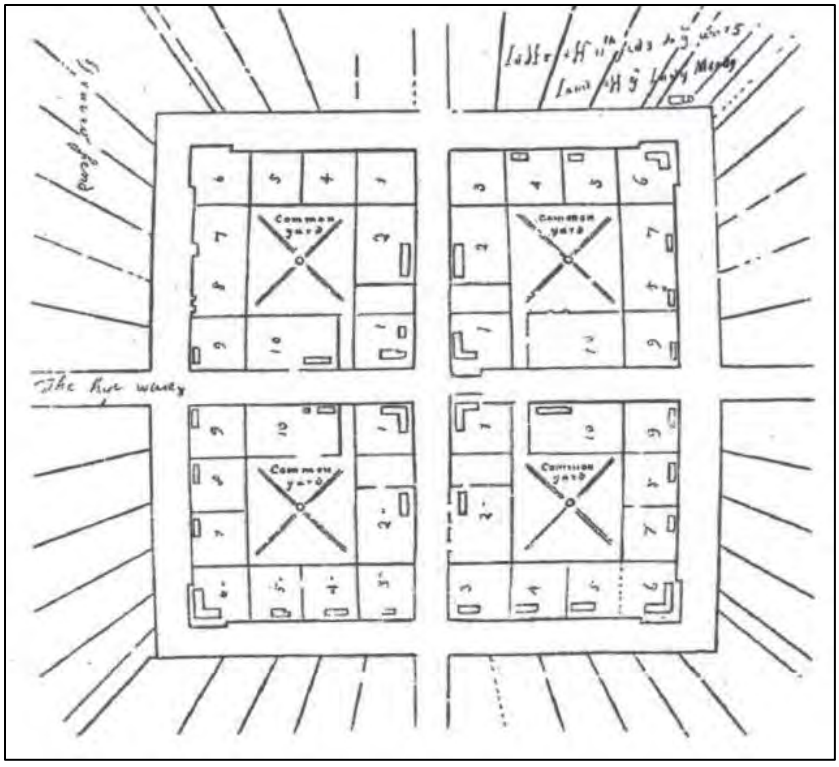


Figure 5: A copy of the original town plan for *Gravenzande* surveyed in 1645,reprinted in the *Brooklyn Daily Eagle,* May 24th, 1908 (*Brooklyn Daily Eagle* 1908).

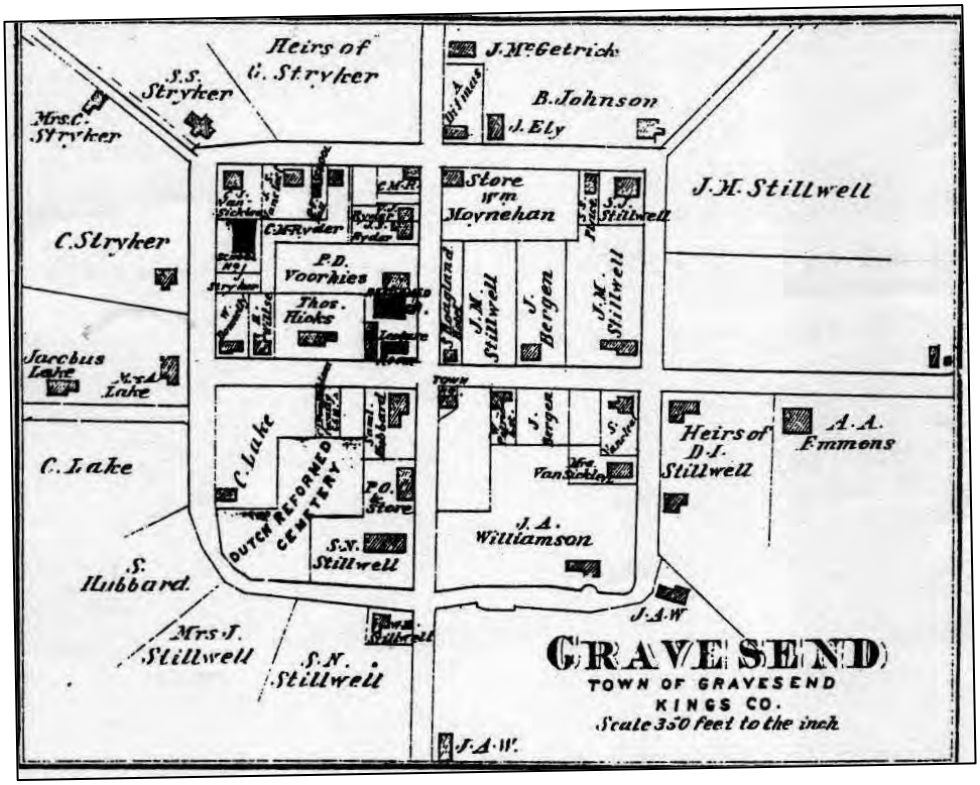


Figure 6: The Gravesend village square with town cemetery in the southwest quadrant, the town hall in the southeast quadrant, and some farm lines intact (Beers 1873).

The first town meeting on record occurred in 1646. That same year, the village organized the political body in Kieft's charter and appointed three justices and schout, or law enforcement administrator, to the town court. In 1650, the town agreed that a public record of all burials, marriages, and births in *Gravenzande* should be kept (Stockwell 1884:10). In keeping to the nature of religious freedom that the town had been founded on, these events were recognized as transactional rather than ceremonial (Stilwell 1878:145). In 1651, magistrates were elected, and provisions for regulating their role and governance were put in place (Stockwell 1884:9).

The villagers in *Gravenzande* also sought to strengthen their relationship and their title to the land with Native Americans residing in the area. On November 1st, 1650, at the town court, the Native sachems Johosietum, Airemakamus, Aeramarka, and Assanched renegotiated Lady Moody's patent, which they called *Massabarkem*[2] (Stilwell 1878:159-160). Four years later, on May 7th, 1654, the villagers of *Gravenzande* made additional purchases from the Canarsee for land east and south of the village square on both Coney Island and Gravesend Neck (Thompson 1839:440-441; Kearns 1991:9). Three years later, in 1657, these lands were divided amongst the thirty-eight freeholders (Stockwell 1884:9).

For nearly a decade, *Gravenzande* prospered under the Dutch administration that granted them civil and religious liberty via the town charter, privileges which had not been extended to any of the Dutch settlements. The village also held a close relationship with then-Director General Peter Stuyvesant, perhaps allowing settlers to enjoy a greater measure of freedom than could be found elsewhere (Stilwell 1878:146). However, by the mid-1650s, civil unrest disrupted *Gravenzande*, as the Quaker religion found a stronghold there. Several settlers were targeted for their affiliation. Furthermore, *Gravenzande* residents were still primarily English. As the Dutch and English governments were on the precipice of war, the colonists of *Gravenzande* found themselves divided in their loyalty to the New Netherland Council, as many had a hard time turning against their own (Stilwell 1878:170, 191).

In 1664, as a result of the Second Dutch-Anglo War, control of the entire New Netherlands colony was transferred from the Dutch to the British. In an endeavor to restructure the colony according to the 1665 English Duke's Laws, the First General Assembly implemented a territorial partition of Long Island into three sections, called Ridings (Armbruster 1912:27). The village of *Gravenzande* was anglicized to Gravesend and placed within the West Riding. In 1667, the English-speaking Gravesend was designated as the shire town for the West Riding, and a Sessions House was built in the northwest quadrant of the village square to accommodate its new role (Stillwell 1892:9). In August 1668, Governor Richard Nicolls confirmed Gravesend under English rule and patented the town. In July 1670, Governor Francis Lovelace issued an additional patent for Gravesend, which expanded and clearly defined the town's boundaries to include Coney Island (Thompson 1839:443).

[2] The contract between the villagers of Gravenzande and the Native American proprietors reads, "[this] land called by the Indians Massabarkem, now possessed by the English, and formerly purchased and paid for, to the then-proprietor Cippolinks…," indicates that the land in the Gravenzande charter had been previously purchased by the villagers at an earlier date (Stilwell 1878: 159-160). They renegotiated the payment of the land, which the villagers of Gravenzande purchased for "2 guns, 15 ells of cloth, 3 fathoms of wampum, 1 kettle, 2 hatchets, 2 hoes, 3 knives, 1 long cloth coat, 1 pair of scissors, 2 combs, 1 sword, and 30 blankets" (Stilwell 1878: 159-160).

In 1675, the first census was taken in Gravesend. The town, which consisted of 932 acres of upland and meadow, was home to 30 households; 91 horses, mares and colts; 107 cattle; and 967 oxen, cows, and sheep (Stockwell 1884: 14). In 1683 the Provincial Assembly discontinued the Ridings system and restructured Long Island into three counties - Kings, Queens, and Suffolk, with Gravesend part of Kings County (Armbruster 1914:18). The census of that year shows 32 (taxed) persons (i.e. households) in Gravesend, which consisted of 1,356 acres (Stockwell 1884: 14).

The restructuring of government led to Gravesend being replaced as the county seat in Kings County, and in 1685 the Court of Sessions was moved to the town of Flatbush (Harris 2009:4). By the close of the seventeenth century, Gravesend retained its rural character. In 1698, the total population was 210 persons, including 124 children, 63 adult men and women, 17 slaves, and 6 apprentices (Stockwell 1884:14).

Gravesend continued to develop throughout the eighteenth century as a farming and fishing village. In 1706 a town landing was built along the shores of Gravesend to accommodate travel into Manhattan and the southern shores of Long Island. In 1728 the first public school opened in the northwest quadrant of the village square; this building was repurposed after 1788 into a town hall, whipping post, public stocks, and other communal uses into the nineteenth century (Harris 2009:4, Stockwell 1884:19-20). By 1738, Gravesend was home to 268 adult white men, 218 women and children, and 50 persons of color; Kings County as a whole had only 2,348 residents at this time (Stockwell 1884:14).

In 1776, the Revolution came to Gravesend. On August 22nd, a company of British forces, Chasseurs, and Hessian grenadiers landed upon the shores of Gravesend Bay within a mile of the village square. They were followed three days later by two brigades of Hessian soldiers under Lieutenant General de Heister. After a brief encampment on the property of Gravesend resident Joost Stillwell, the British forces marched through the village towards the town of Flatbush. Gravesend and the rest of Kings County was occupied by the British after the defeat at the Battle of Long Island. Loyalist supporters and Tories heckled Gravesend residents, pillaged from their farms, and got into altercations with local Patriot soldiers and sympathizers (Stockwell 1884:21).

In 1788, Kings County and Gravesend town were recognized by the laws of the newly established State of New York. Only 58 (taxed) persons and 65 slaves were living in the town at that time, which encompassed 2,211 acres. The following year, 42 (taxed) real estate owners lived in Gravesend and held a collective 3,079 acres amongst them. In 1790, the total population residing in Gravesend was 426. Among them were 42 freeholders worth £100, 46 freeholders worth £20, 4 tenants, 160 men, 134 women, 131 slaves, and 5 freed persons of color (Stockwell 1884:14; Harris 2009:4).

The farms thrived, but Gravesend had little growth or development into the nineteenth century. In 1810, Gravesend was home to 520 persons. In 1823, the Coney Island Bridge and Railroad Company connected Gravesend to the beach, and the first hotel opened on Coney Island in 1829. By 1835, the number of people residing in Gravesend had increased to 695 persons, and nearly fifteen years later, in 1849, the Coney Island Plank Road opened along what is now Coney Island Avenue (Stockwell 1884:15; Kearns et al. 1991:10). Gravesend managed to retain its rural

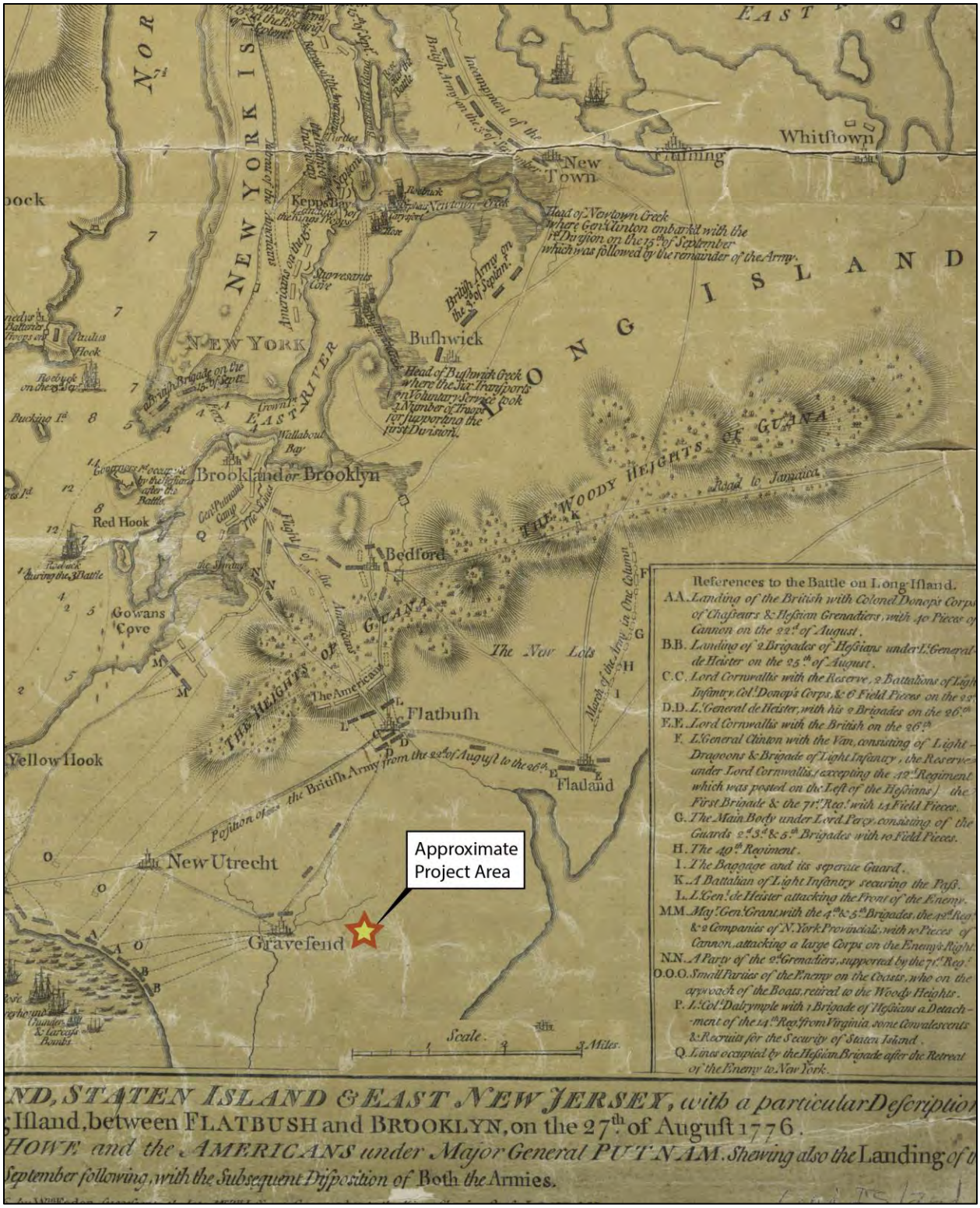
character. It was not until the second half of the nineteenth century when Coney Island began to develop as a resort and the five-cent trolley line opened along Coney Island Plank Road that Gravesend began to experience a wave of development.

Roadways, railroads, hotels, and racetracks sprung up around Gravesend. In 1868 the railroad began servicing Coney Island, and the Prospect Park Fair Grounds were built on the foundations of two Gravesend farmsteads. The Park grounds included a clubhouse, hotel, and one-mile racecourse. In 1874, a second racecourse was built near Parkville that spanned forty acres. That same year, Ocean Parkway opened. Ocean Avenue opened in 1876, and less than a decade later, the Coney Island Plank Road was widened to become Coney Island Avenue. Gravesend was rapidly urbanizing, with transportation a catalyst that sparked an influx of new residents, many of whom were immigrants of German or Irish descent. In 1880, Gravesend's total population had risen to more than 3,500 persons (Stockwell 1884:15; Kearns et al. 1991:10-11; Harris 2009:6).

Gravesend remained an independent town until the turn of the twentieth century when the rise of urban New York led to the proposal to incorporate Kings and Queens Counties into the Greater City of New York. In 1894, Gravesend was annexed by the City of Brooklyn (Armbruster 1914:18; Campanella 2019:57). The Greater City of New York was incorporated in 1898.

HISTORIC LAND USE OF THE APE

The project area is located near the vicinity of the original English settlement of *Gravenzande*, approximately 0.6 miles east of the village square (Maps 7-9). Historic maps indicate the project APE and general project area lots were associated with the Reformed Dutch Church in Gravesend, as part of the historic block containing the church parsonage house (Map 10). As detailed below, Reformed Dutch Church services were practiced in Gravesend at least as early as 1660, the town erected a Reformed Dutch Church in 1762, and land for a parsonage was purchased in the general project area in 1844.



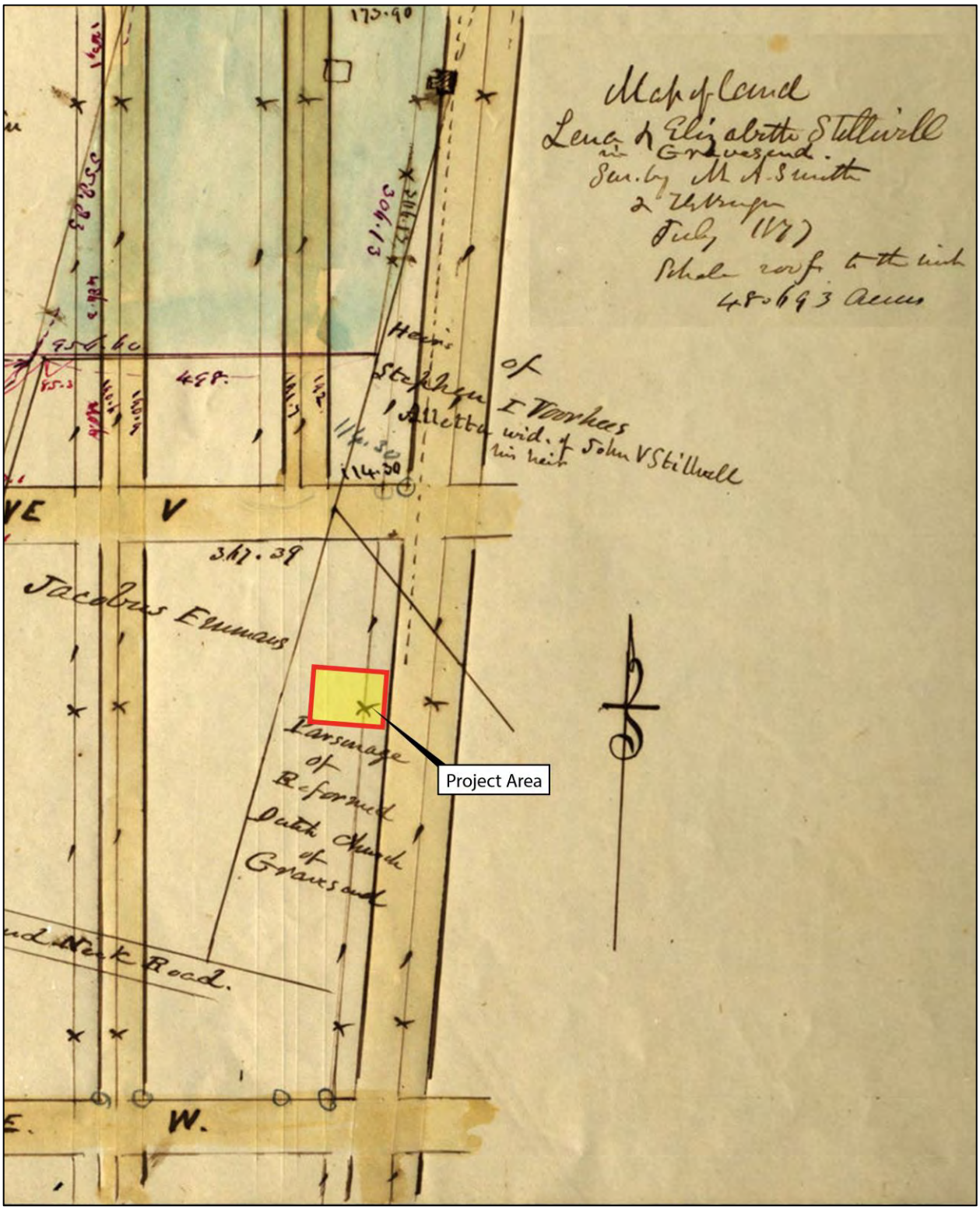
Map 7: Detail of 1776 plan of New York Island (Faden 1776).



Map 8: Detail of project area east of the village of Gravesend as it was in 1870, based on historic maps and surveys (Nelson 1943).



Map 9: Detail of 1873 Long Island atlas (Beers 1873).



Map 10: Detail of 1877 map of Lena and Elizabeth Stillwell lands in Gravesend, noting parsonage (Bergen 1877).

REFORMED DUTCH CHURCH OF GRAVESEND

From the outset of settlement, the town of Gravenzande had made an intentional decision not to reserve a plot in the village square for use as a church or organized place of worship, as the original patentees had suffered, in one form or another, from religious intolerance and sought to make the settlement a refuge for religious freedom. In a 1657 report of the churches in New Netherland, Dominies Megapolensis and Drisius reported that the settlers in Gravesend did not hold services but instead held informal meetings in their homes (Stilwell 1878:144; Stockwell 1884:23). Encouraged by Lady Moody, who had been stripped of her civil rights in both England and New England for her religious beliefs, the town had no formal religion (Van Buskirk 1905:29).

Quakerism was the first religion in Gravesend to have a popular following. In 1657, Robert Hodgson, a Quaker preacher, held the earliest Christian service in the community before being arrested by Director General Stuyvesant; it is suggested that the first Quaker meeting in America was held in June of that year at Lady Moody's house (Van Buskirk 1905:9). By 1660, Gravesend had become known an important center of Quakerism in the New World (Campanella 2019:52). In 1671, a Quaker service was held at the Gravesend Sessions House, the first religious service in Gravesend to be held in a town building. The following summer, at least three Quaker meetings were held in the town (Van Buskirk 1905:9; Campanella 2019:52-53).

Though Quakerism spread in some Gravesend households, Dutch families living in the town rejected it. These families had slowly trickled into Gravesend from neighboring areas and settled their farms in the village. A handful of Gravesend settlers, mostly of Dutch descent, contributed to the salary of a Reformed Dutch Church pastor who preached in the neighboring villages, but they had no dedicated preacher within the town itself. In 1660, various Gravesend residents collectively petitioned Stuyvesant for a pastor who could minister to those who wished to practice their faith, describing the English villagers and their lifestyle as "licentious" (Stilwell 1892:8; Harris 2009:4).

A cultural shift toward Dutch values occurred within Gravesend following the seventeenth century that would change its religious landscape. By the end of the century, in 1698, Dutch families comprised one-third of the thirty-four households. Over time, as intermarriage between Dutch and English families became more common, Dutch culture and values continued to take hold. In 1714, regular ministerial service from a Dutch Church pastor was secured, held at the town Sessions House. In 1762, Martinus Schoonmaker, a young Reverend in his late twenties, organized the Gravesend constituency, consisting of twenty-one members, and erected a new church building (Van Buskirk 1905:16).

By 1790, Dutch families comprised more than two-thirds of the town's total population, and the Reformed Dutch Church building in Gravesend was the first building in the town constructed particularly for ecclesiastical purposes (Van Buskirk 1905:10-16; Harris 2009:4). In 1832, Reverend Isaac P. Labagh accepted the pastorate at the Reformed Dutch Church in Gravesend and became the first minister to dedicate his service solely to the town (Figure 7).

Rev. Isaac P. Labagh was succeeded in 1843 by his cousin, Reverend Abraham I. Labagh (Van Buskirk 1905:19). Rev. Abraham Labagh was a young pastor who settled at the Reformed Dutch Church of St. Thomas in the West Indies after graduating from the New Brunswick Seminary in 1826 (Stillwell 1892:28). Abraham's arrival in Gravesend prompted the need for a parsonage, or a house which the church provides for members of the clergy. On September 21, 1844, the Consistory appointed a committee to secure a desirable site for the parsonage and oversee its building. One week later, the Committee put forth a proposal to acquire two-acres of salable land as the future site for the parsonage (Stockwell 1884:26). They purchased the property, encompassing the general project area, from John I. Lake and his wife, Ann.

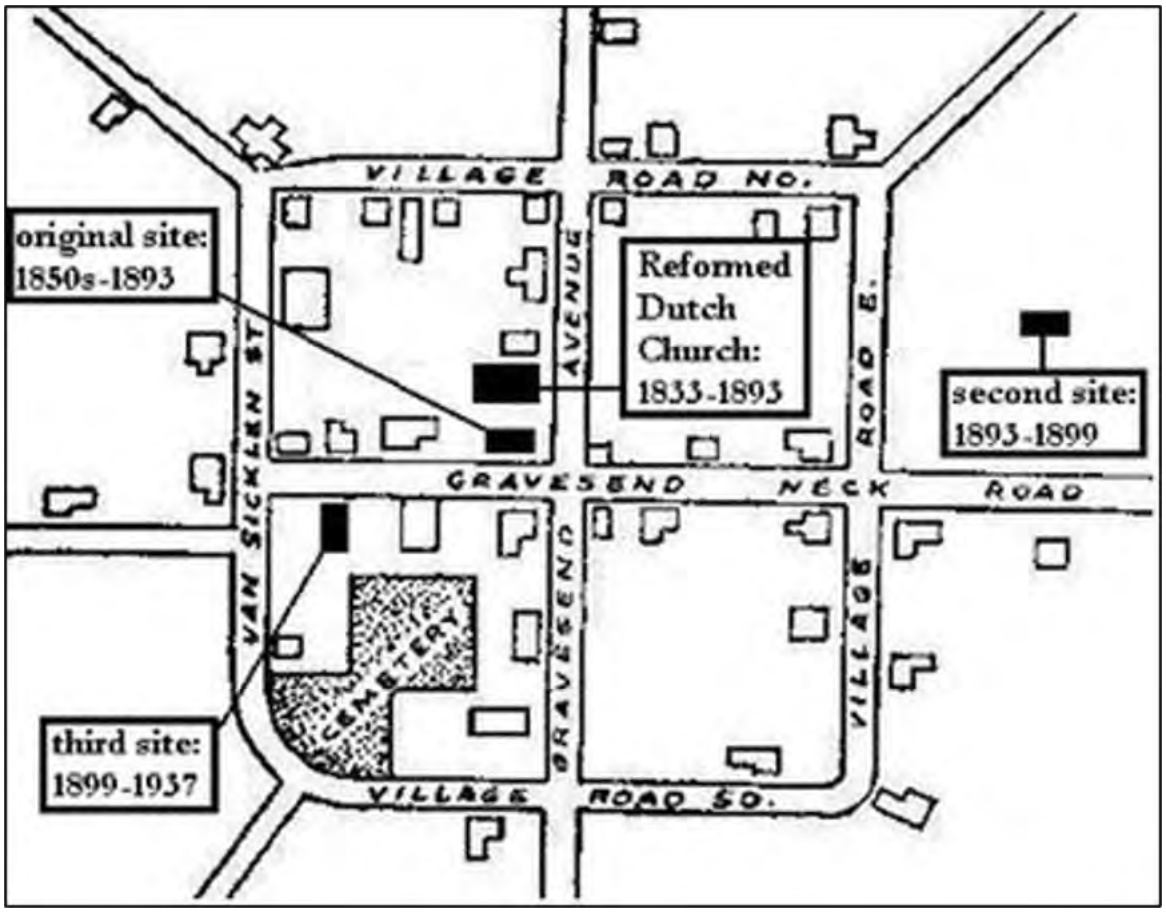


Figure 7: The village square highlighting the locations of the Reformed Dutch Church in Gravesend (Ditta 2009).

GENERAL PROJECT AREA - LOTS 115, 120, 123, 128, AND 130

The earliest identified general project area property owner was Dirck Lake, the grandfather of John I. Lake. Dirck's great-grandparents were John Lake (Jan Leake) and Ann Spicer, one of the first patentees of *Gravenzande*. Dirck's grandfather, John Lake II. was a prominent member and Elder of the Reformed Dutch Church at Gravesend and Captain of the 'Foot Company at Gravesend' militia.

Dirck Lake was born circa 1727 as the second eldest son of Daniel J. Lake and Elizabeth Van Sutphen. He married Maria Voorhies in January 1748 at the Dutch Reformed Church in Flatbush. They had seven children, and their youngest sons, Derrick and John, remained in Gravesend into adulthood. The family was active in the Dutch Reformed Church. Dirck was a Communicant of the Church in 1763, and Maria was a Communicant in 1766. Dirck later served as an Elder between 1787 and 1789 and as Deacon between 1771 and 1773. Dirck had been a lifelong Gravesend resident when he devised his will in April 1795. He bequeathed his entire estate to Maria while she lived, or until she remarried. After this, the estate would transfer to their sons, John and Derrick (Brooklyn - Wills Liber 1, 305).

Dirck and Maria's son, John Lake, was born circa 1760 and married Elizabeth Bennum. On July 20, 1809, John was residing in Gravesend when he wrote his will directing that his estate be divided equally between his wife and any heirs they might have. John died on August 4, 1824, and his will was proven October 14, 1826 (Wills Liber 3, 149). It appears that during John's lifetime, some informal arrangement was made with his brother, Derrick, for how they would divide their late father's estate between them. Nearly one year after John's death, Derrick attempted to make this arrangement public record. Derrick released his claim to that part of his father's estate that John owned to John's widow, Elizabeth, and their two children. Included among the properties mentioned in the release were thirty acres on the south side of Gravesend Neck Road, which seems to have been John Lake's homestead property, and four acres on the north side of Gravesend Neck Road and bound westerly by the land of Johannes Emmons, encompassing the general project area (Brooklyn - Deeds Liber 737, 254).

John Lake's estate was divided into three equal shares between his widow and his children, John I. and Maria Lake. John Lake's widow conveyed her one-third share of her late husband's estate to her son, John I. Elizabeth had passed by the spring of the following year, and on May 1, 1833, Maria conveyed the one-third of her inheritance to her brother, John I. (Deeds Liber 732, 54).

John I. Lake was born April 4, 1812 and baptized at the Reformed Dutch Church at Gravesend. In December 1832 he married Ann Stillwell, a descendant of one of the town's original patentees, Lieutenant Nicholas Stillwell. John made his living in Gravesend as a farmer, and the family had two daughters. John I. and Ann were both actively involved in church life, serving as Communicants in 1840 and part of a committee that selected the first Sunday school site. John I. served four two-year terms as an Elder. In 1855, two Irish boys in their twenties and an Irish couple in their mid-forties lived with the Lake family and worked as servants (New York State Census Records 1855). In 1860, two Irish women in their twenties and one elderly Irish man filled the positions (United States Census Records 1860). John I. was widowed by 1880. His daughter, Agnes, remained in Gravesend and lived with her father.

On November 25, 1844, John I. and Ann conveyed to the Trustees of the Reformed Protestant Dutch Church of Gravesend the western part of the four-acre parcel of land on the north side of Gravesend Neck Road which John I. had inherited from the estate of his father for the use of a Church parsonage. The conveyance was for two acres of upland and "thirty-eight and one-half perches of bog meadow", suggesting the area was not develop with farm buildings (Deeds Liber 125, 385). The property encompassed the entire eastern half of present-day Block 7159 between Avenue V and Gravesend Neck Road (Figure 8). That same day, the Lakes conveyed the eastern part of the parcel – consisting of two acres, three roods, and eighteen perches – to Reverend Abraham I. Labagh, then pastor of the Reformed Dutch Church (Deeds Liber 207, 196). Fifteen years later, on March 21st, 1859, Labagh and his wife, Eliza, conveyed half an acre of the ground to the Trustees of the Church for the Coney Island Plank Road, which ran vertically between the two properties (Deeds Liber 497, 351) (Table 3).

Table 3: Deed Conveyances for lands making up the project area.

GRANTORS	GRANTEES	DATE WRITTEN	DATE RECORDED OR PROBATED	LIBER, PAGE
Dirck Lake	John Lake, Derrick Lake	April – 1795	November 3, 1800	Wills V. 1, p.305
John Lake	Elizabeth Bennum	July 20, 1809	October 14, 1826	Wills V. 3, p.149
Derrick Lake	Elizabeth Bennum	May 15, 1827	No record	Reference: Deeds V. 737, p.254
Elizabeth Bennum	John I. Lake	June 16, 1832	May 1, 1833	Reference: Deeds V. 732, p.54
Mariah Nichols and husband, Walter	John I. Lake	May 1, 1833	December 1, 1866	Deeds V. 732, p.54
John I. Lake and wife, Ann	Abraham I. Labagh	November 25, 1844	December 18, 1849	Deeds V. 207, p.196
John I. Lake and wife, Ann	Trustees of the Reformed Protestant Dutch Church of Gravesend	November 25, 1844	December 18, 1849	Deeds V. 125, p.385
Abraham J. Labagh and wife, Eliza S.	Trustees of the Reformed Protestant Dutch Church of Gravesend	March 21, 1859	April 6, 1859	Deeds V. 497, p.351
Joanna Stillwell, Jacques I. Stillwell, Maria Ellen Stillwell, John W. Stillwell	John I. Lake	October 13, 1860	January 9, 1867	Deeds V. 737, p.254

After thus securing the Reformed Dutch Church parsonage site in 1844, the church Committee hired carpenters Lawrence and Jacobus Ryder to construct the parsonage building. That year, they built a wooden two-story house with a basement and an outlying wooden shed on the southwest corner of the property, adjacent to Gravesend Neck Road (Stockwell 1884:26). This alignment would place the parsonage southwest of the general project area and APE.

In 1905, Reverend P. V. Van Buskirk described the parsonage house as "plain, unpretentious, but commodious and comfortable, and still stands a monument to the memories of those dear men who constructed it" (Van Buskirk 1905:21). The parsonage first appears on Frederick W. Beers 1873 map, noted as "DRC Pars". This is the earliest map found to depict a building in the vicinity of project area (see Map 9, above). The property is noted as "Parsonage of Reformed Dutch Church of Gravesend" on the 1877 *Map of land Lena & Elizabeth Stillwell at Gravesend* (see Map 10, above).

The first map to show any detail of the property is Robinson 1890. This depicts two structures on the church property, a main house fronting Gravesend Neck Road and a support structure to the north (Map 11). The Hyde 1899 shows the same formation (Map 12). Neither of the structures lies within the project area, which remains depicted as undeveloped land.

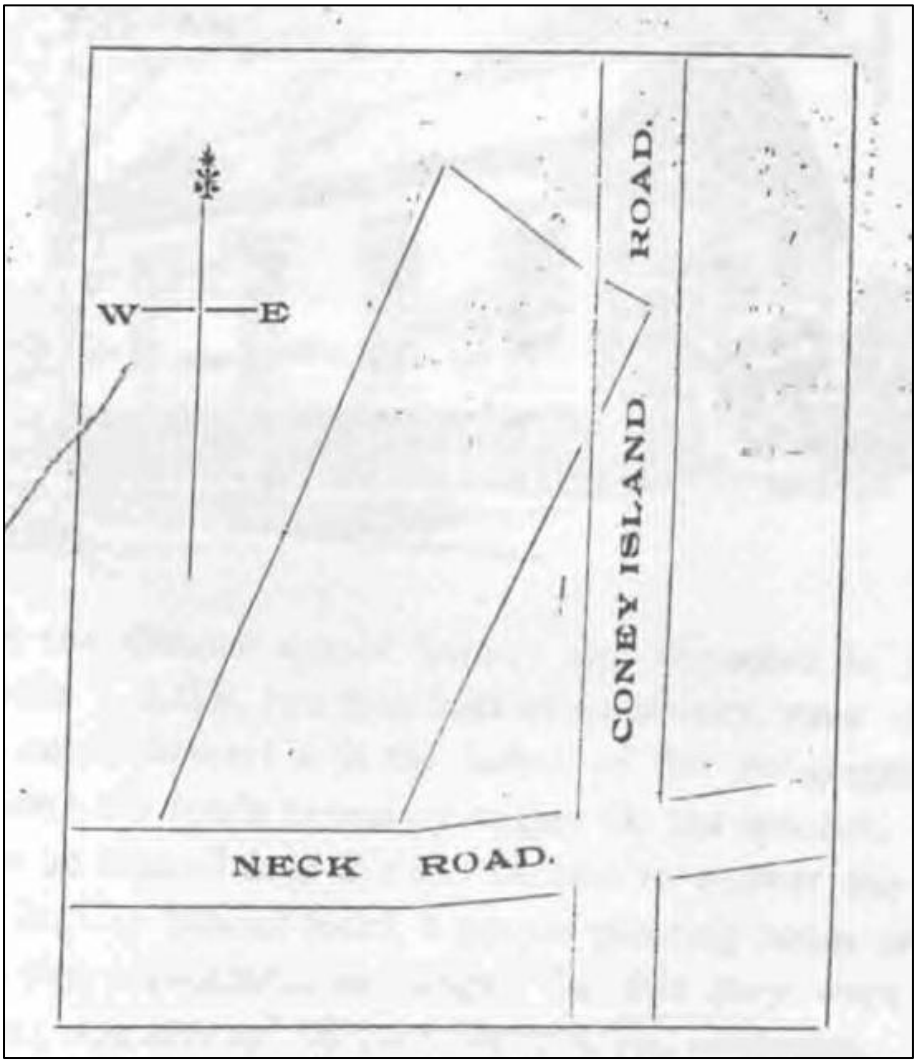
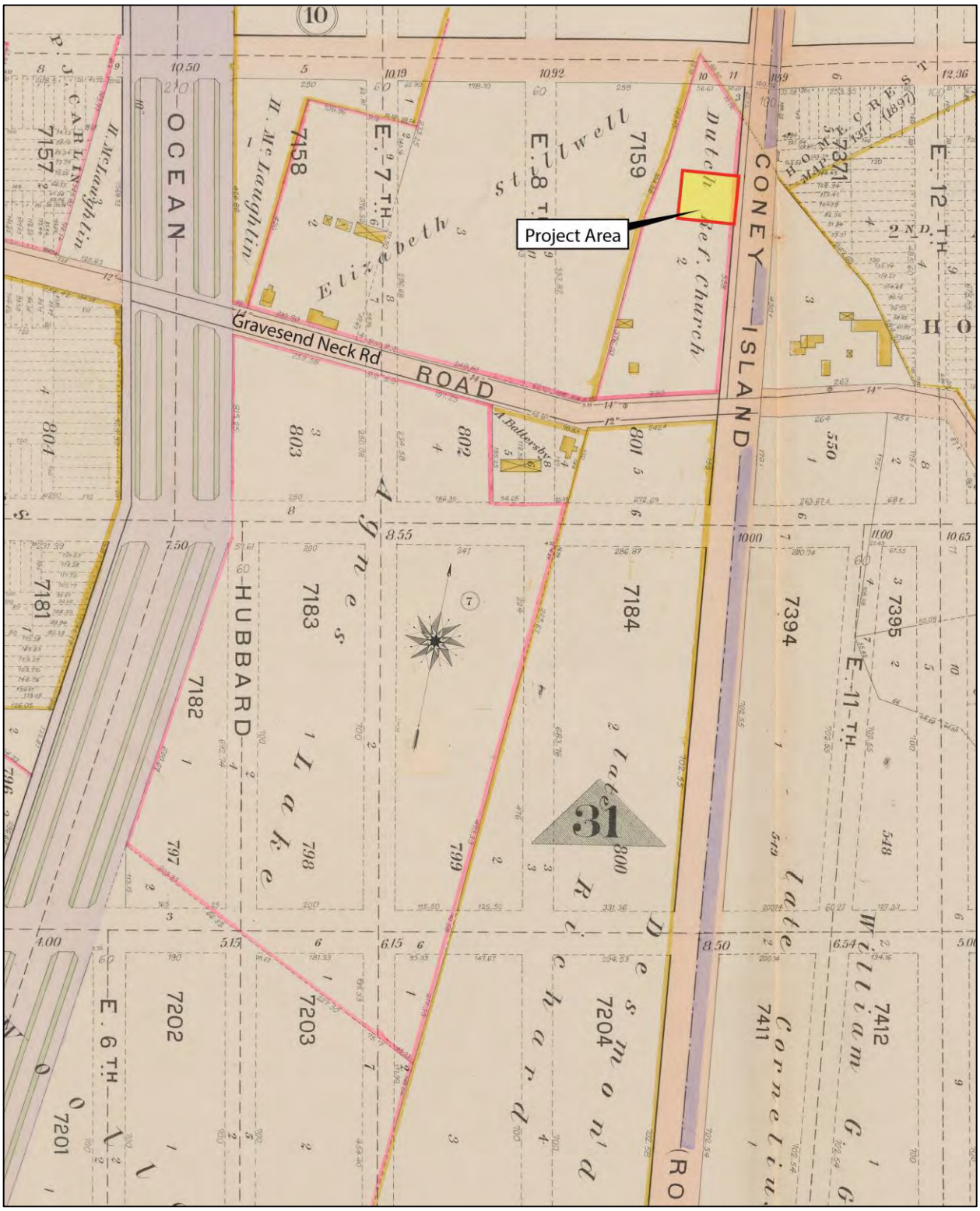


Figure 8: A 1892 sketch by William H. Stillwell of the Reformed Dutch Church parsonage property (Stillwell 1892:29).



Map 11: Part of Plate 22 from an 1890 atlas of Kings County, showing the project area undeveloped northeast of the parsonage and its outbuilding (Robinson 1890).



Map 12: Part of Plate No. 9 in 1899 atlas of the Brooklyn Borough, showing the project area undeveloped northeast of the parsonage and its outbuilding (Hyde 1899).

The property would serve as the parsonage for the Reformed Dutch Church of Gravesend for the remainder of the nineteenth century. It was the private residence for those who accepted the call to the Church's pastorate – and its location, which was removed from the Church, would have ensured privacy. Religious ceremonies were held within the church itself; Sunday school, prayer meetings, and Consistorial meetings were held in a Church basement (Stillwell 1892:30).

Labagh and his wife, Eliza, were the first persons to move into the parsonage house. They utilized the remaining property for farming and gardening (Van Buskirk 1905:21). Unaccustomed to the harsh New York winters, the Labaghs would travel south each winter, during which time Reverend R. D. Van Kleek would occupy the pulpit. It is unknown whether he resided in the parsonage house during his winters at Gravesend.

Labagh resigned from the pastorate in 1859 and was succeeded by Reverend Maurice G. Hansen, a graduate of the New Brunswick Seminary and Rutgers College. He served the Church in Gravesend until the winter of 1871. On January 1, 1872, Reverend Austin P. Stockwell took the position. The Massachusetts-born Stockwell was held in high esteem by the people of Gravesend. It is unclear whether Reverend Hansen or Reverend Stockwell took their residence at the parsonage house in Gravesend.

The property remained relatively unchanged while in possession of the Church. William Stillwell wrote in 1892 that the two original buildings comprising the parsonage "stand to-day as left by [the builders] at its completion, neither addition nor alteration having subsequently been found necessary" (Stillwell 1892:29). Soon after, the streets surrounding the property began to change – Hyde's 1899 map of the area is the first to show infrastructure changes. A 14" water main had been installed running south along the western half of Coney Island Avenue and terminating at the intersection with Gravesend Neck Road, where it then runs east-west along the northern half of Gravesend Neck Road. It paralleled a 12" water main that had been installed running east-west along the southern half of the road (Map 12).

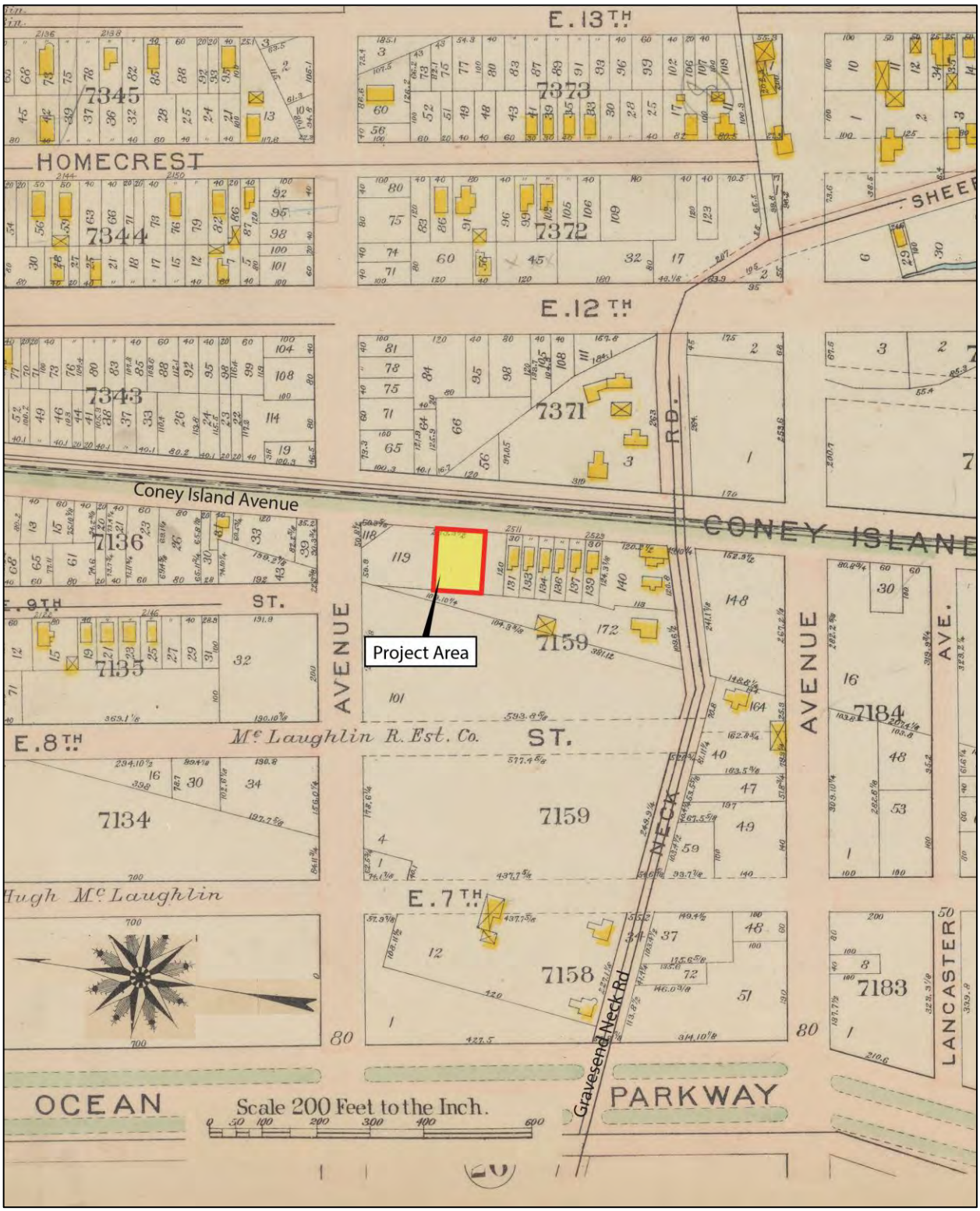
The Dutch Reformed Church sold the parsonage property on December 29, 1900 in order to consolidate church operations to a single site (Van Buskirk 1905:25). The property was sold for $9,000, and the funds were applied to the benefit of the Church and its congregation and to erecting a new parsonage house adjacent to the Church.

Property records from 1900 – 1950 were not available for review. A review of historic maps from this period indicates the area was subdivided in the early 1900s, but the project area remained undeveloped into the 1920s. The general project area is undeveloped, but the former parsonage house building is still standing on the 1907 Bromley and 1907 and 1920 Hyde Atlases (Maps 13-15). By 1907, the former triangular-shaped Dutch Reformed Church lot had been divided into smaller lots and parcels. The general project area is shown as "119," and it is depicted as empty. The closest construction or development begins south of Lot 131, beyond which the area was subdivided into six lots and developed with residential structures fronting Coney Island Avenue. The project APE is still undeveloped in 1920.

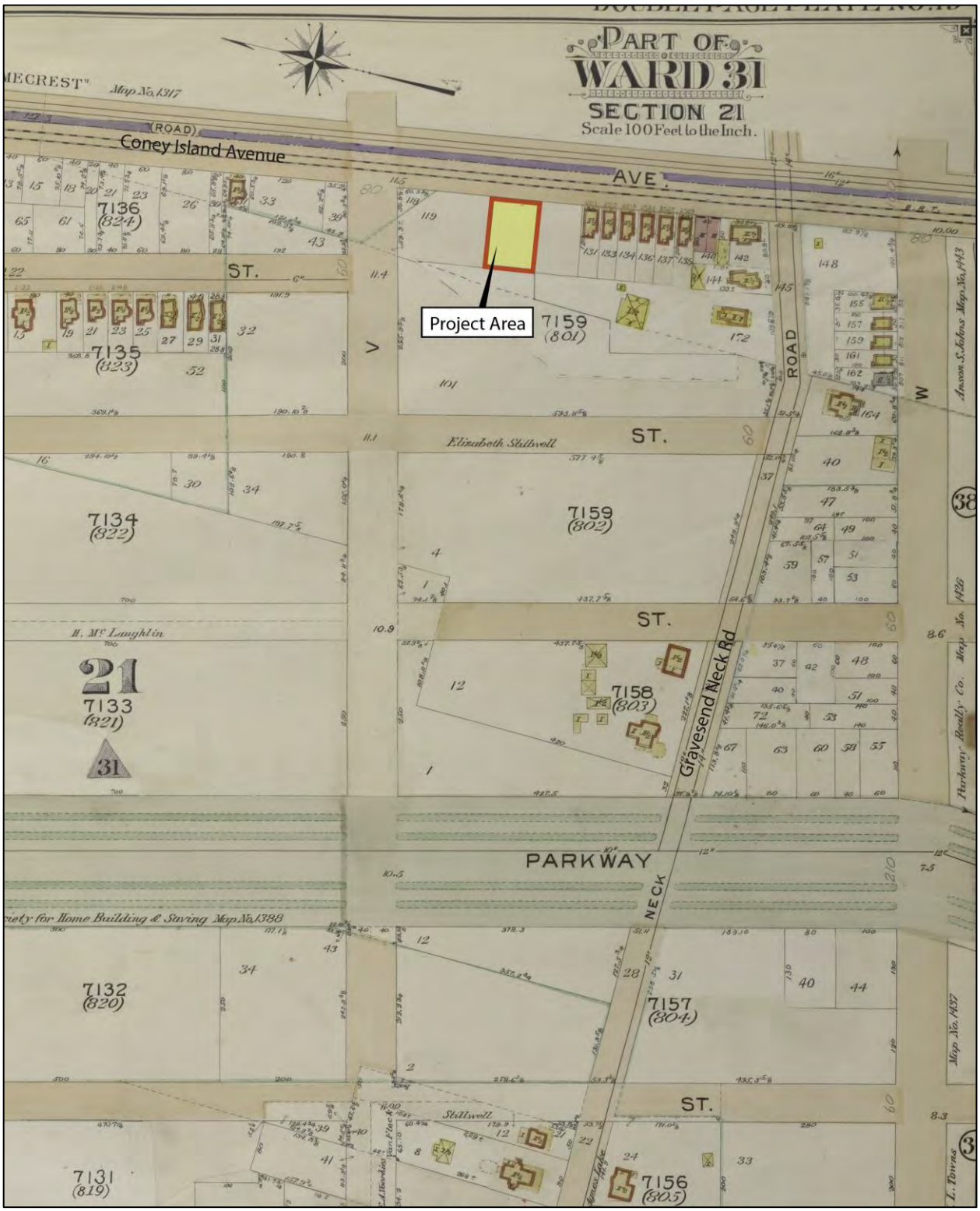
The 1930 Sanborn map shows the lots south of 119 encompassing the project area had been subdivided, with two long structures fronting Coney Island Avenue and a rear structure added to the southern portion of the APE (Map 16). Lot 115 to the north had been developed with a cement facility. The three structures within the APE/Lot 123 are still in place in the 1951 Sanborn map, with no additional development to the project APE or general project area beyond a new, smaller structure at Lot 115 to the north (Map 17).

Historic aerial images show that the project area remained developed with these structures into the mid-twentieth century. In 1954 the project area continues to house two long structures on the south side of the APE and a line of structures at the western property rear. The central portion of the block, including Lot 120, was cleared except for two older buildings that may correspond to the parsonage, and Lot 115 to the north and Lot 128 to the south populated with smaller, presumably residential, structures (Figure 9). By 1966, the project area remains the same, but the open area at the center of the block had been filled by three large structures (Figure 10). Lot 123 was separated from the irregularly shaped Lot 120 around this time.

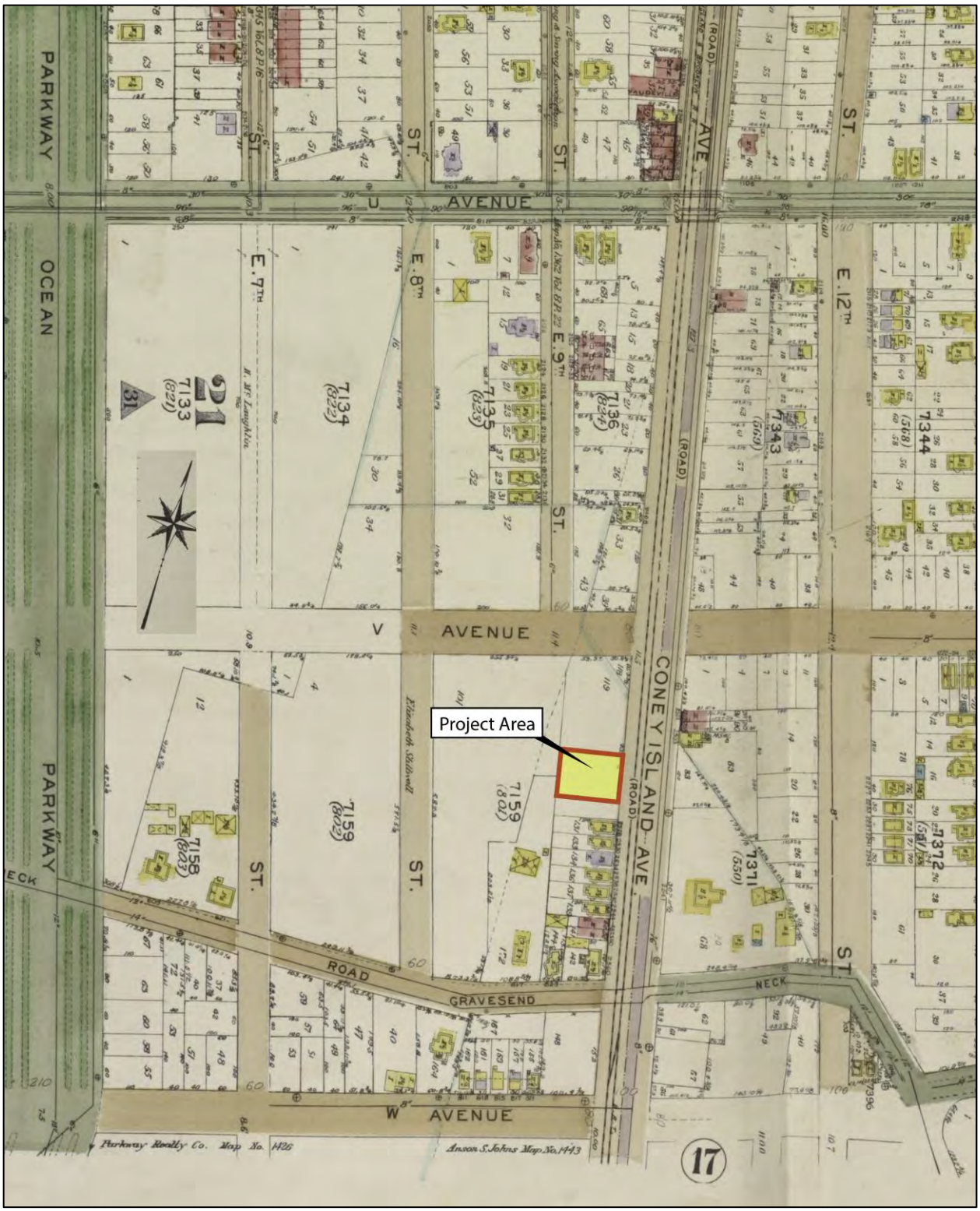
Satellite images and aerial photography from the 1990s and 2000s indicate that the majority of the project APE remained a paved car lot into the twenty-first century. The two long structures at the south side of the project area that first appeared in 1930 were razed from 2008-2009, and the entire Lot 123 project area except for one extant western rear structure was stripped, cleared, and re-paved from 2011-2012 (Google Earth 2020).



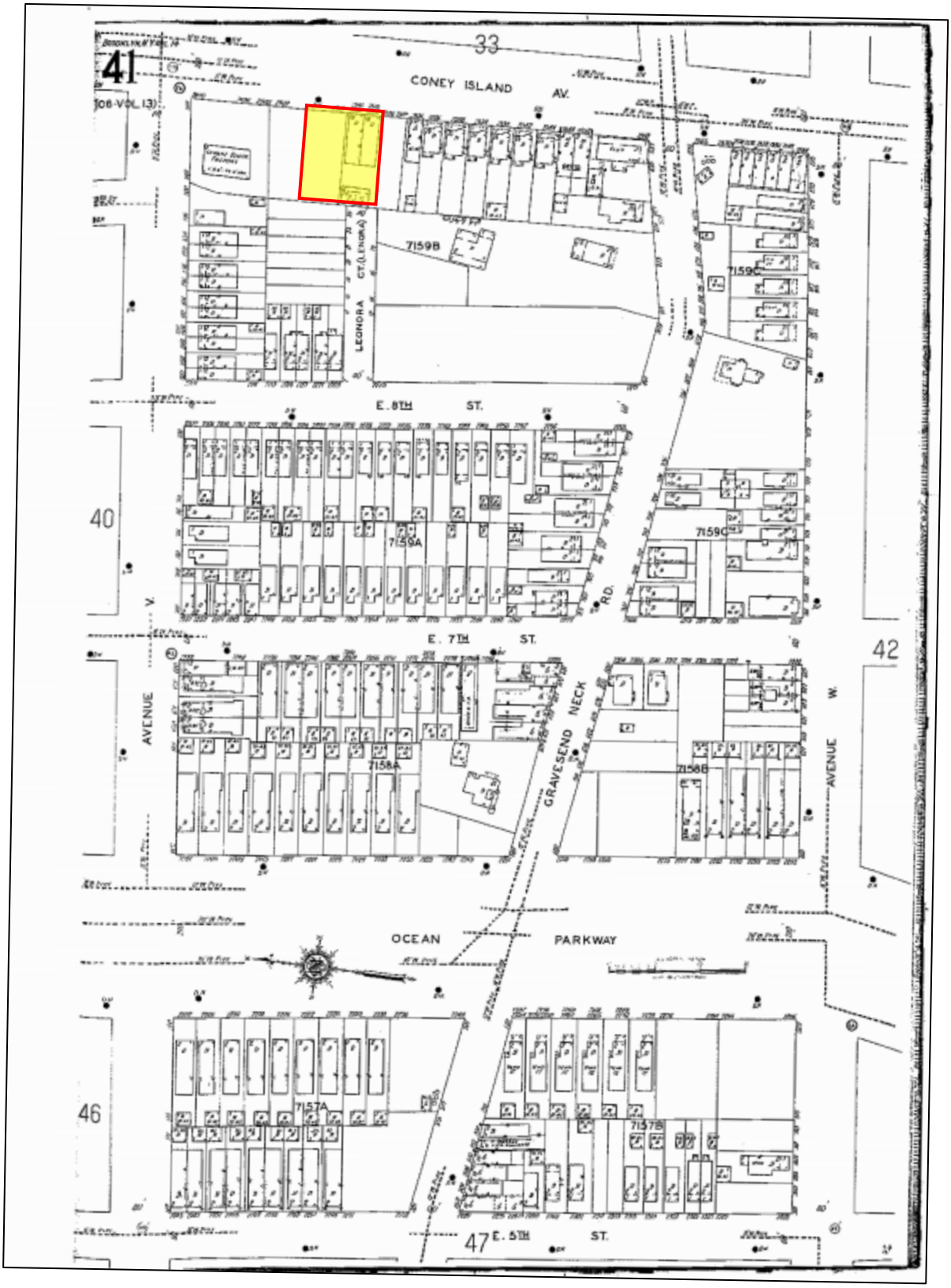
Map 13: Part of Plate 27 in a 1907 atlas of the Borough of Brooklyn (Bromley 1907).



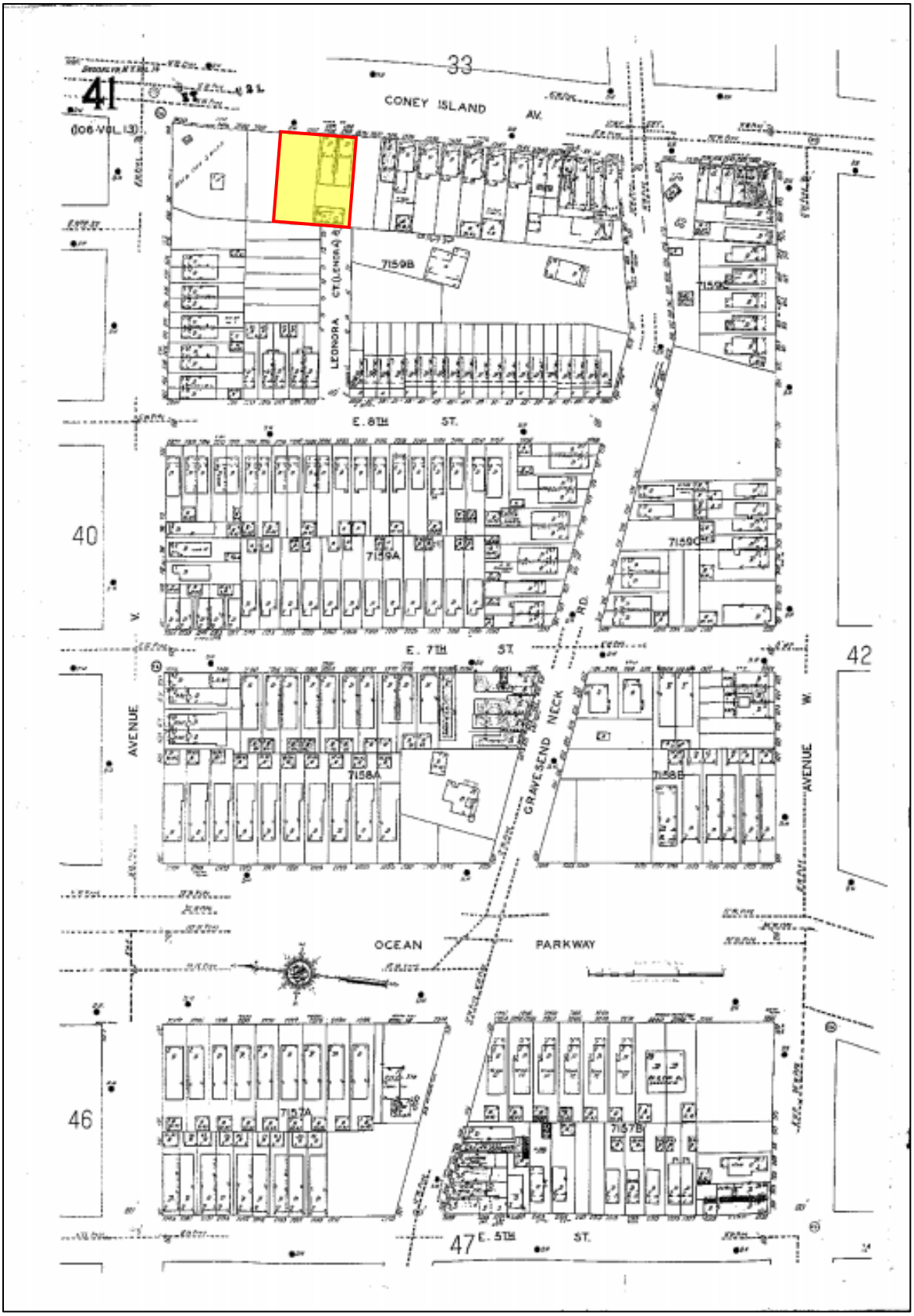
Map 14: Part of Plate No. 19 in a 1907 atlas of the Borough of Brooklyn (Hyde 1907).



Map 15: Part of Plate No. 9 in a 1920 atlas of the Borough of Brooklyn (Hyde 1920).



Map 16: Detail of 1930 Sanborn map (Sanborn 1930).



Map 17: Detail of 1951 Sanborn map (Sanborn 1951).



Figure 9: Detail of 1954 USDA aerial image, depicting project area as partially developed (USDA 1954).



Figure 10: Detail of 1966 USDA aerial image, depicting project area as partially developed (USDA 1966).

VI. CONCLUSIONS

The project area APE includes Block 7159 Lot 123, with a study area covering Lots 115, 120, 128, and 130 that surround this lot. Prehistoric sites have been documented just over one mile from the project area, although heightened prehistoric sensitivity in this portion of southeastern Brooklyn has generally been confined to areas of higher elevation overlooking marine resource access points. The project area's elevation appears to have been relatively flat when first documented in the Contact Period, with access to tidelands and Coney Island Creek approximately 0.5 miles to the south and Squam Creek approximately 0.7 miles to the west. These waterways were filled by the 1930s.

While this region of southern Brooklyn was developed in 1643 as the town of Gravesend, the well-documented village core lay approximately 0.6 miles to the west at the intersection of modern Village Road East and Gravesend Neck Road. The area surrounding Gravesend village, including the general project area, was divided into farm plots and used as agricultural land. The general project area appears to have been on farmland owned by Dirck and Maria Lake at least as early as 1795. The Lake or Spicer families likely controlled this land from Gravesend's founding, but records do not clearly define their ownership boundaries before this time. The Lake family conveyed the general project area to the Trustees of the Reformed Protestant Dutch Church of Gravesend in 1844 for construction of a parsonage built that same year. However, maps indicate the parsonage and its single documented outbuilding lay southwest of the general project area, which remained undeveloped into the twentieth century.

The project area's first documented development was construction of three structures on the property's south and western sides between 1920 and 1930. A fourth western, rear structure appears to have been added to the lot by 1954. The lot remained paved around these structures through the twentieth century. In 2007, environmental remediation at the western rear of the APE included excavation to collect soil samples and to remove two underground hydraulic fluid tanks and an underground petroleum storage tank, with impacts up to 10' below ground surface (HES 2008). From 2008-2009, the two southern structures and one western structure in the project APE were razed. The entire Lot 123 project APE except for an extant western rear structure was stripped, cleared, and re-paved from 2011-2012 (Google Earth 2020).

Prehistoric sensitivity is low, as construction has extended over the entire greater project area in the form of multiple structures, a paved car lot across the unbuilt areas, subsurface storage tanks, and twenty-first century stripping and re-paving. These activities have likely impacted soils beyond the depth of deposition of prehistoric materials. Excavation from 2007 remediation work indicates the western portion of the APE is underlaid by sandy subsoils or fill soils.

Historic sensitivity is also low, as there is no documented historic development at the project area before 1920-1930 construction of three structures at the south and west sides of the APE. These structures were all razed from 2008-2009. Construction and demolition of these buildings, installation of the now-remediated sump and underground storage tank, and paving and re-paving the unbuilt portions of the lot likely impacted the project area soils beyond the depth of deposition of any historic archaeological materials that might have been related to less documented types of land use, such as agricultural use.

VII. RECOMMENDATIONS

Prehistoric and historic archaeological sensitivity for the project area is low based on the extent of modern impacts to the area soils from construction across the project APE and the lack of documented historic site development within the APE. Given this assessment, no further archaeological work is recommended for the current project.

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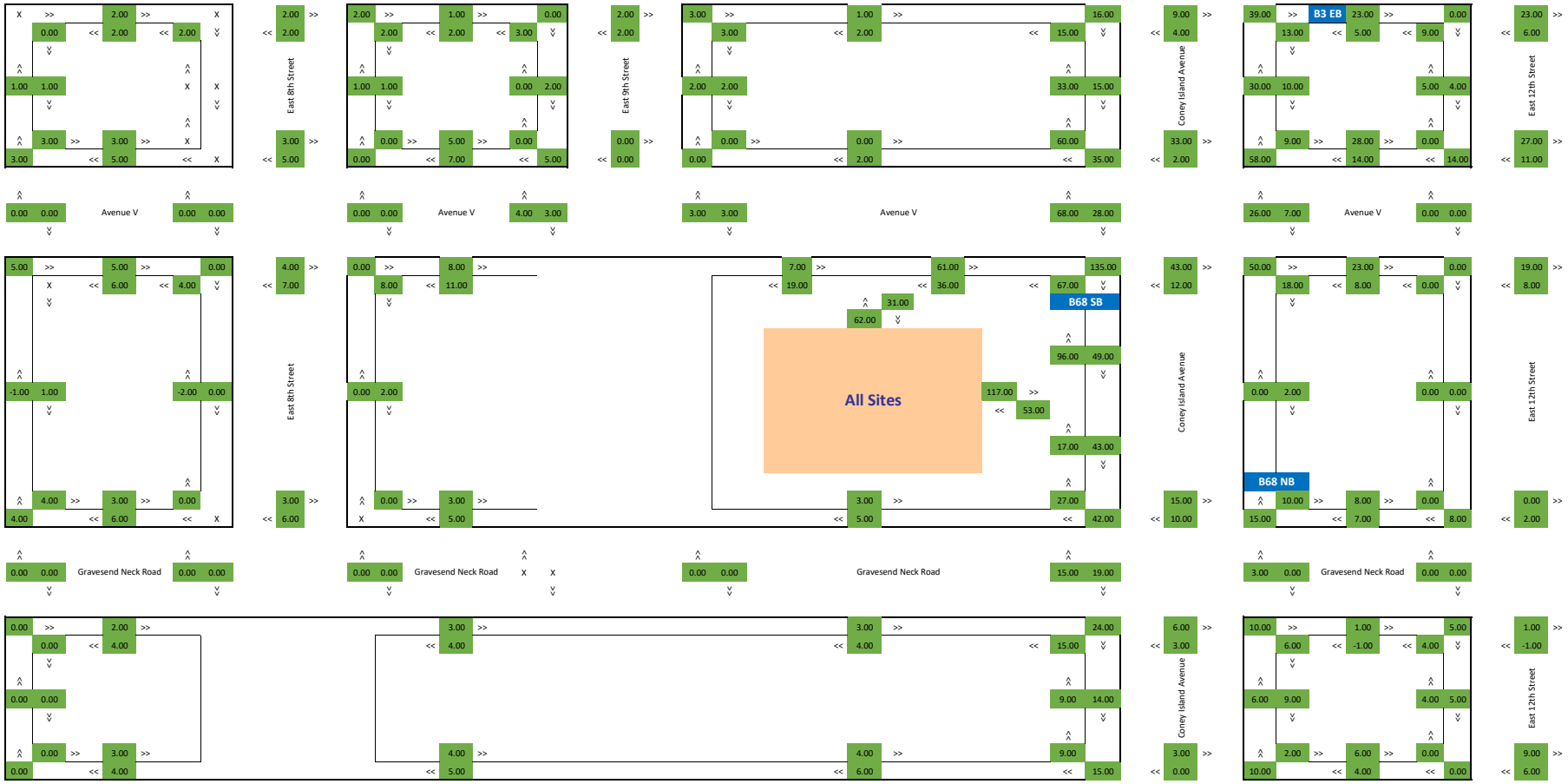
APPENDIX C

TRANSPORTATION

Weekday AM Peak Hour Incremental Pedestrian Trip-Ends (Total)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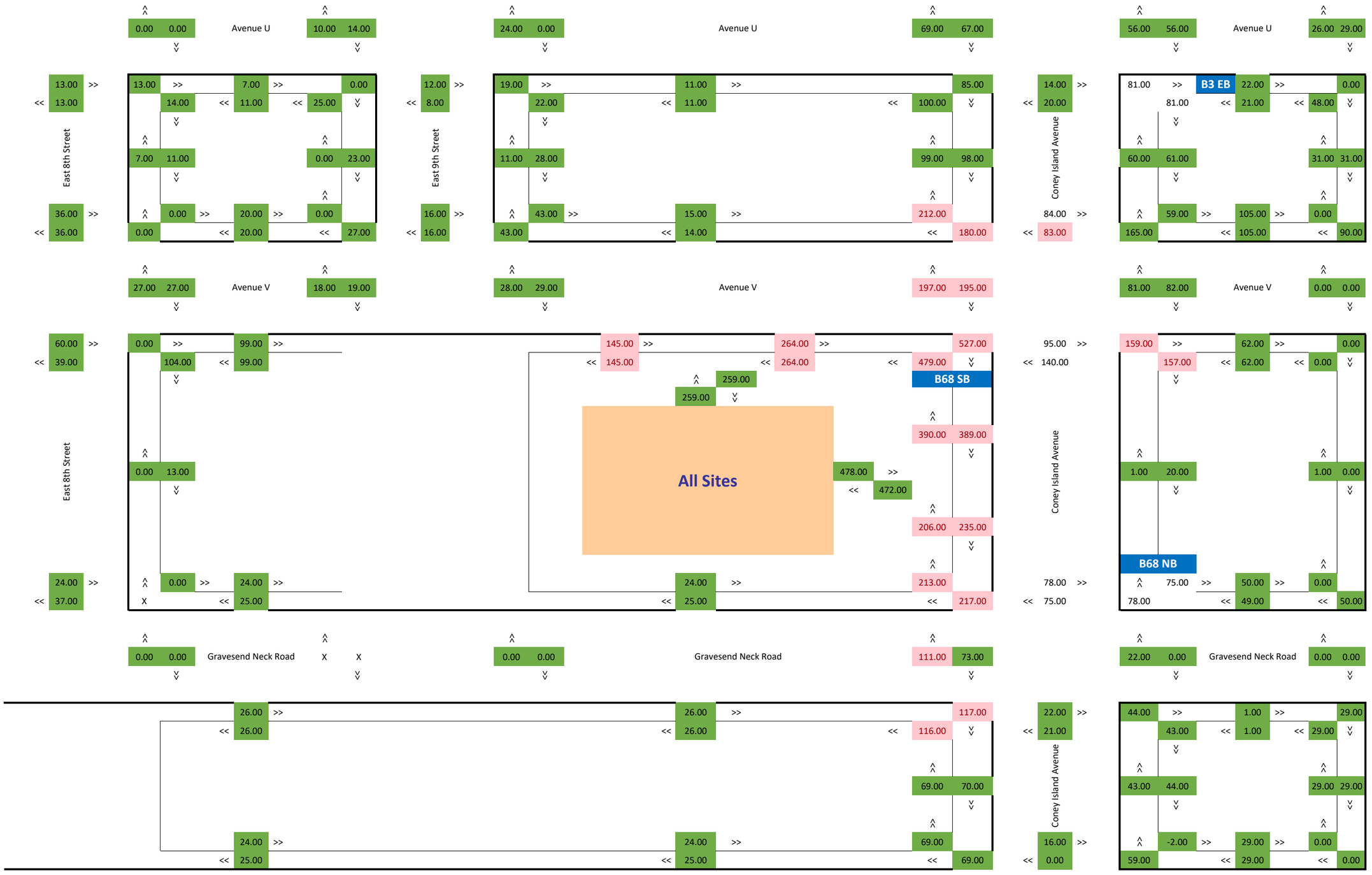
East 9th Street
Coney Island Avenue
East 12th Street
Avenue V
Gravesend Neck Road
B3 EB
B68 SB
B68 NB
All Sites

Weekday Midday Peak Hour Incremental Pedestrian Trip-Ends (Total)


Avenue U
Avenue U
Avenue U
Avenue V
Avenue V
Avenue V
East 8th Street
East 9th Street
Coney Island Avenue
B3 EB
B68 SB
B68 NB
All Sites
Gravesend Neck Road
Gravesend Neck Road
Gravesend Neck Road

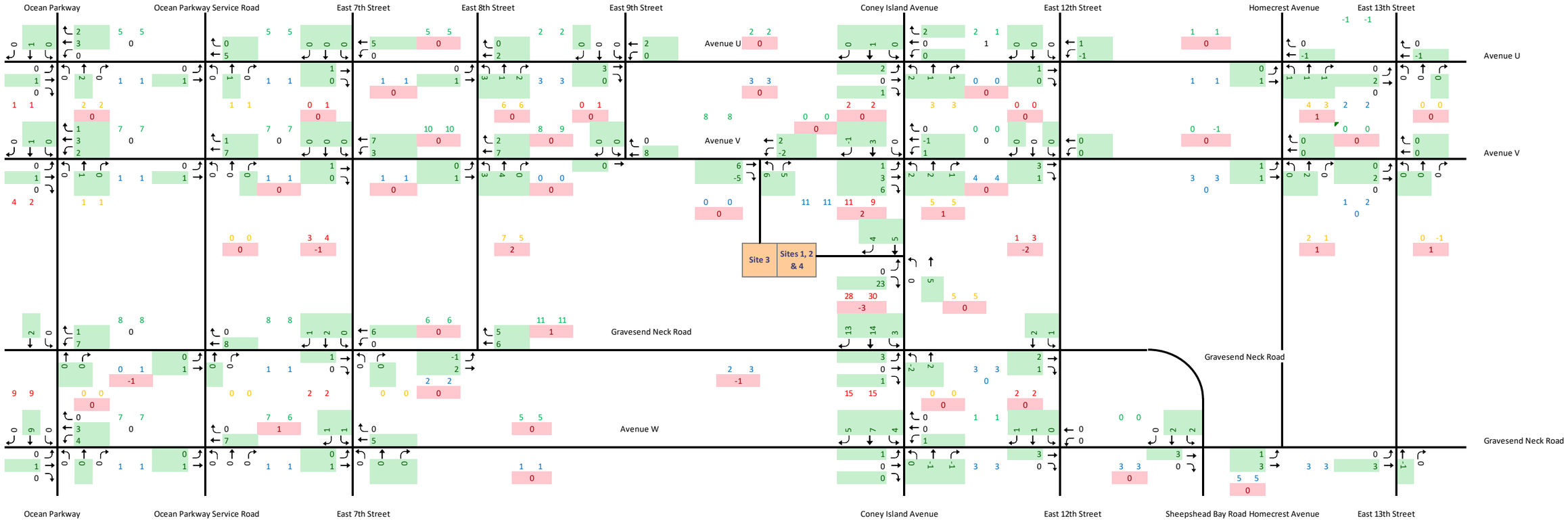
Weekday PM Peak Hour Incremental Pedestrian Trip-Ends (Total)


East 8th Street
East 9th Street
Coney Island Avenue
B3 EB
Avenue V
Gravesend Neck Road
All Sites
B68 SB
B68 NB

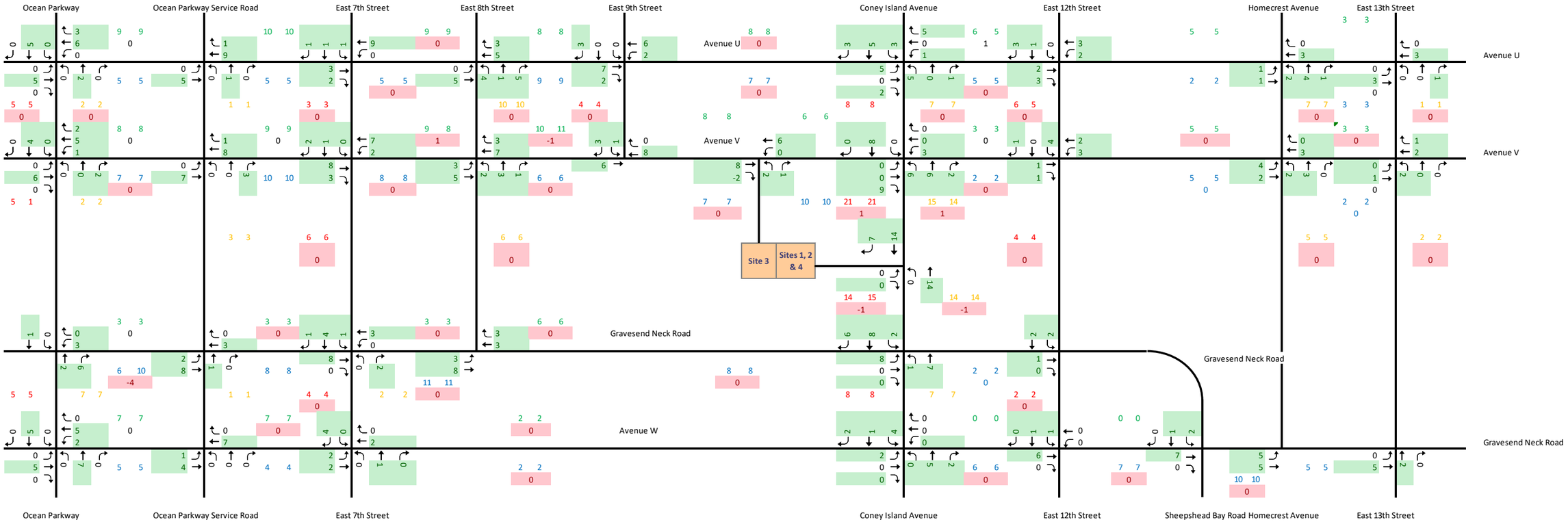
Saturday Midday Peak Hour Incremental Pedestrian Trip-Ends (Total)


East 8th Street
East 9th Street
Coney Island Avenue
Avenue U
Avenue V
Gravesend Neck Road
B3 WB
B3 EB
B68 SB
B68 NB
All Sites

Weekday AM Peak Hour Incremental Vehicular Trip-Ends (Total)



Weekday Midday Peak Hour Incremental Vehicular Trip-Ends (Total)



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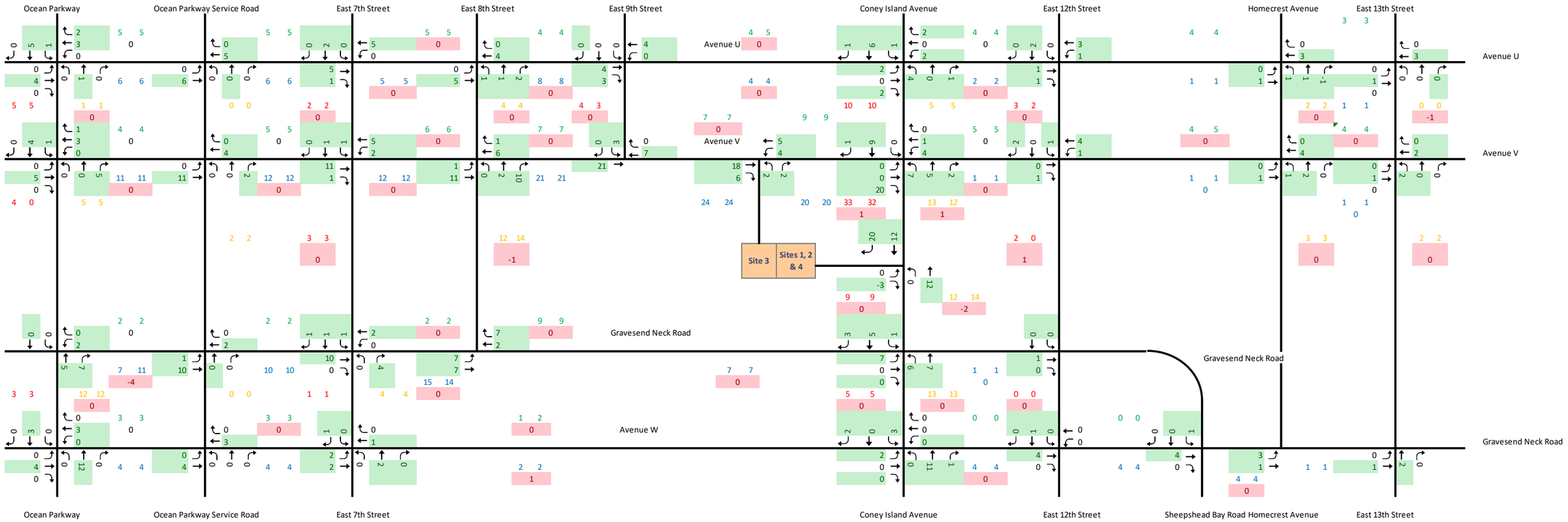

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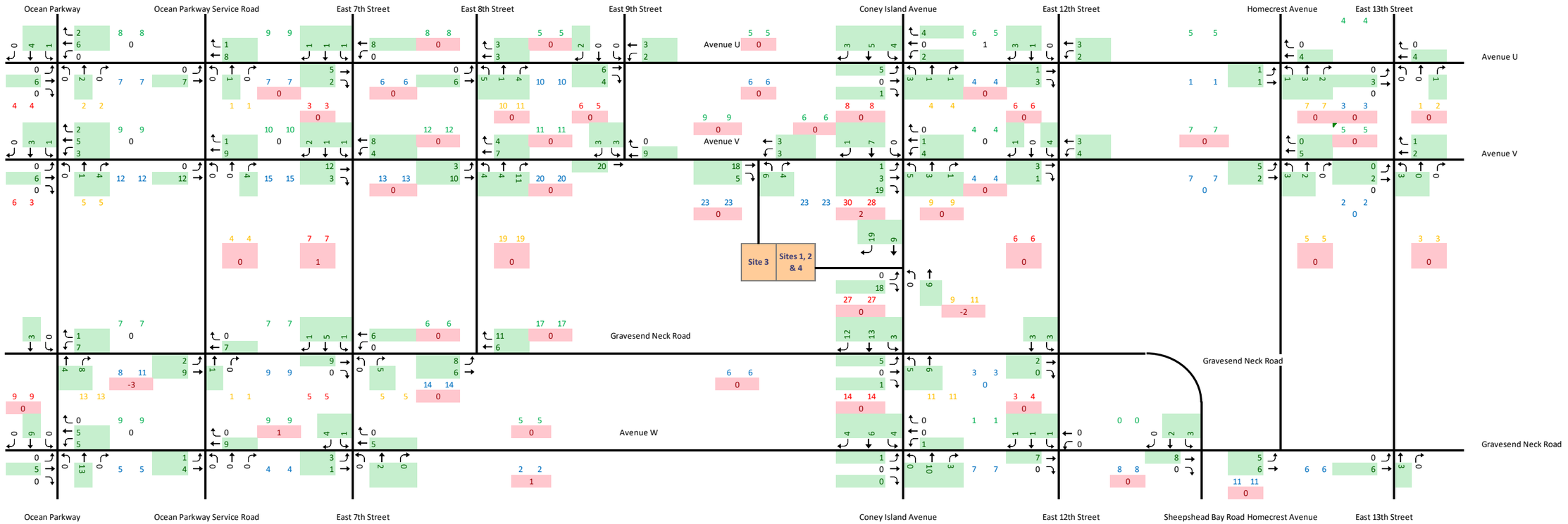

APPENDIX D

ILLUSTRATIVE PLANS



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Front Perspective 1 Along Coney Island Ave.

2510 Coney Island Avenue



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Front Perspective 2 Along Coney Island Ave.

2510 Coney Island Avenue



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Front Perspective 3 Along Coney Island Ave.

2510 Coney Island Avenue



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Front Perspective 4 Along Coney Island Ave.

2510 Coney Island Avenue



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Perspective 5 Along Coney Island Ave.

2510 Coney Island Avenue



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Perspective 6 - Perspective view from neighbors

2510 Coney Island Avenue



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Perspective 7-
Perspective view from Avenue V

2510 Coney Island Avenue

ZONING ANALYSIS: R7D, C2-4 -proposed MIH

2510 CONEY ISLAND AVENUE BLOCK: 7159 LOT: 123 CURRENT DISTRICT: R4 w/in OP-SPD

PURSUANT TO PROPOSED MAP CHANGE CONDITIONS
ZONE R7D WITH C2-4 OVERLAY, OCEAN PARKWAY SPECIAL PURPOSE DISTRICT

ZONING RULE				
	LOT AREA			11,020 sf
(ZR 22-10) (ZR 32-00) (ZR 32-15)	PERMITTED USE GROUPS		RES: COM:	R7: General residences UG 1,2 C2: Local Service UG 1-4,5-9,14 Com
	PROPOSED USE GROUPS		RES: COM:	UG 2 Multi-family UG 6 Retail
	PERMITTED & PROPOSED FAR			*INCLUSIONARY HOUSING (MANDATORY)*
(ZR 33-121)	COMMERCIAL			2.00 FAR max > 0.29 proposed (ok) — **Tot. FAR 5.29 < 5.6 Max OK**
(ZR 23-154 IH)	RESIDENTIAL	(base FAR 4.2)		5.6 FAR max > 5.00 proposed (ok)
	FLOOR AREA	TOTAL	PERMITTED / PROPOSED	**ZFA = 61,712 sf** ZFA = 61,549 sf; GFA = 73,854 sf (ok)
		COMMERCIAL	PERMITTED / PROPOSED	**22,040 sf** *(of 61,712 sf)* 6,439 SF
		RESIDENTIAL	PERMITTED / PROPOSED	**61,712 sf** 55,110 SF
				Cellar - Utility - Parking 1st Fl - Commercial (C2-4) 2nd-11th Fl - Residential (R7D)
(ZR 24-11; 23-153)	PERMITTED MAX. LOT COVERAGE/ OS			RESIDENTIAL — 65% = 7163 sf LC
	PROPOSED LOT COVERAGE			53% = 5827.8 sf LC
	PROPOSED OPEN SPACE			47% > 35% min @ 23' above grade - OK
	Commercial LC/OS is regulated by setbacks/yards			
(ZR 24-35b; 33-25) (ZR 24-36; 33-26)	**REQUIRED YARDS**	**FRONT YARD**	**SIDE YARDS**	**REAR YARD**
	COMMERCIAL	NONE	NONE	20 FT
	RESIDENTIAL		R7 -if an existing side ribbon, then be min 8 ft	30 FT
	PROPOSED YARDS	NONE	1 = 8 feet min.	20 FT
	COMMERCIAL		1 = 10'-4" exist'g, + optional 1 = 8'-0" wide	35'-3"
	RESIDENTIAL			
(ZR 23-952)-IH (ZR 23-661a.1)	**STREET WALL LOCATION**			MATCH ADJOINING BLDG CLOSEST TO STREET LINE = 0 FT Lot Line Condition
(ZR 23-662 Tbl.B) - R7D	**BUILDING HEIGHT PERMITTED MAX. (QH)**			MIN. BASE = 60 FT | MAX. BASE = 85 FT MAX. BUILDING HT = 105FT (10 STORIES)
	QUALIFYING GROUND FLOOR (MIH)			*MIN. BASE = 60 FT | MAX. BASE = 95 FT* *MAX. BUILDING HT = 115 FT (11 STORIES)*
	PROPOSED MAX. BUILDING HEIGHT (MIH)			BASE HEIGHT = 63FT; BUILDING HEIGHT = 113 FT (11 STORIES)
(ZR 23-641)	**REQUIRED MIN. SETBACK (wide street)**			10' between 60ft -95ft Base Ht. @ 5.6 : 1 Sky Expsr.
	PROPOSED SETBACK			10 ft - at 7th Fl (63'-0" > 60'-0" min.)
(ZR 25-23) (ZR 25-251)	**REQUIRED MIN. ACCESSORY OFF-STREET PARKING SPACES**			50% of dwelling units QH 15% of low-income dwelling units IH
	PROPOSED PARKING	RESIDENTIAL		Quality Housing - 22 spaces Inclusionary Housing - 2 spaces — Total 24 spaces
		COMMERCIAL		Waived as per ZR 36-232 for certain districts/ low parking req's
	MIN. REQUIRED BICYCLE PARKING SPACES			
(ZR 25-811)	RESIDENTIAL	In UG 2	1 PER 2 dwelling units	
(ZR 36-711)	COMMERCIAL	In UG 6B	1 per 7,500	UG 6A: 1 per 10,000sf
	PROPOSED BICYCLE PARKING SPACES			
	RESIDENTIAL	Req: 1 per 2 dwel. units	60 units / 2 = 30 bicycles	**Proposed total = 31 spaces**
	COMMERCIAL	Req: 1 per 7,500 sf	6465 sf = 1 bicycle	
(ZR 26-41)	**STREET TREE REQUIREMENTS**			1 PER 25 FT OF STREET FRONTAGE TOTAL FRONTAGE: 90 LF TOTAL REQUIRED = 90' / 25' = 3.6 or 4 TREES
	PROPOSED STREET TREES			4 NEW TREES PROPOSED 3 TREES TO BE PLANTED ON SITE + 1 OFF SITE OR PAID INTO DPR TREE FUND

ZONE	TYPE	UG	LEVEL	GROSS TENANT FLOOR AREAS						GROSS APTS. SF	Core, Corridor, Refuse	SUB TOTAL GFA	DEDUC -TIONS	PROPOSED TOT ZFA (w/dedct)	PROPOSED TOT GFA (buildbl)	PARKING REQ'D	PARKING PROP'D
C2-4		16	Cellar Floor	10,680 SF						N/A	N/A	N/A	N/A	0 SF	10,680	N/A	
	COM MERC.	6	1st Floor	6439 sf				*INCLUSIONARY*			268 SF Lobby 452 sf core	*6439 sf* *(268 SF)* *(452 sf)*	-268 SF Lobby	6439 sf	6439 sf	Comm. = waived	
R7D	RESIDENTIAL	2		APT. A	APT. B	APT. C	APT. D	APT. E	APT. F							IH spaces = 2 QH spaces = 22	
			2nd Floor	774 sf	942 sf	902 sf	802 sf	**802 sf**	902 sf	**5124**	697 sf	*5821*	-132 sf tot. all flrs Refuse Rm. -1225 sf tot. all flrs. 50% Corridor (total)	56,735 sf RES -268 -132 -1225 --- **55,110sf RES**	56,735 sf RES		
			3rd Floor	774 sf	942 sf	902 sf	802 sf	**802 sf**	902 sf	**5124**	697 sf	*5821*					
			4th Floor	774 sf	942 sf	902 sf	802 sf	**802 sf**	902 sf	**5124**	697 sf	*5821*					
			5th Floor	774 sf	942 sf	902 sf	802 sf	**802 sf**	902 sf	**5124**	697 sf	*5821*					
			6th Floor	774 sf	942 sf	902 sf	**802 sf**	**802 sf**	902 sf	**5124**	697 sf	*5821*					
			7th Floor	554 sf	723 sf	902 sf	**802 sf**	**802 sf**	902 sf	**4685**	697 sf	*5382*					
			8th Floor	554 sf	723 sf	902 sf	**802 sf**	**802 sf**	902 sf	**4685**	697 sf	*5382*					
			9th Floor	554 sf	723 sf	902 sf	**802 sf**	**802 sf**	902 sf	**4685**	697 sf	*5382*					
			10th Floor	554 sf	723 sf	902 sf	**802 sf**	**802 sf**	902 sf	**4685**	697 sf	*5382*					
			11th Floor	554 sf	723 sf	902 sf	**802 sf**	**802 sf**	902 sf	**4685**	697 sf	*5382*					
			TOTALS				***16 Incl. Units***			49,045 sf RES	7,690 sf	**56,735 sf RES**	-1625 sf	Total building ZFA	Total building GFA		
			PARKING				> 15 required (ok) 16 x 15% = **2 spaces req.**			*NOTE: Permitted Residential ZFA:* *5.6 x 11,020sf Lot = 61,712sf - 6439 sf Com.* *= Remaining Allowable Res FA = **55,273 sf***				**61,549 sf** < 61,712 sf allowb	**73,854 sf**	**24 spaces**	

DEDUCTIONS

1. ZR 28-11 Elevated Ground floor Units
   500 sf max for one building

2. ZR28-12 Refuse Storage and Disposal
   12 sf per floor discounted
   Total floors 11 x 12 sf = 132 sf

3. ZR28-14 Daylight in Corridors
   50% Corridor Deduction

TOTAL FA ALLOWABLE DEDUCTIONS =
500 + 132 + 1229 = 1861 SF

Total Implemented Deductions =
283 sf (Lobby) + 132 (Refuse) + 1229 (Corridors) = 1644 sf

RECREATION SPACE

ZR 28-21 Minimum = 3.3% (R7)
Total Residential Floor area = 54,000 sf
54,000sf x 3.3% = 1,782 sf min

Total recreation area provided on roof = **1,782 sf**

PARKING REQUIREMENTS:

CELLAR LEVEL - accessory to Commercial and Residential
TOTAL GROSS AREA = 10,680 SF (ZFA = 0 sf)

REQUIRED COMMERCIAL PARKING: 1 PER 300 SF = 6454.4/ 300 = 22 spaces < 40 min for Waiver (ZR 36-232).
Therefore, no commercial parking required

REQ'D RESIDENTIAL PARKING (for **IH** - affordable units):
Per ZR25-251 - Income Restricted housing units
R7D = 15.0%

Required min affordable dwelling units: 25% of total units
Total units in building: 6 per floor x 10 stories = 60 units
60 x 0.25 = **15 affordable units**

Proposed affordable dwelling units:
[(2 per floor) x 6 stories {2nd thru 7th} = 12 afford. units]
+ [(1per floor) x 4 stories {8th thru 11th} = 4 afford. units]
= Total 12 + 4 = **16 affordable units** > 15 required (OK!)

Req. Parking: 16 units x 15% = 2 spaces

REQ'D RESIDENTIAL PARKING (for **QH**):

Max. Allowable apartments = 56,816.2 sf (Gross Res. FA)
56,816.2 sf / 680 (Density coefficient ZR23-24) = 84 apartments

Proposed apartments = 60 - 16 (affordable units) = 44 regular units

Parking 50% deduction Rule (ZR25-23 QH):
44 units x 0.5 = 22 Parking spaces

TOTAL PARKING REQUIRED:
0 Com.+ (22 QH + 2 IH Res.) = 24 SPACES

CORPORATE DESIGN OF AMERICA, P.C.

Architecture | Planning | Design
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Architect Seal

REGISTERED ARCHITECT ROBERT JAMES PALERMO NO. 013124 STATE OF NEW YORK

Robert James Palermo
NY State License
No. 013124

2510 Coney Island Avenue, Brooklyn NY

PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 2/11/2022 1:40:39 PM
DRAWN BY: JOR	Checked By: RJP

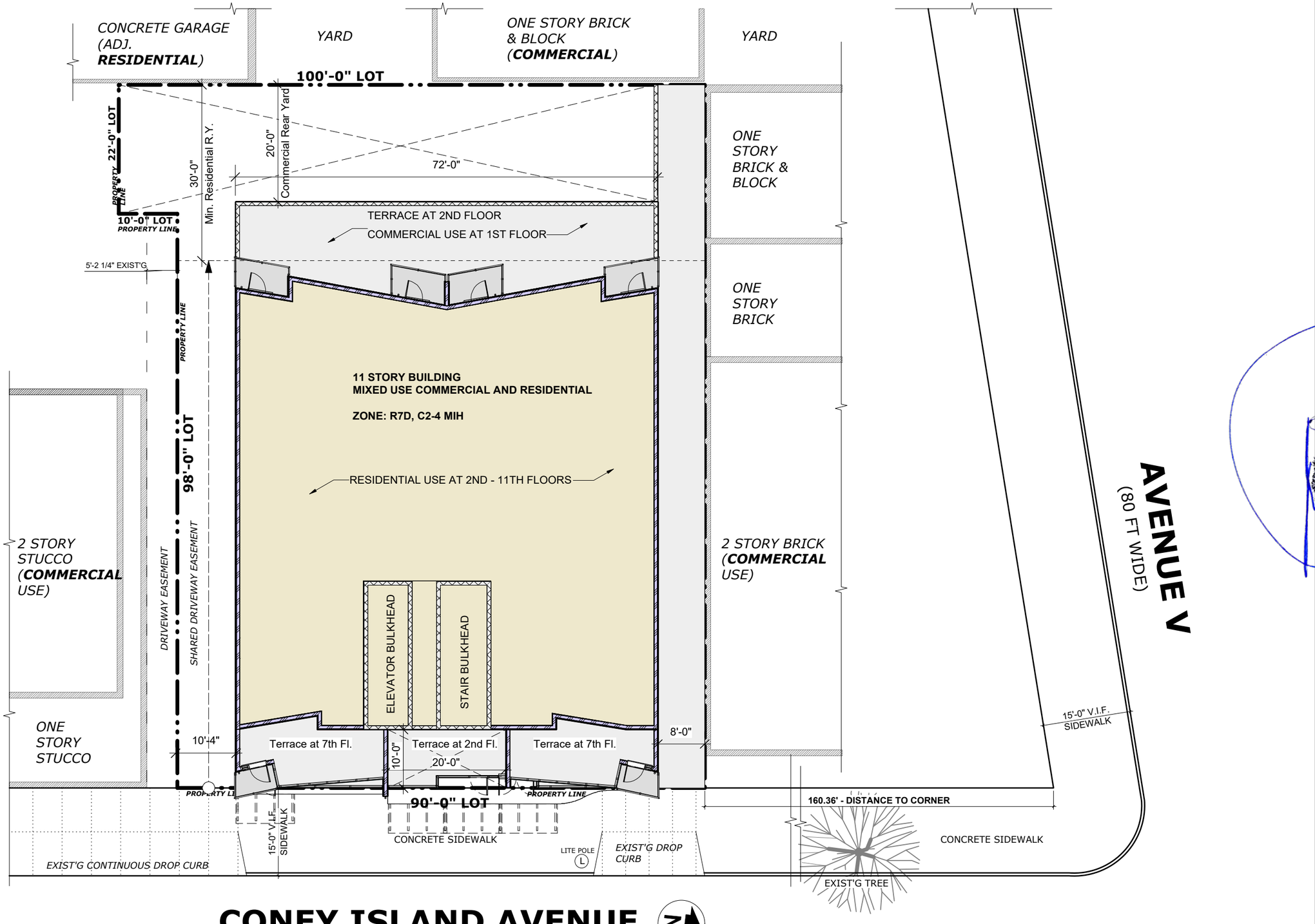
SHEET TITLE:

Zoning Notes

ZO-001.00 of 12

Revision
Issue

DOB Job Sticker



CONEY ISLAND AVENUE

(100 FT WIDE)

- Proposed Conditions - Mixed Use:

1'-0" = 1/16" Commercial & Residential

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Robert J. Palermo, RA, AIA

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No. 013124

2510 Coney Island Avenue, Brooklyn NY

PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

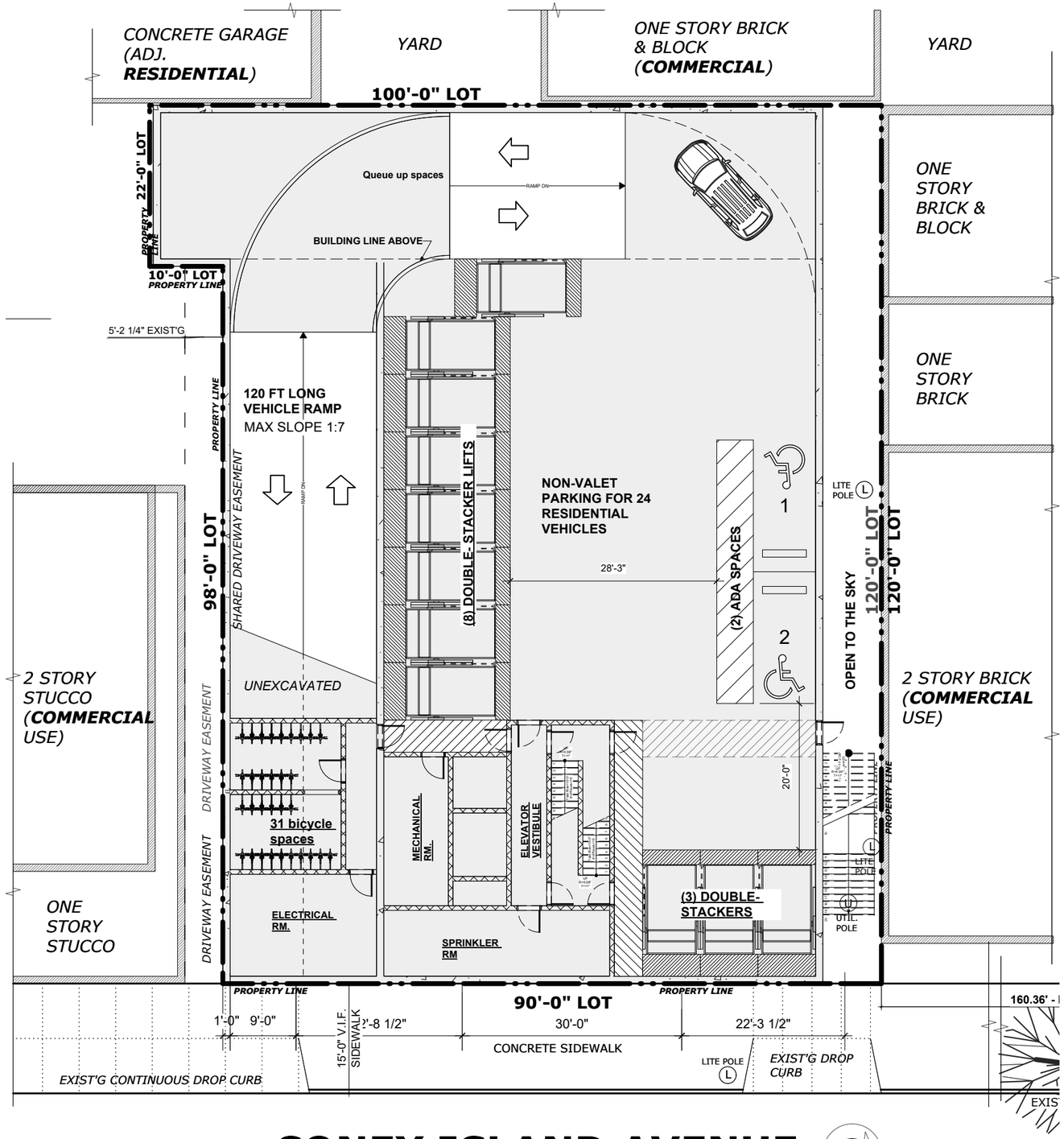
SHEET TITLE:

Proposed Plot Plan

A001.00 — of — 14	Revision — Issue 10:20:39 AM

DOB Job Sticker

CELLAR FLOOR - GARAGE RESIDENTIAL PARKING



CONEY ISLAND AVENUE

(100 FT WIDE)

1 Proposed Cellar Conditions - Mixed Use:
Scale: 1:200 Commercial and Residential

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Agreed to Approved
Architect Seal

REGISTERED ARCHITECT ROBERT JAMES PALERMO No.-013124 UNIVERSITY OF THE STATE OF NEW YORK

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No. 013124

Zoning Map Change

2510 Coney Island Avenue, Brooklyn NY

PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 2/11/2022 1:53:16 PM
DRAWN BY: JOR	Checked BY: RJP

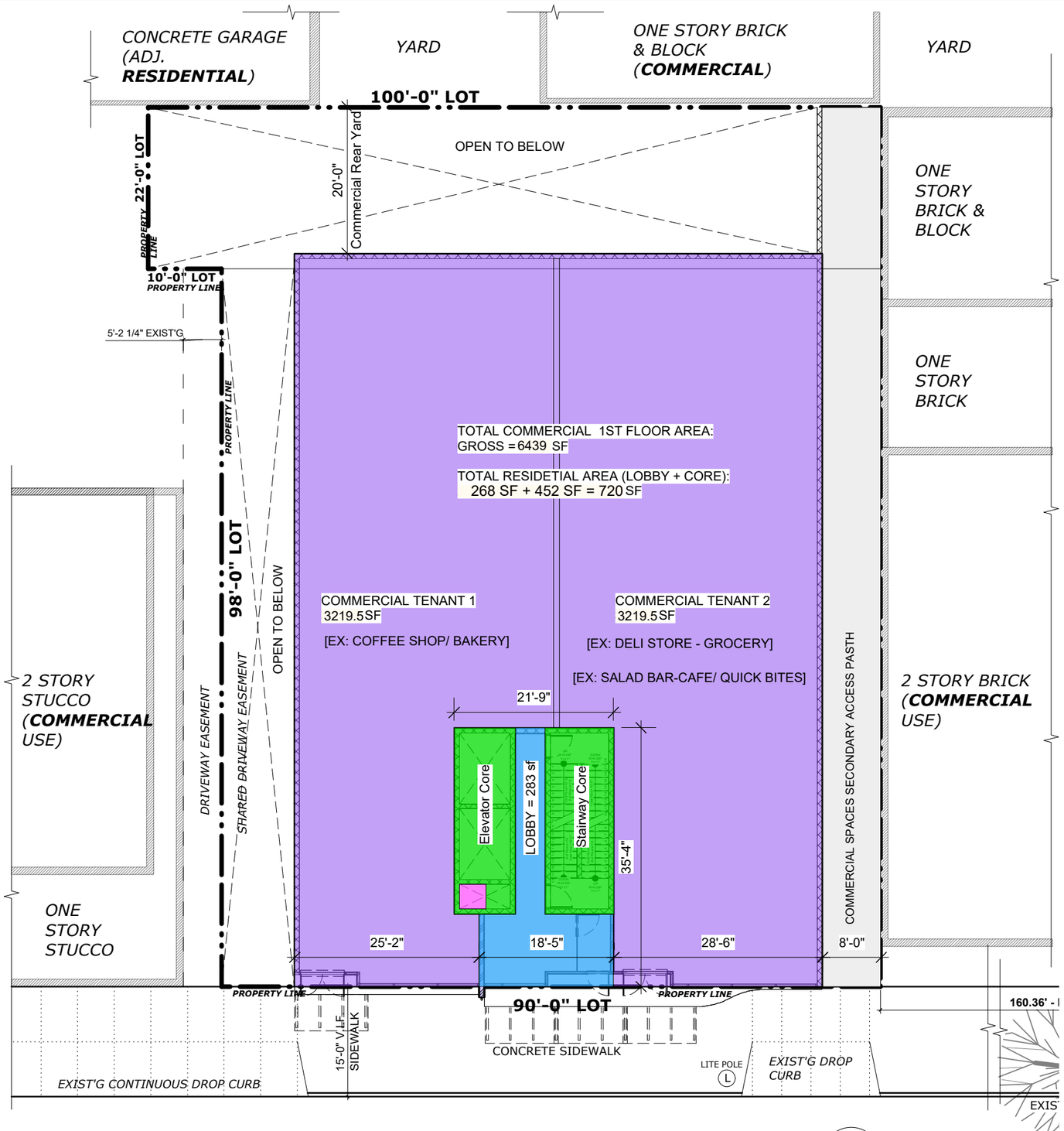
SHEET TITLE:

Cellar Floor Plan

A100.00 of 11	Revision / Issue

DOB Job Sticker

FIRST FLOOR PLAN - COMMERCIAL USE



CONEY ISLAND AVENUE

(100 FT WIDE)

N

- Proposed Conditions - Mixed Use:

1'-0" = 1/16" Commercial & Residential

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2510 Coney Island Avenue, Brooklyn NY

PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked By: RJP

SHEET TITLE:

Proposed 1st Floor: Commercial Use

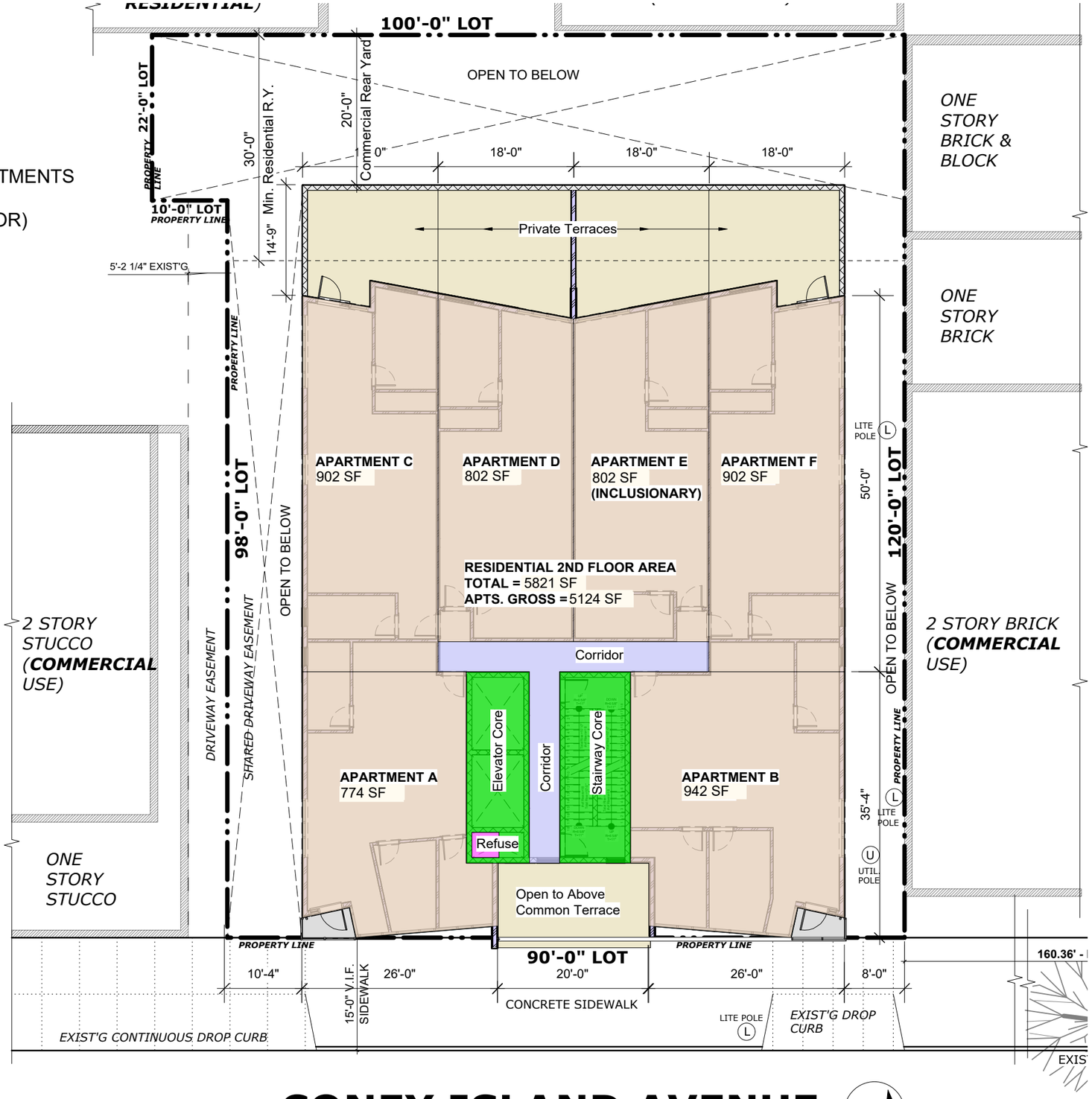
A101.00 — of — 14	Revision — Issue 10:20:42 AM

DOB Job Sticker

x

SECOND FLOOR
RESIDENTIAL APARTMENTS

(5) MARKET RATE APARTMENTS
(1) INCLUSIONARY HOUSING APARTMENTS
---
(6) APARTMENTS TOTAL (PER FLOOR)



CONEY ISLAND AVENUE
(100 FT WIDE)

N

- Proposed Conditions
1'-0" = 1/16" Residential

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:
Proposed 2nd Floor: Residential

A102.00 — of — 14

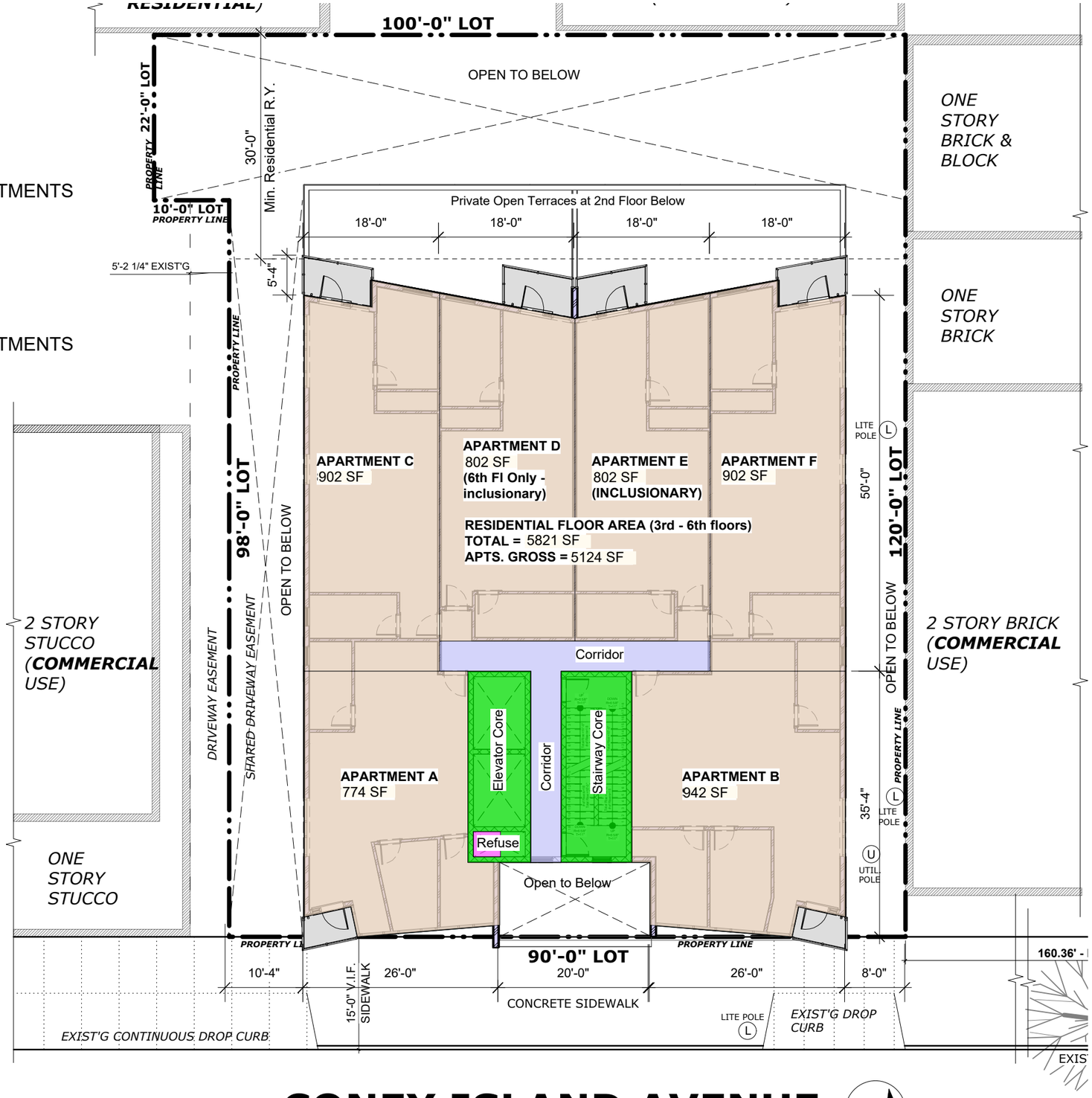
Revision
Issue 10:20:44 AM

DOB Job Sticker

THIRD TO SIXTH FLOORS RESIDENTIAL APARTMENTS

3RD - 5TH FLOORS:
(5) MARKET RATE APARTMENTS
(1) INCLUSIONARY HOUSING APARTMENTS
---
(6) APARTMENTS TOTAL

6TH FLOOR:
(4) MARKET RATE APARTMENTS
(2) INCLUSIONARY HOUSING APARTMENTS
---
(6) APARTMENTS TOTAL



CONEY ISLAND AVENUE
(100 FT WIDE)

N

- Proposed Conditions
1'-0" = 1/16" Residential

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:
Proposed 3-6th Floor: Residential Typ.

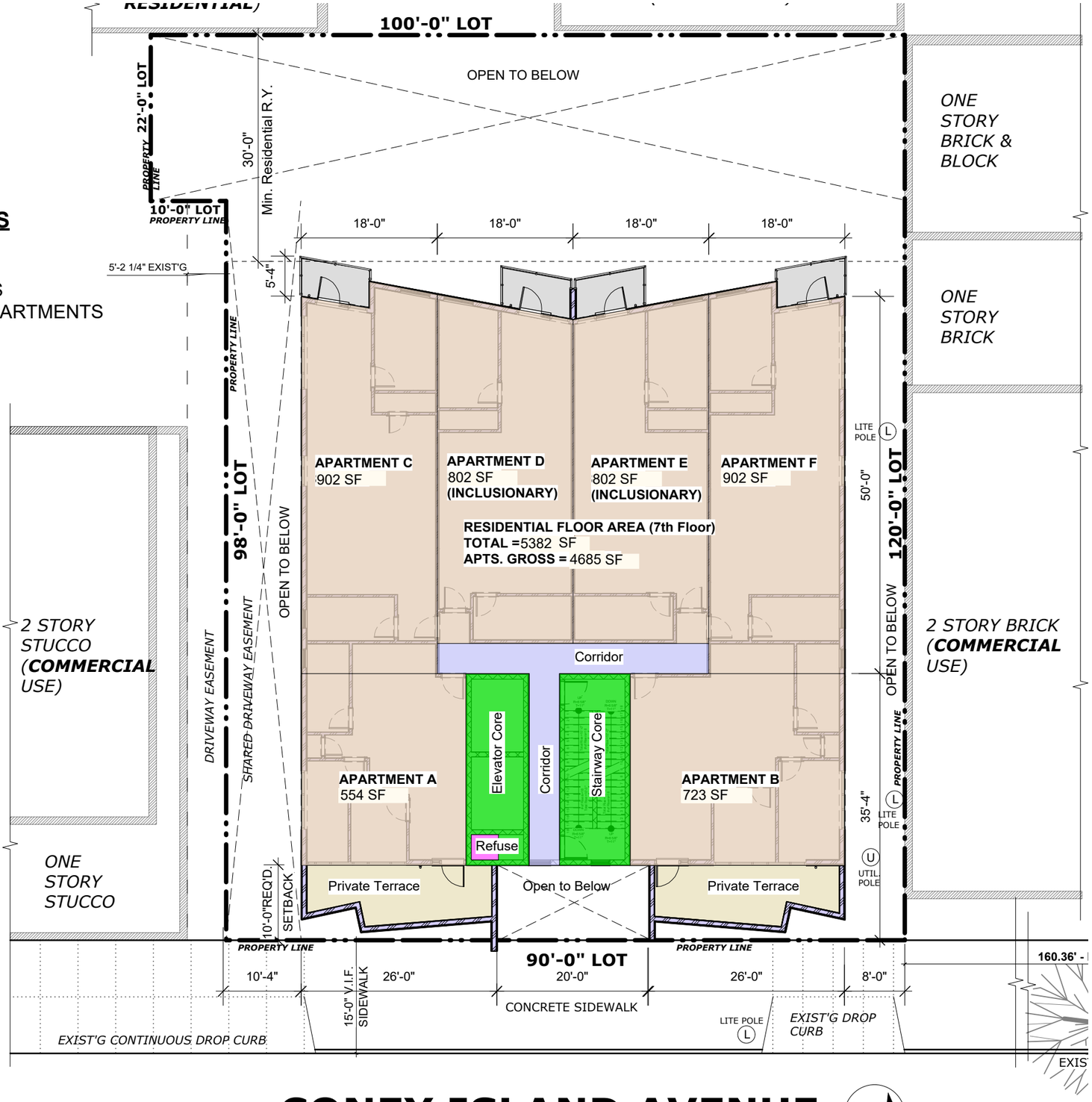
A103.00 of 14

Revision
Issue 10:20:46 AM

DOB Job Sticker

SEVENTH FLOOR
RESIDENTIAL APARTMENTS

(4) MARKET RATE APARTMENTS
(2) INCLUSIONARY HOUSING APARTMENTS
---
(6) APARTMENTS TOTAL



Proposed Conditions
1'-0" = 1/16" Residential

CONEY ISLAND AVENUE
(100 FT WIDE)

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APPROVED
Department of Buildings

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PROJECT NO.: 6/18	PROJECT DATE: 02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:
Proposed 7th Floor: Residential

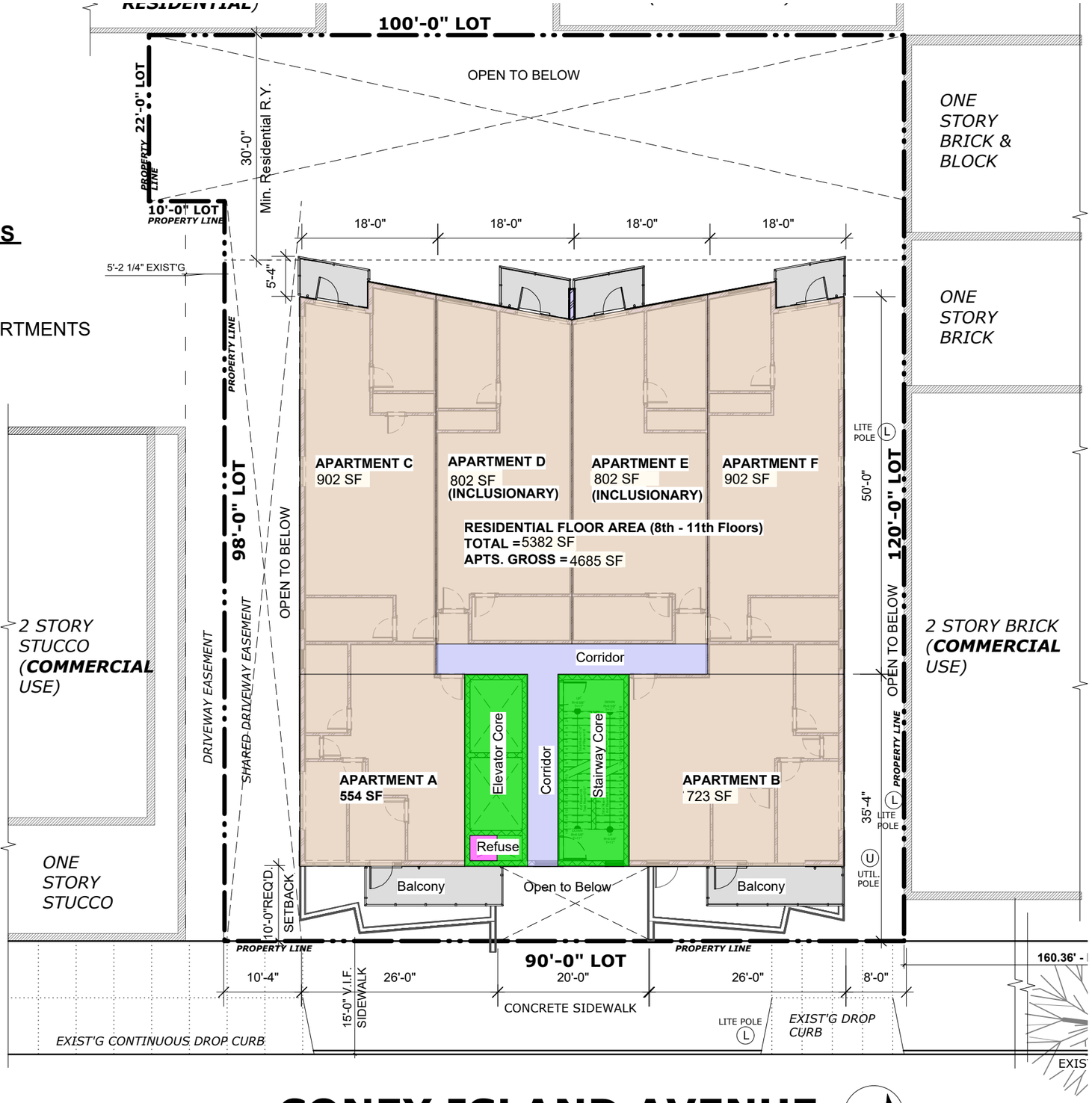
A104.00 of 14

Revision
Issue 10:20:49 AM

DOB Job Sticker

EIGTH TO ELEVENTH FLOORS
RESIDENTIAL APARTMENTS

(4) MARKET RATE APARTMENTS
(2) INCLUSIONARY HOUSING APARTMENTS
---
(6) APARTMENTS TOTAL



- Proposed Conditions
1'-0" = 1/16" Residential

CONEY ISLAND AVENUE
(100 FT WIDE)

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PROJECT NO.: 6/18	PROJECT DATE: 02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

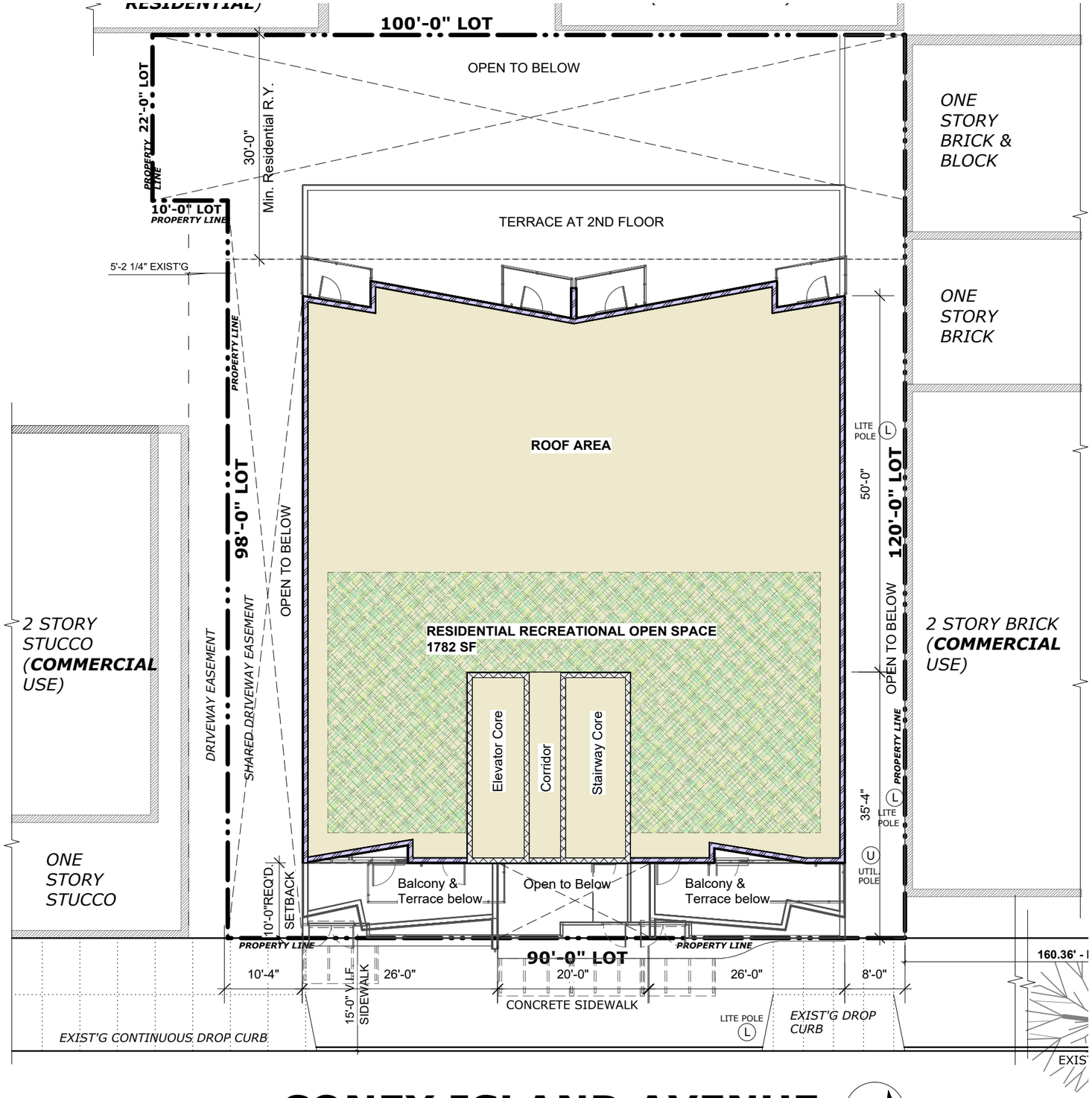
SHEET TITLE:
Proposed 8-11th Floor: Residential Typ.

A105.00 of 14

Revision
Issue 10:20:51 AM

DOB Job Sticker

ROOF LEVEL



Proposed Conditions

1'-0" = 1/16" Residential

CONEY ISLAND AVENUE

(100 FT WIDE)

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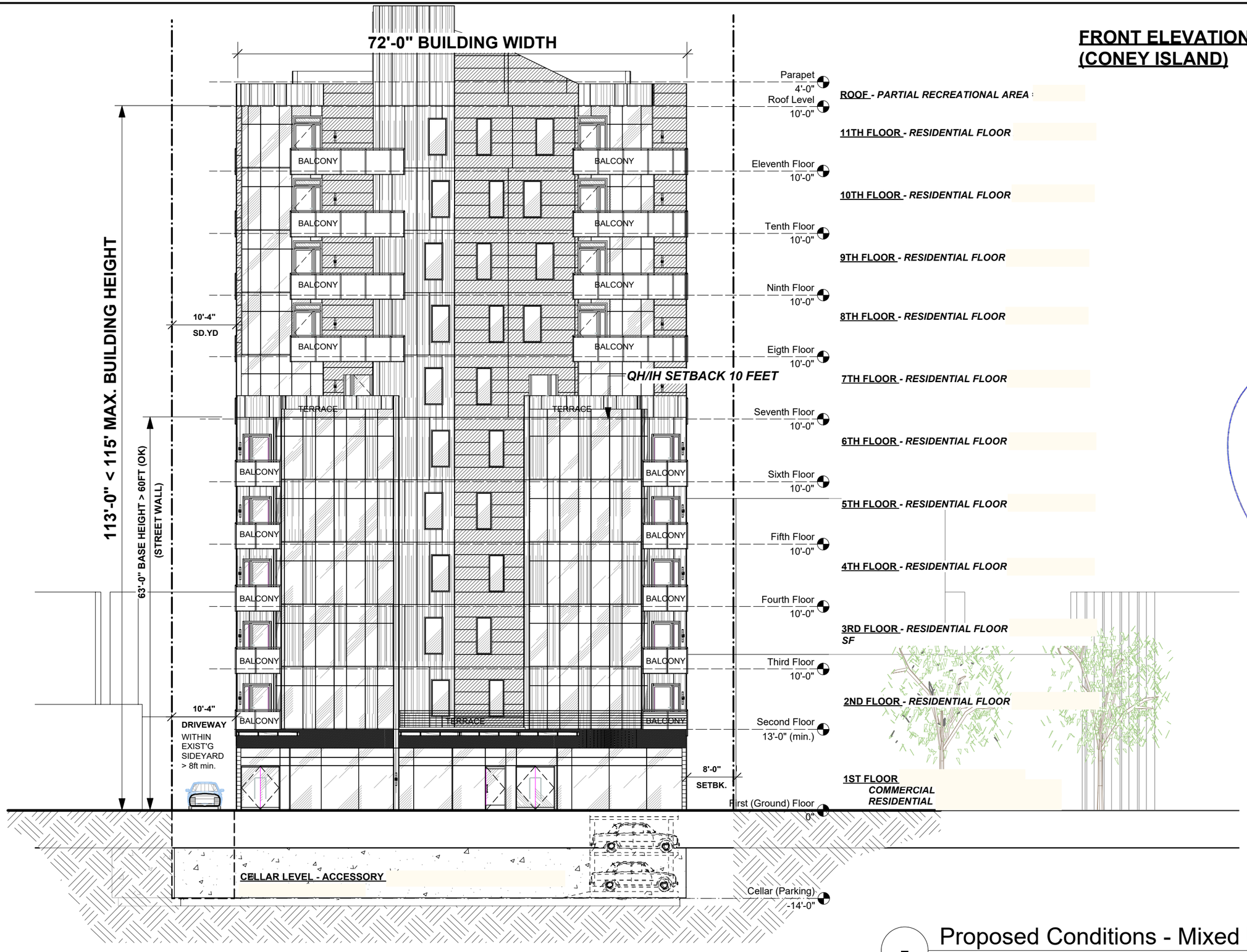
PROJECT NO.: 6/18	PROJECT DATE: 02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:

Proposed Roof Plan

A106.00 of 14	Revision — Issue 10:20:54 AM

DOB Job Sticker



FRONT ELEVATION (CONEY ISLAND)

ROOF - *PARTIAL RECREATIONAL AREA*

11TH FLOOR - *RESIDENTIAL FLOOR*

10TH FLOOR - *RESIDENTIAL FLOOR*

9TH FLOOR - *RESIDENTIAL FLOOR*

8TH FLOOR - *RESIDENTIAL FLOOR*

7TH FLOOR - *RESIDENTIAL FLOOR*

6TH FLOOR - *RESIDENTIAL FLOOR*

5TH FLOOR - *RESIDENTIAL FLOOR*

4TH FLOOR - *RESIDENTIAL FLOOR*

3RD FLOOR - *RESIDENTIAL FLOOR*
SF

2ND FLOOR - *RESIDENTIAL FLOOR*

1ST FLOOR
COMMERCIAL
RESIDENTIAL

- Proposed Conditions - Mixed Use:
1'-0" = 1/16" Commercial & Residential

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

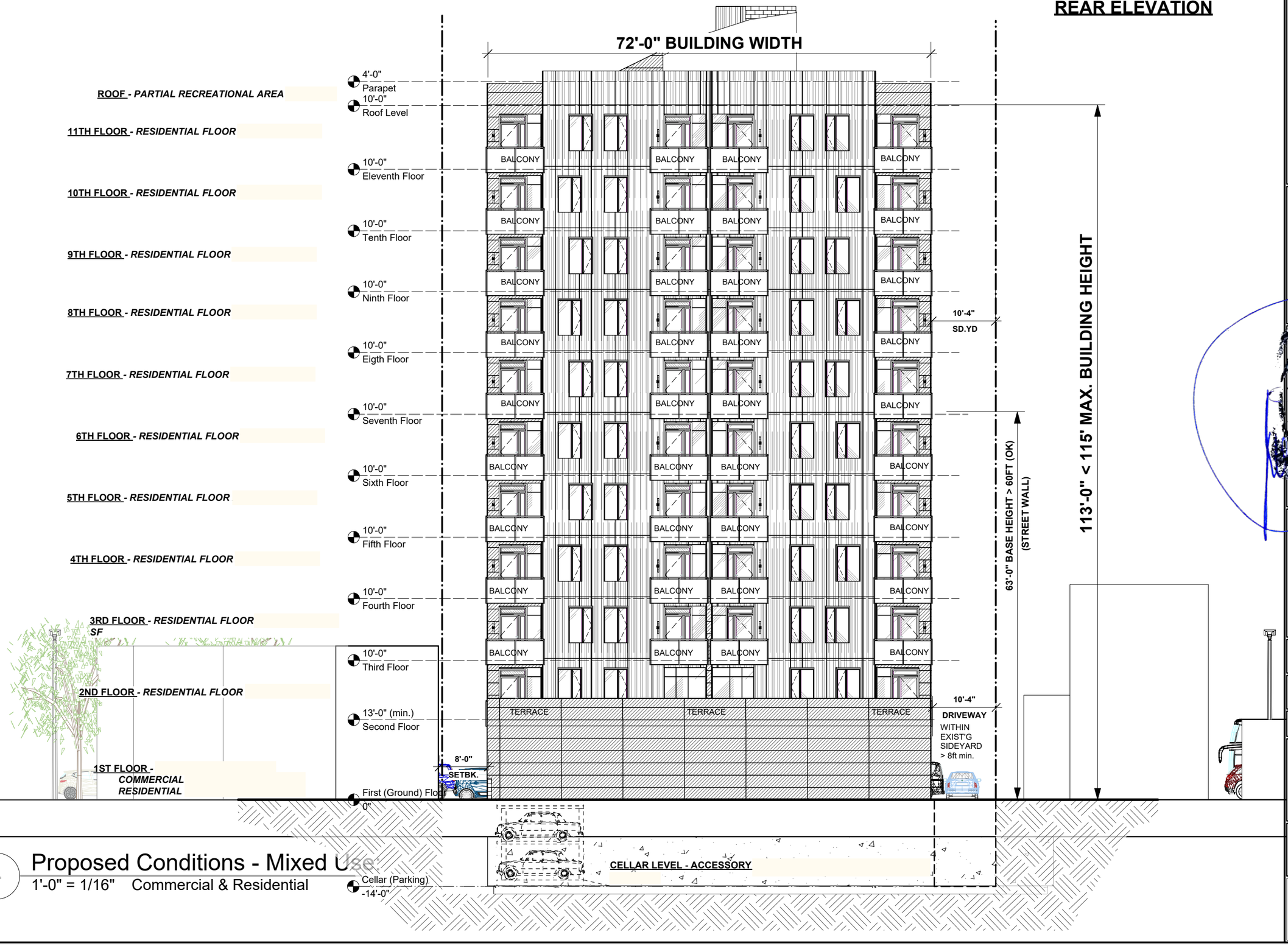
SHEET TITLE:
Front Building Elevation

A200.00 of 14

Revision
Issue 10:20:55 AM

DOB Job Sticker

REAR ELEVATION



Proposed Conditions - Mixed Use:

1'-0" = 1/16" Commercial & Residential

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:

Rear Building Elevation

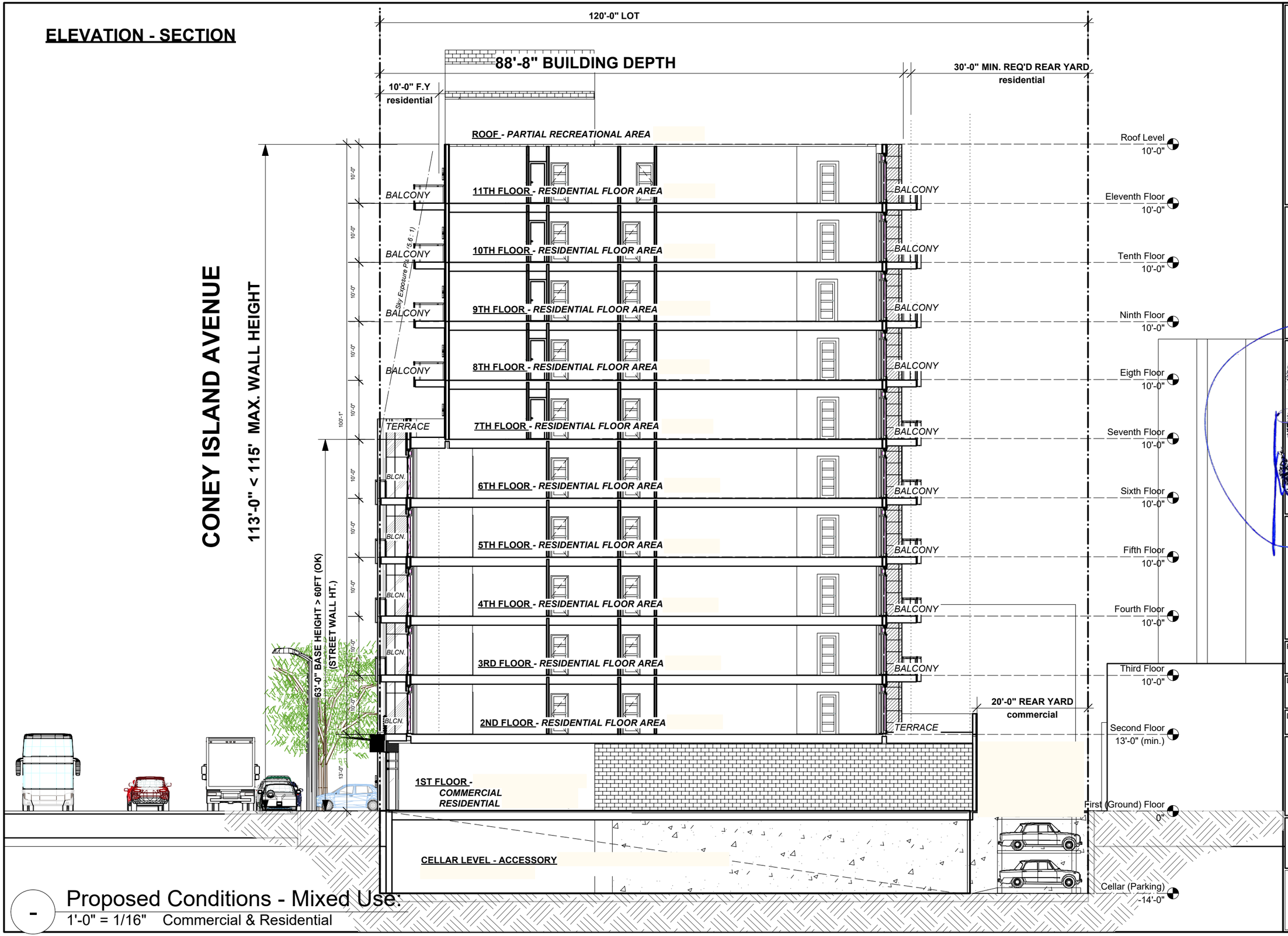
A201.00 of 14

Revision

Issue 10:51:13 AM

DOB Job Sticker

ELEVATION - SECTION



Proposed Conditions - Mixed Use:

1'-0" = 1/16" Commercial & Residential

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked By: RJP

SHEET TITLE:

Proposed Building Bulk - Side view

A202.00 of 14	Revision Issue 10:51:16 AM

DOB Job Sticker



FRONT PERSPECTIVE (NE) - AT CONEY ISLAND AVENUE



REAR PERSPECTIVE

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PROJECT NO.:	PROJECT DATE:
6/18	02.01.2018
DOB Num. : DOB NUM	REV DATE: 12/19/18
DRAWN BY: JOR	Checked BY: RJP

SHEET TITLE:

Proposed Building Bulk Perspectives

A300.00 of 14	Revision Issue 10:20:57 AM

DOB Job Sticker

Proposed Conditions - Mixed Use:

1'-0" = 1/16" Commercial & Residential

APPENDIX E

JAMAICA BAY 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: 22DCP138K 1a. Modification ☐
2. Project Name: 2510 Coney Island Avenue
3. Project Description:

   The Proposed Development is a new eleven-story residential and commercial building with approximately 73,854 gross square feet of floor area including 56,735 gross square feet of residential floor area, 6,439 gross square feet of ground floor retail floor area, and 10,680 sf of cellar parking.

4. Project Sponsor: 2510/18 C.I.A L.L.C.
5. Required approvals: Zoning Map and Text Amendment
6. Project schedule (build year and construction schedule): 2028

B. PROJECT LOCATION:

1. Street address: 2510 Coney Island Avenue
2. Tax block(s): 7159 Tax Lot(s): 123
3. Identify existing land use and zoning on the project site: vacant
4. Identify proposed land use and zoning on the project site: residential and commercial
5. Identify land use of adjacent sites (include any open space): residential and commercial
6. Describe existing density on the project site and the proposed density:

Existing Condition	Proposed Condition
0.0 FAR	5.29

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): 11,020
2. Will soil be removed (if so, what is the volume in cubic yards)? 4,897
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:

   11.7-12.6

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:	NA	11,020
Pavement/walkway:	11,020	NA
Grass/softscape:	NA	NA
Other (describe):	NA	NA
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 adjacent sewer system

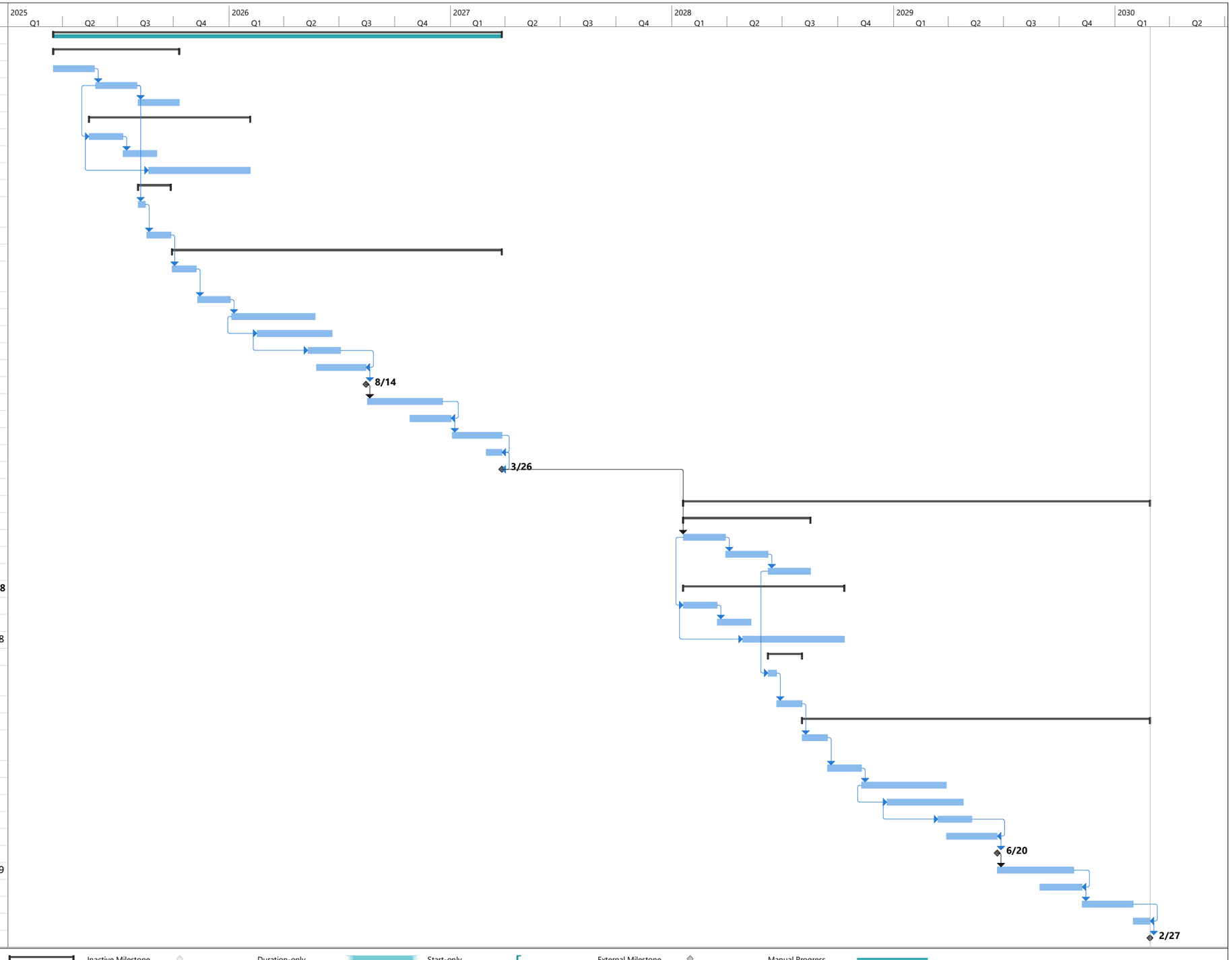
Proposed – describe, including any infrastructure improvements necessary off-site:

No changes

APPENDIX F

CONSTRUCTION SCHEDULE

ID	Task Name	Duration	Start	Finish
1	**Projected Development Site 1**	**530 days**	**Mon 3/17/25**	**Fri 3/26/27**
2	**DOB Approvals**	**150 days**	**Mon 3/17/25**	**Fri 10/10/25**
3	Foundation	50 days	Mon 3/17/25	Fri 5/23/25
4	Demolition	50 days	Mon 5/26/25	Fri 8/1/25
5	Full Building	50 days	Mon 8/4/25	Fri 10/10/25
6	**Bidding - Pre-development**	**190 days**	**Thu 5/15/25**	**Wed 2/4/26**
7	Bid & Award	40 days	Thu 5/15/25	Wed 7/9/25
8	DOB Approvals	40 days	Thu 7/10/25	Wed 9/3/25
9	Fabrication	120 days	Thu 8/21/25	Wed 2/4/26
10	**Demolition and Site Clearance**	**40 days**	**Mon 8/4/25**	**Fri 9/26/25**
11	Mobilization/ Building Protection/Temp Facilities	10 days	Mon 8/4/25	Fri 8/15/25
12	Demolition & Site Clearing	30 days	Mon 8/18/25	Fri 9/26/25
13	**Construction**	**390 days**	**Mon 9/29/25**	**Fri 3/26/27**
14	Excavation and Support of Excavation	30 days	Mon 9/29/25	Fri 11/7/25
15	Foundation	40 days	Mon 11/10/25	Fri 1/2/26
16	Concrete Superstructure	100 days	Mon 1/5/26	Fri 5/22/26
17	Façade Enclosure	90 days	Mon 2/16/26	Fri 6/19/26
18	Roofing and Waterproofing	40 days	Mon 5/11/26	Fri 7/3/26
19	Elevator	60 days	Mon 5/25/26	Fri 8/14/26
20	Watertight	0 days	Fri 8/14/26	Fri 8/14/26
21	Interior Core and Shell	90 days	Mon 8/17/26	Fri 12/18/26
22	DOB Inspection Core and Shell	50 days	Mon 10/26/26	Fri 1/1/27
23	Interior Finishes & Fitout	60 days	Mon 1/4/27	Fri 3/26/27
24	Fire Inspection Approval	20 days	Mon 3/1/27	Fri 3/26/27
25	Obtain TCO	0 days	Fri 3/26/27	Fri 3/26/27
26				
27	**Projected Development Site 2, 3, and 4**	**550 days**	**Thu 1/20/28**	**Wed 2/27/30**
28	**DOB Approvals**	**150 days**	**Thu 1/20/28**	**Wed 8/16/28**
29	Foundation	50 days	Thu 1/20/28	Wed 3/29/28
30	Demolition	50 days	Thu 3/30/28	Wed 6/7/28
31	Full Building	50 days	Thu 6/8/28	Wed 8/16/28
32	**Bidding - Pre-development**	**190 days**	**Thu 1/20/28**	**Wed 10/11/28**
33	Bid& Award	40 days	Thu 1/20/28	Wed 3/15/28
34	DOB Approvals	40 days	Thu 3/16/28	Wed 5/10/28
35	Fabrication	120 days	Thu 4/27/28	Wed 10/11/28
36	**Demolition and Site Clearance**	**40 days**	**Thu 6/8/28**	**Wed 8/2/28**
37	Mobilization/ Building Protection/Temp Facilities	10 days	Thu 6/8/28	Wed 6/21/28
38	Demolition& Site Clearing	30 days	Thu 6/22/28	Wed 8/2/28
39	**Construction**	**410 days**	**Thu 8/3/28**	**Wed 2/27/30**
40	Excavation and Support of Excavation	30 days	Thu 8/3/28	Wed 9/13/28
41	Foundation	40 days	Thu 9/14/28	Wed 11/8/28
42	Concrete Superstructure	100 days	Thu 11/9/28	Wed 3/28/29
43	Façade Enclosure	90 days	Thu 12/21/28	Wed 4/25/29
44	Roofing and Waterproofing	40 days	Thu 3/15/29	Wed 5/9/29
45	Elevator	60 days	Thu 3/29/29	Wed 6/20/29
46	Watertight	0 days	Wed 6/20/29	Wed 6/20/29
47	Interior Core and Shell	90 days	Thu 6/21/29	Wed 10/24/29
48	DOB Inspection Core and Shell	50 days	Thu 8/30/29	Wed 11/7/29
49	Interior Finishes& Fitout	60 days	Thu 11/8/29	Wed 1/30/30
50	Fire Inspection Approval	20 days	Thu 1/31/30	Wed 2/27/30
51	Obtain TCO	0 days	Wed 2/27/30	Wed 2/27/30



Project: Projected Developmen
Date: Tue 6/18/24

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Projected Site 1	Duration	Start	End	Total Duration	Site 1 Demo to Interior Finishes Completion	Site 1 Demo to Interior Core and Shell Completion	Site 2-4 Completion of Site 1 Interior Finishes to Start of Demo	Site 2-4 Completion of Site 1 Interior Core and Shell to Start of Demo	Site 2-4 Demo to Interior Finishes Completion	Site 2-4 Demo to Interior Core and Shell Completion
Demo/Site Clearance	40	8/4/2025	9/26/2025							
Mobilization/Const Protection	10	8/4/2025	8/15/2025							
Demolition and Clearance	30	8/18/2025	9/26/2025							
Construction	390	9/29/2025	3/26/2027							
Excavation and SOE	30	9/29/2025	11/7/2025							
Foundation	40	11/10/2025	1/2/2026							
Concrete Superstructure	100	1/5/2026	5/22/2026							
Façade Enclosure	90	2/16/2026	6/19/2026	**19 Months, 3 Weeks**	**17 Months, 3 Weeks**	**16 Months**				
Roofing and Waterproofing	40	5/11/2026	7/3/2026							
Elevator	60	5/25/2026	8/14/2026							
Watertight	0	8/14/2026	8/14/2026							
Interior Core and Shell	90	8/17/2026	12/18/2026							
Inspection	50	10/26/2026	1/1/2027							
Interior Finishes	60	1/4/2027	3/26/2027							
Final Inspection	20	3/1/2027	3/26/2027							
TCO	0	3/26/2027	3/26/2027							
							14 Months, 3 Weeks	**18 Months**		
Projected Site 2-4	**Duration**	**Start**	**End**							
Demo/Site Clearance	40	6/8/2028	8/2/2028							
Mobilization/Const Protection	10	6/8/2028	6/21/2028							
Demolition and Clearance	30	6/22/2028	8/2/2028							
Construction	410	8/3/2028	2/27/2030							
Excavation and SOE	30	8/3/2028	9/13/2028							
Foundation	40	9/14/2028	11/8/2028							
Concrete Superstructure	100	11/9/2028	3/28/2029							
Façade Enclosure	90	12/21/2028	4/25/2029	**20.5 Months**					**19 Months**	**16 Months**
Roofing and Waterproofing	40	3/15/2029	5/9/2029							
Elevator	60	3/29/2029	6/20/2029							
Watertight	0	6/20/2029	6/20/2029							
Interior Core and Shell	90	6/21/2029	10/24/2029							
Inspection	50	8/30/2029	11/7/2029							
Interior Finishes	60	11/8/2029	1/30/2030							
Final Inspection	20	1/3/2030	2/27/2030							
TCO	0	2/27/2030	2/27/2030							

APPENDIX G

NOISE BACKUP

Certificate of Conformity and Calibration



Instrument Model:-	**CEL-633C**		
Serial Number	5086866		
Firmware revision	V006-05		
Microphone Type:-	**CEL-251**	**Preamplifier Type:-**	**CEL-495**
Serial Number	3700	Serial Number	003409
Instrument Class/Type:-	1		

Applicable standards:-

IEC 61672: 2013 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- The test sequences performed in this report are in accordance with the current Sound level meter *Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	21 °C	**Test Engineer:-**	Paul Blackwell
	28 %RH	**Date of Issue:-**	January 10, 2022
	1014 mBar		

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2015 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

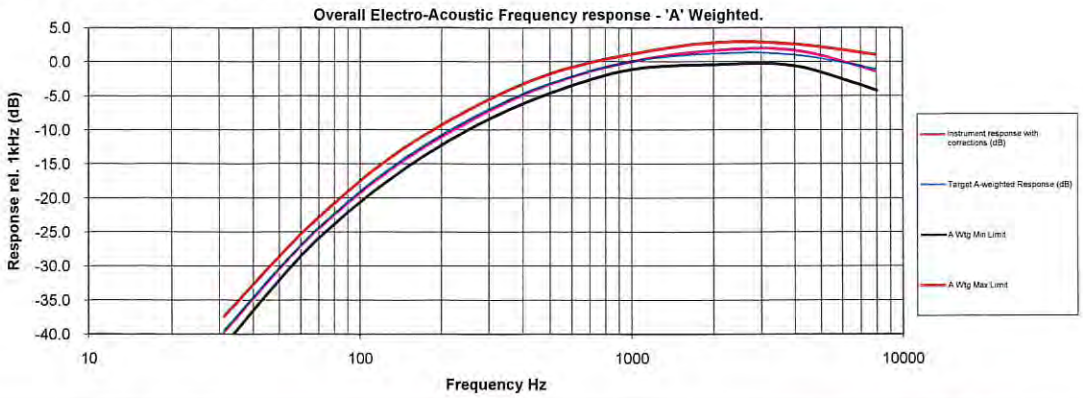
Test Summary:-

Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests Pass**
Overload Indication	**All Tests Pass**
Acoustic Tests	**All Tests Pass**

Combined Electro-Acoustic Frequency Response - A Weighted

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



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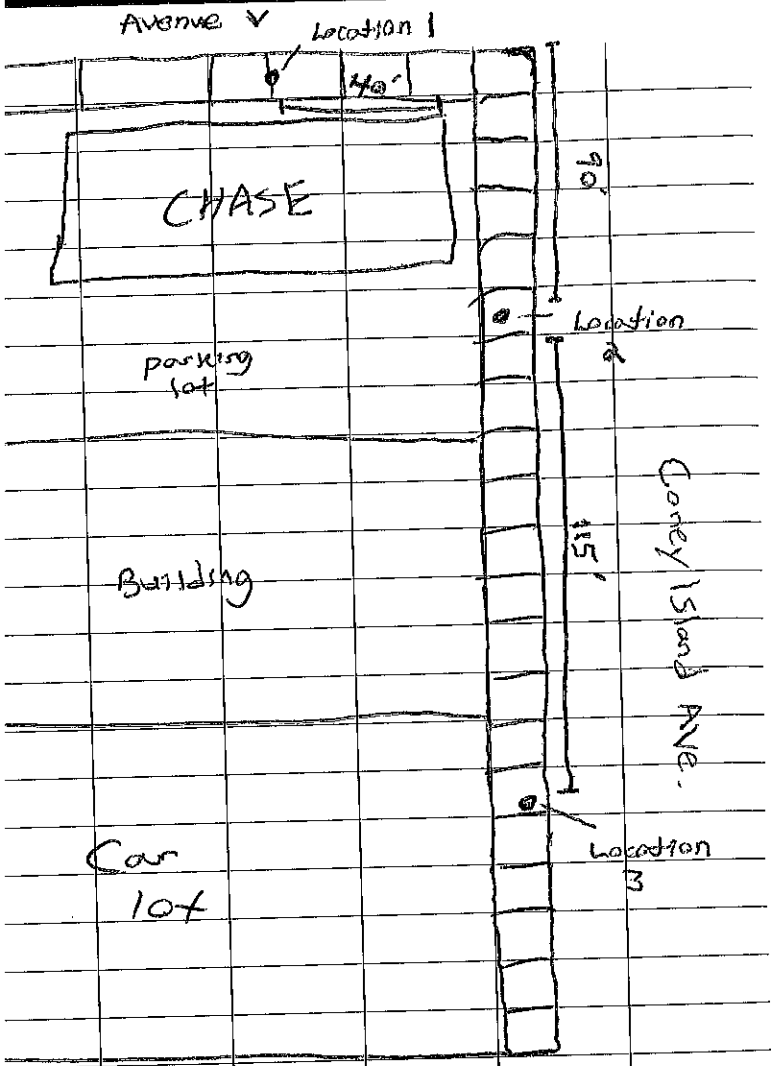
Fax: +86-21-61605906
Email: info@casellasolutions.cn

Tested to CEL-63X test sheet TP444 revision 02-00

9/20/22 2510 Coney Island Ave., Brooklyn, NY

personnel: CD
scope: Noise
weather: sunny, 70s
Depart: 5:20
Arrive: 7:00
CASELLA # 5086866 for locations 1, 2, and 3.
- calibrator # 1090999
- started at location 3
- precal morning at 7:32.
- Location 3 started at 7:33
- Location 3 stopped at 7:53.
- 3 20-minute locations (AM, midday, PM).
- Location 2 started at 7:58.
- Location 2 stopped at 8:18.
- Location 1 started at 8:20.
- Location 1 stopped at 8:40.
- morning session post cal. at 8:42
- CD offsite at 9:20.
- CD back onsite at 11:50
- midday precal at 12:00
- Location 3 starts at 12:01, ends 12:21
- Location 2 starts at 12:22, ends 12:42
- Location 1 starts at 12:44, ends at 13:04
- post cal. for midday at 13:05.
- CD offsite 13:40.



:D onsite at 16:10.
Afternoon pre cal at 16:30.
Location 3 starts at 16:32, end 16:52.
Location 2 starts at 16:55, ends 17:15.
Location 1 starts at 17:17, ends 17:37.
Depart: 17:45, arrive: 19:40

equity environmental engineering

WORKING TOGETHER TO DESIGN SOLUTIONS

Noise Job Field Sheet

Name of Project: 2510 Coney Island Avenue 2020086

Project Address: 2510 Coney Island Avenue Brooklyn, NY

Date(s) of Field Work: 9/20/2022

Personnel: Christian DiGennaro

Project Specific Scope of Work:

3 x 20-minute locations AM, Midday, PM
Site Contact -
Glen Gubner – 917-293-3886 glennbklyn@aol.com

Maximum Billable Hours for the Day: 15

I. Start of Noise Monitoring Day

Departure Time: 5:20 Arrival Time: 7:00

Weather Conditions (temp, wind speed, precipitation): Sunny, 70s

Meter Type: CASELLA Meter Serial #: 5086366 Meter Location: 1, 2, 3
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 1090999 Meters used on: 5086866
Calibrator Serial #: _____ Meters used on: _____
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:

Meter Serial #: 5086866 Time: 7:33 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 5086866 Time: 8:42 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ 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	8:20	8:40
2	7:58	8:18
3	7:34	7:54

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	54	139	3	2	2	0
2	107	248	16	9	12	0
3	118	232	9	5	13	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):
Street sweeper 7:40; horns at 7:42, 7:45, 7:50, 8:03, 8:07, 8:16, 8:24, 8:30, 8:33, 8:34, 8:36, and 8:38; Bus stops near meter at 8:01 and 8:10; Police siren 8:12; loud bangs at 8:37 and 8:39.

Please place noise meters in their respective cases between sessions to avoid damage.

III. Midday Session 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 503686 Time: 12:00 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 508686 Time: 13:05 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ 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	12:44	13:04
2	12:22	12:42
3	12:01	12:21

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	41	119	10	1	1	
2	105	172	14	8	3	
3	83	202	15	4	5	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):
Honks at 12:28, 12:35, 12:37, 12:41, 12:45, 12:57, 13:00, and 13:03; backhoe at 12:15; kids playing at adjacent property east 12:17–12:20; door slam 12:23; truck backs into adjacent building to the south at 12:28; drill at autobody shop to the east 12:41 – 12:42.
Please place noise meters in their respective cases between sessions to avoid damage.

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 5086866 Time: 16:30 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 5086866 Time: 17:38 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ 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	17:17	17:37
2	16:55	17:15
3	16:32	16:52

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	70	132	2	0	2	0
2	122	285	11	2	10	0
3	129	243	11	2	9	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):
Motorcycle at 16:43 ; horns at 16:44, 16:47, 16:50, 16:51, 16:52, 16:55, 17:03, 17:21, 17:25, 17:33, and 17:35 ; sirens at 16:37, 16:57, 17:10 ; bus stops near meter at 17:01 ; motorcycle at 17:23.
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: _____

_____

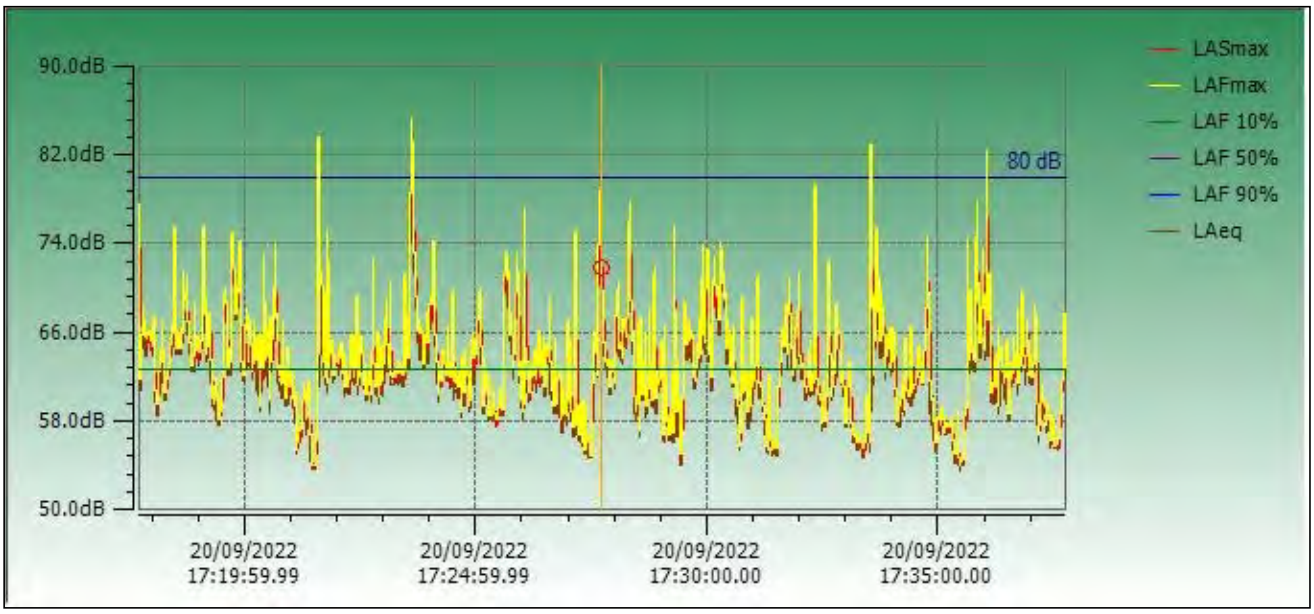
_____

Departure Time: 17:45 Arrival Time: 19:40

Total Time to Be Billed: 15

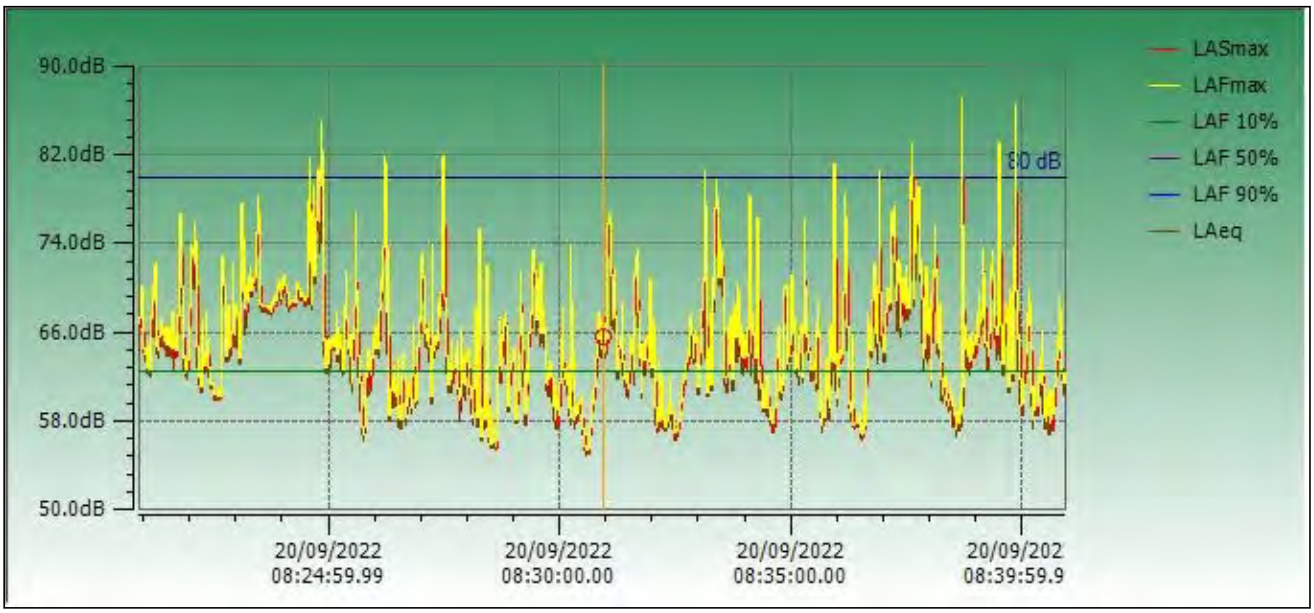
Instrument Model	**CEL-633C**
Serial Number	5086866
LDN	0
LASmax	80.6 dB
LASmin	53.7 dB
Start Date & Time	9/20/2022 5:17:43 PM
Duration	00:20:02 HH:MM:SS
LAeq	64.6 dB
End Date & Time	9/20/2022 5:37:45 PM
Notes	

LAS 10%	67.5 dB
LAS 50%	62 dB
LAS 90%	57 dB
Calibration (Before) Date	9/20/2022 4:31:04 PM
Calibration (After) Date	9/20/2022 5:38:20 PM
Calibration Drift	0.2 dB
Battery Low	No
Result	Cumulative

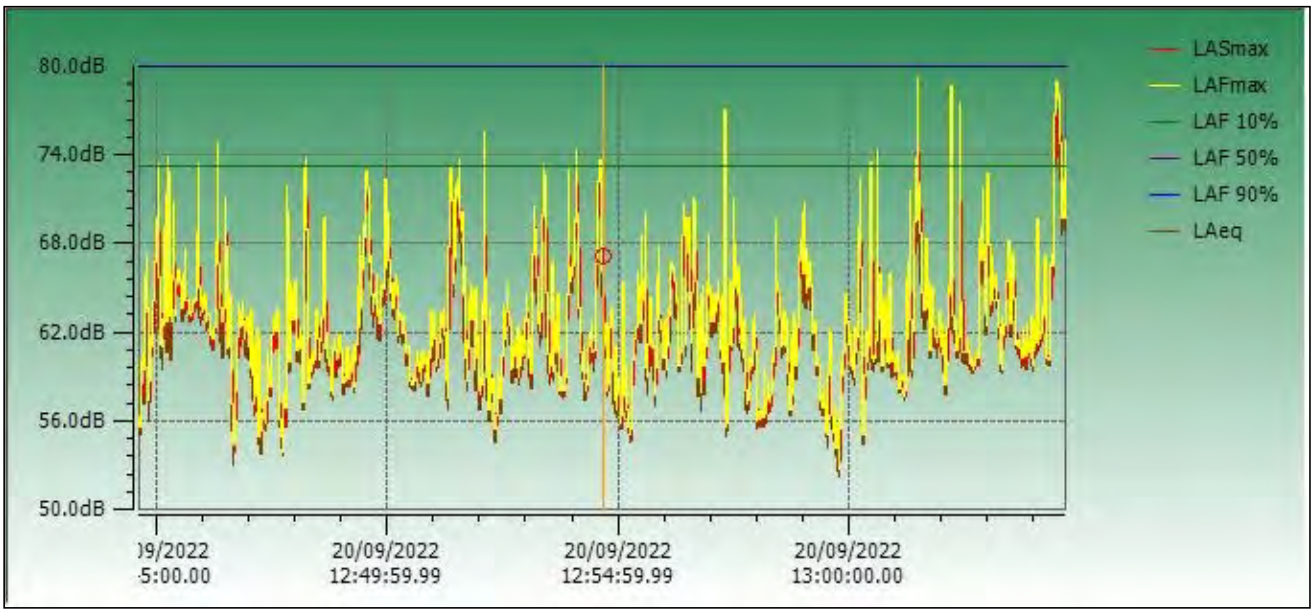


Instrument Model	**CEL-633C**
Serial Number	5086866
LDN	0
LASmax	81.3 dB
LASmin	55 dB
Start Date & Time	9/20/2022 8:20:54 AM
Duration	00:20:02 HH:MM:SS
LAeq	67.3 dB
End Date & Time	9/20/2022 8:40:56 AM
Notes	

LAS 10%	70.5 dB
LAS 50%	64 dB
LAS 90%	58.5 dB
Calibration (Before) Date	9/20/2022 7:32:36 AM
Calibration (After) Date	9/20/2022 8:42:36 AM
Calibration Drift	-0.1 dB
Battery Low	No
Result	Cumulative

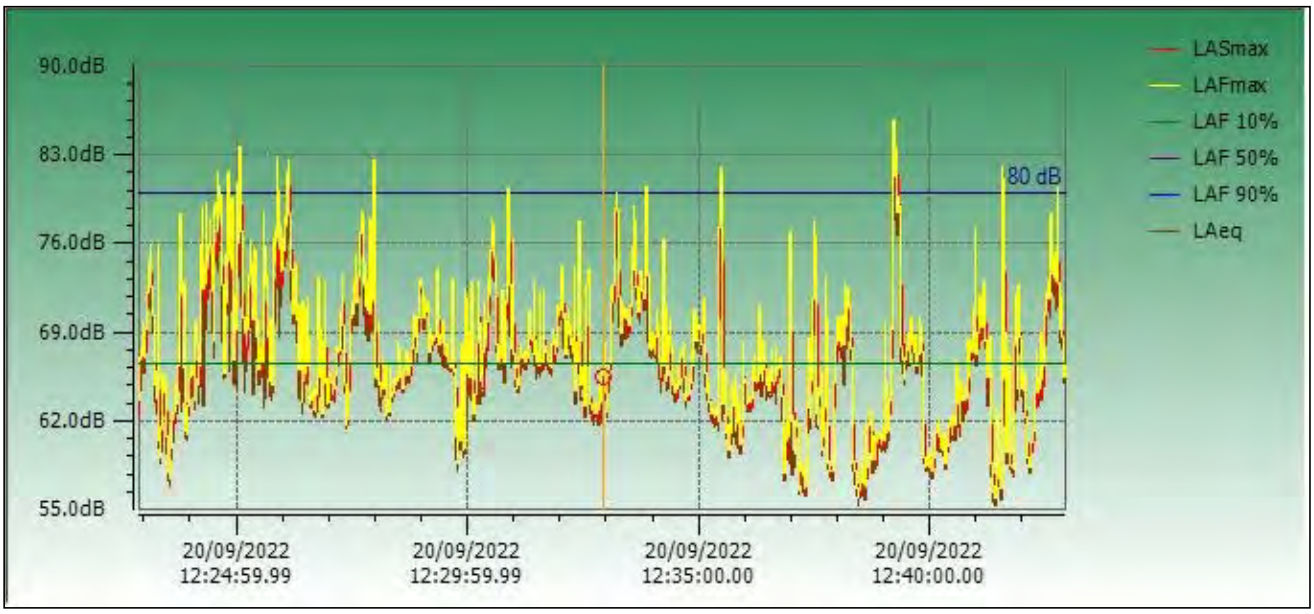


Instrument Model	**CEL-633C**		
Serial Number	5086866	LAS 10%	66.5 dB
LDN	0	LAS 50%	61 dB
LASmax	76.8 dB	LAS 90%	57.5 dB
LASmin	52.6 dB	Calibration (Before) Date	9/20/2022 12:00:24 PM
Start Date & Time	9/20/2022 12:44:38 PM	Calibration (After) Date	9/20/2022 1:05:26 PM
Duration	00:20:03 HH:MM:SS	Calibration Drift	0.2 dB
LAeq	63.7 dB	Battery Low	No
End Date & Time	9/20/2022 1:04:41 PM	Result	Cumulative
Notes			

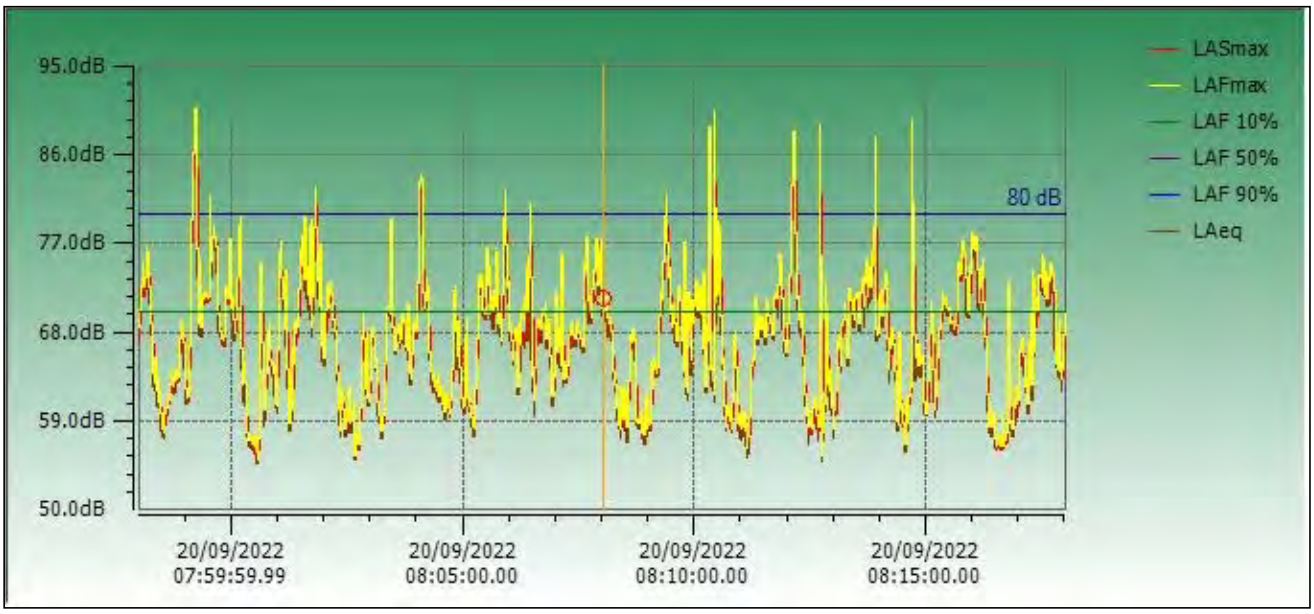


Instrument Model	**CEL-633C**
Serial Number	5086866
LDN	0
LASmax	82.4 dB
LASmin	55.4 dB
Start Date & Time	9/20/2022 12:22:54 PM
Duration	00:20:02 HH:MM:SS
LAeq	69.2 dB
End Date & Time	9/20/2022 12:42:56 PM
Notes	

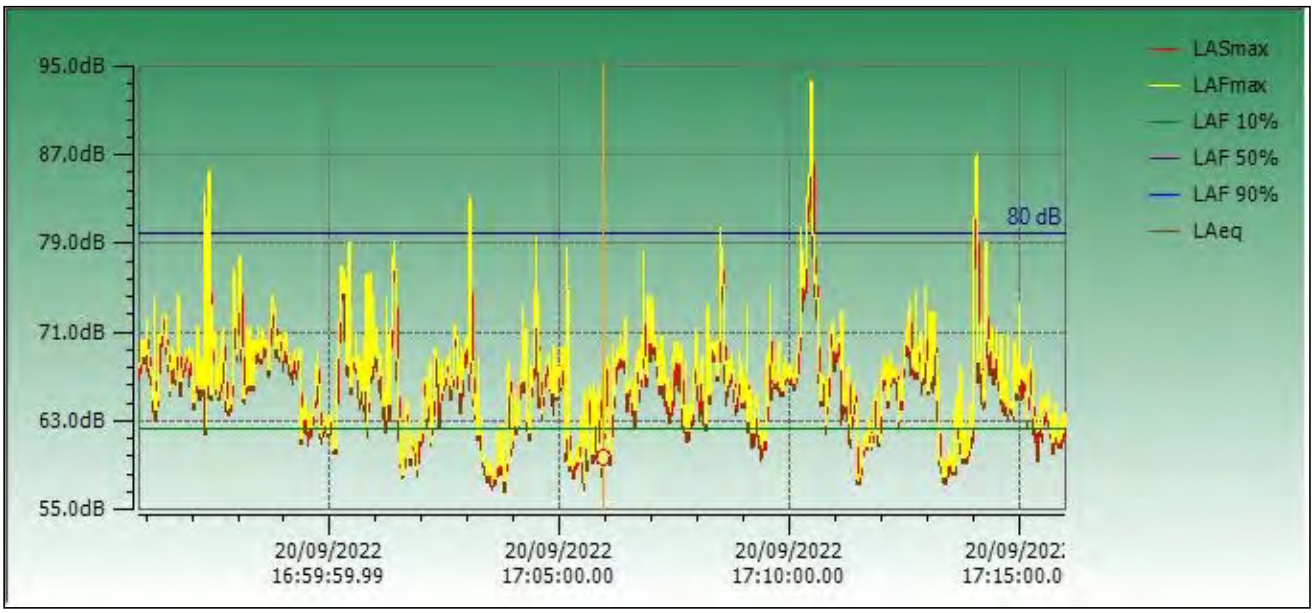
LAS 10%	72.5 dB
LAS 50%	66 dB
LAS 90%	60 dB
Calibration (Before) Date	9/20/2022 12:00:24 PM
Calibration (After) Date	9/20/2022 1:05:26 PM
Calibration Drift	0.2 dB
Battery Low	No
Result	Cumulative



Instrument Model	**CEL-633C**		
Serial Number	5086866	LAS 10%	73.5 dB
LDN	0	LAS 50%	67 dB
LASmax	88.2 dB	LAS 90%	58.5 dB
LASmin	54.8 dB	Calibration (Before) Date	9/20/2022 7:32:36 AM
Start Date & Time	9/20/2022 7:58:00 AM	Calibration (After) Date	9/20/2022 8:42:36 AM
Duration	00:20:02 HH:MM:SS	Calibration Drift	-0.1 dB
LAeq	70.9 dB	Battery Low	No
End Date & Time	9/20/2022 8:18:02 AM	Result	Cumulative
Notes			

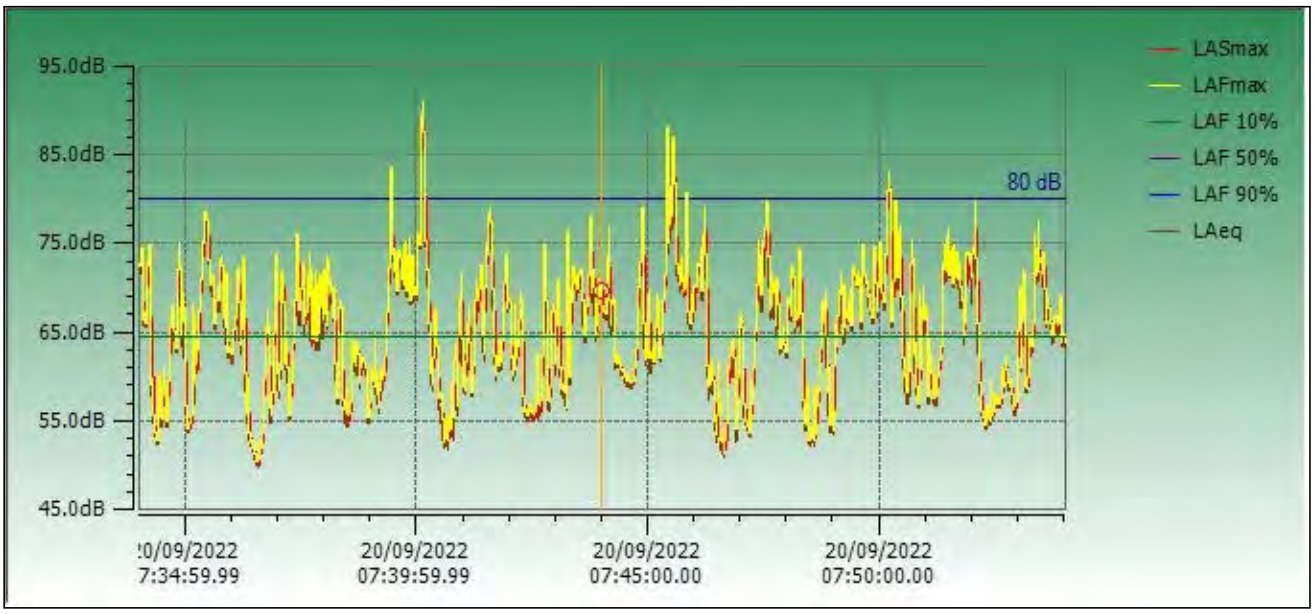


Instrument Model	**CEL-633C**		
Serial Number	5086866	LAS 10%	70 dB
LDN	0	LAS 50%	66 dB
LASmax	89.1 dB	LAS 90%	60.5 dB
LASmin	56.6 dB	Calibration (Before) Date	9/20/2022 4:31:04 PM
Start Date & Time	9/20/2022 4:55:50 PM	Calibration (After) Date	9/20/2022 5:38:20 PM
Duration	00:20:10 HH:MM:SS	Calibration Drift	0.2 dB
LAeq	69 dB	Battery Low	No
End Date & Time	9/20/2022 5:16:00 PM	Result	Cumulative
Notes			



Instrument Model	**CEL-633C**
Serial Number	5086866
LDN	0
LASmax	88.7 dB
LASmin	49.8 dB
Start Date & Time	9/20/2022 7:34:00 AM
Duration	00:20:02 HH:MM:SS
LAeq	69.7 dB
End Date & Time	9/20/2022 7:54:02 AM
Notes	

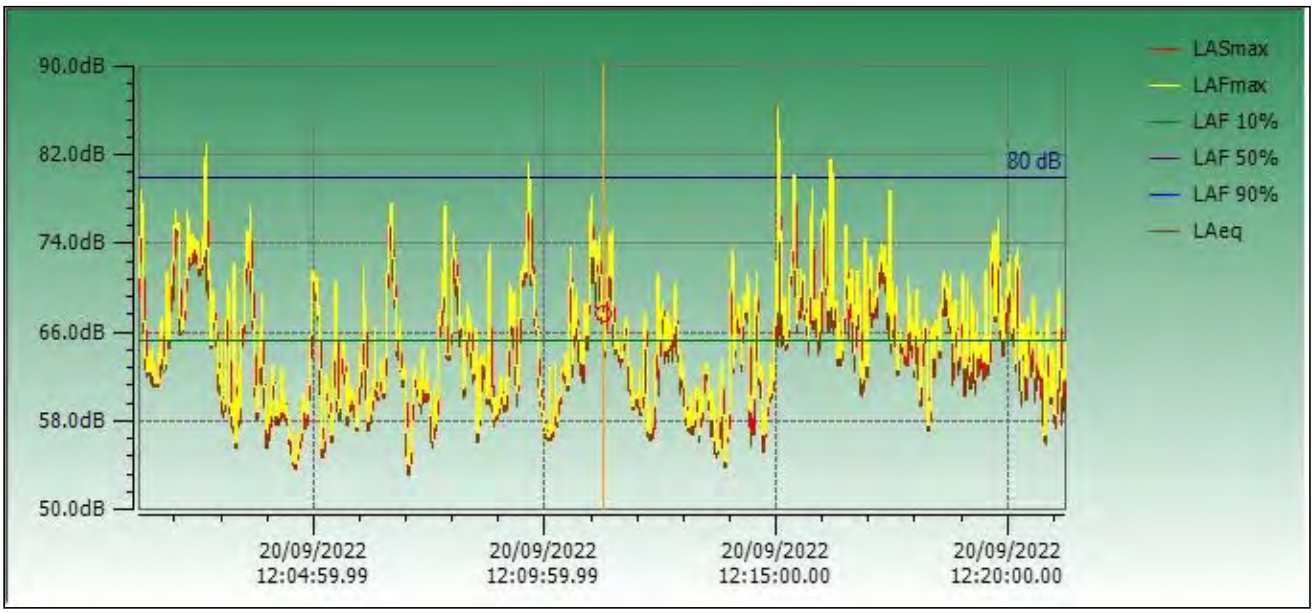
LAS 10%	72.5 dB
LAS 50%	65 dB
LAS 90%	55.5 dB
Calibration (Before) Date	9/20/2022 7:32:36 AM
Calibration (After) Date	9/20/2022 8:42:36 AM
Calibration Drift	-0.1 dB
Battery Low	No
Result	Cumulative



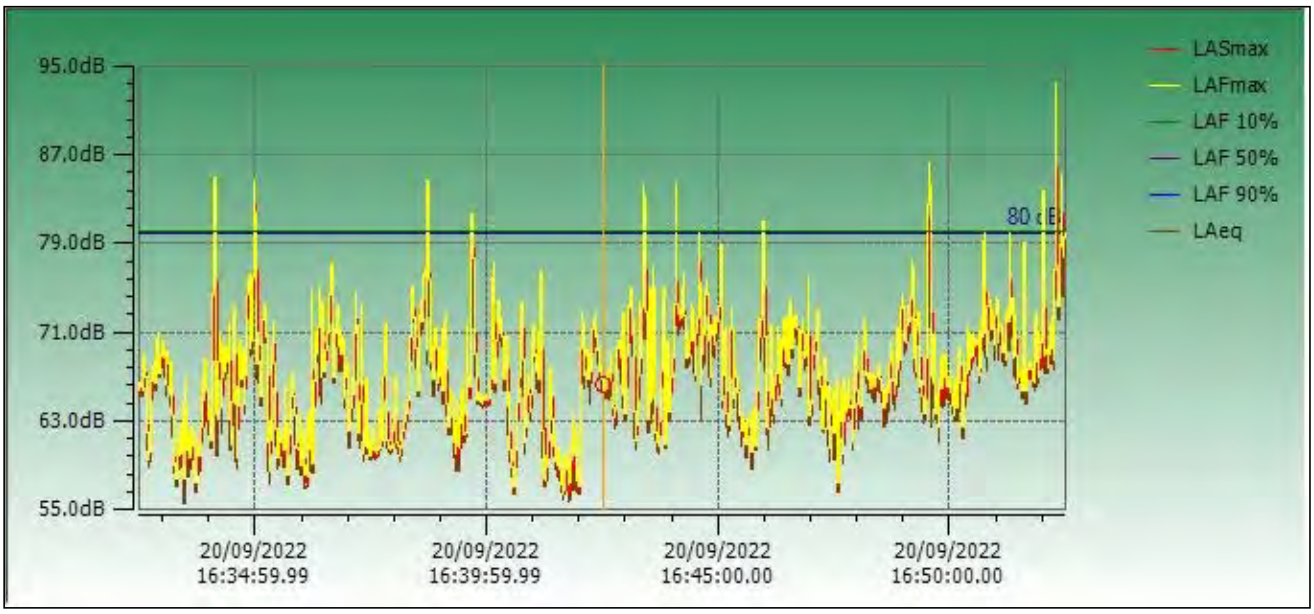
Instrument Model	**CEL-633C**

Serial Number	5086866	LAS 10%	71 dB
LDN	0	LAS 50%	64 dB
LASmax	81.2 dB	LAS 90%	58 dB
LASmin	53.5 dB	Calibration (Before) Date	9/20/2022 12:00:24 PM
Start Date & Time	9/20/2022 12:01:14 PM	Calibration (After) Date	9/20/2022 1:05:26 PM
Duration	00:20:01 HH:MM:SS	Calibration Drift	0.2 dB
LAeq	67.3 dB	Battery Low	No
End Date & Time	9/20/2022 12:21:15 PM	Result	Cumulative

Notes



Instrument Model	**CEL-633C**		
Serial Number	5086866	LAS 10%	72 dB
LDN	0	LAS 50%	66.5 dB
LASmax	88 dB	LAS 90%	60 dB
LASmin	55.6 dB	Calibration (Before) Date	9/20/2022 4:31:04 PM
Start Date & Time	9/20/2022 4:32:29 PM	Calibration (After) Date	9/20/2022 5:38:20 PM
Duration	00:20:01 HH:MM:SS	Calibration Drift	0.2 dB
LAeq	69.3 dB	Battery Low	No
End Date & Time	9/20/2022 4:52:30 PM	Result	Cumulative
Notes			



APPENDIX H

DEP CORRESPONDENCE

Environmental Protection

Rohit T. Aggarwala
Commissioner

Angela Licata
Deputy Commissioner
Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
alicata@dep.nyc.gov

November 15, 2022

Yuning Feng
Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 2510 Coney Island Avenue Rezoning
Block 7159, Lot 123 (Projected Development Site 1)
CEQR # 22DCP138K

Dear Ms. Feng:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the October 2022 Remedial Investigation Report (Phase II), the October 2022 Remedial Action Work Plan (RAP) and the October 2022 Construction Health and Safety Plan (CHASP) prepared by Equity Environmental Engineering, on behalf of 2510/18 C.I.A. L.L.C. (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment and zoning text amendment (Proposed Actions) from the New York City Department of City Planning (DCP) affecting Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the Affected Area or Rezoning Area). The proposed action would change the zoning from R4 and C8-1 zoning districts within the Special Ocean Parkway District to an R7D/C2-4. The text amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 15 Brooklyn would establish the Affected Area as a Mandatory Inclusionary Housing Area to facilitate the proposed development of a new, eleven-story mixed-use building, with cellar, with approximately 73,961 gross square feet (gsf) of floor area (including cellar parking area) on Lot 123 (Projected Development Site 1). The ground floor would contain approximately 6,465 gsf of commercial floor area. The upper floors would contain approximately 56,816 gsf of residential floor area with up to 60 units. The building would have 46 parking spaces totaling 10,680 gsf at the cellar level. The proposed building would provide for 31 bicycle parking spaces. The entirety of the property is fronted along Coney Island Avenue. In addition to the applicant-controlled lot (Block 7159, Lot 123), the Affected Area would include Block 7159, p/o Lot 111, Lot 115, p/o Lot 120, Lot 128, and Lot 130. It is assumed that development would also occur on non-applicant controlled Block 7159, Lots 128 and 130 (Projected Development Site 2), Block 7159, Lot 115 (Projected Development Site 3), and Block 7159, Lot 120 (Projected Development Site 4). Additionally, while p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Action.

Block 7159, Lot 123 (Projected Development Site 1)

During the September 2022 fieldwork, seven (7) soil borings (SB-1 through SB-7) were advanced to a depth of 15 feet below grade surface (bgs). Two (2) soil samples were collected from each boring. The first sample was collected from 0-2 bgs and the second sample was collected from 8-10 feet bgs or 10-12 feet bgs. Groundwater was encountered from 11 feet bgs to 12 feet bgs. Four groundwater samples (TW-1 through TW-4) were collected from temporary monitoring wells. Soil and groundwater samples were analyzed for Target Compound List volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls (PCBs) by EPA Method 8082, and Target Analyte List metals by EPA Methods 6010/6020/7471 (total and dissolved for groundwater samples). Six soil vapor samples (SV-1 through SV-6) were collected and analyzed for VOCs by EPA Method TO-15.

The soil analytical results revealed that VOCs were either non-detect (ND) or below their New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs). One SVOC (indeno(1,2,3-cd)pyrene), several pesticides (4,4'-DDE, 4,4'-DDT, and dieldrin), one PCB (aroclor 1254), and several metals (lead, nickel, and zinc) were detected above their NYSDEC 6 NYCRR Part 375 Unrestricted Use SCOs, Residential Use SCOs, and/or Restricted Residential Use SCOs.

The groundwater analytical results revealed that VOCs and pesticides were either ND or below their NYSDEC Class GA Ambient Water Quality Standards and Guidance Values. Several SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene), one PCB (aroclor 1254), and several metals (aluminum, arsenic, barium, beryllium, chromium, copper, iron lead, magnesium, manganese, mercury, nickel, selenium, sodium, and thallium) were detected above their NYSDEC Class GA Ambient Water Quality Standards and Guidance Values.

The soil vapor analytical results revealed that several VOCs (dichlorodifluoromethane, chloromethane, vinyl chloride, 1,3-butadiene, chloroethane, ethanol, acetone, trichlorofluoromethane, isopropanol, tertiary butyl alcohol, carbon disulfide, freon-113, 2-butanone, cis-1,2-dichloroethene, ethyl acetate, chloroform, tetrahydrofuran, n-hexane, benzene, cyclohexane, trichloroethene (TCE), 2,2,4-trimethylpentane, heptane, 4-methyl-2-pentanone, toluene, 2-hexanone, tetrachloroethene (PCE), chlorobenzene, ethylbenzene, p/m-xylene, styrene, o-xylene, 4-ethyltoluene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3-dichlorobenzene, and 1,2-dichlorobenzene) were detected. PCE and TCE concentrations were detected above their air guideline values in the New York State Department of Health October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York in one sample.

The October 2022 RAP proposes transportation and off-site disposal of soil in accordance with applicable local, state, and federal laws and regulations; any underground storage tanks or aboveground storage tanks be found during the site excavation will be properly managed and closed/removed in accordance with applicable local, state, and federal laws and regulations; stockpiled soil will be covered with plastic sheeting; dust control; air monitoring; installation of a

vapor barrier with a minimum thickness of 20-mil consisting of W.R. Grace Florprufe 120 or equivalent under the proposed building slab and on the sidewalls of the foundation; any areas of the site to be landscaped or not capped with an impervious surface must have a minimum of two feet of DEP approved clean fill imported from an approved facility/source and graded across the landscaped/grass areas. The October 2022 CHASP addresses worker and community health and safety during construction.

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

Phase II

- DCP should inform the applicant that the air guideline value for TCE has been updated (August 2015 update) to 2 $\mu g/m^3$ and replaces the previous guideline of 5 $\mu g/m^3$.

RAP

- DCP should instruct the applicant that the proposed vapor barrier system should be used unless an amendment is approved by DEP.

- DCP should instruct the applicant that the specific dust suppression measures (i.e., use of a dedicated water spray methodology, etc.) that is proposed to be implemented should also be described in Section 3.2.

- DCP should instruct the applicant that upon completion of the clean fill investigation activities for clean fill to be used within the two feet clean soil cover described in Section 3.3, the applicant should submit a detailed clean fill report for DEP review and approval prior to importation and placement on-site. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375).

- DCP should instruct the applicant that if dewatering into New York City storm/sewer drains will occur during the proposed construction, a New York City Department of Environmental Protection Sewer Discharge Permit must be obtained prior to the start of any dewatering activities at the site.

CHASP

- Page 1 and the footers incorrectly references the subject site as 957 Grand Street. Therefore, DCP should instruct the applicant to revise the CHASP as appropriate to reflect the subject site at 2510 Coney Island Avenue.

- DCP should instruct the applicant that information fact sheets or safety data sheets for chlorinated VOCs should also be included.

DEP finds the October 2022 RAP and CHASP for the proposed project acceptable, as long as the aforementioned information is incorporated into the RAP and CHASP. DCP should instruct the applicant that at the completion of the project, a Professional Engineer (P.E.) certified Remedial Closure Report should be submitted for DEP review and approval for the proposed project. The P.E. certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e., transportation/disposal manifests for removal and disposal of soil in accordance with applicable local, state, and federal laws and regulations; installation of vapor barrier; two feet of DEP approved certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt, etc.).

Future correspondence and submittals related to this project should include the following CEQR # **22DCP138K**. If you have any questions, you may contact me at (718) 595-4358.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
T. Estesen
M. Wimbish
S. Shellooe – DCP
E. Ulker Kacar – DCP

APPENDIX I

CITY OF YES FOR HOUSING OPPORTUNITY TECH MEMO

2510 Coney Island Avenue Rezoning
City of Yes for Housing Opportunity Technical Memorandum
CEQR No. 22DCP138K

June 28, 2024

I. INTRODUCTION

The New York City Department of City Planning is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity ("CHO") (CEQR No. 24DCP033Y) to expand opportunities for housing within all zoning districts, and across all 59 of the City's Community Districts. These changes to the City's Zoning Resolution would enable more housing and a wider variety of housing types in every neighborhood, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. Currently, this proposed zoning text amendment is in the public review phase. This project may be affected by the proposals included in the text amendment, and in order to present a conservative environmental analysis, this Technical Memorandum examines whether the analysis conclusion of the EAS proposed would be altered by CHO.

Proposed Actions

The Applicant, 2510/18 C.I.A. LLC, requests approval of a zoning map amendment and a zoning text amendment (the "Proposed Actions") that would affect Block 7159, (p/o) Lot 111, Lot 115, p/o Lot 120, Lot 123, Lot 128, and Lot 130 (the "Affected Area") in the Sheepshead Bay neighborhood of Brooklyn Community District 15.

The zoning map amendment would rezone the Affected Area from the current R4 and C8-1 (Special Ocean Parkway District) zoning districts to an R7D/C2-4 zoning district. The zoning text amendment would modify Zoning Resolution Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Brooklyn Community District 15, to establish an area coterminous with the Affected Area as a Mandatory Inclusionary Housing (MIH) area with Option 1 and Option 2.

Applicant's Proposed Development

The Proposed Actions would facilitate the development of the Applicant-owned Projected Development Site 1 (Block 7159, Lot 123) with a new 11-story plus cellar, 113-foot-tall, mixed residential and commercial building with approximately 73,854 gross square feet (GSF) of floor area or 61,549 zoning square feet (ZSF) at a floor area ratio (FAR) of 5.58. The ground floor would contain approximately 6,439 GSF (6,439 ZSF, 0.58 FAR) of commercial floor area. The upper floors would contain approximately 56,735 GSF (55,110 ZSF, 5.00 FAR) of residential floor area with 60 dwelling units, 25-30% (15-18 units)[1] of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1 and 2, respectively. The building would have 24 parking spaces totaling 10,680 GSF at the cellar level. The proposed building would provide for 31 bicycle parking spaces. The entirety of the property is fronted along Coney Island Avenue.

Reasonable Worst Case Development Scenario (RWCDS)

Discretionary actions sometimes permit a range of project characteristics, or development scenarios, to occur even though the action may be sought in order to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental

[1] The Applicant is proposing 16 affordable units pursuant to MIH Option 1.

consequences is chosen for analysis. This is considered to be the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario actually occurs, its impacts would be no worse than those considered in the environmental review. The environmental assessment statement (EAS) 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).

In addition to the Applicant-owned lot (Block 7159, Lot 123), three non-Applicant-owned Projected Development Sites are assumed under the RWCDS as a result of the significant development potential induced by the Proposed Actions, which include Projected Development Site 2 (Block 7159, Lots 128 and 130), Projected Development Site 3 (Block 7159, Lot 115), and Projected Development Site 4 (Block 7159, p/o Lot 120). While Block 7159, p/o Lot 111 is located within the Affected Area, this lot is not expected to have development induced as a result of the Proposed Actions. A very small portion of Lot 111 is within the Affected Area, and the proposed rezoning would have a negligible effect on the development potential of this site.

No-Action Condition

The Future No-Action Condition for the Affected Area would be equivalent to existing conditions. Redevelopment is not considered likely in this scenario as the area and bulk permitted under the current R4 district (0.75 residential FAR (0.90 FAR with attic allowance) and 2.00 community facility FAR) and C8-1 district (1.00 commercial FAR and 2.40 community facility FAR) do not allow for much additional development beyond what already exists within the Affected Area.

Currently, the Applicant-owned Block 7159, Lot 123 is an approximately 11,020-square-foot lot improved with two one-story commercial buildings at 0.12 FAR, which are occupied by an automotive sales and repair business. The other lots within the Affected Area are Block 7159, Lots p/o 111, 115, p/o 120, 128, and 130, each of which is independently owned except for Lots 111 and 115 (both owned by Francmen 2500 LLC). Lot 111 is an approximately 4,133-square-foot unimproved lot used for vehicular parking. Lot 115 is an approximately 11,765-square-foot lot improved with a two-story 7,200 GSF office building inhabited by Chase Bank. Lot 120 is an approximately 21,380-square-foot lot improved with four two-story office buildings totaling 16,000 GSF, which are used for a laser hair removal business, offices, a radio station, and a wholesale auto parts supplier. Lot 128 is an approximately 3,380-square-foot lot improved with a one-story 5,280 GSF commercial building inhabited by a general construction contractor, Beys Specialty Inc. Lot 130 is an approximately 2,400-square-foot lot improved with a one-story 1,100 GSF retail building used by the Kasai Hibachi dining establishment.

As mentioned above, since a very small portion of Lot 111 is within the Affected Area, the proposed rezoning would have a negligible effect on the development potential of this site. Therefore, Lot 111 would not be redeveloped as a result of the Proposed Actions. It should also be noted that since a portion of Lot 120 (approximately 6,000 sf) is located within the Affected Area, only 8,000 GSF of the building area on Lot 120 is considered within the Affected Area accordingly, which would be used for the calculation for increments. In total, there would be 32,600 GSF of commercial floor area within the Affected Area under the No-Action Condition.

With-Action Condition

Projected Development Site 1 (Block 7159, Lot 123) lot area would total 11,020 SF, and would be developed with an 11-story plus cellar, 115-foot-tall, 67,883 GSF (61,712 ZSF, 5.60 FAR) mixed-use residential and commercial building. The building would include 12,122 GSF (11,020 ZSF, 1.00 FAR) of UG 6 local retail floor area on the ground floor and 55,761 GSF (50,692 ZSF, 4.60 FAR) of UG 2 residential floor area on the upper floors. Assuming 900 GSF per dwelling unit, there would be 61 dwelling units, 25 to 30 percent (15-18 units) of which would be classified as affordable dwelling units at an average of 60 to 80 percent AMI pursuant to MIH Option 1 or 2, respectively. 24 required residential accessory parking spaces would be provided at the

cellar of the building per R7D/C2-4 zoning district guidelines.

For a more conservative analysis under CEQR, the analysis in the June 2024 EAS assumes a slightly different development scenario on Projected Development Site 1 under the RWCDS compared to the Applicant's Proposed Development. While the commercial uses would be proposed in the With-Action Condition under the RWCDS, the GSF and FAR would be increased to 12,122 GSF (11,020 ZSF, 1.00 FAR) compared to 6,439 GSF (6,439 ZSF, 0.58 FAR) in the Applicant proposed development. In addition, though the RWCDS assumes that the residential floor area would be decreased to 55,761 GSF (50,692 ZSF, 4.60 FAR) instead of the Applicant proposed 56,735 GSF (55,110 ZSF, 5.00 FAR), the number of the dwelling units is more in the RWCDS (61 dwelling units) compared to the Applicant proposed development (60 dwelling units). The building height under the RWCDS is assumed to reach the maximum permitted building height of 115 feet within the proposed R7D/C2-4 zoning district, while the Applicant proposed development has a building height of 113 feet.

In addition to the Applicant-owned Projected Development Site 1, another three Projected Development Sites are assumed on the remaining non-Applicant-owned lots (except Block 7159, Lot p/o 111) within the Affected Area under RWCDS, given the lot size and the development potential within the proposed R7D/C2-4 zoning district.

Projected Development Site 2 (Block 7159, Lots 128 and 130) lot area would total 5,780 SF, and would be developed with an 11-story plus cellar, 115-foot-tall, 35,604 GSF (32,368 ZSF, 5.60 FAR) mixed-use residential and commercial building. The building would include 6,358 GSF (5,780 ZSF, 1.00 FAR) of UG 6 local retail floor area on the ground floor and 29,246 GSF (26,588 ZSF, 4.60 FAR) of UG 2 residential floor area on the upper floors. Assuming 900 GSF per dwelling unit, there would be 32 dwelling units, 25 to 30 percent (8-10 units) of which would be classified as affordable dwelling units at an average of 60 to 80 percent AMI pursuant to MIH Option 1 or 2, respectively. 13 required residential accessory parking spaces would be provided at the cellar of the building per R7D/C2-4 zoning district guidelines.

Projected Development Site 3 (Block 7159, Lot 115) lot area would total 11,765 SF, and would be developed with an 11-story plus cellar, 115-foot-tall, 72,471 GSF (65,884 ZSF, 5.60 FAR) mixed-use residential and commercial building. The building would include 12,941 GSF (11,765 ZSF, 1.00 FAR) of UG 6 local retail floor area on the ground floor and 59,530 GSF (54,119 ZSF, 4.60 FAR) of UG 2 residential floor area on the upper floors. Assuming 900 GSF per dwelling unit, there would be 66 dwelling units, 25 to 30 percent (17-20 units) of which would be classified as affordable dwelling units at an average of 60 to 80 percent AMI pursuant to MIH Option 1 or 2, respectively. 26 required residential accessory parking spaces would be provided at the cellar of the building per R7D/C2-4 zoning district guidelines.

Projected Development Site 4 (Block 7159, p/o Lot 120) lot area would total approximately 6,000 SF, and would be developed with an 11-story plus cellar, 115-foot-tall, 36,960 GSF (33,600 ZSF, 5.60 FAR) mixed-use residential and commercial building. The building would include 6,600 GSF (6,000 ZSF, 1.00 FAR) of UG 6 local retail floor area on the ground floor and 30,360 GSF (27,600 ZSF, 4.60 FAR) of UG 2 residential floor area on the upper floors. Assuming 900 GSF per dwelling unit, there would be 33 dwelling units, 25 to 30 percent (8-10 units) of which would be classified as affordable dwelling units at an average of 60 to 80 percent AMI pursuant to MIH Option 1 or 2, respectively. 13 required residential accessory parking spaces would be provided at the cellar of the building per R7D/C2-4 zoning district guidelines.

In total, the Projected Development Sites would contain 38,021 GSF of UG 6 local retail floor area and 174,897 GSF of UG 2 residential floor area. There would be 192 total dwelling units (1 DU per 900 GSF), with 25-30% (48-58 units) permanently set aside as affordable units for households averaging 60-80% AMI per MIH Option 1 and Option 2, respectively.

Increment Analyzed in June 2024 EAS

For technical analysis purposes, four Projected Development Sites are analyzed for both site-specific and density-related effects. As shown in **Table 1**, the incremental difference on four Projected Development Sites between the No-Action Condition and the With-Action Condition in RWCDS analyzed in the June 2024 EAS includes 174,897 GSF of residential uses (192 DUs including 48 affordable DUs) and 5,421 GSF of commercial uses (local retail).

Table 1. RWCDS Analysis Framework - No-Action and With-Action Analyzed in June 2024 EAS

Use	No-Action Condition	With-Action Condition	Increment
Commercial GSF	32,600	38,021	+5,421
Residential GSF	0	174,897	+174,897
Total GSF	**32,600**	**212,918**	**+180,318**
Residential DUs	0	192	+192
Affordable DUs	*0*	*48*	*+48*

II. DESCRIPTION OF CITY OF YES FOR HOUSING OPPORTUNITY

The proposed City of Yes for Housing Opportunity text amendment seeks to enable more housing and wider variety of housing types in all neighborhoods citywide, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. The proposed text amendment comprises project components in four broad categories: Medium- and High-Density proposals in R6-R10 districts and equivalents; Low-Density proposals in R1-R5 districts and equivalents; Parking proposals, which span the full range of districts and densities; and assorted other changes in line with project goals. In general, these changes will apply in underlying zoning districts, Special Districts, and other geographies that modify underlying zoning, with limited adjustments to reflect planning goals in specific areas.

To create more housing and more types of housing, the proposed text amendment includes components that fall into four major proposal areas—1: Medium- and High-Density Districts, 2: Low-Density Districts, 3: Parking, and 4: Other Initiatives that are miscellaneous, citywide in nature, and align with overall project goals. Because the Proposed Actions would result in an R6A district, it would fall into the medium- and high-density district category.

Medium- and high-density districts (R6 through R10) are typically mapped in areas where transit access, job access, infrastructure, and other factors make such densities appropriate. Housing in these areas generally consists of multifamily housing that includes income-restricted affordable housing, rent-regulated housing, and market-rate housing that ranges from modest and relatively inexpensive to some of the most expensive housing in the world. The proposed text amendment would increase housing opportunities in these areas by increasing affordable and supportive floor area ratios (FARs) in all medium- and high-density districts; expanding eligibility for the City's adaptive reuse regulations to a broader range of buildings, such as struggling office districts; enabling small and shared apartment models to take pressure off family-sized units; and simplifying infill regulations for campuses and other zoning lots with existing buildings. Where necessary, the proposed text amendment would also adjust building envelopes to ensure that typical sites can accommodate the additional floor area provided for affordable and supportive housing. This incremental increase in capacity would only be available for affordable and supportive housing.

As discussed in detail in the City of Yes for Housing Opportunity Draft Scope of Work, CHO's proposed Universal Affordability Preference ("UAP") would not increase the maximum allowable residential FAR for the proposed R7D/C2-4 zoning district. However, CHO would change the maximum height analyzed for the

proposed R7D/C2-4 district from 115 feet to 125 feet, which would permit a 10-foot increase. [2]

III. ANALYSIS FRAMEWORK

Pursuant to the RWCDS analyzed in the June 2024 EAS for the Proposed Actions, no significant adverse impacts were identified. The RWCDS analyzed in the June 2024 EAS consisted of Projected Development Site 1, a 115-foot-tall, 67,883 GSF (61,712 ZSF, 5.60 FAR) mixed residential and commercial building; Projected Development Site 2, a 115-foot-tall, 35,604 GSF (32,368 ZSF, 5.60 FAR) mixed residential and commercial building; Projected Development Site 3, a 115-foot-tall, 72,471 GSF (65,884 ZSF, 5.60 FAR) mixed residential and commercial building; and Projected Development Site 4, a 115-foot-tall, 36,960 GSF (33,600 ZSF, 5.60 FAR) mixed residential and commercial building. All Projected Development Sites would maximize the permitted 5.60 FAR within the proposed R7D/C2-4 zoning districts. As shown in **Table 2**, under the proposed CHO zoning text amendment, though the maximum permitted FAR for residential uses in the proposed R7D/C2-4 district would remain the same, the maximum building height in the proposed R7D/C2-4 district would increase from 115 feet to 125 feet.

Table 2. Comparison of Existing, With-Action, and With-Action Zoning Regulations with CHO

	EXISTING/NO-ACTION		WITH-ACTION	WITH-ACTION WITH CHO
	R4	**C8-1**	**R7D/C2-4**	**R7D/C2-4**
Use Groups	1-4	4-14 & 16	1-9 and 14	1-9 and 14
Maximum FAR	0.75 Residential (0.90 with Attic Allowance) 2.00 Community Facility	1.00 Commercial 2.40 Community Facility	5.60 Residential 4.20 Community Facility 2.00 Commercial	5.60 Residential 4.20 Community Facility 2.00 Commercial
Maximum Building Height	35 feet	Sky Exposure Plane	115 feet	125 feet

No-Action Condition

In the future without the Proposed Actions, the existing conditions in the Affected Area would remain. The proposed CHO zoning text amendment would not alter the No-Action Condition presented within the June 2024 EAS.

With-Action Condition with CHO Zoning Text Amendment

With the proposed CHO zoning text amendment, the maximum permitted FAR for residential uses in the proposed R7D/C2-4 district would not change. However, the maximum building height in the proposed R7D/C2-4 district would increase from 115 feet to 125 feet. As a result, the With-Action development scenario with the proposed CHO zoning text amendment would not change the GSF, ZSF, and FAR as analyzed in the June 2024 EAS. Only the analyzed building height would be increased by 10 feet from the 115 feet in the June 2024 EAS to the 125 feet with the proposed CHO zoning text amendment.

Incremental Difference between No-Action and With-Action Conditions

As shown in **Table 3**, under the proposed CHO zoning text amendment, the modified With-Action Condition would include a total of approximately 174,897 GSF of residential uses and 38,021 GSF of commercial uses on the four Projected Development Sites. There would be a total of 192 DUs, including 48 affordable DUs as required by the MIH Program. The building height for the four Projected Development Sites is assumed to reach the maximum permitted building height of 125 feet (12 stories) within the proposed R7D/C2-4 zoning district. Compared to the With-Action Condition analyzed in the June 2024 EAS, the proposed CHO zoning text amendment would not change the proposed density (5.60 FAR) but would result in a 10-foot

[2] *City of Yes for Housing Opportunity Draft Scope of Work (CEQR No. 24DCP033Y).* September 29, 2023.

increase in the maximum building height in the proposed R7D/C2-4 zoning district.

Table 3. Comparison of Permitted Floor Area and Maximum Building Height

	NO-ACTION CONDITION	WITH-ACTION CONDITION WITH CHO	NET DIFFERENCE WITH CHO
Residential GSF	0	174,897	**+174,897**
Residential DUs	0	192	**+192**
Affordable DUs	*0*	*48*	***+48***
Commercial GSF	32,600	38,021	**+5,421**
Maximum Building Height	35 feet	125 feet	**+90 feet**

This Technical Memorandum provides a preliminary assessment of the effects of the proposed CHO zoning text amendment on the Proposed Actions and details how it would affect the analysis and conclusions presented in the EAS. The proposed CHO zoning text amendment would not change the proposed density (5.60 FAR) in the June 2024 EAS. However, the proposed CHO zoning text amendment would increase the maximum height analyzed in the EAS for the proposed R7D/C2-4 district from 115 feet to 125 feet.

IV. SUPPLEMENTAL SCREENING

As presented in the June 2024 EAS, redevelopment is not considered likely in the Future No-Action Condition within the Affected Area and the existing conditions would remain. Currently, there are 32,600 GSF of commercial floor area within the Affected Area. The With-Action Condition analyzed in the EAS would include a total of 174,897 GSF of residential uses (192 DUs, including 48 affordable DUs) and 38,021 GSF of commercial uses on the four Projected Development Sites. As a result, the increments analyzed in the June 2024 EAS consists of 174,897 GSF of residential uses (192 DUs, including 48 affordable DUs) and 5,421 GSF of commercial uses.

In the future With-Action condition with the proposed CHO zoning text amendment, the FAR analyzed in the June 2024 EAS would not change, while the maximum permitted building height would increase by 10 feet from 115 feet in the EAS to 125 feet. As a result, the incremental number of DUs and commercial GSF with CHO would be the same as analyzed in the EAS, which would not exceed the CEQR thresholds requiring analysis for Socioeconomic Condition, Community Facilities and Services, Water and Sewer Infrastructure, Solid Waste and Sanitation Services, or Energy. In addition, since the maximum permitted density would not change with CHO, the analysis of the density-related technical areas in the EAS would not change, which include Open Space and Transportation. The conclusions presented in the EAS would not change and no further analysis related to these impact categories is necessary. Similarly, the changes facilitated by the proposed CHO zoning text amendment would not substantially alter the site-specific characteristics of the Affected Area and would not exceed the thresholds in the *2021 CEQR Technical Manual* requiring analysis for Greenhouse Gas Emissions, Natural Resources, or Public Health. The conclusions presented in the EAS would not change and no further analysis related to these impact categories is warranted.

The proposed (E) designations for Hazardous Materials would remain the same as presented within the June 2024 EAS to avoid significant adverse impacts. Therefore, the potential changes to the With-Action Condition facilitated by the proposed CHO zoning text amendment would not alter the conclusion of the EAS related to Hazardous Materials, and no further analysis is warranted.

The proposed CHO zoning text amendment would allow for a building up to 10 feet taller than the With-Action Condition analyzed for the proposed R7D/C2-4 zoning district in the June 2024 EAS. The increase in height would allow emissions to be released potentially 10 feet higher in the proposed R7D/C2-4 zoning district than the scenario analyzed in the EAS. As a result, the proposed CHO zoning text amendment would not result in any significant air quality impacts from project-generated sources. Therefore, the proposed (E) designation for Air Quality would remain the same as presented within the June 2024 EAS to avoid

significant adverse impacts to this technical area. Accordingly, the potential changes to the With-Action Condition facilitated by the proposed CHO zoning text amendment would not alter the conclusions of the EAS related to Air Quality, and no further analysis is warranted.

The assessment in Section V below reflects the technical areas analyzed in the June 2024 EAS to determine if significant adverse impacts would occur as a result of the proposed CHO zoning text amendment.

V. ASSESSMENT OF POTENTIAL IMPACTS

Since the proposed CHO text amendment would not change the maximum permitted FAR in the proposed R7D/C2-4 district, analysis on density-specific conditions would remain unchanged for each technical area that was included in the EAS (Open Space and Transportation). The RWCDS with CHO was only assessed for site-specific conditions for each technical area that was included in the EAS (Land Use, Zoning, and Public Policy, Shadows, Historic and Cultural Resources, Urban Design and Visual Resources, Noise, and Construction). As outlined in the EAS, no significant adverse impacts would occur in any technical areas as a result of the Proposed Actions.

Land Use, Zoning, and Public Policy

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of mixed residential and commercial uses with 10 additional feet of maximum building height within the proposed R7D/C2-4 zoning district on Projected Development Site 1, 2, 3, and 4.

The changes that would be facilitated by CHO would not require new analysis nor alter the conclusion of the Land Use, Zoning, and Public Policy analysis within the EAS. Similar to the Proposed Actions, the proposed CHO zoning text amendment would facilitate the development of the four Projected Development Sites with mixed residential and commercial uses, which are compatible with the existing residential, institutional, and commercial uses within the Study Area. The proposed R7D/C2-4 zoning district would be mapped at the confluence of Avenue V and Coney Island Avenue. Coney Island Avenue is a wide street with mixed uses and is well served by public transit, which is appropriate for a higher density of mixed residential and commercial uses. The 10-foot increase in the maximum building height, as facilitated by CHO's UAP, would not hinder any public policy. The With-Action Condition under the proposed CHO zoning text amendment would not result in a significant adverse impact to Land Use, Zoning, and Public Policy and no further analysis is warranted.

Shadows

With the proposed CHO zoning text amendment, the maximum building height for the shadows analysis could be 125 feet within the proposed R7D/C2-4 zoning district. Adding 15 feet to accommodate rooftop mechanical space, the total height of the Projected Development Site Buildings would reach a total potential building height of 140 feet, which would increase the maximum shadow radius from the 559 feet analyzed in the EAS to approximately 602 feet.

A preliminary shadows assessment provided in the Shadows section of the EAS showed that no sunlight-sensitive resource was identified within the 559-foot longest shadow study area. The additional 10 feet of maximum building height, as potentially enabled by CHO, would result in the expansion of this analysis area to 602 feet. Similar to the analysis in the EAS, no sunlight-sensitive resource was identified in the expanded 602-foot longest shadow study area in the future with the proposed CHO zoning text amendment (see **Figure 1**). Therefore, the additional height enabled by CHO would not result in significant adverse impacts related to Shadows and no further analysis is warranted.

Figure 1: Tier 1 Shadow Screening Assessment with CHO



Historic and Cultural Resources

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of mixed residential and commercial uses with 10 additional feet of maximum building height within the proposed R7D/C2-4 zoning district on Projected Development Site 1, 2, 3, and 4.

Similar to the Proposed Actions analyzed in the EAS, the proposed development under the With-Action condition with the proposed CHO zoning text amendment would require in-ground disturbance on Projected Development Site 1, 2, 3, and 4. As analyzed in the EAS, a survey of sites or resources designated as either listed or eligible for listing in the State and National Register (S/NR) of historic places was conducted. In addition, the New York City Landmarks Preservation Commission (LPC) was also contacted for their review of the Proposed Actions' potential to impact historic resources on or near the Affected Area. In a letter dated August 28th, 2020, LPC indicated that the Study Area does not contain any sites or buildings of known architectural significance.

However, LPC indicated that several properties within the Affected Area (Block 7159, Lots 115, 120, 123, 128, and 130) have archaeological significance given that there is potential for the recovery of remains from the Reformed Dutch Church cemetery on the project site. Based on the LPC's recommendation, a Phase IA Documentary Research and Archaeological Assessment was undertaken. The Phase IA research concluded that prehistoric and historic archaeological sensitivity for the Affected Area is low based on the extent of modern impacts to the area soils from construction across the project APE and the lack of documented historic site development within the APE. Given this assessment, no further archaeological work is recommended for the current project.

The potential changes enabled by the proposed CHO zoning text amendment would not alter the conclusion of the EAS, as the changes would not result in significant adverse impacts related to historic and cultural resources. As such, no further analysis is warranted.

Urban Design and Visual Resources

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of mixed residential and commercial uses with 10 additional feet of maximum building height within the proposed R7D/C2-4 zoning district on Projected Development Site 1, 2, 3, and 4.

The urban design and visual resources assessment provided in the EAS analyzed four 115-foot-tall buildings on Projected Development Site 1, 2, 3, and 4 and analyzed that though the development under the With-Action Scenario would have more bulk and height compared to existing low to mid rise buildings in the Study Area, the buildings would be uniformly massed towards wide streets, with frontage along Coney Island Avenue and Avenue V. Subsequently, the EAS concluded that the Proposed Actions would not result in significant adverse impacts to urban design and visual resources.

The proposed CHO zoning text amendment would allow for an additional 10 feet of maximum height from 115 feet to 125 feet within the proposed R7D/C2-4 zoning district. The additional height would result in a negligible change in building appearance that would not result in a negative pedestrian experience. The increase in permitted building height would not obstruct any important visual resources. The Proposed Actions under the proposed CHO text amendment would not result in any significant adverse impacts to urban design and visual resources and therefore no further analysis is warranted.

Noise

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of mixed residential and commercial uses with 10 additional feet of

maximum building height within the proposed R7D/C2-4 zoning district on Projected Development Site 1, 2, 3, and 4.

The potential changes facilitated by the proposed CHO zoning text amendment would not affect the With-Action Condition noise projections presented in the EAS. Noise levels would continue to be above the level requiring additional window and wall attenuation to maintain interior noise levels at an acceptable level. Therefore, a minimum of 28 dB(A) window/wall attenuation will be required on the facades facing Avenue V and the southern half of the facades facing Coney Island Avenue and a minimum of 31 dB(A) window/wall attenuation will be required on the northern portion of the facades facing Coney Island Avenue. An E-designation related to noise will be placed on the four Projected Development Sites in order to maintain an interior noise level not greater than 45 dB(A) for residential uses or not greater than 50 dB(A) for commercial office use. Accordingly, the conclusions of the EAS are not affected by potential changes facilitated by CHO, as the changes would not result in significant adverse impacts related to noise. As such, no further analysis is required.

Construction

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of mixed residential and commercial uses with 10 additional feet of maximum building height within the proposed R7D/C2-4 zoning district on Projected Development Site 1, 2, 3, and 4. The potential changes facilitated by CHO would produce a negligible change to the With-Action Condition construction schedule, which would not affect the conclusions presented in the EAS. Therefore, the conclusions of the EAS are not affected by potential changes facilitated by CHO as the changes would not result in significant adverse impacts related to construction. As such, no further analysis is required.

Summary Conclusion

This Technical Memorandum assesses how the proposed CHO zoning text amendment could potentially alter the analysis of the Proposed Actions and conclusions presented in the corresponding EAS. The CHO proposal as presented in the Draft Scope of Work would not change the allowable FAR for the proposed R7D/C2-4 zoning district. However, the proposed CHO zoning text amendment would increase the maximum building height analyzed in the EAS permitted in the proposed R7D/C2-4 district from 115 feet to 125 feet.

This Technical Memorandum concludes that the potential changes facilitated by the proposed CHO zoning text amendment would not exceed thresholds nor create conditions that require new analysis, nor would the proposed changes affect the conclusions presented within the EAS.