Brooklyn Yards
Environmental Assessment Statement
(EAS)

June 7, 2024

ULURP Nos. 230194LDK, N230192ZAK, N230193ZAK, N230186ZAK, N230187ZAK, 230182ZMK, N230183ZRK, 230188ZSK, 230189ZSK, 230190ZSK, 230191ZSK, 230195ZSK, 230196ZSK, 230184ZSK, 230185ZSK
CEQR No. 23DCP039K

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

Prepared by:
Philip Habib & Associates
432 Park Avenue South
New York, NY 10016

Brooklyn Yards EAS

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Environmental Assessment Statement 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* Brooklyn Yards

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
23DCP039K	
ULURP REFERENCE NUMBER (if applicable) 230194LDK, N230192ZAK, N230193ZAK, N230186ZAK, N230187ZAK, 230182ZMK, N230183ZRK, 230188ZSK, 230189ZSK, 230190ZSK, 230191ZSK, 230195ZSK, 230196ZSK, 230184ZSK, 230185ZSK	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT Brooklyn Yards Development, LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director, EARD			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Meyer Lebovits		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 1271 45th Street		
CITY New York	STATE NY	ZIP 10271	CITY Brooklyn	STATE NY	ZIP 11219
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 718-686-1616	EMAIL meyer@mlestateholdings.com	

5. *Project Description*

The Applicant, Brooklyn Yards Development, LLC, is seeking a series of discretionary actions affecting 95 lots extending across four blocks bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south: Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 54, 56, 66, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73 (the "Project Area"). Portions of the Project Area contain an open rail cut, with tracks for the Long Island Rail Road (LIRR) Bay Ridge Branch located below. The Proposed Actions include a Zoning Map Amendment, a Zoning Text Amendment (to amend Appendix F to designate portions of the Project Area as a Mandatory Inclusionary Housing [MIH] area and to amend Appendix I of the *Zoning Resolution of the City of New York* [ZR] to include the entirety of the Project Area as part of the Transit Zone), eight Special Permits, and four Zoning Authorizations. The Zoning Map Amendment seeks to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4. Under the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project"). The Proposed Project would also include approximately 0.08 acres of public access area (PAA), comprised of approximately 3,684 square feet (sf) of publicly accessible passive and active open space. Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41. The Proposed Project is expected to be completed and occupied by 2030. In the absence of the Proposed Actions, no changes to the Project Area would occur.

Refer to **Attachment A, "Project Description"** for additional information.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 11 and 12	STREET ADDRESS N/A

TAX BLOCK(S) AND LOT(S) Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 54, 56, 66, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73

ZIP CODE 11219

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Area is roughly bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1, R5, and R6A

ZONING SECTIONAL MAP NUMBER 22d

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

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

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☒ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ ZONING CERTIFICATION
- ☒ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:
- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

☒ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION ZR Sections 25-82, 36-72, 74-681; 74-74; 74-533(a), Appendix F, Appendix I

***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.): 477,788 sf (Project Area)

Roads, buildings, and other paved surfaces (sq. ft.): 362,023 sf

Waterbody area (sq. ft) and type: 0 sf

Other, describe (sq. ft.): 115,765 sf of air rights above a railroad right-of-way

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):

347,717 gsf

NUMBER OF BUILDINGS: 14

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Building 1 (both portions B1-C and B1-R): 106,330 gsf; Building 2: 10,646 gsf; Building 3: 10,634 gsf; Building 4: 10,610 gsf; Building 5: 10,482 gsf; Building 6: 9,642 gsf; Building 7: 9,273 gsf; Building 8: 11,202 gsf; Building 9: 10,390 gsf; Building 10: 11,026 gsf; Building 11: 77,370 gsf; Building 12: 9,426 gsf; Building 13: 55,964 gsf; Building 14: 4,722 gsf

HEIGHT OF EACH BUILDING (ft.): Building 1: 176' (the B1-C portion) and 75' (the B1-R portion); Buildings 2-10: 55'; Building 11: 75'; Building 12: 55'; Building 13: 75'; Building 14: 30'

NUMBER OF STORIES OF EACH BUILDING: Building 1: 10 stories (the B1-C portion) and 6 stories (the B1-R portion); Buildings 2-10: 5 stories; Building 11: 6 stories; Building 12: 5 stories; Building 13: 6 stories; Building 14: 2 stories

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: 122,315 sf

The total square feet not owned or controlled by the applicant: 14,616 sf

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: TBD sq. ft. (width x length)

VOLUME OF DISTURBANCE: approx. TBD cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: TBD 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.)	282,505	65,212	0	0
Type (*e.g.,* retail, office, school)	270 units	Commercial office and 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: 956 NUMBER OF ADDITIONAL WORKERS: 261

Provide a brief explanation of how these numbers were determined: The number of additional residents is based on the average household size of 3.54 for census tracts within a quarter-mile radius of the Project Area (2020 Census). The number of existing, No-Action scenario, and With-Action scenario workers has been calculated based on the following ratios: One employee per 25 DUs; one employee per 1,000 sf of auto repair space; three employees per 1,000 sf of local retail space; and four employees per 1,000 sf of commercial office space.

Does the proposed project create new open space? ☒ YES ☐ NO If "yes," specify size of project-created open space: 3,684 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: Seven (7) years

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO IF MULTIPLE PHASES, HOW MANY? 3

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

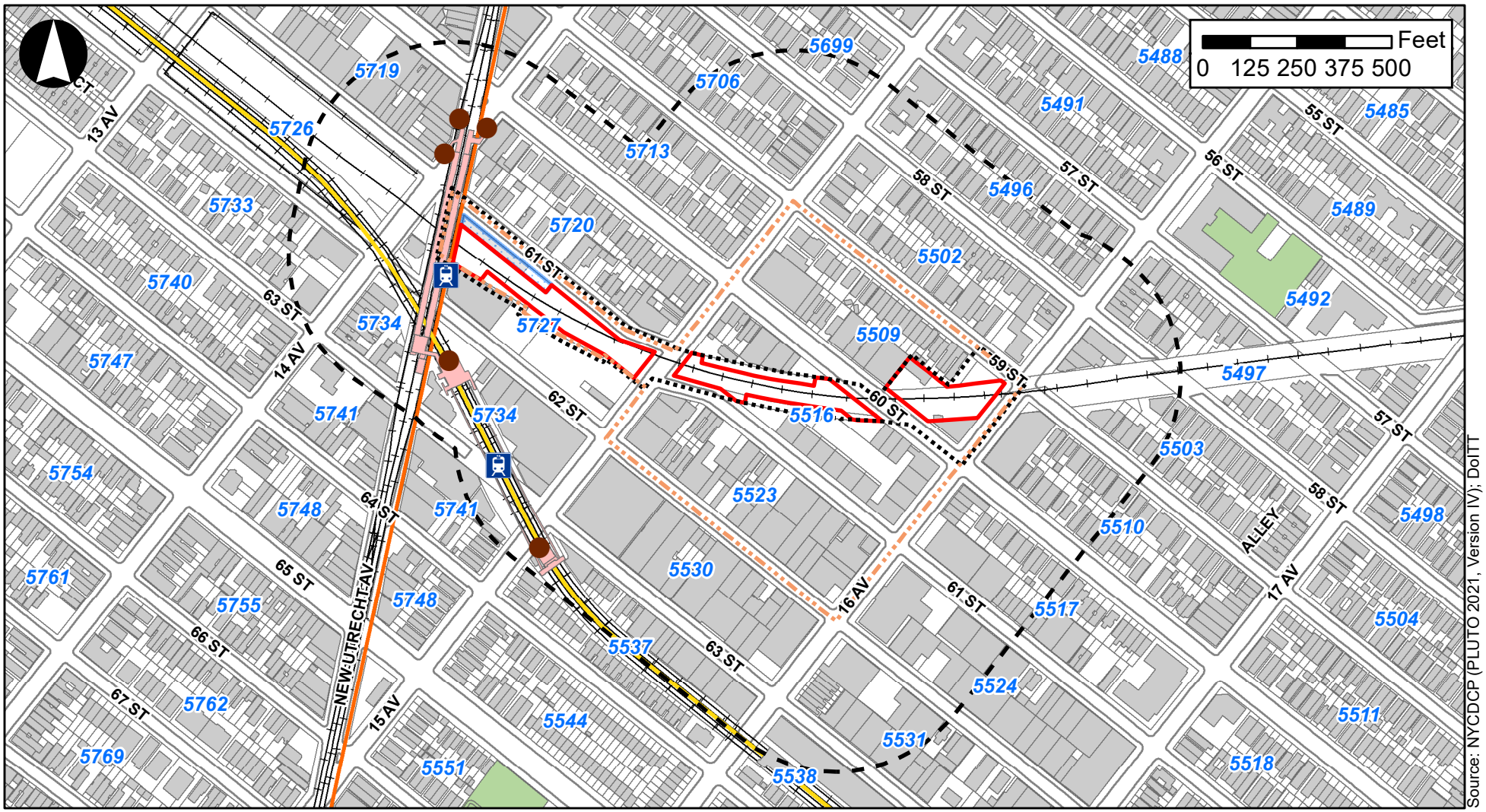
Construction of the platform structure on Block 5727 would occur over a period of approximately six months beginning in early- to mid-2024 and completed by mid- to late-2024; construction of the platform structure on Block 5516 would occur over a period of approximately six months beginning in mid- to late-2024 and completed by early- to mid-2025; and construction of the platform structure on Block 5509 would occur over a period of approximately three months beginning in early- to mid-2025 and completed by mid- to late-2025.

Construction of the Proposed Project above the three platform structures is expected to occur in three distinct phases. The first phase would include the portion of the Development Site located on Block 5727 and construction of Buildings 1 – 7 would occur over a period of approximately 26 months beginning in mid-2024 and concluding in late-2026. The second phase would include the portion of the Development Site located on Block 5516 and construction of Buildings 8 – 12 would occur over a period of approximately 26 months beginning in late-2026 and concluding in late-2028. The

third phase would include the portion of the Development Site located on Block 5509 and construction of Buildings 13 and 14 would occur over a period of approximately 19 months beginning in late-2028 and concluding in mid-2030.

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

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



Legend

- Project Area
- 400-Foot Radius
- Proposed Rezoning Area
- Development Site
- Potential Development Site
- Existing Building Footprints
- Subway Stations
- Subway Entrances
- D Train
- N Train
- Rail Structures
- LIRR Tracks
- 5516 Tax Blocks
- Open Space



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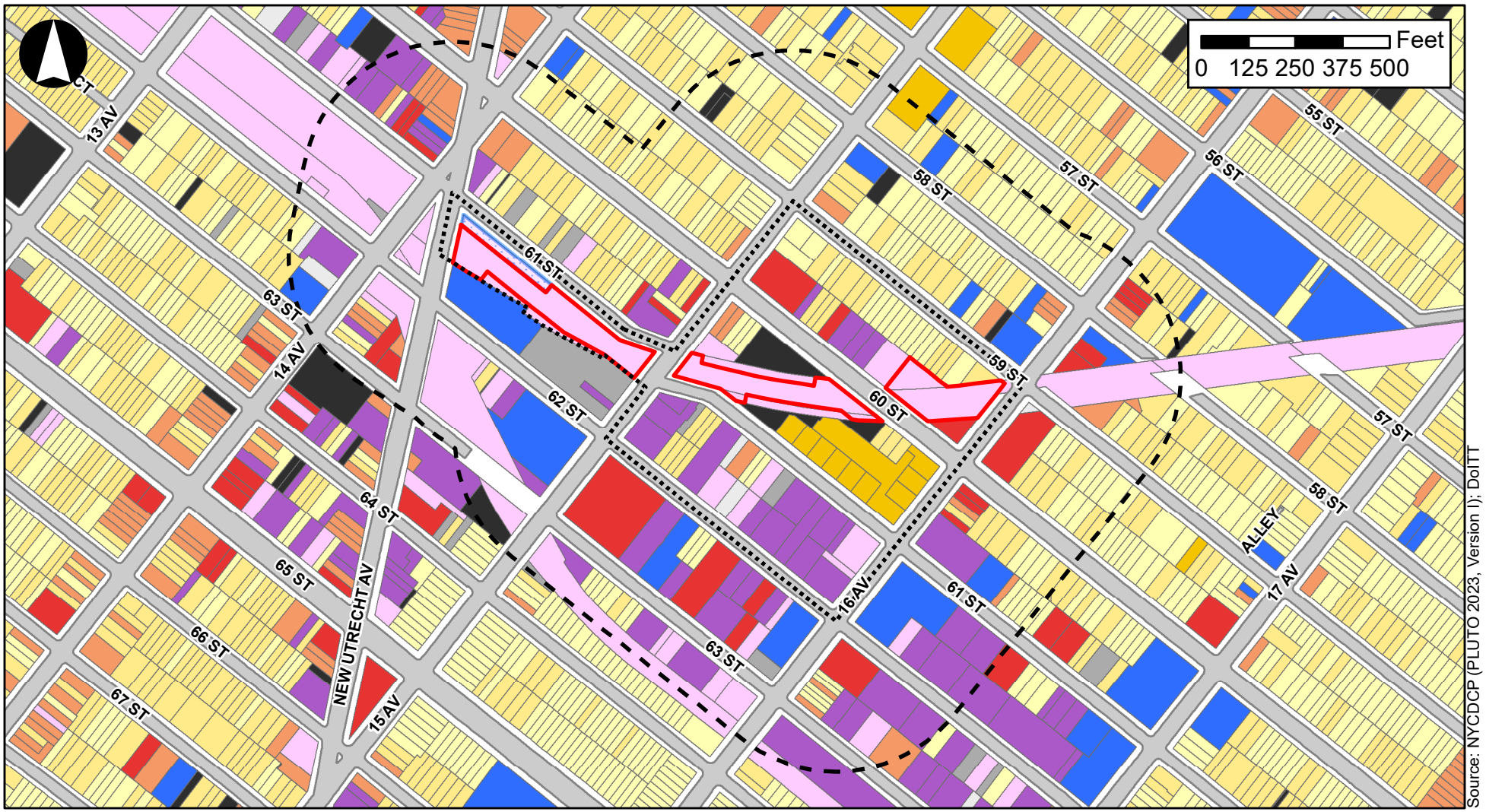
Figure 1
Project Location



Legend

- Project Area
- 400-Foot Radius
- Development Site
- Potential Development Site
- One & Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- All Others or No Data

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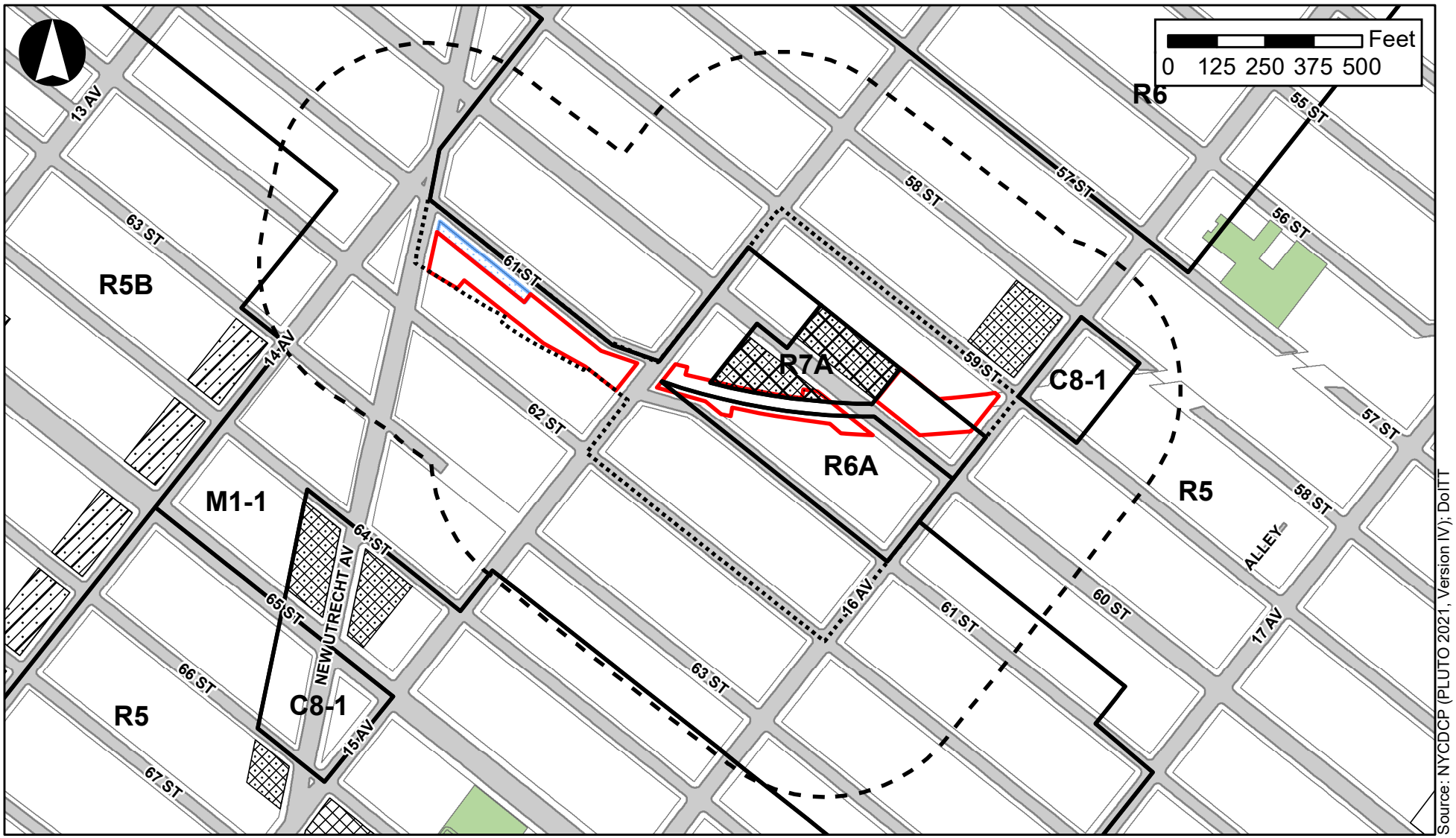
Figure 2
Land Use



Legend

- Project Area
- 400-Foot Radius
- Development Site
- Potential Development Site
- M1-1 Zoning District Boundaries
- C1-2 Commercial Overlay
- C2-2 Commercial Overlay
- C2-3 Commercial Overlay
- C2-4 Commercial Overlay

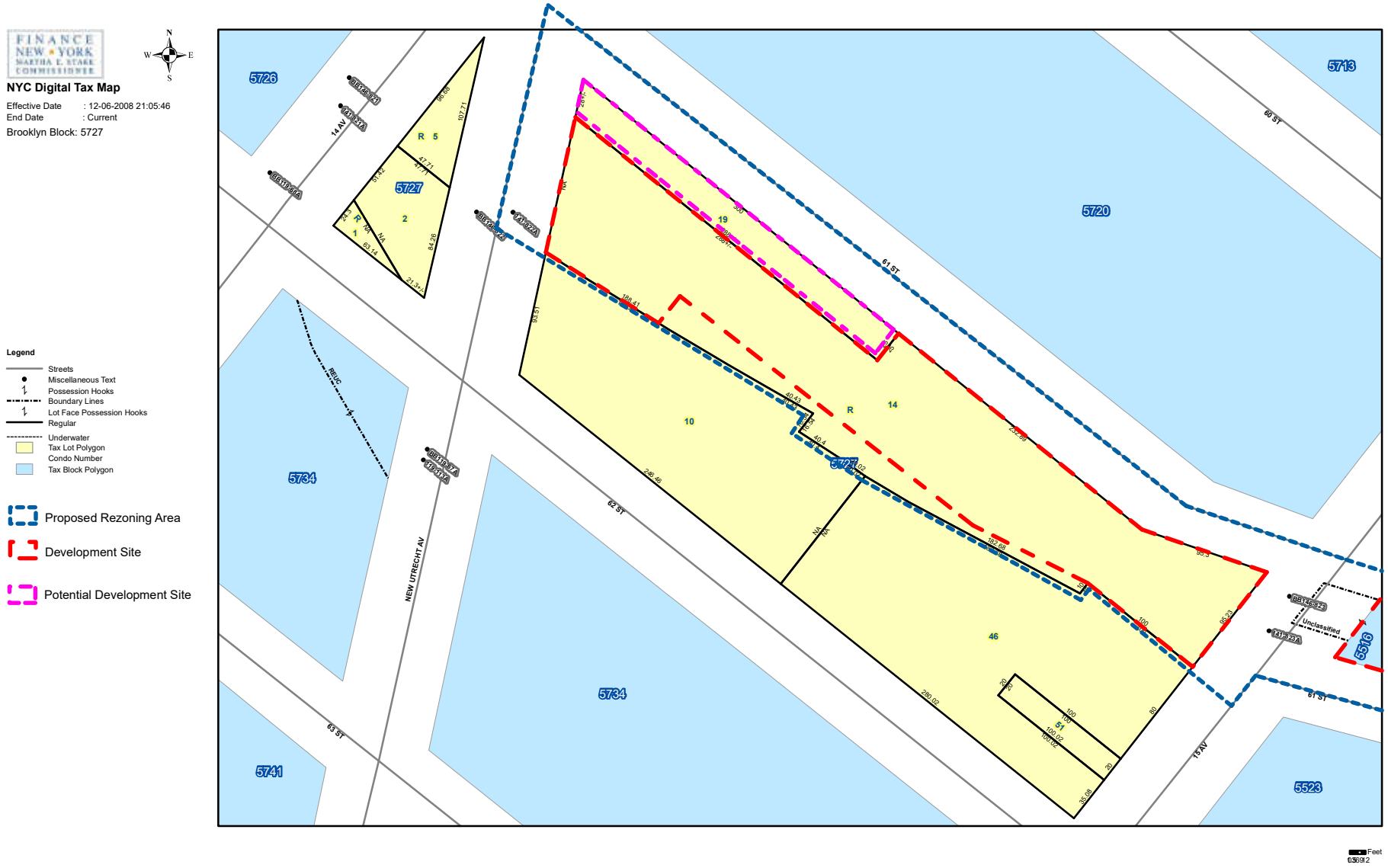


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Figure 4a
Tax Map

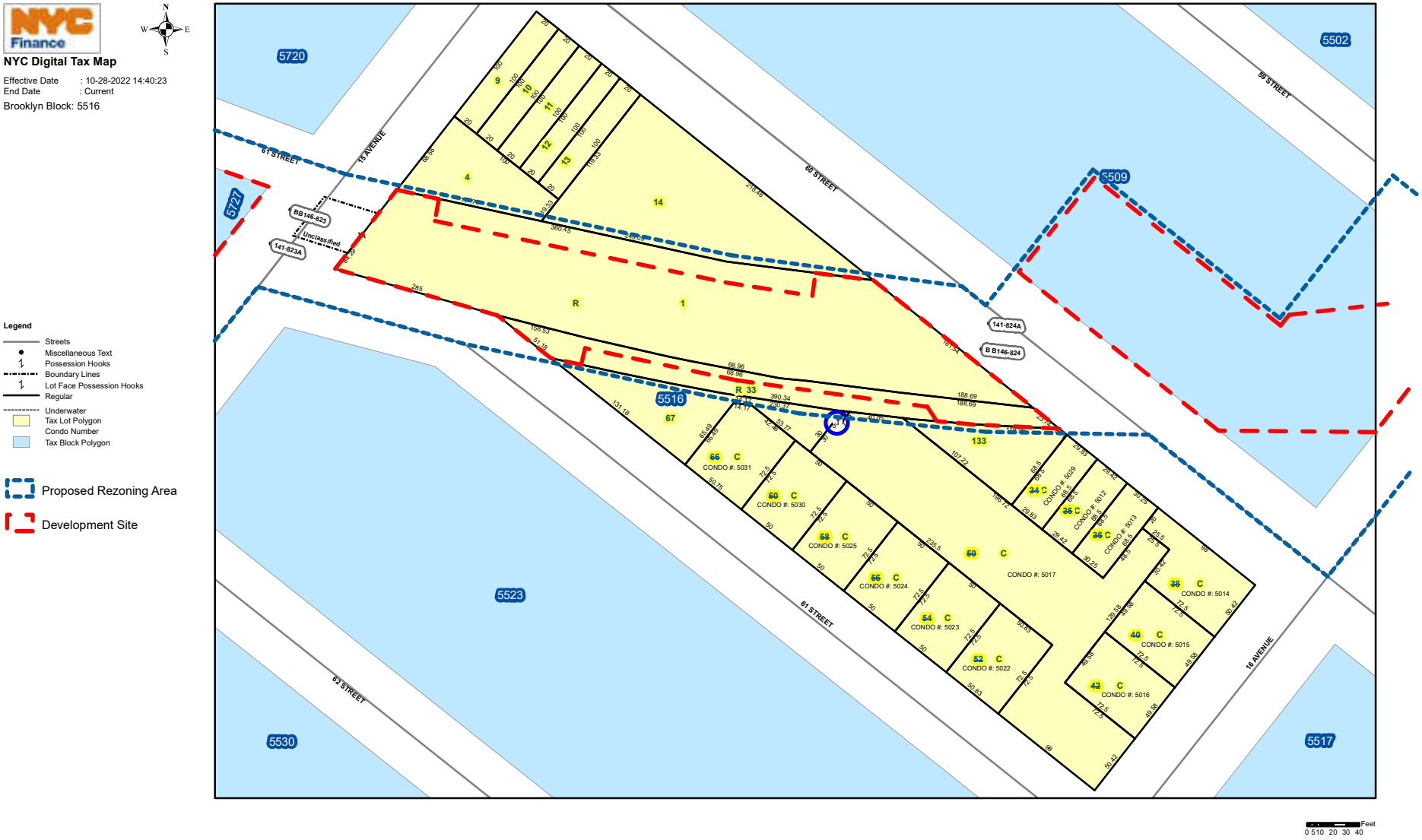

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Figure 4b
Tax Map

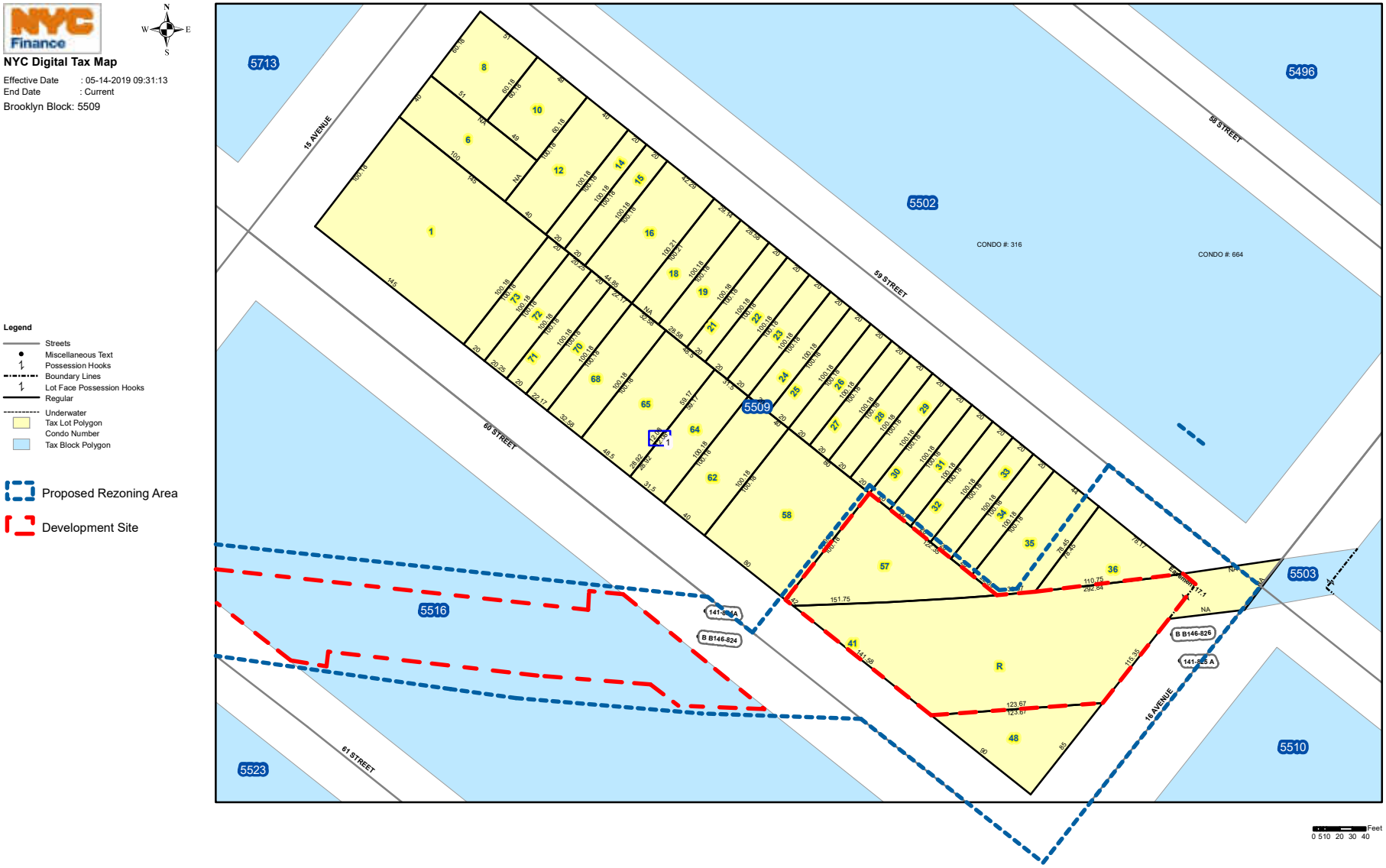

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Figure 4c
Tax Map



1. View of the Project Area looking west from the intersection of 59 Street and 16 Avenue.



2. View of the Project Area looking east from 60 Street.



3. View of the Project Area looking west from 60 Street.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.



4. View of the Project Area looking west from the intersection of 61 Street and 15 Avenue.



5. View of the Project Area looking southeast from the intersection of 61 Street and 15 Avenue.



6. View of the Project Area looking northwest from the intersection of 61 Street and 15 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.



7. View of the Project Area looking east from the intersection of 61 Street and 15 Avenue.



8. View of the Project Area looking southeast from 61 Street.



9. View of the Project Area looking east from the New Utrecht Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.

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.		
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.		
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: Refer to **Attachment B, "Supplemental Screening"**	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? Refer to **Attachment B, "Supplemental Screening"**	☒	☐
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): 21,191 pounds per week		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
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): 49,898,739 annual BTUs		
(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) Refer to **Attachment I, "Air Quality"**	☒	☐
(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. **The Proposed Project is not expected to result in any significant adverse impacts in any of the technical areas related to public health (air quality, hazardous materials, or noise). Therefore, the Proposed Actions would not result in a significant adverse impact to public health, and further 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. **The Proposed Project is not expected to result in any significant adverse impacts on the technical areas relating to neighborhood character, including land use, zoning, and public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, and noise. Therefore, the Proposed Actions would not result in a significant adverse impact to neighborhood character, and further analysis is not warranted.**		
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. **Refer to "Attachment K, Construction"**		

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
Meir David Tobak	3/22/24
SIGNATURE	

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:

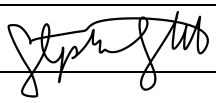
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental 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: Stephanie Shellooe	DATE: June 7, 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, Brooklyn Yards Development, LLC, is seeking a series of discretionary actions affecting 95 lots extending across four blocks in the Borough Park neighborhood of Brooklyn, Community Districts 11 and 12 bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south: Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 54, 56, 66, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73 (the "Project Area"). Portions of the Project Area contain an open rail cut, with tracks for the Long Island Rail Road (LIRR) Bay Ridge Branch located below. The Proposed Actions include a Zoning Map Amendment, a Zoning Text Amendment (to amend Appendix F of the Zoning Resolution [ZR] to designate portions of the Project Area as a Mandatory Inclusionary Housing [MIH] area and to amend ZR Appendix I to include the entirety of the Project Area as part of the Transit Zone), eight Special Permits (to permit development over a railroad right-of-way, allow for distribution of floor area and lot coverage within a Large-Scale General Development (LSGD), reduce the amount of required parking spaces, and distribute parking throughout the LSGD), and four Zoning Authorizations (to waive residential bicycle parking requirements). The Zoning Map Amendment seeks to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4. Under the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project"). The Proposed Project would also include approximately 0.08 acres of public access area (PAA), comprised of approximately 3,684 square feet (sf) of publicly accessible passive and active open space. Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41. The Proposed Project is expected to be completed and occupied by 2030. In the absence of the Proposed Actions, no changes to the Project Area would occur. The Proposed Actions would result in a change in zoning and land use, however, the proposed development would be compatible with the neighborhoods existing mixed-use development and , density, and proximity to public transportation, and would not result in a significant adverse impact to land use, zoning or public policy.

Socioeconomic Conditions

A detailed analysis related to socioeconomic conditions is included in this EAS. The Proposed Actions would not result in direct or indirect business displacement, direct residential displacement, and would have no adverse effect on specific industries. The preliminary assessment concluded that the Projected Development's 270 DUs exceeded the screening threshold of 200 DUs, warranting an analysis of Indirect residential displacement. The detailed analysis concluded that the Proposed Actions would result in an increase in the quarter-mile study area residential population of less than four percent. This change would not represent a substantial new population, and no significant adverse indirect residential displacement impacts would result pursuant to CEQR Technical Manual guidance. As a result, the Proposed Actions would not result in a significant adverse impact to socioeconomic conditions, and further analysis is not warranted.

Community Facilities and Services

A detailed analysis related to community facilities and services is included in this EAS. A preliminary assessment was conducted, and exceeded the threshold warranting a detailed analysis for elementary and intermediate public schools. Detailed assessments of public high schools, early childcare services, libraries, and healthcare and fire/police protection were not warranted for the Proposed Actions. A detailed assessment in the area of public schools concluded that the Proposed Actions would result in the addition of 51 elementary students, resulting in a With-Action utilization of 163.15% for Community School District 20, Sub-District 3 in the 2030 build year. While this is considered overutilized, the students added as a result of the Proposed Actions would not result in a significant adverse impact, as fewer than 100 student are being added over 100% utilization. The Proposed Actions would also add 19 intermediate students for a respective With-Action utilization of 95.15%. As a result, intermediate schools are not anticipated to result in a significant adverse impact. The Proposed Actions are not anticipated to result in a significant adverse community facilities and services impact, and further analysis is not warranted.

Open Space

A detailed analysis related to open space is included in this EAS. The detailed analysis concluded that in the future with the Proposed Actions, the residential active open space ratio would decrease by 0.82 percent from the No-Action condition. In the future with the Proposed Actions, the residential total and passive open space ratios would increase by 0.5 percent and 5.75 percent, respectively, from the No-Action condition. The study area's total, passive, and active open space ratios would remain less than the City's optimal planning guidelines for total, passive, and active open space ratios in the With-Action condition however this reduction in the active open space ratio in the study area would be ameliorated by several factors, including the study area's proximity to additional open space resources located beyond the boundary of the study area, including the 6.38-acre Gravesend Park. Additionally, the Proposed Project would include approximately 3,684 sf (0.08 acres) of PAA. An approximately 2,038 sf publicly accessible open space would be located along New Utrecht Avenue and include passive open space uses such as seating and planted areas. An approximately 512 sf publicly accessible open space would be located along 61st Street and include passive open space with planted areas. An approximately 1,135 sf publicly accessible open space, including an approximately 804 sf publicly accessible play area would be located along 60th Street and would include play equipment for children. The PAA would be accessible to the residents of the study area. As a result of the quantitative and qualitative assessment, the Proposed Actions would not result in a significant adverse impact on open space, and further analysis is not warranted.

Project Name: Brooklyn Yards
CEQR # 23DCP039K
SEQRA Classification: Unlisted

Urban Design and Visual Resources

A detailed analysis related to urban design and visual resources is included in this EAS. The analysis concluded that while the Proposed Actions and the building on the Potential Development Site would represent a significant change for the primary and secondary study areas, the Proposed Actions would not result in a significant adverse impact to urban design or visual resources. The Projected Development would be constructed on existing blocks and would not entail any changes to topography, street patterns, street hierarchy, block shapes, or natural features in the primary or secondary study areas. Additionally, the Proposed Actions would not create land uses nor structures that would be substantially incompatible with the existing and emerging character of the surrounding Borough Park neighborhood. The Proposed Actions would alter the visual setting of the Applicant-controlled Development Site and the Potential Development Site within the primary study area by replacing the existing low-rise structures and open rail cut, which would remain in the No-Action condition, with 15 new buildings that differ in scale, both in bulk and height. Although the varied bulks and heights of the Projected Development would be a departure from the existing built conditions in both the primary and secondary study areas, they would not be incompatible with existing and planned buildings or bulk in both the primary and secondary study areas. In addition, the Proposed Project and the building on the Potential Development Site would not obstruct any public views of visual resources, nor would they adversely impact any public view corridors within the secondary study area. Therefore, while the Proposed Actions would result in a change from the perspective of a pedestrian, the change would not represent a significant adverse impact. As such, the Proposed Actions would not result in significant adverse urban design or visual resource impacts in the primary study area or the surrounding secondary study area.

Transportation

A detailed analysis related to transportation is included in this EAS. The transportation assessment determined that the Proposed Actions would not exceed CEQR Level 1 and Level 2 screening thresholds for traffic, parking, transit and pedestrian analysis. The installation of the enhanced midblock crossing will be included as a Project Component Related to the Environmental (PCRE) under the Proposed Actions. Upon construction of the Proposed Project, the Applicant will conduct a Transportation Monitoring Program ("TMP") to determine whether an enhanced midblock crossing is warranted for 60th Street between 15th Avenue and 16th Avenue based on actual future traffic conditions. The Applicant will coordinate with NYCDOT on the scope of work for the TMP prior to undertaking the TMP. The Applicant will also coordinate with NYCDOT on the future design and implementation of the enhanced midblock crossing, subject to the conclusions of the TMP. With these PCRES, to be recorded in a restrictive declaration, the Proposed Actions would not result in a significant adverse transportation impact and no further analysis is warranted.

Construction

A detailed analysis related to construction is included in this EAS. Construction of the Projected Development would adhere to the applicable laws, regulations, and building codes that govern construction in New York City. As described in the EAS, the Projected Development is anticipated to have a multi-phased construction period over a duration of seven years (26-quarters). As detailed in the construction assessment in the EAS, the Proposed Actions would not result in significant adverse construction impacts in the key technical areas of historic and cultural resources, transportation, air quality, and noise. As a result, the Proposed Actions would not result in a significant adverse construction impact, and no further analysis is warranted.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-749) 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 Louise Cafiero at lcafiero@planning.nyc.gov.

TITLE Director, Environmental Assessment and Review Division	LEAD AGENCY 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 6/7/2024
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 6/10/2024
SIGNATURE	

Project Name: Brooklyn Yards
CEQR # 23DCP039K
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 5727, Lot 14 (B1C, B1R, B2)
		Block 5727, Lot 14 (B3, B4, B5, B6, B7)
		Block 5516, Lots 1 and 33 (B8, B9, B10, B11)
		Block 5516, Lots 1 and 33 (B12)
		Block 5509, Lots 41 and 57 (B13, B14)
Potential Development Site 1	Brooklyn	Block 5727, Lot 19 (B15)

(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-749**) would be established as part of approval of the proposed actions on **Projected Development Site 1** and **Potential Development Site 1** as described below:

Development Site	Building IDs	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	B1C, B1R, B2	X	X	X
	B3, B4, B5, B6, B7	X	X	
	B8, B9, B10, B11	X	X	
	B12	X	X	X
	B13, B14	X	X	
Potential Development Site 1	B15	X	X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1 and Potential Development Site 1** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

Air Quality

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

Building 1C

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property on Lot 14 that has western frontage on New Utrecht Avenue must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 1C is located at the highest tier at least 176 feet above grade. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 1R

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property on Lot 14 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 1R is located at the highest tier at least 78 feet above grade and at least 160 feet from the lot line facing New Utrecht Avenue. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 2

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack on Building 2 is located at the highest tier at least 58 feet above grade and at least 325 feet from the lot line facing New Utrecht Avenue and 32 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 10

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack on Building 10 is located at the highest tier at least 58 feet above grade and at least 122 feet from the lot line facing 15th Avenue and 36 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 11

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 11 is located at the highest tier at least 78 feet above grade. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 12

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 12 is located at the highest tier at least 58 feet above the grade and at least 23 feet from the lot line facing 60th Street and at most 300 feet from the lot line facing 16th Avenue. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 15 (not controlled or owned by Applicant)

Block 5727, Lot 19: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 15 is located at the highest tier at least 28 feet above grade and at most 10 feet from New Utrecht Avenue and at most 11 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Buildings 3, 4, 5, 6, 7, 8, 9, 13, and 14

Block 5516, Lot 1 and Lot 33, Block 5727, Lot 14, and Block 5509, Lot 41 and Lot 57: Any new development or enlargement on the above-referenced properties must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Noise

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

Block 5727, Lot 14 (Building 1C)

In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 32 dB(A) window/wall attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors below the elevated rail line and 28 dB(A) of attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors at or above the elevated rail line to maintain an interior L10 noise level not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closedwindow condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5727, Lot 14 (Building 1R)

In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the façades facing 62nd Street to maintain an interior L10 noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. To maintain a closedwindow condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5727, Lot 14 (Building 2)

In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum attenuation of 28 dB(A) window/wall attenuation on the façades facing 62nd Street to maintain an interior L10 noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. 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 5727, Lot 19 (Potential Development Site)

In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 32 dB(A) window/wall attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors below the elevated rail line and 28 dB(A) of attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors at or above the elevated rail line to maintain an interior L10 noise level not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closedwindow condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5516, Lots 1 and 33 (Building 12)

In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the façades facing 60th Street to maintain an interior L10 noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. To maintain a closedwindow condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Attachment A:

Project Description

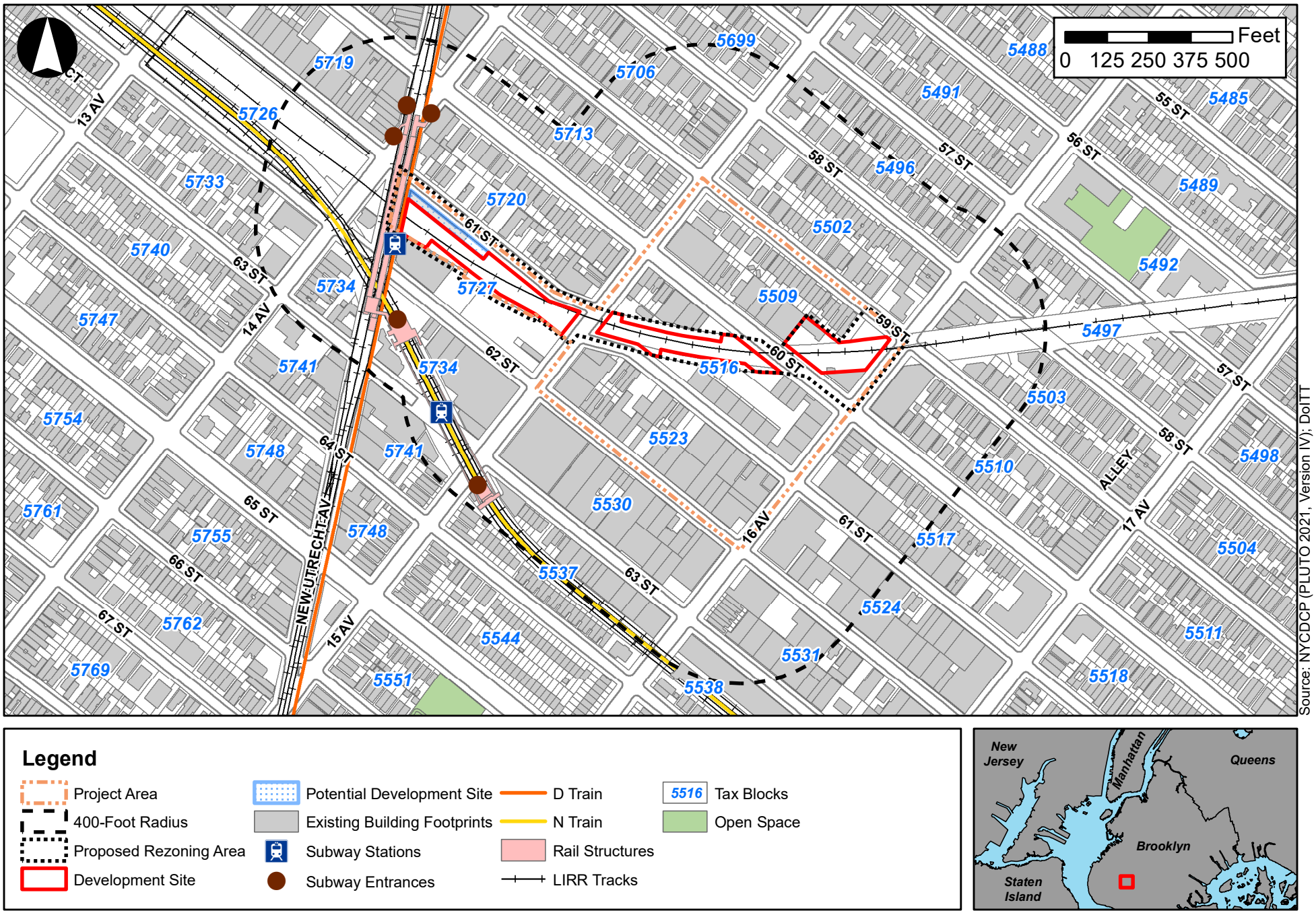
I. INTRODUCTION

Brooklyn Yards Develompent, LLC (the "Applicant") is seeking a series of discretionary actions subject to City Planning Commission (CPC) approval in order to facilitate the development of the Applicant-controlled Development Site in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12 (refer to **Figure A-1**). The discretionary actions include: (i) a Zoning Map Amendment to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4; (ii) a Zoning Text Amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) to designate portions of the Project Area as a Mandatory Inclusionary Housing (MIH) area, which would require the construction of permanently affordable residential units within portions of the Project Area, in accordance with City policy, and to amend Appendix I of the ZR to include the entirety of the Project Area as part of the Transit Zone; (iii) three Special Permits to permit development over a railroad right-of-way; (iv) a Special Permit to allow for the distribution of floor area and lot coverage within a Large-Scale General Development (LSGD) without regard for zoning lot boundaries and to modify yard, court, and distance between legal window and lot line requirements; (v) two Special Permits to reduce the amount of required accessory parking spaces; (vi) a Special Permit to allow parking to be distributed throughout an LSGD without regard for zoning lot boundaries; (vii) a Special Permit to modify location of commercial uses within a building; (viii) three Zoning Authorizations to waive required enclosed accessory residential bicycle parking; and (ix) a Zoning Authorization to waive required enclosed accessory commercial bicycle parking spaces (collectively the "Proposed Actions"). The Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project"). The Proposed Project would also include approximately 0.08 acres of public access area (PAA), comprised of approximately 3,684 square feet (sf) of publicly accessible passive and active open space. Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41.

As shown in **Figure A-1**, the Project Area consists of a portion of Brooklyn Block 5727, and the entirety of Blocks 5523, 5516, and 5509. In total, the Project Area comprises approximately 477,788 sf of lot area bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south.

This attachment provides a description of the Proposed Actions, including information about the Project Area, the Proposed Rezoning Area, and the Development Site, existing conditions, project purpose and need, the analysis framework and Reasonable Worst Case Development Scenario (RWCDS), and the governmental approvals required. The attached supplemental studies examine the potential for the Proposed Actions to result in significant adverse impacts in any City Environmental Quality Review (CEQR) technical areas, including separate attachments with detailed analyses of land use, zoning, and public policy; socioeconomic conditions; community facilities and services; open space; urban design and visual resources; transportation; air quality; noise; and construction in Attachments C through K, respectively. All other preliminary screening assessments are summarized in **Attachment B, "Supplemental Screening."**

The New York City Department of City Planning (DCP) is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity ("CHO") (CEQR No. 24DCP033Y) to expand opportunities for housing



Brooklyn Yards EAS

Figure A-1
Project Location

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. It is anticipated that this proposed zoning text amendment would be referred into public review in spring 2024. The Applicant is proposing a Zoning Map Amendment that would rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4. Pursuant to CHO, an additional 0.3 FAR for inclusionary housing (from 3.6 FAR to 3.9 FAR), as well as a 10' increase in the maximum height (from 85' to 95'), would be available in R6 districts. However, in accordance with the other actions currently being sought, including the Large-Scale General Development (LSGD), the Proposed Development would require additional CPC discretionary actions and modifications to utilize the additional FAR and height pursuant to CHO. Further, because of the site conditions including the irregular shape and confined conditions of the Development Site, the Applicant has proposed to develop the Development Site to its maximum potential given the site constraints. Therefore, no further analysis is required as a result of the changes to the underlying zoning regulations as a result of CHO.

II. BACKGROUND AND EXISTING CONDITIONS

Project Area

Background

Within the Project Area, Lot 14 on Block 5727, Lot 1 on Block 5516, and Lot 41 on Block 5509, are subject to certain deed restrictions, which will be modified, contained within a certain Indenture by and between Consolidated Rail Corporation and Pearl Development Corp., dated March 21, 1985, and recorded in the Office of the City Register, Kings County, on May 1, 1985, in Reel 1637, Page 1078 of conveyances.

Existing Conditions

The Project Area extends across four blocks bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south. The Project Area includes the following block and lots: Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73.

A large portion of the Project Area (Block 5727, Lot 14, Block 5516, Lots 1 and 33, and Block 5509, Lot 41) consists of an open rail cut, with tracks for the Long Island Rail Road (LIRR) Bay Ridge Branch located below (refer to **Figures A-2a**, **A-2b**, and **A-2c** for photos of the Project Area). The LIRR Bay Ridge Branch connects the 65th Street Terminal (approximately one mile to the west of the Project Area at New York Harbor) with the Hell Gate Bridge to the north, in Queens. This right-of-way is used exclusively for freight rail and facilitates up to approximately three daily freight rail roundtrips. These tracks are actively being studied as part of the Cross Harbor Freight Movement Project (CHFP)[1], as a potential site for increased freight rail activity, and for the Interborough Express (IBX)[2], to facilitate rapid transit passenger service.

The CHFP, which is sponsored by the Port Authority of New York and New Jersey (PANYNJ), seeks to improve the movement of goods across New York Harbor and the lower Hudson River via the region's

[1] https://www.panynj.gov/port/en/our-port/port-development/cross-harbor-freight-program.html
[2] https://new.mta.info/project/interborough-express



1. View of the Project Area looking west from the intersection of 59 Street and 16 Avenue.



2. View of the Project Area looking east from 60 Street.



3. View of the Project Area looking west from 60 Street.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.



4. View of the Project Area looking west from the intersection of 61 Street and 15 Avenue.



5. View of the Project Area looking southeast from the intersection of 61 Street and 15 Avenue.



6. View of the Project Area looking northwest from the intersection of 61 Street and 15 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.



7. View of the Project Area looking east from the intersection of 61 Street and 15 Avenue.



8. View of the Project Area looking southeast from 61 Street.



9. View of the Project Area looking east from the New Utrecht Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Project Area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line; the Potential Development Site is outlined in a solid blue line.

existing freight rail network. Because Hudson River bridge and tunnel crossings are shared by private vehicles, buses, and freight carriers (trucks), the few remaining ways of crossing the New York Harbor and the lower Hudson River all have reached capacity during peak travel periods. The CHFP evaluates alternative methods to improve the movement of freight between both the east-of-Hudson and west-of-Hudson areas via freight rail. As of February 2022, review pursuant to the National Environmental Policy Act (NEPA) is ongoing with the Federal Highway Administration (FHWA) serving as lead agency. The Tier II Environmental Impact Statement (EIS) will analyze two preferred alternatives (a rail tunnel alternative and a railcar float alternative) for a 2035 build year. Upon completion of the CHFP, it is anticipated that the LIRR right-of-way within the Project Area would facilitate up to approximately 21 freight rail roundtrips by 2035.

The IBX, which is sponsored by the Metropolitan Transportation Authority (MTA), seeks to add rapid transit passenger service along the LIRR right-of-way within the Project Area. The IBX would connect currently underserved areas of Brooklyn and Queens, reducing travel times and congestion between the two boroughs. As of January 2023, planning efforts are underway for the IBX and light rail was selected by the MTA as the preferred rail mode. Although an EIS has not been finalized, the MTA has selected a build year of 2045 to project IBX ridership figures. Upon completion of the IBX in 2045, it is anticipated that daily weekday ridership would be 115,000. The future operation of the IBX by the MTA would not conflict with the LIRR right-of-way's future freight rail use as part of the PANYNJ's CHFP.

As summarized in **Table A-1**, the Project Area comprises 95 lots and a total lot area of approximately 477,757 sf.

TABLE A-1:
Project Area: Existing Conditions Summary

Total Number of Lots	Total Lot Area	Total Building Area	Total DUs	Average Built FAR	Zoning Districts
Block 5727					
2	54,713	6,650	0	0.45	M1-1
Block 5523					
31	138,903	129,397	37	0.97	M1-1
Block 5516					
24	142,308	250,245	247	2.85	M1-1, R6A, R7A/C2-4
Block 5509					
38	141,833	161,691	71	1.36	M1-1, R5, R7A/C2-4
Project Area Totals					
95	477,757	547,983	355	1.59	

Sources: DCP 2023 PLUTO Data (Version I).

Within the Project Area, Block 5727 contains two lots totaling approximately 54,713 sf and approximately 6,650 gsf of total building area, with an average built FAR of 0.45. Block 5727 is zoned M1-1. Within the Project Area, Block 5523 contains 31 lots totaling approximately 138,903 sf and approximately 129,397 gsf of total building area, with an average built FAR of 0.97. Approximately 37 DUs are located on Block 5523. Block 5523 is zoned M1-1. Within the Project Area, Block 5516 contains 24 lots totaling approximately 142,308 sf and approximately 250,245 gsf of total building area, with an average built FAR of 2.85. Approximately 247 DUs are located on Block 5516. Block 5516 is zoned M1-1, R6A, and R7A/C2-4. The R6A district on Block 5516 was mapped in 2013 as part of the Maple Lanes Rezoning (C090154 ZMK; 11DCP022K) to facilitate 24 attached and semi-detached four-story residential buildings, which have been

constructed. Within the Project Area, Block 5509 contains 38 lots totaling approximately 141,833 sf and approximately 161,691 gsf of total building area, with an average built FAR of 1.36. Approximately 71 DUs are located on Block 5509. Block 5509 is zoned M1-1, R5, and R7A/C2-4. The R7A/C2-4 district on Blocks 5516 and 5509 was mapped in 2020 as part of the 1501-1555 60th Street Rezoning (200086ZMK; 18DCP038K) to facilitate the development of three mixed-use commercial/residential buildings, which have not yet been constructed.

The Proposed Rezoning Area comprises Block 5727, Lots 14 and 19, Block 5516, Lots 1 and 33, and Block 5509, portion of (p/o) Lot 35, and the entirety of Lots 36, 41, 48, and 57. The Proposed Rezoning Area measures approximately 136,931 sf.

The Development Site comprises Block 5727, p/o Lot 14,[3] Block 5516, p/o Lots 1 and 33,[4] and Block 5509, Lots 41 and 57. The Development Site measures approximately 105,278 sf. The entire Development Site consists of an open rail cut with the exception of Block 5509, Lot 57, which contains an auto repair use.

The remainder of the Project Area (Block 5727, Lot 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 4, 9-14, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 48, 58, 62, 64, 65, 68, and 70-73) are not considered part of the Development Site.

Surrounding Area

As shown in **Figure 2** of the **Environmental Assessment Statement ("EAS") Short Form**, existing land uses within the surrounding area consist of industrial/manufacturing uses, warehouse and automotive uses, residential uses, mixed-use commercial/residential uses, and commercial/office uses. As stated above, the LIRR Bay Ridge Branch right-of-way runs through the surrounding area and is a major, defining feature that has informed the land use patterns of the surrounding area; industrial/manufacturing and warehouse and automotive uses are dominant to the south of the of the right-of-way and residential uses are dominant to the north of the right-of-way.

62nd and 63rd streets between 14th, New Utrecht, 15th, and 16th avenues are mixed-use corridors with automotive, light industrial, and warehouse buildings developed adjacent to residential, mixed-use commercial/residential, and commercial retail and office buildings. Several non-complying residential buildings are also located in the area to the south of the Project Area. A new Universal Pre-K building was recently constructed adjacent to the Project Area at 1462 62nd Street. There are several other community facility uses, such as schools and houses of worship, developed throughout the surrounding area.

The predominant building typology varies within the surrounding area and reflects the underlying zoning districts. Buildings range in height from one-story industrial/manufacturing and warehouse and automotive buildings to four-story community facility buildings (schools and houses of worship). As shown in **Figure 3** of the **EAS Short Form**, the surrounding area is zoned M1-1, R5, R5B, and R6; a C8-1 zoning district is mapped on along 16th Avenue, to the east of the Project Area. Properties along New Utrecht and 16th avenues are mapped with C2-2 commercial overlays, while properties along 14th Avenue are mapped

[3] The Development Site includes only that portion of Lot 14 that will be covered by a permanent platform. The Applicant intends to subdivide tax Lot 14 such that this zoning lot would comply with the ZR Section 12-10 definition of "zoning lot," as interpreted by the New York City Department of Buildings.

[4] The Development Site includes only that portion of Lots 1 and 33 that will be covered by a permanent platform. The Applicant intends to subdivide tax Lots 1 and 33 such that this zoning lot would comply with the ZR Section 12-10 definition of "zoning lot," as interpreted by the New York City Department of Buildings.

with C2-3 commercial overlays. Commercial overlays are mapped along streets that serve local retail needs, and are found extensively throughout the City's medium-density neighborhoods. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors; C2 districts permit a slightly wider range of uses than C1 districts, such as funeral homes and repair services. Commercial overlays mapped within R1 to R5 districts are subject to a maximum commercial FAR of 1.0, while commercial overlays mapped within R6 to R10 districts are subject to a maximum commercial FAR of 2.0.

The Project Area is located adjacent to the elevated 62nd Street station for the D train. The Project Area is one block north of the New Utrecht Avenue station for the N train. The N train line in the vicinity of the Project Area runs along a below-grade open rail cut. Both of these train lines offer service from South Brooklyn to points north. The B9 makes stops along 60th Street and provides service between Bay Ridge and Kings Plaza.

III. THE PROPOSED ACTIONS

The Applicant is seeking a series of discretionary actions, including:

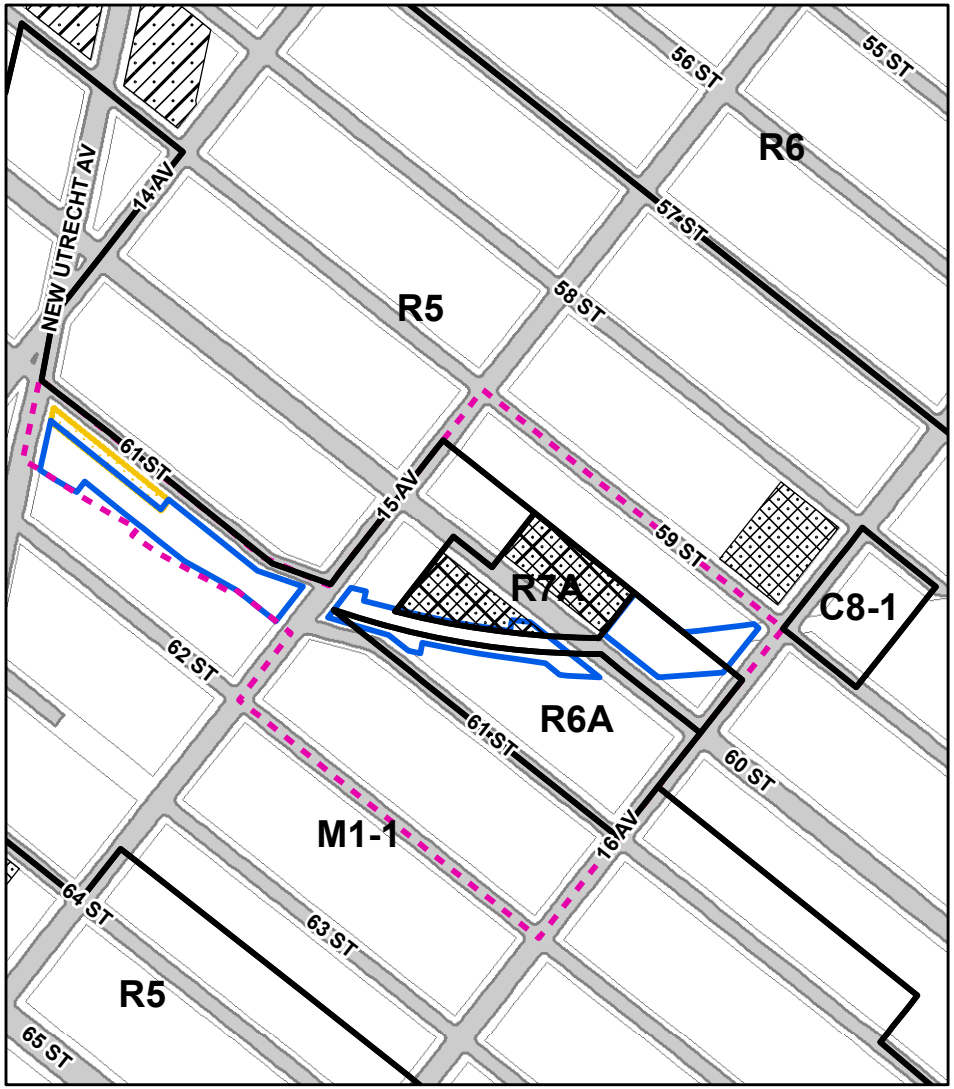
- A Zoning Map Amendment to rezone the Proposed Rezoning Area from M1-1 and R5 to C4-5, R6, and R6/C2-4;
- A Zoning Text Amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) to designate the Proposed Rezoning Area as an MIH area, which would require the construction of permanently affordable residential units in the Proposed Rezoning Area, in accordance with City policy, and to amend Appendix I of the ZR to include the entirety of the Project Area as part of the Transit Zone;
- Three Special Permits to permit development over a railroad right-of-way;
- A Special Permit to allow for the distribution of floor area and lot coverage within a Large-Scale General Development (LSGD) without regard for zoning lot boundaries and to modify yard, court, and distance between building walls and lot line requirements;
- Two Special Permits to reduce the amount of required accessory parking spaces;
- A Special Permit to allow parking to be distributed throughout an LSGD without regard for zoning lot boundaries;
- A Special Permit to modify location of commercial uses within a building;
- Three Zoning Authorizations to waive required enclosed accessory residential bicycle parking; and
- A Zoning Authorization to waiver required enclosed accessory commercial bicycle parking spaces.

Proposed Zoning Map Amendment

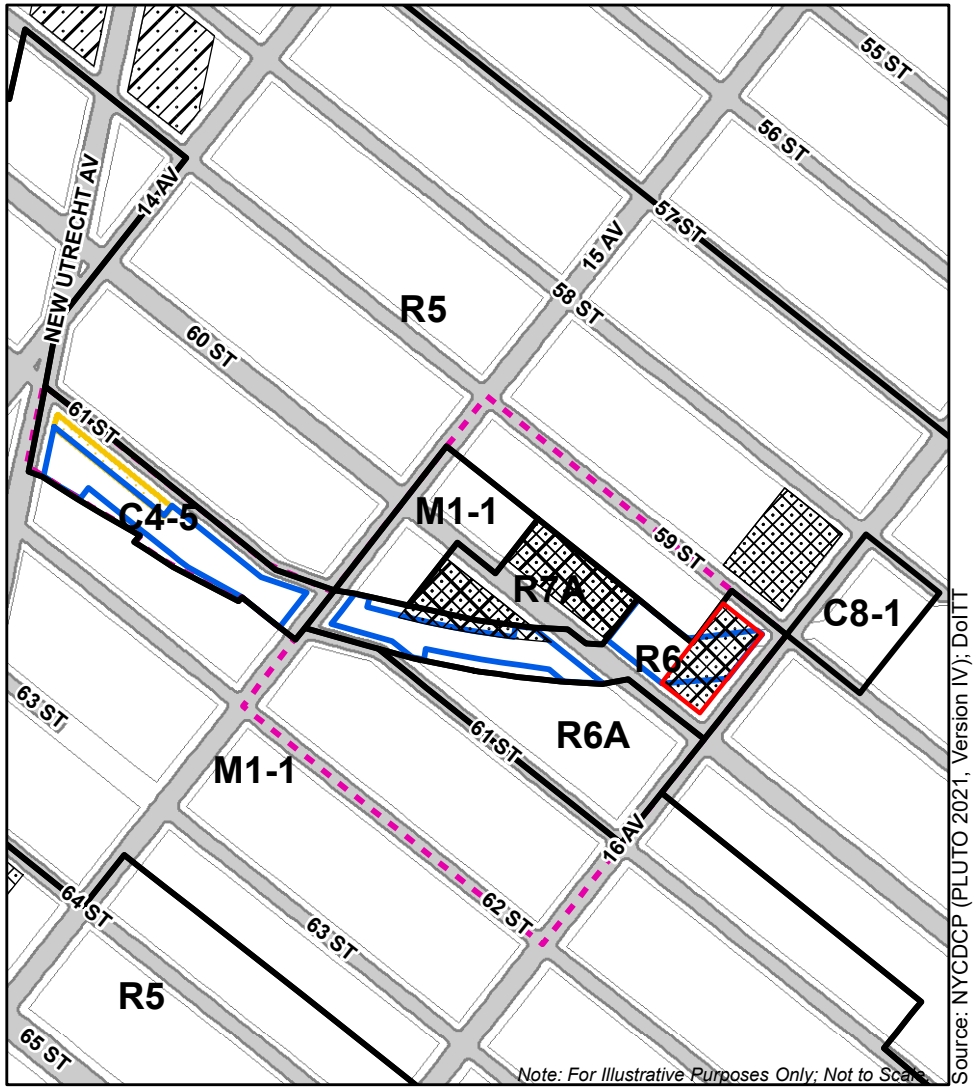
As shown in **Figure A-3**, within the Project Area, the Zoning Map Amendment would rezone Block 5727, Lots 14 and 19 from an M1-1 zoning district to a C4-5 zoning district. As shown in **Figure A-3**, the Zoning Map Amendment would rezone Block 5516, Lots 1 and 33 from an M1-1 zoning district to an R6 zoning district. As also shown in **Figure A-3**, the Zoning Map Amendment would rezone Block 5509, Lots 36, 41, 47, 57, and a p/o Lot 35 from M1-1 and R5 zoning districts to an R6 zoning district, with a C2-4 commercial overlay mapped on Lots 36, 38, and portions of Lots 35 and 41.

The proposed C4-5 district is a mid-density district. It is an R7-2 residential district equivalent that allows residential (Use Groups 1 and 2), community facility (Use Groups 3 and 4), and commercial (Use Groups 5, 6, 8, 9, 10, and 12) uses. The proposed C4-5 zoning district would allow for a maximum FAR of 4.6 for residential uses pursuant to MIH, 3.4 for commercial uses, and 6.5 for community facility uses. Buildings in C4-5 districts are developed pursuant to the sky exposure plane, except residential buildings

Existing Zoning:



Proposed Zoning:



Source: NYCDCP (PLUTO 2021, Version IV); DoITT

Legend

- Project Area
- Development Site
- Potential Development Site
- M1-1 Zoning District Boundaries
- C2-2 Commercial Overlay
- C2-3 Commercial Overlay
- C2-4 Commercial Overlay
- Proposed C2-4 Commercial Overlay

Feet
0 125 250 375 500

Brooklyn Yards EAS

Figure A-3
Existing & Proposed Zoning

constructed pursuant to optional quality housing regulations. Off street accessory parking for residential uses is required for 50 percent of non-income restricted DUs. Parking varies for commercial uses, but is generally required at one space per 1,000 sf of floor area.

The proposed R6 district is a mid-density district. R6 zoning districts allow residential (Use Groups 1 and 2) and community facility (Use Groups 3 and 4) uses. The proposed R6 zoning district would allow for a maximum FAR of 3.6 for residential uses (with MIH) and 4.8 for community facility uses. Buildings in R6 districts are developed pursuant to height factor regulations, except residential buildings constructed pursuant to option quality housing regulations. Off-street accessory parking for residential uses is required for 70 percent of the non-income restricted DUs, or 50 percent of non-income restricted units in quality housing developments.

C2-4 districts are commercial overlays mapped within residential districts along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors. In mixed-use buildings in R6 districts, commercial uses are limited to the ground floor and below-grade and must always be located below residential uses. The maximum commercial FAR is 2.0 for a C2-4 overlay mapped in an R6 district.

Proposed Zoning Text Amendment

Within the Project Area, the Applicant is proposing to map the Proposed Rezoning Area as an MIH area (Options 1, 2 and 4) by creating a new map for Brooklyn CDs 11 and 12 in Appendix F of the ZR. MIH Option 1 requires that at least 25 percent of the new residential floor area (equivalent to 68 DUs) on a zoning lot be set aside for permanently affordable housing for households making an average of 60 percent of Area Median Income [AMI]). MIH Option 2 requires that at least 30 percent of the new residential floor area (equivalent to 81 DUs) on a zoning lot be set aside for permanently affordable housing for households making an average of 80 percent of AMI. MIH Option 4 requires that at least 30 percent of the new residential floor area (equivalent to 81 DUs) on a zoning lot be set aside for permanently affordable housing for households making an average of 115 percent of AMI. The MIH area established a new maximum permitted residential FAR which supersedes the FAR permitted pursuant to the underlying zoning district. With both the designation of the Proposed Rezoning Area as an MIH area and its rezoning to C4-5 and R6, the maximum permitted residential FAR within the Proposed Rezoning Area would be 4.6 and 3.6, respectively. The Applicant is proposing to map MIH Options 1, 2 and 4, and is proposing a total of 81 affordable DUs to households with incomes at an average of 115 percent of AMI pursuant to Option 4.

The Applicant is proposing to amend Appendix I of the ZR to include the entirety of Blocks 5509, 5516, and 5523 within the Transit Zone. The portion of the Project Area located on Block 5727 is currently located within the Transit Zone and the proposed Zoning Text Amendment would expand the Transit Zone so that the entirety of the Project Area would be included. The proposal would eliminate parking requirements for qualifying affordable housing units within the Project Area. As a result of the proposed Zoning Text Amendment, approximately 95 parking spaces would be required for the Proposed Project under MIH Option 2, and approximately 128 parking spaces would be required under MIH Option 4. If the proposed Zoning Text Amendment is disapproved, approximately 135 parking spaces would be required for the Proposed Project.

Proposed Special Permits

The Applicant is seeking three Special Permits (one per block/zoning lot within the Development Site) pursuant to ZR Section 74-681 to permit development within or over a railroad right-of-way. As discussed above, a majority of the Development Site consists of an open rail cut for the LIRR Bay Ridge Branch. The proposed Special Permits would allow the Applicant to construct a platform over the right-of-way to serve as the foundation for the Proposed Project.

The Applicant is seeking a Special Permit pursuant to ZR Section 74-743. The proposed Special Permit would allow the distribution of floor area and lot coverage under ZR Section 23-154 across the Development Site (an LSGD) and would modify yard, court, and distance between legal window and lot line requirements on portions of the Development Site. A separate Special Permit, pursuant to ZR Section 74-745(a), would modify parking location requirements to allow parking to be distributed throughout the Development Site without regard to zoning lot boundaries. These LSGD Special Permits would allow for the distribution of bulk and parking within the overall development in a way that accommodates use of the deep interior portions of the irregularly shaped lots.

The Applicant is seeking a Special Permit pursuant to ZR Section 74-744(b) to permit residential and non-residential uses to be arranged within a building without regard for locational requirements. The Special Permit would allow for the residential and non-residential uses in Building 1 to be arranged without regard for the regulations set forth in ZR Section 32-42 (Location Within Buildings). This Special Permit would apply to each story of Building 1 of the Proposed Project – both commercial and residential uses would be located on floors one through six, and commercial uses would be located on floors seven through 10. Building 1 would feature frontage on New Utrecht Avenue and 61st Street. The western portion of Building 1 would stand ten-stories tall and contain 57,586 gsf of office uses and 2,904 gsf of ground floor retail uses. The western portion of Building 1 would feature frontage on New Utrecht Avenue only. The eastern portion of Building 1 would stand six-stories tall and contain 41 DUs. The eastern portion of Building 1 would feature frontage on 61st Street only. The commercial and residential portions of Building 1 would be separate and not share common space. The commercial portion of the Building 1 would not open into the residential portion of Building 1 at any story.

The Applicant is also seeking two Special Permits pursuant to ZR Section 74-533(a) to reduce the amount of required accessory parking spaces to facilitate the development of affordable housing. The Proposed Project would require either 95 or 128 accessory parking spaces, dependent on whether MIH Option 2 or 4 is used, to be provided on-site. However, as a majority of the Development Site consists of an open rail cut, providing the required accessory parking spaces would not be feasible. The Applicant is proposing 40 at-grade parking spaces, which would be located on Block 5509, Lot 41.

Proposed Zoning Authorizations

The Applicant is seeking four Zoning Authorizations – three pursuant to ZR Section 25-82 and one pursuant to ZR Section 36-72 – to authorize a waiver of the required enclosed accessory bicycle parking spaces. Absent the approval of the proposed four Zoning Authorizations, a total of 100 enclosed bicycle parking spaces (91 residential bicycle spaces and 9 commercial bicycle spaces) would be required for the Proposed Project.

The Proposed Project would provide 21 enclosed bicycle parking spaces, as well as 73 covered (but not enclosed) bicycle parking spaces that would be memorialized as part of the LSGD. Although the proposed unenclosed bicycle parking spaces do not satisfy the requirements of ZR Section 25-83 and ZR Section 36-

73, the provision of such bicycle parking spaces would ensure that the Proposed Project would provide 94 bicycle parking spaces.

(E) Designations and Project Component Related to the Environmental (PCRE)

The Proposed Actions include the assignment of an (E) designation (E-749) for hazardous materials and air quality on Block 5727, Lots 14 and 19; Block 5516, Lots 1 and 33; Block 5509, Lots 41 and 57 to ensure that there would be no significant adverse hazardous materials or air quality impacts. In addition, (E) designation E-749 would be placed on Block 5727, Lots 14 and 19; Block 5516, Lots 1 and 33 to ensure that there would be no significant adverse noise impacts. The (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed action because of steps that would be undertaken prior to the development of a rezoned site. The (E) designation (or other measures equivalent to such a designation) would ensure that these identified sites would not be developed unless necessary remedial measures are implemented.

In addition, as described in **Attachment H, "Transportation,"** enhanced crossing warrant analyses were performed to determine if a midblock crosswalk would be necessary on 60th Street between 15th Avenue and 16th Avenue. The enhanced crossing warrant analyses determined that an enhanced midblock crossing is warranted for this location. NYCDOT, through its review, determined that an enhanced midblock crossing is warranted for 60th Street between 15th Avenue and 16th Avenue and tentatively approved of the installation. The installation of the enhanced midblock crossing will be included as a Project Component Related to the Environmental (PCRE) under the Proposed Actions. Upon construction of the Proposed Project, the Applicant will, at its own cost and expense, conduct a Transportation Monitoring Program ("TMP") to determine whether an enhanced midblock crossing is warranted for 60th Street between 15th Avenue and 16th Avenue based on actual future traffic conditions. The Applicant will coordinate with NYCDOT on the scope of work for the TMP prior to undertaking the TMP. The Applicant will also coordinate with NYCDOT on the future design and implementation of the enhanced midblock crossing, subject to the conclusions of the TMP.

IV. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The Proposed Actions are intended to provide opportunities for new residential, commercial, and open space development on the Applicant-controlled Development Site. The Proposed Actions would permit the Applicant to create opportunities for new housing development, including affordable housing, in an area of the City where a strong demand for housing exists. In addition, the Proposed Actions are being sought to improve the urban design characteristics of the Development Site and to introduce additional land uses that would enliven the area adjacent to the Development Site.

The proposed Zoning Map Amendment to rezone the Proposed Rezoning Area from M1-1 and R5 to C4-5, R6, and R6/C2-4, combined with the proposed Zoning Text Amendment for MIH, would increase the permitted residential FAR in the Proposed Rezoning Area. The majority of the Proposed Rezoning Area is currently within an existing M1-1 zoning district. The proposed C4-5 zoning district would allow for a maximum FAR of 4.6 for residential uses with MIH, 3.4 for commercial uses, and 6.5 for community facility uses. The proposed R6 zoning district would allow of a maximum FAR of 3.6 for residential uses with MIH and 4.8 for community facility uses.

The proposed Zoning Text Amendment, which would designate the Proposed Rezoning Area as an MIH area, would require the Applicant to construct permanently affordable DUs on the Development Site in

order to take advantage of the additional FAR provided pursuant to MIH. As such, the proposed Zoning Map Amendment and Zoning Text Amendment would create additional zoning capacity in a transit accessible area to support new market-rate and affordable housing creation in New York City. In addition, the creation of new housing supply at various income levels is expected to alleviate upward pressure on housing prices and contribute to housing affordability in the surrounding neighborhood.

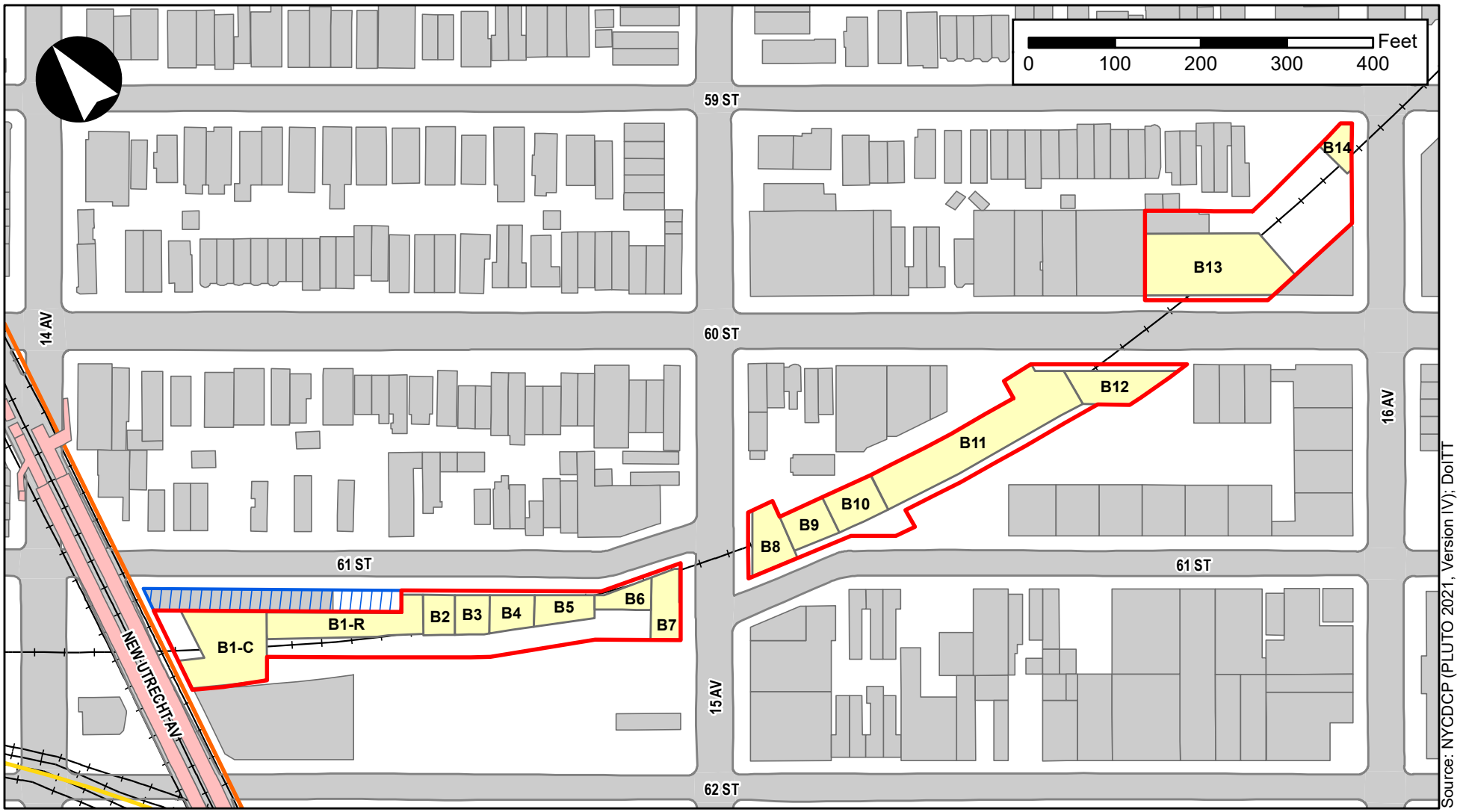
The proposed LSGD Special Permits, as well as the other requested Special Permits, are needed in order to redistribute floor area and lot coverage across the entire Development Site, and to modify yard, court, and distance between legal window and lot line requirements, thereby creating a site plan and building layout and design that, according to the Applicant, would promote better site planning and urban design characteristics on the irregularly shaped Development Site than would be allowed as-of-right under the proposed zoning districts.

V. DESCRIPTION OF THE PROPOSED PROJECT

As discussed above, the Applicant is seeking a series of discretionary actions in order to facilitate the Proposed Project in the Borough Park neighborhood of Brooklyn CDs 11 and 12. As detailed in **Table A-2** (located on the next page) and shown in **Figures A-4**, **A-5a**, and **A-5b**, the Proposed Project would consist of 14 attached buildings containing 282,505 gsf of residential space (encompassing 270 total DUs) and 65,212 gsf of commercial space.

TABLE A-2:
Proposed Project

Building	Use	Use Group	Use Group Type	GSF	DUs	Height
1	Commercial	6	Local Retail	2,904	0	176’
		6	Office	57,586	0	176’
	Residential	2	Multi-Family Residences	45,840	41	75’
	Total	-	-	*106,330*	*41*	-
2	Residential	2	Multi-Family Residences	10,646	9	55’
3	Residential	2	Multi-Family Residences	10,634	9	55’
4	Residential	2	Multi-Family Residences	10,610	9	55’
5	Residential	2	Multi-Family Residences	10,482	9	55’
6	Residential	2	Multi-Family Residences	9,642	9	55’
7	Residential	2	Multi-Family Residences	9,273	9	55’
8	Residential	2	Multi-Family Residences	11,202	9	55’
9	Residential	2	Multi-Family Residences	10,390	9	55’
10	Residential	2	Multi-Family Residences	11,026	9	55’
11	Residential	2	Multi-Family Residences	77,370	82	75’
12	Residential	2	Multi-Family Residences	9,426	8	55’
13	Residential	2	Multi-Family Residences	55,964	58	75’
14	Commercial	6	Local Retail	4,722	0	30’
Totals	***Residential***	***2***	***Multi-Family Residences***	***282,505***	***270***	-
	Commercial	***6***	***Local Retail and Office***	***65,212***	***-***	-
			Totals	***347,717***	***270***	***-***

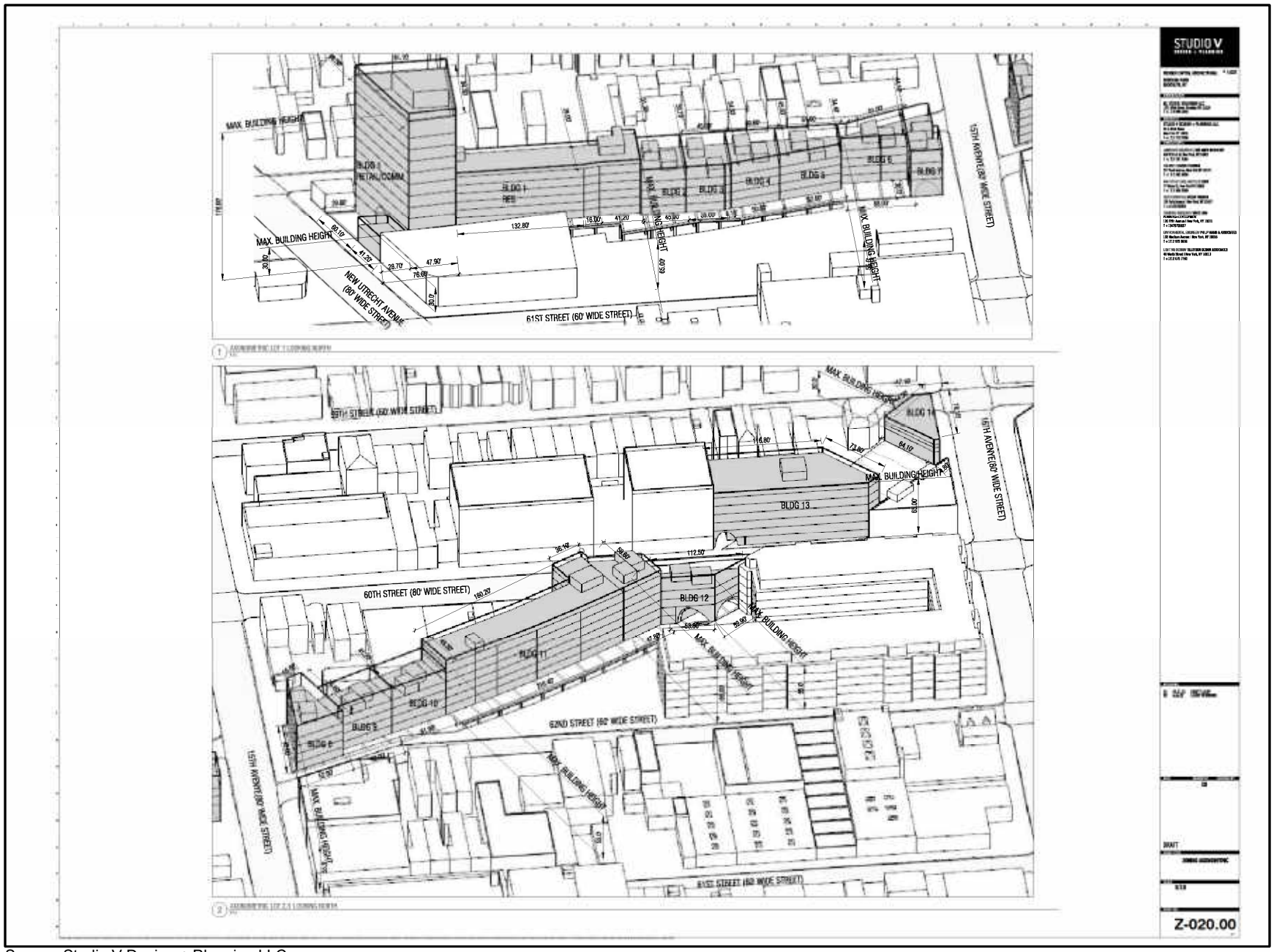


Legend

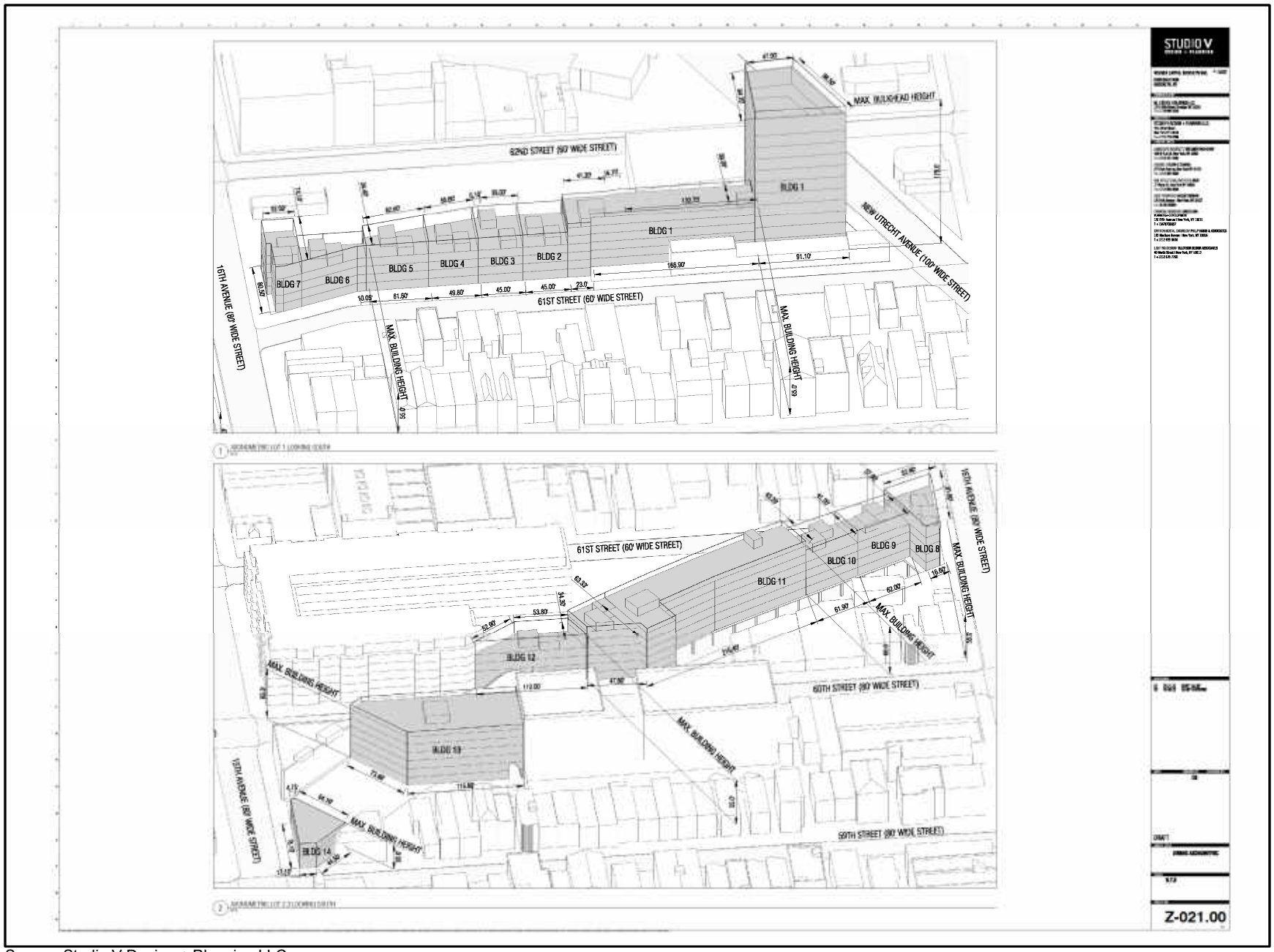
- Development Site
- Potential Development Site
- Proposed Buildings
- Existing Building Footprints
- Rail Structures
- LIRR Tracks
- D Train
- N Train

Brooklyn Yards EAS

Figure A-4
With-Action Illustrative Site Plan



Source: Studio V Design + Planning LLC.
Note: For Illustrative Purposes Only.



Source: Studio V Design + Planning LLC.
Note: For Illustrative Purposes Only.

Brooklyn Yards EAS

Figure A-5b
With-Action Condition Aerial Rendering - View Looking South

The Proposed Project's westernmost building, Building 1, would feature frontage on New Utrecht Avenue and 61st Street. The western portion of Building 1 (labeled B1-C in **Figure A-4**) would stand ten-stories tall and contain 57,586 gsf of office uses and 2,904 gsf of ground floor retail uses. The western portion of Building 1 (B1-C) would feature frontage on New Utrecht Avenue only. The eastern portion of Building 1 (labeled B1-R in **Figure A-4**) would stand six-stories tall and contain 41 DUs. The eastern portion of Building 1 (B1-R) would feature frontage on 61st Street only. The commercial and residential portions of Building 1 would be separate and not share common space. To the east of Building 1, Buildings 2, 3, 4, 5, 6, 7, 8, 9, and 10 would each stand five-stories tall (including penthouses) and contain nine DUs in each building. To the east of Building 10, Building 11 would comprise a six-story multi-family residential building with 82 DUs. To the east Building 11, Building 12 would stand five-stories tall and contain eight DUs. Building 13 would comprise a six-story multi-family residential building with 58 DUs. Building 14 would comprise a two-story commercial building containing 4,722 gsf of retail uses. The Proposed Project would have a built FAR of 3.24.

The Proposed Project would also include approximately 0.08 acres of PAA, consisting of approximately 3,684 sf of publicly accessible passive and active open space. **Appendix 1** provides the current PAA plan. An approximately 2,038 sf publicly accessible area (PAA 1) would be located along New Utrecht Avenue, adjacent to Building 1, and would include seating and planted areas. An approximately 512 sf publicly accessible area (PAA 2) would be located on 61st Street, adjacent to Building 10. An approximately 1,135 sf publicly accessible area (PAA 3), including an approximately 804 sf publicly accessible play area, would be located along 60th Street, adjacent to Building 12. The Proposed Project would also include private passive and active open space areas for use by residents of the Proposed Project.

Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41 within an at-grade surface parking lot located on the platform between Buildings 13 and 14. Access to the parking lot would be facilitated via a new curb cut on 16th Avenue (refer to **Figures A-4**, **A-5a**, and **A-5b**).

VI. ANALYSIS FRAMEWORK AND REASONABLE WORST CASE DEVELOPMENT SCENARIO

Identification of Development Sites

According to the 2021 *CEQR Technical Manual*, the following factors, commonly referred to as "soft site criteria," are generally considered when evaluating whether some amount of development would likely be constructed by the build year as a result of a proposed action:

- The use and bulk allowed: Lots located in areas where changes in use would be permitted and/or contain buildings built to substantially less than the maximum allowable floor area ratio (FAR) under the existing zoning are considered "soft" enough such that there would likely be sufficient incentive to develop in the future, depending on other factors specific to the area (e.g., the amount and type of recent as-of-right development in the area, recent real estate trends, site specific conditions that make development difficult, and issues relating to site control or site assemblage that may affect redevelopment potential); and
- Size of the development site: Lots must be large enough to be considered "soft." Generally, lots with a small lot size are not considered likely to be redeveloped, even if they are currently built to substantially less than the maximum allowable FAR. A small lot is often defined for this purpose as

5,000 sf or less, but the lot size criteria is dependent on neighborhood-specific trends, and common development sizes in the study area should be examined prior to establishing this criteria.

However, the following uses and types of buildings that meet the soft site criteria are typically excluded from development scenarios because they are unlikely to be redeveloped as a result of a proposed action:

- Full block and newly constructed buildings with utility uses, as these uses are often difficult to relocate;
- Long-standing institutional uses with no known development plans; or
- Residential buildings with a total of six or more residential units constructed before 1974. These buildings are likely rent-stabilized and difficult to legally demolish due to tenant relocation requirements.

Build Year

It is anticipated that the Proposed Actions would be certified into ULURP in late-2023. Assuming the completion of the ULURP process by early-2024 after an approximately seven month period, and a period of approximately seven years for construction of the Proposed Project, completion and occupation of all sites is expected in late-2030.

The build year reflects a reasonable estimate of the time needed for the Applicant to construct platform structures over the open rail cut and construct the Proposed Project. As discussed in detail in **"Attachment K, Construction,"** construction of the platform structure on Block 5727 would occur over a period of approximately six months beginning in early- to mid-2024 and completed by mid- to late-2024; construction of the platform structure on Block 5516 would occur over a period of approximately six months beginning in mid- to late-2024 and completed by early- to mid-2025; and construction of the platform structure on Block 5509 would occur over a period of approximately three months beginning in early- to mid-2025 and completed by mid- to late-2025.

As discussed in detail in **"Attachment K, Construction,"** construction of the Proposed Project above the three platform structures is expected to occur in three distinct phases. The first phase would include the portion of the Development Site located on Block 5727 and construction of Buildings 1 – 7 would occur over a period of approximately 26 months beginning in mid-2024 and concluding in late-2026. The second phase would include the portion of the Development Site located on Block 5516 and construction of Buildings 8 – 12 would occur over a period of approximately 26 months beginning in late-2026 and concluding in late-2028. The third phase would include the portion of the Development Site located on Block 5509 and construction of Buildings 13 and 14 would occur over a period of approximately 19 months beginning in late-2028 and concluding in mid-2030.

Definition of Projected and Potential Development Sites

To produce a reasonable, conservative estimate of future growth, identified development sites are typically divided into two categories: projected development sites and potential development sites. Projected development sites are considered more likely to be developed within the analysis period for the Proposed Actions (i.e., by 2030), while potential sites are considered less likely to be developed over the same period. Projected and potential development sites were identified based on the following criteria:

- Slightly irregularly shaped lots or otherwise encumbered parcels that would make as-of- right development difficult.
- Lots with ten or more commercial tenants which may be difficult to dislodge do to long term leases.
- Active businesses, which may provide unique services or are prominent, and successful neighborhood businesses or organizations unlikely to move.
- Sites divided between disparate zoning districts.

The Applicant-controlled Development Site is considered a projected development site. The Applicant intends to develop the Development Site pursuant to the Proposed Actions. Because the LSGD Special Permit and the ZR 74-681 Special Permits would restrict the floor area and bulk to be developed, the Proposed Project represents the RWCDS With-Action condition for the Development Site.

In addition to the Proposed Project, Block 5727, Lot 19 would be considered a potential development site. Block 5727, Lot 19 is approximately 7,350 sf and contains a two-story, approximately 6,650 gsf auto repair use. It is assumed that this lot could be developed with a two-story commercial building containing approximately 15,750 gsf. While this lot could potentially be developed with a maximum of 24,990 sf of commercial uses pursuant to the proposed C4-5 zoning, because this site is narrow in size (measuring 25-feet x 300-feet), the property is only expected to be able to accommodate a maximum of 15,750 gsf.

Block 5509, Lots 35, 36, and 48 are not expected to be developed in the future with the Proposed Actions as they do not meet the soft site criteria as defined by the *CEQR Technical Manual*. Block 5509, Lot 35 currently contains an existing one-family residential building that is not under the control of the Applicant. Further, only 9 percent of Lot 35 is included in the Proposed Rezoning Area. Block 5509, Lot 36 is not under the control of the Applicant and currently contains an existing three DU residential building. Block 5509, Lot 48 measures less than 5,000 sf and is not developed to substantially less than the maximum allowable FAR pursuant to the lot's existing M1-1 zoning. Furthermore, the existing building on Lot 48 was renovated in 2004 to accommodate a furniture store. Therefore, these three lots are not considered projected or potential development sites.

The Proposed Actions would not alter the use and bulk regulations applicable to the remainder of the Project Area (Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 4, 9-14, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-34, 58, 62, 64, 65, 68, and 70-73). Rather, only the parking requirements for these properties would be altered by the Proposed Actions – specifically, the proposed Zoning Text Amendment to amend Appendix I of the ZR to include the Project Area as part of the Transit Zone. Therefore, these properties are not considered projected or potential development sites.

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

In the future without the Proposed Actions, the Applicant-controlled Development Site would not be redeveloped. Therefore, the existing conditions within the Applicant-controlled Development Site would remain and no new development would occur. Within the Project Area, the existing conditions on Block 5727 and 5523 would remain and no new development would occur on these two blocks. However, there are three developments that are expected to be completed and occupied in the No-Action condition within the Project Area. On Block 5516, the recently constructed Maple Views Lane development comprises approximately 128 DUs and 64 parking spaces. On portions of Blocks 5516 and 5509, the 1501-1555 60th Street development would comprise approximately 102 DUs, 32,219 gsf of commercial space, and 31 parking spaces upon construction. On Block 5509, a new three-family residential development has

been constructed at 1578 59th Street. No other development projects are anticipated on Blocks 5516 and 5509 in the No-Action condition.

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

In the future with the Proposed Actions, the Applicant-controlled Development Site would be redeveloped with the Proposed Project. As discussed above, in addition to the Proposed Project, Block 5727, Lot 19 would be considered a potential development site. Block 5727, Lot 19 could be developed with a two-story commercial building containing approximately 15,750 gsf.

Project Increment

As summarized in **Table A-3** (located on the next page), compared to the No-Action condition, the Proposed Actions would result in the incremental development of approximately 270 DUs (282,505 gsf), 57,586 gsf of commercial office space, 7,626 gsf of local retail space, 3,684 sf of PAA, and a decrease of 2,648 gsf of auto repair space. In terms of population, the Proposed Actions are expected to result in the incremental increase of 956 residents and the incremental increase of 261 employees, as compared to the 2030 No-Action condition.

TABLE A-3:
Comparison of the No-Action and With-Action Conditions: Increment for Analysis

	No-Action	With-Action	Increment
Land Use			
Residential	0 gsf	282,505 gsf	+282,505
DUs	0	270	+270
Office	0 gsf	57,586 gsf	+57,586 gsf
Local Retail	0 gsf	7,626 gsf	+7,626 gsf
Public Access Area (PAA)	0 sf	3,684 sf	+3,684 sf
Auto Repair	2,648 gsf	0 gsf	-2,648 gsf
Population[1]			
Residents	0	956	+956
Workers	3	264	+261

Note:

[1] The number of additional residents is based on the average household size of 3.53 for census tracts within a quarter-mile radius of the Project Area (2020 Census). The number of existing, No-Action scenario, and With-Action scenario workers has been calculated based on the following ratios: One employee per 25 DUs; one employee per 1,000 sf of auto repair space; three employees per 1,000 sf of local retail space; and four employees per 1,000 sf of commercial office space.

VII. REQUIRED APPROVALS

The Proposed Actions are discretionary actions that are subject to CEQR and, with regard to the proposed Zoning Map Amendment, the proposed Zoning Text Amendment, and the proposed Special Permits, ULURP.[5]

The City's ULURP process, mandated by Sections 197-c and 197-d of the New York City Charter, is designed to allow public review of ULURP applications at four levels: Community Board(s), Borough President, the CPC, and the City Council. The procedure has mandated time limits for review at each stage to ensure a

[5] The Zoning Text Amendments are subject to ULURP-like review and the Zoning Authorizations are subject to public review by the City Planning Commission and local Community Boards.

maximum review period of approximately seven months. The process begins with certification by DCP that the ULURP application is complete. The application is then referred to the relevant Community Boards (in this case Brooklyn CDs 11 and 12). The Community Boards have up to 60 days to review and discuss the proposal, hold public hearings, and adopt advisory resolutions on the ULURP application. The Borough President then has up to 30 days to review the application. The CPC then has up to 60 days, during which time a public hearing is held on the ULURP application. Following CPC approval, the application is then forwarded to the City Council, which has 50 days to review the ULURP application. Mayoral approval is not required. A decision by the City Council to approve or disapprove a land use application is considered to be final unless the Mayor elects to veto a Council action within five days of the vote. The City Council can override a Mayor's veto of its decision within 10 days of the veto, by a supermajority vote.

CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The City of New York established CEQR regulations in accordance with the New York State Environmental Quality Review Act (SEQR). In addition, the City has published a guidance manual for environmental review, the *CEQR Technical Manual*. CEQR rules guide environmental review through the following steps:

- *Establish a Lead Agency*. Under CEQR, the "lead agency" is the public entity responsible for conducting the environmental review. The environmental review for the Proposed Actions will be reviewed by DCP, which is serving as the lead agency for this project.

- *Environmental Review and Determination of Significance*. The lead agency will determine whether the Proposed Actions may have a significant impact on the environment. To do so, an EAS must be prepared. This EAS will be reviewed by the lead agency, which will determine if the Proposed Actions and subsequent development will result in any significant adverse impacts on the environment.

Attachment B:

Supplemental Screening

I. INTRODUCTION

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidance and methodologies presented in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*. For each technical area, thresholds are defined, which, if met or exceeded, require that a detailed technical analysis be undertaken. Using this guidance, preliminary screening assessments were conducted for the Proposed Action to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. The technical areas that warranted a "Yes" answer in Part II of the EAS Short Form were Land Use, Zoning, and Public Policy, Socioeconomic Conditions, Community Facilities and Services, Open Space, Shadows, Historic and Cultural Resources, Urban Design and Visual Resources, Hazardous Materials, Transportation, Air Quality, Noise, and Construction. Therefore, a supplemental screening assessment for each area is provided in this attachment. All remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds.

Table B-1: Summary of CEQR Technical Areas Screening

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

As shown in **Table B-1**, the supplemental screening assessment contained herein identified that a detailed analysis is warranted for Land Use, Zoning, and Public Policy, Socioeconomic Conditions, Community Facilities and Services, Open Space, Urban Design and Visual Resources, Transportation, Air Quality, Noise, and Construction. **Table B-1** identifies for each CEQR technical area whether (a) the potential for impacts can be screened out based on the EAS Short Form, Part II, Technical Analysis; (b) the potential for impacts can be screened out based on a supplemental screening per the *CEQR Technical Manual*; or (c) whether a more detailed assessment is warranted.

II. SUPPLEMENTAL SCREENING

LAND USE, ZONING, AND PUBLIC POLICY

According to *CEQR Technical Manual* guidance, a detailed analysis of land use, zoning, and public policy is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Analyses of zoning and public policy are typically performed in conjunction with a land use analysis when an action would change the zoning on the site or result in the loss of a particular use.

As the Proposed Actions include a zoning map amendment and a zoning text amendment, as well as special permits, a detailed analysis of land use, zoning, and public policy is provided in **Attachment C, "Land Use, Zoning, and Public Policy."** As discussed therein, no significant adverse impacts on land use, zoning, or public policy, as defined by the guidance for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the future with the Proposed Actions in the primary and secondary study areas.

SOCIOECONOMIC CONDITIONS

The *CEQR Technical Manual* states that a socioeconomic assessment should be conducted if the project would: (a) directly displace more than 500 residents; (b) directly displace more than 100 employees; (c) directly displace a business that is unusually important because its products or services are uniquely dependent on its location, is the subject of other regulations or publicly adopted plans aimed at its preservation, or that serves a population uniquely dependent on its services in its present location; (d) result in the development of more than 200 residential units or more than 200,000 sf of commercial uses; (e) result in the development of 200,000 sf or more of retail on a single development site; and/or (f) affect conditions within a specific industry.

The Proposed Actions would not result in direct residential displacement, direct business displacement, indirect business displacement, indirect business displacement due to retail market saturation, or adverse effects on specific industries. However, the Proposed Project would introduce 270 residential units as compared to the No-Action condition, and would exceed the preliminary screening assessment threshold of 200 residential units warranting a preliminary assessment of indirect residential displacement. A preliminary assessment of indirect residential displacement is provided in **Attachment D, "Socioeconomic Conditions."** As discussed therein, the Proposed Actions would not result in significant adverse impacts on socioeconomic conditions due to indirect residential displacement.

COMMUNITY FACILITIES AND SERVICES

The *CEQR Technical Manual* defines community facilities and services as public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police protection. CEQR methodology focuses on a project's potential effect on the services provided by these facilities. A project can affect facility services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

The Proposed Actions would not result in direct effects on community facilities and services. The Proposed Actions would not exceed *CEQR Technical Manual* thresholds for detailed analysis of indirect effects on means-tested early childhood programs, universal 3-K and Pre-K, public high schools, libraries, health care facilities, fire protection, and police protection. However, the Proposed Project would generate 70 new public elementary and intermediate school students (51 public elementary and 18 public intermediate school students). Therefore, a detailed analysis of indirect effects on public elementary and intermediate schools is warranted and provided in **Attachment E, "Community Facilities and Services."** As discussed therein, the Proposed Actions would not result in significant adverse impacts on public elementary or intermediate schools.

OPEN SPACE

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to *CEQR Technical Manual* guidance, a project that would generate fewer than 200 residents or 500 nonresidents is typically not considered to have indirect effects on open space.

Direct Effects

The Proposed Actions would not result in any direct displacement or alteration of existing public open space in the study area. The Proposed Actions would also not result in significant adverse shadow, air quality, noise, or construction impacts affecting existing public open space in the study area.

Indirect Effects

As discussed in **Attachment A, "Project Description,"** the Proposed Project would introduce approximately 956 residents and 261 workers to the Proposed Rezoning Area within the Project Area compared to the No-Action condition. Because the Proposed Actions have the potential to significantly increase the local residential population, an open space assessment for the residential population generated by the Proposed Actions is warranted and provided in **Attachment F, "Open Space."** As discussed therein, the Proposed Actions would not result in significant adverse impacts on open space, in accordance with *CEQR Technical Manual* guidance.

SHADOWS

As stated in the *CEQR Technical Manual*, a shadow assessment considers projects that result in incremental shadows long enough to reach any nearby publicly accessible open spaces or other sunlight-sensitive resources. Therefore, a shadow assessment is generally required only if a project would either (a) result in new structures (or additions to existing structures) of 50 feet or more; or (b) be located adjacent to, or across the street from, a sunlight-sensitive resource.

As discussed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of 14 new buildings, 13 of which would be greater than 50 feet in height. Therefore, a preliminary analysis assessment was conducted.

Tier 1 Screening Assessment

According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. As discussed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of 13 new buildings greater than 50 feet in height. The Proposed Project's tallest building would reach a rooftop height of 176-feet (the western portion of Building 1 [B1-C]). Initially, the maximum shadow radius for each of the Proposed Project's buildings was determined using the maximum building height (including the rooftop bulkhead) of each of the buildings. The non-Applicant-controlled property located on Block 5727, Lot 19 is not associated with the Proposed Project but has been included in the preliminary analysis assessment because it is considered a Potential Development Site. The Potential Development Site is located directly adjacent to Building 1 of the Proposed Project and could be developed with a two-story (25-feet tall) commercial building. Finally, the individual radii were combined into a single radius surrounding the Proposed Project's buildings, as well as the Potential Development Site's building.

Base maps were prepared (refer to **Figure B-1**) for the Development Site and Potential Development Site, which identify all potentially sunlight-sensitive resources within the combined maximum shadow radius for the Proposed Project and the Potential Development Site. As shown in **Figure B-1**, there are no sunlight-sensitive resources within the longest shadow study area. While the State/National Registers of Historic Places (S/NR)-listed New Utrecht Avenue Station is partially located within the maximum shadow radius (refer to **Figure B-1**), this historic resource is not considered "sunlight-sensitive" in accordance with *CEQR Technical Manual* methodology. Further, as shown in **Figure B-1**, while the District 20 Pre-K Playground is located within the maximum shadow radius, it is not considered a publicly accessible open space resource in accordance with *CEQR Technical Manual* methodology. Therefore, a shadow assessment is not required and the Proposed Actions would not result in significant adverse shadow impacts, in accordance with *CEQR Technical Manual* methodology.

HISTORIC AND CULTURAL RESOURCES

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

The study area for assessment of historic and archaeological resources is therefore defined as the Proposed Rezoning Area within the Project Area, as well as an approximately 400-foot radius surrounding

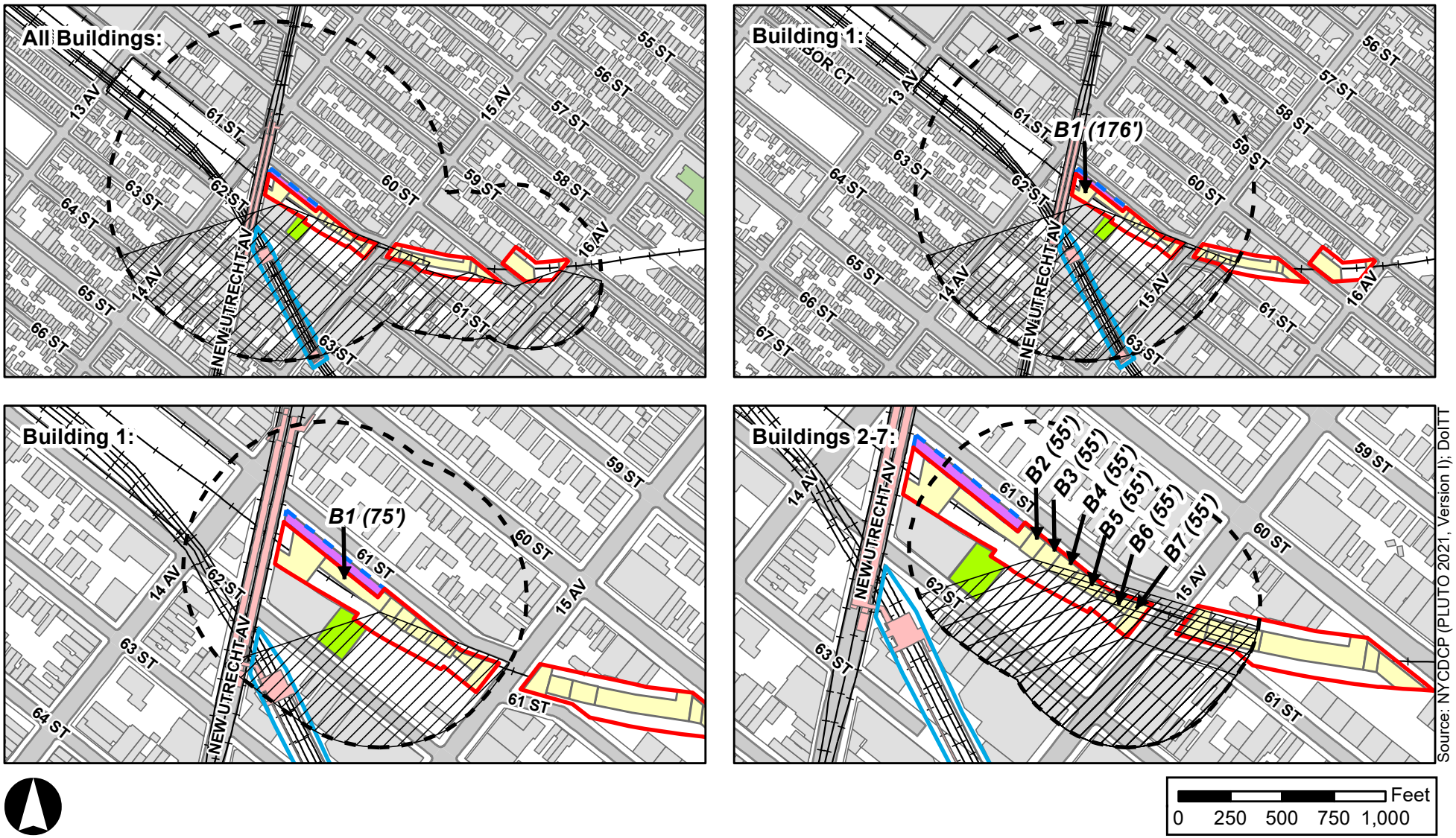


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Figure B-1
Shadow Screening Assessment

the Proposed Rezoning Area within the Project Area. Archaeological resources are considered only in those areas where new in-ground disturbance would occur.

Archaeological Resources

In a letter dated October 12, 2022, LPC determined that the Applicant-controlled Development Site does not contain any archaeological significance (refer to **Appendix 2**). Therefore, the Proposed Actions would not result in significant adverse impacts on archaeological resources.

Architectural Resources

In a letter dated October 12, 2022 (refer to **Appendix 2**), LPC determined there is one architectural resource located within a 400-foot radius of the Proposed Rezoning Area within the Project Area: the S/NR-listed New Utrecht Avenue Station. A description of the S/NR-listed New Utrecht Avenue Station is provided below.

New Utrecht Avenue Station[1]

The New Utrecht Avenue Station was listed on the State and National Registers of Historic Places in 2005. The station bisects the block bounded by 62nd Street to the north, 15th Avenue to the east, 64th Street to the south, and New Utrecht Avenue to the west and was opened in 1915 on the Sea Beach Line, which was originally part of the New York and Sea Beach Railroad, a late 19th century surface railroad route connecting central Brooklyn to Coney Island. The design of the New Utrecht Avenue Station was the work of Dual System chief architect Square J. Vickers, known as "The Dean of underground architecture," who served as Design Architect of the New York City Subway System from 1906 to 1942. The station is comprised of a four-track bed situated in an open cut, one level below grade, that is bordered by concrete retaining walls; two arcaded side platforms; and a pair of headhouses located at each end of the 620-foot-long platform. The entire original portion of the structure was built of reinforced concrete. The headhouses are of similar, flat-roofed Neo-Classical style and are supported by elevated platforms that span the tracks. The station remains architecturally significant as one of only two Neo-Classical headhouses on this line.

Effects of the Proposed Actions

According to the *CEQR Technical Manual*, generally, if a proposed action would affect those characteristics that make a resource eligible for S/NR listing, this could be a significant adverse impact. The Proposed Actions were assessed in accordance with the guidelines established in the *CEQR Technical Manual* to determine whether there would be a physical change to any designated property or its setting as a result of the Proposed Actions and, if so, if the change is likely to diminish the qualities of the resource that make it important (including non-physical changes such as contextual or visual prominence).

[1] The description of the architectural resource is sourced from the S/NR Nomination Report, which is provided in **Appendix 2**.

Direct (Physical) Effects

The Proposed Rezoning Area within the Project Area does not contain any architectural resources. Therefore, the Proposed Actions would not result in direct effects on architectural resources.

Construction-Related Effects

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

The S/NR-listed New Utrecht Avenue Station is not located within 90 linear feet of the Proposed Rezoning Area within the Project Area. Therefore, no construction-related effects on architectural resources are anticipated as a result of the Proposed Actions.

Indirect (Contextual) Effects

Contextual impacts may occur to architectural resources under certain conditions. According to the *CEQR Technical Manual*, possible impacts to architectural resources may include isolation of the property from, or alteration of, its setting or visual relationships with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor.

The Proposed Actions would not eliminate or substantially obstruct publicly accessible primary views of the New Utrecht Avenue Station, as views of the station's existing headhouse buildings are limited to the immediately adjacent streets. In addition, the Proposed Actions would not alter the relationship of the resource to the streetscape, since all streets would remain open and the resource's relationship with the street would remain unchanged in the future with the Proposed Actions. Moreover, no incompatible visual, audible, or atmospheric elements would be introduced by the Proposed Actions to the historic resource's setting. Therefore, the Proposed Actions would not result in indirect effects on architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

The *CEQR Technical Manual* defines urban design as the totality of elements – including streets, buildings, visual resources, open space, natural features, and wind – that shape and affect a pedestrian's experience of public space. A visual resource is defined as the connection from the public realm to significant natural or built features, including, but not limited to, views of the waterfront, public parks, public art, statues or sculptures, landmark structures or districts, otherwise distinct buildings or groups of buildings that may

be iconic or historic, or natural resources. In an urban design assessment pursuant to CEQR, one considers whether and how a project may change the experience of a pedestrian in the project area. For CEQR analysis purposes, this includes only views from public and publicly accessible locations and does not include those from private residences or places of business.

As the Proposed Actions have the potential to change pedestrians' experience of public space surrounding the Proposed Rezoning Area within the Project Area in comparison to conditions in the No-Action condition, a detailed urban design and visual resources analysis is required and provided in **Attachment G, "Urban Design and Visual Resources."** As discussed therein, the Proposed Actions and resultant Proposed Project would not result in significant adverse impacts to urban design or visual resources in the primary study area or the surrounding secondary study area.

HAZARDOUS MATERIALS

As detailed in the *CEQR Technical Manual*, the goal of a hazardous materials assessment is to determine whether a proposed project would increase the exposure of people or the environment to hazardous materials, and, if so, whether the increased exposure would result in potential significant public health or environmental impacts. A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile organic compounds ("VOCs), semi-volatile organic compounds (SVOCs), methane, polychlorinated biphenyls (PCBs), pesticides, dioxins, and hazardous wastes (i.e., substances that are chemically reactive, ignitable, corrosive, or toxic). According to the CEQR Technical Manual, the potential for significant impacts from hazardous materials can occur when: (a) elevated levels of hazardous materials exist on a site and the project would increase pathways to human or environmental exposure; (b) the project would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or (c) the project would introduce a population to potential human or environmental exposure from off-site sources.

Phase I Environmental Site Assessments – February 2023

As the Proposed Project would result in new in-ground disturbance on the Applicant-controlled Development Site, two Phase I Environmental Site Assessments (ESAs) were prepared to determine whether hazardous materials exist on the Applicant-controlled Development Site. The Phase I ESAs were prepared by LiRo Engineers, Inc. in February 2023 in accordance with ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-21 (ASTM E1527-21). The Phase I ESAs consisted of records review, site reconnaissance, interviews, and report preparation. Summaries of the findings of each Phase I ESA are provided below.

Phase I ESA Update – 1557 60th Street (Block 5509, Lot 57)

Based on the information evaluated in the Phase I ESA Update for Block 5509, Lot 57, the following Recognized Environmental Conditions (RECs) were identified in association with Block 5509, Lot 57:

- Current Site Use – A portion of the property's existing building is currently utilized as an auto body repair shop, and includes the use of petroleum products, chemicals, and oil.
- Historical Site Use - The historical uses of the property include a junk yard/scrap yard (as per the property owner and DOB Certificate of Occupancy dated 1959), carpenter shop, "Stone Works,"

"Marble & Tile Works," and "Old Papers & Rags." The City Directory indicated that the property used to be owned and operated by a junk shop, a scrap metal company, and a motor sales shop, and the Sanborn Fire Insurance Maps indicated the property was occupied by a paint shop, carpenter shop, and "Artificial Stone Works" until 1929, "Marble & Tile Works" until 1950, and "Old Paper & Rags" until 2003. Historical property use and associated activities may have contributed to possible on-site contamination.

- Petroleum-Related Staining - Evidence of oil staining in various areas of the lot associated with the building's current use (e.g., under unlabeled drums near the gated property entrance, and in the vicinity of the second garage used for auto body purposes) may have resulted in contamination of the subsurface.

The following Historical Recognized Environmental Condition (HREC) was identified in association with the property:

- Historical On-site Spill - The review of the Environmental Data Resources, Inc. (EDR) report identified one historical closed spill at the property. The spill was addressed to the satisfaction of the New York State Department of Environmental Conservation (NYSDEC), and was closed on September 25, 1997.

Phase I ESA – Block 5727, Lot 14; Block 5516, Lots 1 and 33; Block 5509, Lot 41

Based on the information evaluated in the Phase I ESA for Block 5727, Lot 14; Block 5516, Lots 1 and 33; Block 5509, Lot 41, the following RECs were identified in association with Block 5727, Lot 14; Block 5516, Lots 1 and 33; Block 5509, Lot 41:

- Rail Line – There is a rail line that runs along the central portion of these properties. Contaminants associated with rail lines include heavy metals, and polycyclic aromatic compounds (PAH), which are a subset of SVOCs. Potential contaminant sources associated with rail lines include machine grease, fuel oils, transformer oils, and creosote (commonly used wood preservative).
- On-Site Dumping – Based on the observations of the reconnaissance of these properties, portions of these properties are being used for dumping. Large amounts of garbage (plastic jugs, aluminum cans, filled garbage bags, cardboard boxes, old tires, old appliances, metal debris, etc.) were observed throughout these properties.

Assessment

The assessment above established that the Applicant-controlled Development Site has potential hazardous materials contamination. The Phase I ESAs have been reviewed by the New York City Department of Environmental Protection (NYCDEP). NYCDEP determined that Phase II ESAs would be necessary to adequately identify/characterize the surface and subsurface soils, groundwater, and soil vapor of the Applicant-controlled Development Site, and to inform and disclose the measures necessary to avoid impacts from hazardous materials. However, given the existing ownership of the Applicant-controlled Development Site, where the Applicant does not have existing ownership of the properties comprising the Development Site, NYCDEP has accepted the assignment of a hazardous materials (E) Designation on the Proposed Rezoning Area within the Project Area, which includes the Applicant-controlled Development Site (Block 5727, Lot 14; Block 5516, Lots 1 and 33; Block 5509, Lots 41 and 57), as well as Block 5727, Lot 19, which is not owned or controlled by the Applicant, but is considered a potential development site.

The (E) Designation that would be assigned to these lots would require that further investigation be performed to determine the presence and nature of potential contaminants of concern and the proper remedial and/or health and safety measures that would be employed during construction activities. The New York City Office of Environmental Remediation (OER) will be notified at least one week prior to the start of investigative activities on these properties.

Therefore, by assigning an (E) Designation on Block 5727, Lots 14 and 19, Block 5516, Lots 1 and 33, and Block 5509, Lots 41 and 57, the potential for a significant adverse impact to human health and the environment resulting from the Proposed Actions would be reduced or avoided. The (E) Designation provides the impetus to identify and address environmental conditions so that significant adverse impacts during development would be reduced, with OER providing the regulatory oversight of the environmental investigation and remediation during the development process. Building permits are not issued by DOB without prior OER approval of the investigation and/or remediation pursuant to the provisions of Section 11-15 of the New York City Zoning Resolution.

The text of the hazardous materials (E) designation (E-749) for Block 5727, Lots 14 and 19, Block 5516, Lots 1 and 33, and Block 5509, Lots 41 and 57 would be as follows:

Task 1: Sampling Protocol

> **Prior to construction, the Applicant must submit to the New York City Mayor's Office of Environmental Remediation (OER), for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.**
>
> **No sampling should begin until written approval of a protocol is received by OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source 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 the 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 be 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 for the test results, a proposed remedial action plan (RAP) must be submitted by 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.**

An OER-approved construction-related health and safety plan (CHASP) would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

With the measures outlined above included as part of the Proposed Actions, and adherence to existing regulations, there would be no increase in the exposure of people or the environment to hazardous materials associated with the Proposed Actions. Therefore, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the Proposed Actions.

TRANSPORTATION

The objective of the transportation analysis is to determine whether a proposed action may have a potential significant adverse impact on traffic operations, 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.

The *CEQR Technical Manual* identifies minimum incremental development densities that potentially require a transportation analysis. Development at less than the development densities presented in Table 16-1 of the CEQR Technical Manual generally result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, and 200 peak-hour pedestrian trips, where significant adverse impacts are considered unlikely. According to the *CEQR Technical Manual*, if an action would result in development greater than one of the minimum development density thresholds presented in Table 16-1, a Level 1 (Project Trip Generation) Screening Assessment should be prepared. In most areas of New York City, including the Project Site, if a proposed action is projected to result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, or 200 peak-hour pedestrian trips, it is unlikely that further analysis would be necessary. If these trip-generation screening thresholds are exceeded, a Level 2 (Project-generated Trip Assignment) Screening Assessment should be prepared to determine if a proposed action would generate or divert 50 peak-hour vehicle trips through any intersection, 200 peak-hour subway trips through a single station, 50 peak-hour bus trips on a single bus route in the peak direction, or 200 peak-hour pedestrian trips through a single pedestrian element. If any of these Level 2 screening thresholds are met or exceeded, detailed analysis for the respective mode would be required.

An analysis of transportation conditions is provided in **Attachment H, "Transportation."** As discussed therein, the Proposed Actions would not exceed the Level 2 Screening Assessment thresholds for vehicular traffic, transit (subway/rail and bus), and pedestrians. In addition, the Proposed Actions would not result in a significant adverse impact on parking conditions. Therefore, the Proposed Actions would not result in any significant adverse impacts to transportation conditions.

AIR QUALITY

Mobile Sources

CO and $PM_{2.5}$ Emissions

As stated in the *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, or add new users near mobile sources. According to the *CEQR Technical Manual* screening threshold criteria for the Proposed Rezoning Area within the Project Area, if 170 or more project-generated vehicles pass through an intersection in any given peak period for CO impact, or if a project would result in greater than 12 to 23 heavy-duty diesel vehicle (HDDV) trips or its equivalent vehicle emissions based on the type of road (for $PM_{2.5}$ impact), there is the potential for mobile source air quality impacts and a detailed analysis is required. The Proposed Actions would not exceed the *CEQR Technical Manual* screening criterion for CO and $PM_{2.5}$ analyses. Therefore, no significant mobile source air quality impacts are expected as a result of the Proposed Actions.

Parking Facilities

As stated in the *CEQR Technical Manual*, a project that would (1) result in new sensitive uses (particularly schools, hospitals, parks, and residences) adjacent to large existing parking facilities or parking garage exhaust vents and/or (2) result in the construction of parking facilities, may require analysis. The Proposed Project would not be located adjacent to a large parking facility or parking garage exhaust vents, nor would the Proposed Action result in the development of an accessory parking garage. Although the Proposed Project would result in the development of an at-grade parking lot for 40 vehicles, a detailed analysis of emissions associated with parking operations is not warranted. Therefore, no further analysis is warranted for the Proposed Actions.

Train Operations

As the Proposed Actions would facilitate the development of new sensitive uses above an active railroad right-of-way, an analysis of train emissions is warranted and provided in **Attachment I, "Air Quality."** As discussed therein, no significant adverse impacts on ambient air quality would result from train operations.

Stationary Sources

Actions can result in stationary source air quality impacts when they (1) create new stationary sources of pollutants such as emission stacks from industrial plants, hospitals, or other large institutional uses, or a building's boiler stack(s) used for heating/hot water, ventilation, and air conditioning systems (HVAC) that can affect surrounding uses; (2) introduce new receptors near existing (or planned future) emissions stacks that may adversely affect the new use; or (3) introduce potentially significant odors. Air quality impacts from HVAC sources are unlikely at distances of 400-foot or more, but a large or major emission source within 1,000-foot warrants further evaluation.

HVAC

The Proposed Project would utilize fossil fuels for HVAC purposes. Emissions from the HVAC systems of the Proposed Project's 14 buildings may affect ambient air quality at adjacent existing land uses. As discussed in **Attachment I, "Air Quality,"** the stationary source air quality analysis determined that the Applicant-controlled Development Site would require the assignment of air quality (E) Designations, which would restrict fuel type and stack location on specific buildings of the Proposed Project. With adherence to the air quality (E) Designations, no significant adverse stationary air quality impacts from HVAC emissions are expected in the future with the Proposed Actions.

Air Toxics

In accordance with *CEQR Technical Manual* methodology, projects that would result in new uses (particularly schools, hospitals, and residences) located near industrial sources, major sources, large sources, and odor-producing facilities may result in significant adverse stationary air quality impacts. A detailed analysis of industrial sources is provided in **Attachment I, "Air Quality."** As discussed in therein, no significant adverse stationary air quality impacts from industrial sources are expected in the future with the Proposed Actions.

NOISE

The purpose of a noise analysis is to determine both a proposed action's potential effects on noise sensitive receptors and the effects of ambient noise levels on new sensitive uses introduced by a proposed action. The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles and rail transit), stationary sources (typically playground and machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating, and air conditioning systems) and construction noise (e.g. trucks, bulldozers, power tools, etc.). As the Proposed Action would facilitate the development of new community facility, residential, and commercial office uses ("receptors" as defined by CEQR), a preliminary assessment of noise is warranted to determine whether noise attenuation is required for the Proposed Project to maintain adequate interior noise levels.

Mobile Source Screening

According to the *CEQR Technical Manual*, a detailed mobile source analysis is generally performed if a proposed action would increase existing noise passenger car equivalent (Noise PCE) values by 100 percent or more. As discussed in **Attachment J, "Noise,"** a detailed mobile source analysis was conducted. However, no significant mobile source noise impacts are expected as a result of the Proposed Actions.

Stationary Source Screening

According to the *CEQR Technical Manual*, a detailed stationary source analysis is generally performed if a proposed action would cause a substantial stationary source (i.e. unenclosed equipment for building ventilation purposes) to be operating within 1,500-foot 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.

It is expected that all rooftop mechanical equipment for the Proposed Project would be located within enclosed mechanical bulkheads or would be designed to meet all applicable noise regulations to avoid producing noise levels that would result in any significant adverse stationary noise impacts.

While people are not usually thought of as sources of stationary noise, children in playgrounds or spectators at outdoor sporting events or concerts can introduce additional sources of noise within communities. According to the *CEQR Technical Manual*, noise generated by children in playgrounds or people using parks is considered a stationary source of noise. The Proposed Actions and resultant Proposed Project would introduce a play area. In addition, an existing playground (the District 20 Pre-K Playground) is located adjacent to the Applicant-owned Development Site. Therefore, a play area noise analysis was conducted to determine whether noise levels from the proposed play area and the existing District 20 Pre-K Playground would result in significant adverse stationary noise impacts on both the Proposed Project and nearby noise sensitive receptors. As discussed in **Attachment J, "Noise,"** the Proposed Project's play area would not result in significant adverse stationary noise impacts on nearby noise sensitive receptors. In addition, as outlined in **Attachment J, "Noise,"** through the assignment of a noise (E) Designation, the Proposed Project's play area and existing playground would not result in significant adverse stationary noise impacts on noise sensitive receptors within the Applicant-controlled Development Site and the Proposed Project.

Receptor Analysis/Noise Attenuation Analysis

According to the *CEQR Technical Manual*, a detailed noise analysis may be warranted if a proposed action would introduce a new noise sensitive use into an area with high ambient noise levels. As the Proposed Actions would facilitate the development of commercial office and residential uses, a detailed assessment of ambient noise has been provided in **Attachment J, "Noise."** As discussed therein, noise from the traffic volumes generated by the Proposed Actions would not cause significant adverse noise impacts at the nearby receptors, as the noise level increases would fall below the applicable significant adverse impact criteria discussed in Chapter 19, Section 410 of the *CEQR Technical Manual*.

However, based on the detailed analysis presented in **Attachment J, "Noise,"** the Proposed Project would require attenuation requirements through the assignment of a noise (E) Designation. With the implementation of the attenuation requirements outlined in the (E) Designation, the Proposed Project would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level requirements. Therefore, the Proposed Actions and resultant Proposed Project would not result in significant adverse noise impacts.

CONSTRUCTION

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

As the Proposed Project would involve the construction of multiple buildings in proximity to existing sensitive receptors over a period longer than two years, a preliminary construction assessment is

warranted and provided in **Attachment K, "Construction."** As discussed therein, construction of the Proposed Project would not result in significant adverse construction impacts. It is anticipated that construction of the Proposed Project would last approximately seven years, including the construction of the platforms over the open rail cut. During this period, construction activities may result in short-term disruption of both traffic and pedestrian movements in the vicinity of the Applicant-controlled Development Site. However, construction of the Proposed Project is not expected to generate a significant amount of construction-related traffic, pedestrian, and transit trips. In addition, any temporary sidewalk or lane closures would require submission and approval of detailed Maintenance and Protection of Traffic (MPT) plans to the New York City Department of Transportation (NYCDOT) Office of Construction Mitigation and Coordination (OCMC), the entity that insures critical arteries are not interrupted, especially during peak travel periods.

Noise associated with construction activities would be limited to typical construction activities and would be subject to compliance with the New York City Noise Code and the U.S. Environmental Protection Agency (EPA) noise emission standards for construction equipment. These controls and the temporary nature of construction activities would assure that there would be no significant adverse noise impacts associated with construction activities. In addition, based on the duration and intensity of construction activities, the location of nearby sensitive receptors, the use of emission control measures, the Proposed Actions would not result in significant adverse construction air quality and noise impacts.

Attachment C:

Land Use, Zoning, and Public Policy

I. INTRODUCTION

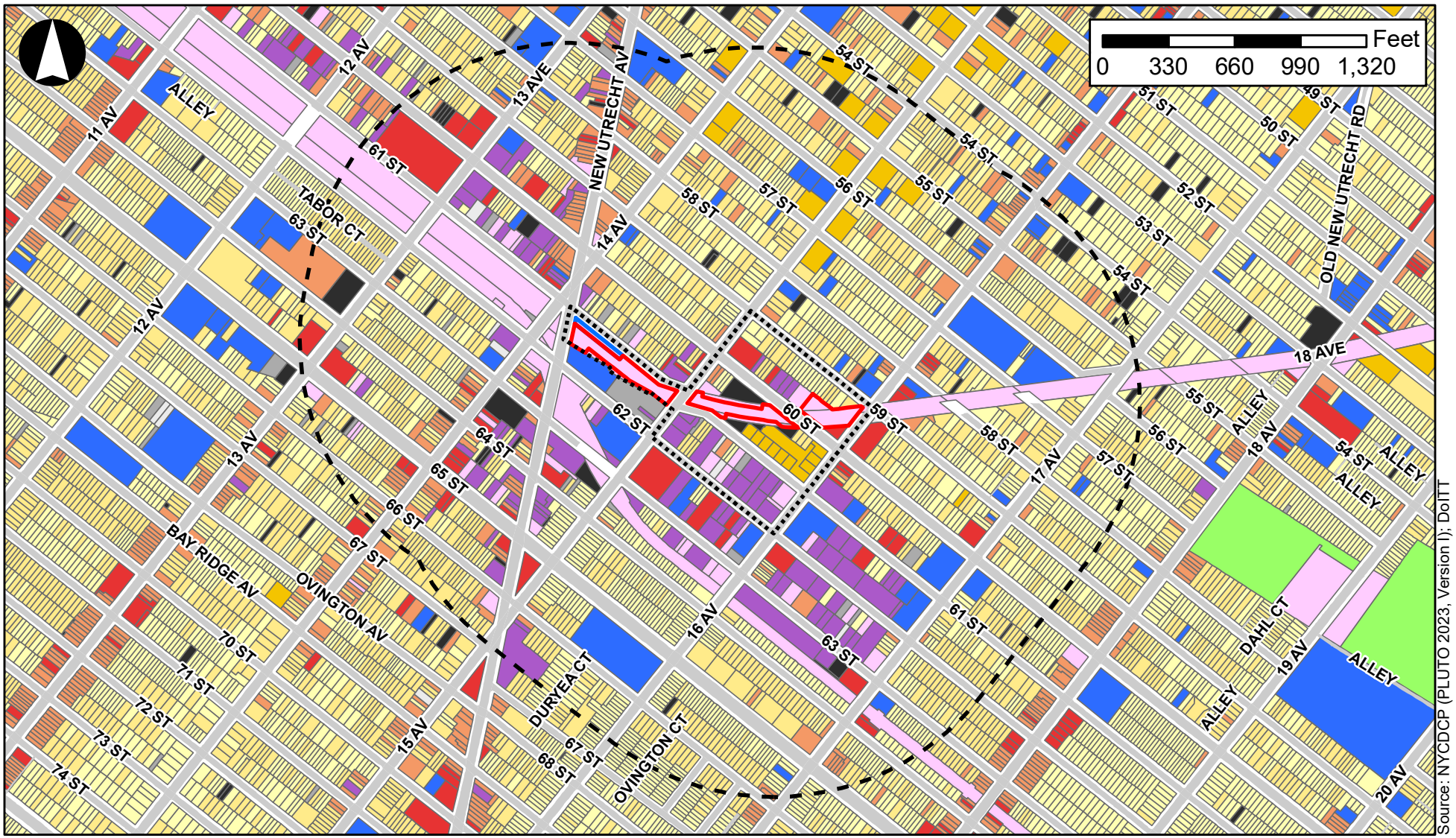
As outlined in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, a detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on a site or result in the loss of a particular use. As the Proposed Actions include zoning map and zoning text amendments, as well as special permits, a detailed assessment of land use, zoning, and public policy is warranted and is provided in this attachment.

II. METHODOLOGY

As mentioned above, the Proposed Actions include zoning map and text amendments, as well as special permits, which would affect land use, zoning, and public policy. Land use, zoning, and public policy are addressed and analyzed for two geographical areas. For the purpose of this assessment, the primary study area encompasses the Project Area, which includes portions of four blocks spanning from New Utrecht Avenue to 16th Avenue and from 59th Street to south of 61st Street in the Borough Park neighborhood of Brooklyn CDs 11 and 12. The secondary study area encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Actions. The secondary study area extends a quarter-mile radius from the boundary of the primary study area. Both the primary and secondary study areas have been established in accordance with *CEQR Technical Manual* guidance and are presented in **Figure C-1**.

The analysis of land use, zoning, and public policy first provides a description of the existing land use, zoning, and public policy conditions in each of the study areas. Existing land uses in the primary and secondary study areas were determined based on the New York City Primary Land Use Tax Lot Output (PLUTO) data files for 2023, as well as 2021 field visits; no discrepancies between PLUTO data files and existing field conditions were observed. New York City Zoning and Land Use (ZoLa), New York City Zoning maps, and the *Zoning Resolution of the City of New York* (ZR) were consulted to describe existing zoning districts in each of the study areas. Relevant public policy documents, recognized by the New York City Department of City Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the primary and secondary study areas.

The analysis then projects land use, zoning, and public policy conditions in the 2030 build year without the Proposed Actions. This is the "No-Action" or "future without the Proposed Actions" condition, which is developed by identifying known and proposed developments and other relevant changes anticipated to occur in the primary and secondary study areas within this time frame. The No-Action condition describes the baseline conditions in each of the study areas against which the Proposed Actions' incremental changes are measured. Finally, the analysis projects land use, zoning, and public policy conditions in 2030 with the approval of the Proposed Actions. This is the "With-Action" or "future with the Proposed Actions" condition.



Legend

- Primary Study Area (Project Area)
- Secondary Study Area (Quarter-Mile Radius)
- Development Site
- Potential Development Site
- One & Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- All Others or No Data

Brooklyn Yards EAS

Figure C-1
Land Use

III. PRELIMINARY ASSESSMENT

Land Use and Zoning

A preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. As the Proposed Actions include zoning map and text amendments, as well as special permits, a detailed assessment of land use and zoning is warranted and provided in **Section IV, "Detailed Assessment."**

Public Policy

According to the *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports that pertain to the study areas. If a proposed action could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

The primary and secondary study areas are not located within an urban renewal area, a designated Industrial Business Zone ("IBZ"), a Business Improvement District ("BID"), a designated historic district, or within an area defined by an adopted 197-a plan; nor would the Proposed Actions involve the siting of any public facilities (Fair Share). However, two adopted City policies are applicable to both the primary and secondary study areas: *Housing Our Neighbors: A Blueprint for Housing and Homelessness* and *OneNYC 2050: Building a Strong and Fair City*, both of which are discussed in **Section IV, "Detailed Assessment."**

IV. DETAILED ASSESSMENT

Existing Conditions

Land Use

Primary Study Area (Project Area)

The primary study area extends across four blocks bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south. The primary study area includes the following block and lots: Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73. A large portion of the primary study area (Block 5727, Lot 14, Block 5516, Lots 1 and 33, and Block 5509, Lots 41) consists of an open rail cut, with tracks for the Long Island Rail Road (LIRR) Bay Ridge Branch located below. The LIRR Bay Ridge Branch connects the 65th Street Terminal (approximately one mile to the west of the primary study area at New York Harbor) with the Hell Gate Bridge to the north, in Queens. This right-of-way is used exclusively for freight rail and facilitates up to approximately three daily freight

rail roundtrips. These tracks are actively being studied as part of the Cross Harbor Freight Movement Project (CHFP), as a potential site for increased freight rail activity, and for the Interborough Express (IBX), to facilitate rapid transit passenger service.

As shown in **Figure C-1** and **Table C-1**, land uses in the secondary study area include a mixture of land uses. Residential uses are the most prevalent in the secondary study area, representing approximately 55.8 percent of the lots and 64.7 percent of the building area in the primary study area. One- and two-family and multi-family walkup buildings are the most common residential uses in the primary study area, representing approximately 22.1 and 23.2 percent of the primary study area lots, respectively.

TABLE C-1:
Existing Land Uses within the Primary Study Area

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Residential (Total)	53	55.8	154,489	32.3	354,357	64.7
One and Two-Family Buildings	*21*	*22.1*	*48,232*	*10.1*	*57,476*	*10.5*
Multi-Family Walkup Buildings	*22*	*23.2*	*51,466*	*10.8*	*91,074*	*16.6*
Multi-Family Elevator Buildings	*10*	*10.5*	*54,791*	*11.5*	*205,807*	*37.6*
Mixed Commercial/Residential Buildings	3	3.2	7,999	1.7	9,784	1.8
Commercial/Office Buildings	3	3.2	21,612	4.5	34,395	6.3
Industrial/Manufacturing	16	16.8	94,971	19.9	105,607	19.3
Transportation/Utility	13	13.7	163,845	34.3	43,840	8.0
Public Facilities and Institutions	0	0.0	0	0.0	0	0.0
Open Space	0	0.0	0	0.0	0	0.0
Parking Facilities	2	2.1	5,774	1.2	0	0.0
Vacant Land	3	3.2	22,790	4.8	0	0.0
All Others or No Data	2	2.1	6,277	1.3	0	0.0
Totals	***95***	***100.0***	***477,757***	***100***	***547,983***	***100***

Source: 2023 PLUTO data; 2021 field visits.

Industrial/manufacturing uses are the second most prevalent in the primary study area, comprising approximately 16.8 percent of the primary study area lots and 19.3 percent of the primary study area building area. Within the primary study area, industrial/manufacturing uses are generally located on Block 5523. Transportation/utility uses represent approximately 13.7 percent of the secondary study area lots and 8.0 percent of the secondary study area building area.

Secondary Study Area (Quarter-Mile Radius)

As shown in **Figure C-1** and **Table C-2**, land uses in the secondary study area include a mixture of land uses. Residential uses are the most prevalent in the secondary study area, representing approximately 78.1 percent of the lots and 64.9 percent of the building area in the secondary study area. One- and two-family and multi-family walkup buildings are the most common uses in the secondary study area, representing approximately 42.1 and 35.4 percent of the secondary study area lots, respectively. While

only 13 multi-family elevator buildings are present in the secondary study area, these buildings often occupy larger lots than one- and two-family and multi-family walkup buildings; the largest multi-family residential building lot is located in the northern portion of the secondary study area on the block bounded by 14th Avenue, 15th Avenue, 54th Street, and 55th Street. An additional 7.7 percent of secondary study area lots and 9.1 percent of secondary study area building area are occupied by mixed-use commercial/residential uses, the majority of which are located along New Utrecht Avenue and 14th Avenue.

TABLE C-2:
Existing Land Uses within the Secondary Study Area

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Residential (Total)	1,787	78.1	4,556,635	61.2	6,507,449	64.9
One and Two-Family Buildings	*963*	*42.1*	*2,140,979*	*28.7*	*2,412,986*	*24.1*
Multi-Family Walkup Buildings	*811*	*35.4*	*2,263,739*	*30.4*	*3,422,064*	*34.1*
Multi-Family Elevator Buildings	*13*	*0.6*	*151,917*	*2.0*	*672,399*	*6.7*
Mixed Commercial/Residential Buildings	177	7.7	465,568	6.3	913,295	9.1
Commercial/Office Buildings	57	2.5	393,902	5.3	653,106	6.5
Industrial/Manufacturing	86	3.8	554,901	7.4	630,268	6.3
Transportation/Utility	48	2.1	642,099	8.6	116,093	1.2
Public Facilities and Institutions	56	2.4	591,463	7.9	1,205,259	12.0
Open Space	0	0.0	0	0.0	0	0.0
Parking Facilities	20	0.9	83,065	1.1	4,400	0.0
Vacant Land	51	2.2	149,803	2.0	0	0.0
All Others or No Data	6	0.3	10,943	0.1	0	0.0
Totals	***2,288***	***100.0***	***7,450,816***	***100***	***9,992,983***	***100***

Source: 2023 PLUTO data; 2021 field visits.
Note: Total lot areas and built areas included for all lots which have 50 percent or more of their area within a quarter-mile radius of the primary study area; Lots located within the primary study area are excluded from the analysis of land uses within the secondary study area (refer to **Figure C-1**).

Industrial/manufacturing uses comprise approximately 3.8 percent of the secondary study area lots and 6.3 percent of the secondary study area building area. Within the secondary study area, industrial/manufacturing and uses are generally located in the southern and western portions of the secondary study area. Transportation/utility uses are also located primarily in the southern and western portions of the secondary study area and represent approximately 2.1 percent of the secondary study area lots and 1.2 percent of the secondary study area building area.

While representing approximately 2.4 percent of the secondary study area lots, approximately 12.0 percent of the secondary study area building area is represented by public facilities and institutions. These land uses are dispersed throughout the secondary study area and include religious institutions, schools, health centers, and senior centers, among other community facility uses. Vacant land represents approximately 2.2 percent of the secondary study area lots and 2.0 percent of the secondary study area

lot area and are located throughout the secondary study area. There are no open space uses present in the secondary study area.

Zoning

Primary Study Area (Project Area)

As shown in **Figure C-2**, the primary study area is currently zoned M1-1, R5, R6A, and R7A/C2-4. Specifically Blocks 5727 and 5523 are zoned M1-1, Block 5516 is zoned M1-1, R6A, and R7A/C2-4, and Block 5509 is zoned M1-1, R5, and R7A/C2-4.

M1-1

M1-1 light manufacturing (high performance) zoning districts, which permit a maximum FAR of 1.0 for manufacturing and commercial uses, are often mapped adjacent to residential zoning districts, and can serve as buffers between residential zoning districts and heavy industrial (M2 and M3) zoning districts. M1-1 districts also permit a limited subset of community facility uses at a maximum FAR of 2.4. Building heights in M1-1 zoning districts are governed by a sloping sky exposure plane, which begins at a height of 60-feet, or four stories, whichever is less, above the street line. M1 zoning districts generally allow one- or two-story warehouses for light industrial uses, including repair shops, wholesale service facilities, and self-storage facilities; hotels are permitted only by special permit[1]. These zoning districts are intended for light industry; however, heavy industrial uses are permitted in M1 districts as long as they meet the highest performance standards, including maximum permitted noise levels and odor, dust, or noxious matter emissions, as set forth in the ZR. No residential uses are permitted. M1-1 zoning districts are subject to parking requirements based on the type of use and size of an establishment.

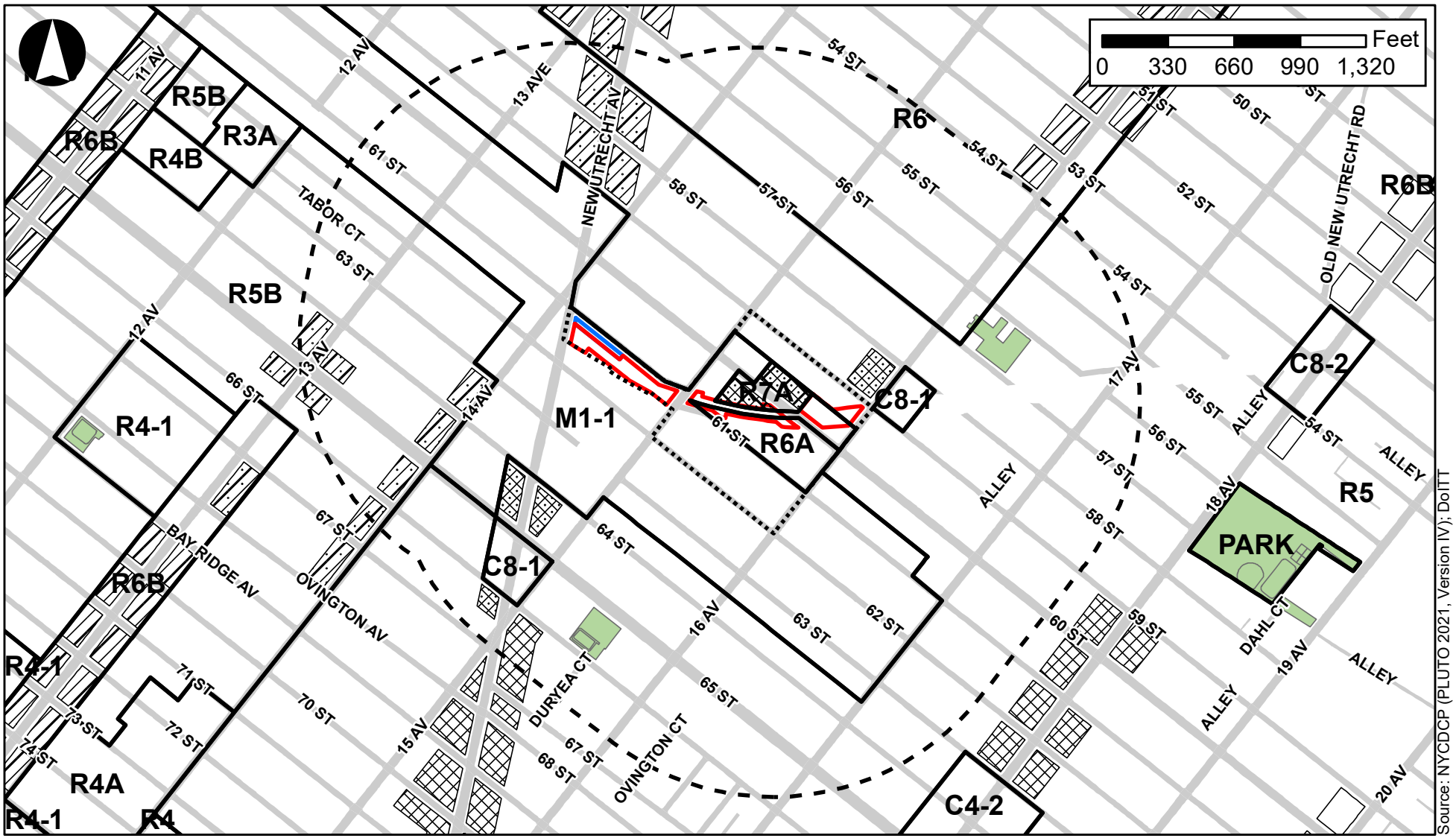
R5

R5 non-contextual districts are widely mapped districts intended for neighborhoods with an assortment of housing typologies and are often transition districts between medium- and lower-density areas. These districts allow all types of residences in a variety of housing typologies. R5 districts are original to the 1961 ZR, but were substantially altered in 1989 to have predictable building forms. Use Groups 1, 2, 3, and 4 are permitted in R5 districts; residential uses are permitted up to 1.25 FAR, and community facility uses are permitted up to 2.0 FAR. The maximum streetwall height in R5 districts is 30 feet and the maximum building height is 40 feet. Developments in R5 district are also subject to minimum lot area and yard requirements, as well as maximum lot coverage requirements. Accessory parking is required for 85 percent of residential units, while community facility parking requirements vary by the type of use and size of an establishment.

R6A

R6A districts are mapped in the Bronx, Brooklyn, and Queens and are designed to be compatible with older buildings found in medium-density neighborhoods. Quality Housing bulk regulations are mandatory in R6A districts. These regulations produce high lot coverage, with six- to eight-story apartment buildings set at or near the street line. For residential uses, the maximum FAR is 3.0; for community facility uses,

[1] On December 20, 2018, the City Council adopted the M1 Hotel Text Amendment which modified the Zoning Resolution to require special permits for the construction of hotels in most high performance (M1) zoning districts.



Legend

- Primary Study Area (Project Area)
- Secondary Study Area (Quarter-Mile Radius)
- Development Site
- Potential Development Site
- M1-1 Zoning District Boundaries
- C1-2 Commercial Overlay
- C1-3 Commercial Overlay
- C2-2 Commercial Overlay
- C2-3 Commercial Overlay
- C2-4 Commercial Overlay

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Figure C-2
Zoning

the maximum FAR is 3.0. Above a minimum base height of 40 feet, the building must be set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 70 feet, or 75 feet if providing a qualifying ground floor. R6A buildings must have interior amenities for residents pursuant to the Quality Housing Program. Accessory parking is required for 50 percent of residential units, while community facility parking requirements vary by the type of use and size of an establishment. The R6A district on Block 5516 was mapped in 2013 as part of the Maple Lanes Rezoning (C090154 ZMK; 11DCP022K).

R7A

R7A contextual districts are mapped along Prospect Park South and Ocean Parkway in Brooklyn, Jackson Heights in Queens, and in Harlem and along the avenues in the East Village in Manhattan. Quality Housing bulk regulations are mandatory in R7A districts. R7A districts typically result in high lot coverage residential buildings of roughly seven- to nine-stories, set at or near the street line. For residential uses, the maximum FAR is 4.0; for community facility uses, the maximum FAR is 4.0. Above a base height of 40 to 65 feet, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum building height of 80 feet.[2] Accessory parking is required for 50 percent of residential units, while community facility parking requirements vary by the type of use and size of an establishment. The R7A/C2-4 district on Blocks 5516 and 5509 was mapped in 2020 as part of the 1501-1555 60th Street Rezoning (200086ZMK; 18DCP038K).

Secondary Study Area (Quarter-Mile Radius)

As shown in **Figure C-2**, and reflective of the mixture of land uses present in the secondary study area, existing zoning districts in the secondary study area include M1-1, R5, R5B, R6, R6A, R7A, and C8-1 districts, as well as C1-2, C2-2, C2-3, and C2-4 commercial overlays. The R5B district was mapped as part of the 2007 Dyker Heights/Fort Hamilton Rezoning (ULURP No. 070387 ZMK). **Table C-3** (located on the next page) provides summaries of the secondary study area zoning districts not previously described for the primary study area.

[2] R7A contextual districts generally permit base heights of 40 to 65 feet and a maximum permitted building height of 80 feet. However, for sites outside the Manhattan core, R7A districts permit base heights of 40 to 75 feet and a maximum permitted building height of 85 feet for developments with a qualifying ground floor; for MIH areas, R7A districts permit base heights of 40 to 75 feet and a maximum building height of 95 feet.

TABLE C-3:
Secondary Study Area Zoning Districts

Name	Definition/General Use	Maximum FAR[1]
Residential Districts		
R5B	R5B contextual districts are often mapped in neighborhoods characterized by three-story rowhouses.	R: 1.35; C: 0.0; CF: 2.0; M: 0.0
R6	R6 non-contextual districts are widely mapped in built-up, medium-density areas. Developers can choose between Height Factor and Quality Housing bulk regulations.	R: 0.78-2.43[2]; C: 0.0; CF: 4.8; M: 0.0
Commercial Districts		
C1-2, C2-2, C2-3, and C2-4 Overlays	C1 and C2 commercial overlays are mapped within residential districts along streets that serve local retail needs. In mixed-use buildings, commercial uses are limited to one or two floors and must always be located below the residential uses. C2 commercial overlay districts permit a slightly wider range of uses than C1 districts.	R and CF: Same as underlying R district; C: 1.0 within R1-R5 districts and 2.0 within R6-R10 districts; M: 0.0
C8-1	C8 districts, which bridge commercial and manufacturing uses, provide for automotive and other heavy commercial services that often required large amounts of land. Typically, these districts are mapped along major traffic arteries.	R: 0.0; C: 0.0; CF: 1.0; M: 0.0

Source: *Zoning Resolution of the City of New York*.
Notes:
[1] R=Residential; C=Commercial; CF=Community Facility; M=Manufacturing.
[2] 3.0 FAR on wide streets; 2.2 on narrow streets (pursuant to Quality Housing Program).

Public Policy

As noted above, the primary and secondary study areas are not located within an urban renewal area, a designated Industrial Business Zone ("IBZ"), a Business Improvement District ("BID"), a designated historic district, or within an area defined by an adopted 197-a plan; nor would the Proposed Actions involve the siting of any public facilities (Fair Share). However, two adopted City policies are applicable to both the primary and secondary study areas: *Housing Our Neighbors: A Blueprint for Housing and Homelessness* and *OneNYC 2050: Building a Strong and Fair City*.

Housing Our Neighbors: A Blueprint for Housing and Homelessness

On June 14, 2022, the Adams administration released *Housing Our Neighbors: A Blueprint for Housing and Homelessness,* a comprehensive plan intended to cover the entire spectrum of New Yorkers' housing needs and options, including City-subsidized affordable housing, public housing, private market-rate housing, and greater support programs for New Yorkers' experiencing homelessness. The plan is the result of an extensive stakeholder input and community engagement process, which included direct engagement with New Yorkers who are experiencing or having experienced homelessness and outlines major steps the Adams administration will take up:

- Significantly expand affordable homeownership opportunities and help communities build and maintain wealth;
- Accelerate the creation of supportive housing by completing the 15,000 supportive homes promised by 2030 two years ahead of schedule;
- Transform the New York City Housing Authority (NYCHA) by both delivering much-needed resources for repairs and improving and streamlining the services NYCHA provides residents and the processes by which they do so;

- Break down government siloes to bolster transparency and address the full scope of the homelessness crisis, adding to the City's homeless count while creating a more even playing field to give more New Yorkers in all the city's shelter systems access to critical services and resources; and
- Get New Yorkers into safe, high-quality, affordable homes faster and without forcing them to relive past trauma by eliminating unnecessary paperwork and obstacles to obtaining housing.

OneNYC 2050: Building a Strong and Fair City

In April 2019, the former de Blasio administration released *OneNYC 2050: Building a Strong and Fair City* (OneNYC 2050), a strategic plan for inclusive growth and climate action in New York City. Building upon its predecessor, *One New York: The Plan for a Strong and Just City* (OneNYC), OneNYC 2050 brings new attention to the fundamental link between climate action and inclusive growth with a focus on creating good-paying jobs, ensuring equitable access to natural resources, guaranteeing the right to quality healthcare and education, and promoting justice by recognizing and repairing the damage caused by historic oppression.

OneNYC 2050 includes progress realized since 2015, saluting the success of OneNYC's growth, sustainability, resiliency, and equity initiatives. However, the plan emphasizes that there is still much to be done to address critical challenges like climate change, increasing unaffordability, and failing infrastructure. The plan's eight goals lay the foundation for transformational change:

- **A Vibrant Democracy**, where every New Yorker is welcomed into the City's civic and democratic life.
- **An Inclusive Economy**, where economic growth creates opportunities for New Yorkers and safeguards the American Dream.
- **Thriving Neighborhoods**, where all communities have safe, affordable housing and are well-served by parks, cultural resources, and other shared public spaces.
- **Healthy Lives**, where health inequities based on race and ethnicity are eliminated, and all residents have equal access to health care, clean air, and healthy food.
- **Equity and Excellence in Education**, where diverse and fair schools provide a quality education for every student, and New York serves as a model for educating children of all backgrounds.
- **A Livable Climate**, where we no longer rely on fossil fuels and have mitigated the risks posed by climate change.
- **Efficient Mobility**, where affordable, reliable, safe, and sustainable transportation options mean no New Yorker need rely on a car.
- **Modern Infrastructure**, where reliable physical and digital infrastructure allows New Yorkers to flourish.

OneNYC 2050 articulates a global perspective on the long-term needs of the City and how the City must grow responsibly and sustainably while supporting the well-being of all New Yorkers. The plan is referred to as New York City's Green New Deal, and progress reports will be released yearly.

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

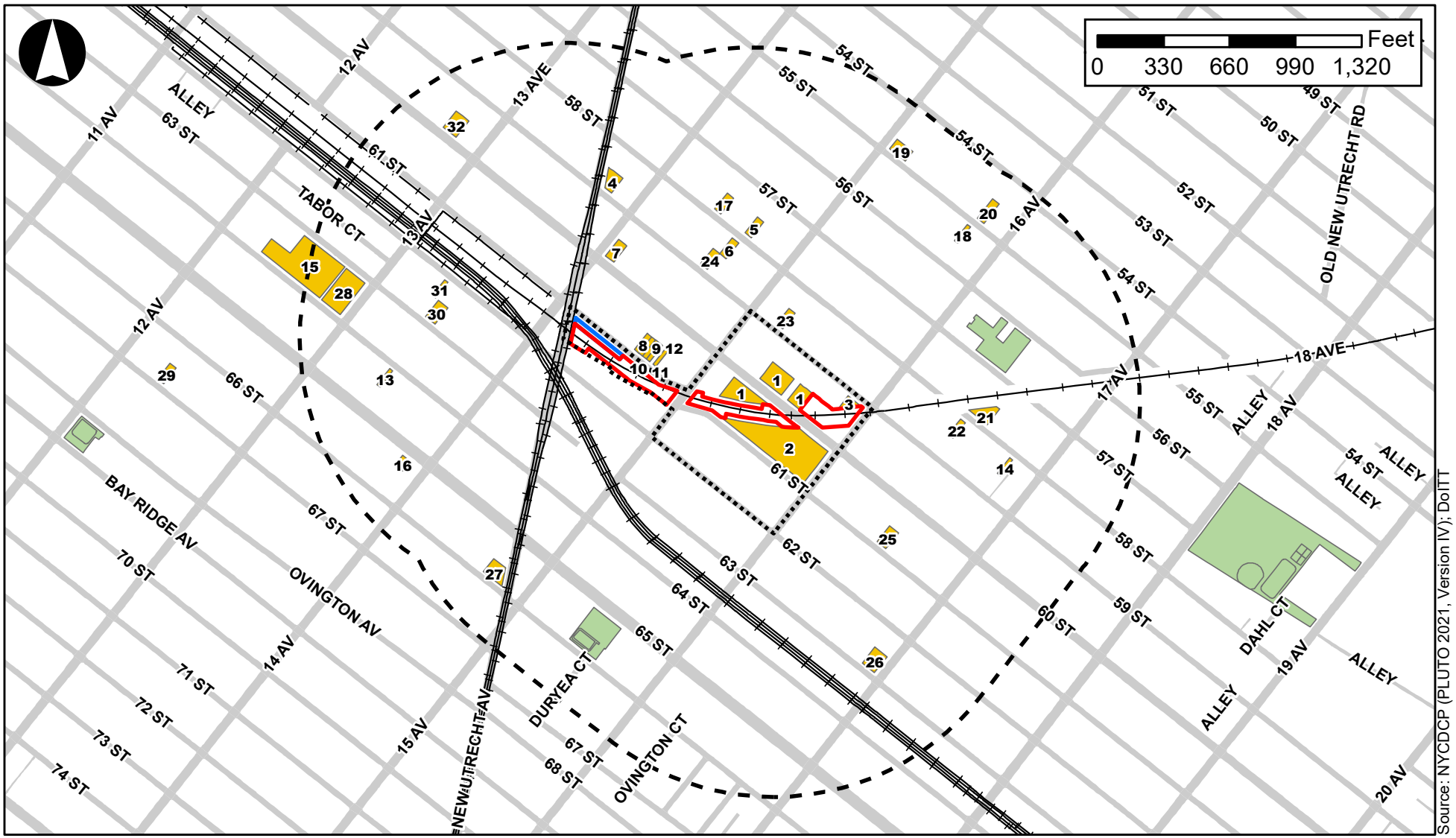
Land Use

Primary Study Area (Project Area)

In the future without the Proposed Actions, the Applicant-controlled Development Site within the primary study area would not be redeveloped. Therefore, the existing conditions within the Applicant-controlled Development Site would remain and no new development would occur. Within the remainder of the primary study area, the existing conditions on Block 5727 and 5523 would remain and no new development would occur on these two blocks. However, there are three developments that are expected to be completed and occupied in the No-Action condition within the Project Area. On Block 5516, the recently constructed Maple Views Lane development comprises approximately 128 DUs and 64 parking spaces. On portions of Blocks 5516 and 5509, the 1501-1555 60th Street development would comprise approximately 102 DUs, 32,219 gsf of commercial space, and 31 parking spaces upon construction. On Block 5509, a new three-family residential development has been constructed at 1578 59th Street. No other development projects are anticipated on Blocks 5516 and 5509 in the No-Action condition.

Secondary Study Area (Quarter-Mile Radius)

As summarized in **Table C-4** (located on the next page) and shown in **Figure C-3**, there are 32 known and anticipated developments that are expected to be completed within the secondary study area in the No-Action condition (including the three developments located within the primary study area). In total, the 32 No-Action developments would introduce a total of approximately 443 DUs, 82,755 sf of commercial uses, 144,301 sf of community facility uses, and 226 parking spaces.



Brooklyn Yards EAS

Figure C-3
No-Action Developments

TABLE C-4:
Primary and Secondary Study Area No-Action Developments

Map No.[1]	Project Name/Address	Residential (DUs)	Commercial (sf)	Community Facility (sf)	Industrial/Manufacturing (sf)	Parking Spaces
Primary Study Area						
1	1501-1555 60th Street	102	32,219	-	-	31
2	Maple Lanes Views	128	-	-	-	64
3	1578 59th Street	3	-	-	-	-
Primary Study Area Totals		***233***	***32,219***			***95***
Secondary Study Area						
4	1367 59th Street	9	-	-	-	-
5	1461 58th Street	2	-	-	-	-
6	1456 58th Street	1	-	-	-	-
7	1401 60th Street	2	-	-	-	-
8	1447 61st Street	3	-	-	-	-
9	1449 61st Street	3	-	-	-	-
10	1451 61st Street	3	-	-	-	-
11	1453 61st Street	3	-	-	-	-
12	1463 61st Street	2	-	-	-	-
13	1332 64th Street	2	-	-	-	-
14	1680-1682 58th Street	6	-	-	-	-
15	1238 63rd Street	141	-	-	-	122
16	1374 65th Street	-	5,027	3,274	-	-
17	1435 58th Street	2	-	-	-	1
18	1568 55th Street	2	-	-	-	1
19	5423 15th Avenue	10	-	4,973	-	-
20	1571 55th Street	-	-	18,286	-	-
21	1651 58th Street	1	-	-	-	1
22	1642 58th Street	2	-	-	-	-
23	1513 59th Street	2	-	-	-	-
24	1451 59th Street	3	-	-	-	-
25	1649 61st Street	-	11,383	15,649	-	-
26	6224 17th Avenue	-	13,040	-	-	-
27	6520 New Utrecht Avenue	-	7,486	10,097	-	-
28	6312 13th Avenue (P.S. 676)	-	-	92,022	-	-
29	1225 67th Street	2	-	-	-	1
30	1335 63rd Street	6	-	-	-	1
31	1328 62nd Street	3	-	-	-	4
32	1271 60th Street	-	13,600	-	-	-
Primary and Secondary Study Area Totals		***443***	***82,755***	***144,301***	**-**	***226***

Note: [1] No-Action Developments are mapped in **Figure C-3**.
Sources: New York City Department of Building (DOB); 1501-1555 60th Street Rezoning EAS (CEQR No. 18DCP038K).

Zoning

Primary Study Area (Project Area)

In the future without the Proposed Actions, the primary study area's existing zoning (M1-1, R5, R6A, and R7A/C2-4) would remain in place.

Secondary Study Area (Quarter-Mile Radius)

No changes to zoning in the secondary study area are expected by 2030.

Public Policy

There are no known or planned changes to public policy applicable to either the primary or secondary study areas in the future without the Proposed Actions.

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

Land Use

In the future with the Proposed Actions, the Proposed Project would be constructed on the Applicant-controlled Development Site. The Proposed Project would consist of 14 attached buildings containing 282,505 gsf of residential space (encompassing 270 total DUs) and 65,212 gsf of commercial space (refer to **Table C-5**). The Proposed Project would have a built FAR of 3.24. Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41 within an at-grade surface parking lot. Access to the parking lot would be facilitated via a new curb cut on 16th Avenue.

TABLE C-5:
Comparison of No-Action and With-Action Conditions

	No-Action	With-Action	Increment
Land Use			
Residential	0 gsf	282,505 gsf	+282,505
DUs	0	270	+270
Office	0 gsf	57,586 gsf	+57,586 gsf
Local Retail	0 gsf	7,626 gsf	+7,626 gsf
Public Access Area (PAA)	0 sf	3,684 sf	+3,684 sf
Auto Repair	2,648 gsf	0 gsf	-2,648 gsf
Population[1]			
Residents	0	956	+956
Workers	3	264	+261

The Proposed Project would also include approximately 0.08 acres of public access area (PAA), including approximately 3,684 sf of publicly accessible passive and active open space. **Appendix 1** provides the current PAA plan. The Proposed Project would also include private passive and active open space areas for use by residents of the Proposed Project.

Assessment

In the future with the Proposed Project, the Proposed Actions would result in changes to land use within the primary study area by introducing a new open space land use to the Applicant-controlled Development Site. Although the Proposed Project would introduce additional commercial and residential land uses to the Applicant-controlled Development Site, as described above, these land uses would not be new to the primary study area, which is currently occupied by residential, mixed-use commercial/residential, commercial/office, industrial/manufacturing, transportation/utility, and parking land uses. In addition, the Proposed Project would be located in the Borough Park neighborhood of

Brooklyn CDs 11 and 12, a mixed-use neighborhood with an established blend of residential, commercial, community facility, and industrial/manufacturing land uses. The commercial, open space, and residential land uses introduced by the Proposed Project would be complementary to the existing land use character of Borough Park.

Therefore, the Proposed Project would not generate land uses that would be incompatible with surrounding land uses, nor would it displace existing land uses within the primary study area in such a way as to adversely affect surrounding land uses. Therefore, the Proposed Project would support land use trends, and no significant adverse land use impacts are expected in the primary study area. The secondary study area would not undergo any land use changes as a result of the Proposed Actions. As noted above, the secondary study area includes a mixture of residential, mixed-use commercial/residential, commercial/office, industrial/manufacturing, and public facility and institutional land uses. In addition, there are numerous residential and mixed-use developments planned in the secondary study area. Therefore, the Proposed Project would not introduce any new land uses that would be incompatible with their surroundings, and no significant adverse land use impacts would occur in the secondary study area.

Zoning

The Applicant is seeking a series of discretionary actions, including (i) a Zoning Map Amendment to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4; (ii) a Zoning Text Amendment to Appendix F of the ZR to designate portions of the Project Area as a Mandatory Inclusionary Housing (MIH) area, which would require the construction of permanently affordable residential units within portions of the Project Area, in accordance with City policy; (iii) a Zoning Text Amendment to amend Appendix I of the ZR to include the entirety of the Project Area as part of the Transit Zone; (iv) three Special Permits to permit development over a railroad right-of-way; (v) a Special Permit to allow for the distribution of floor area and lot coverage within a Large-Scale General Development (LSGD) without regard for zoning lot boundaries and to modify yard, court, and distance between legal window and lot line requirements; (vi) two Special Permits to reduce the amount of required accessory parking spaces; (vii) a Special Permit to allow parking to be distributed throughout an LSGD without regard for zoning lot boundaries; (viii) a Special Permit to modify location of commercial uses within a building; (ix) three Zoning Authorizations to waive required enclosed accessory residential bicycle parking; and (x) a Zoning Authorization to waiver required enclosed accessory commercial bicycle parking spaces.

In the future with the Proposed Actions, within the primary study area, the Proposed Rezoning Area would be rezoned from M1-1 and R5 to C4-5, R6, and R6/C2-4. Within the primary study area, the Proposed Rezoning Area would also be designated as an MIH area. In addition, the entire primary study area would be included as part of the Transit Zone. As shown in **Table C-6** (located on the next page), the Proposed Actions would increase the maximum allowable density in the Proposed Rezoning Area within the primary study area to 6.5 for community facility uses, 4.6 FAR for residential uses, and 3.4 for commercial uses.

TABLE C-6:
Comparison of Existing and Proposed Zoning

	Existing R5	Existing M1-1	Proposed R6	Proposed R6/C2-4	Proposed C4-5
Use Groups	1-4	4-14, 16, 17	1-4	1-9, 14	1-6, 8-10, 12
Maximum Permitted FAR					
Residential	1.25	N/A	3.0 (QH)[1], 2.2 (QH)[2], 2.43 (HF)	3.0 (QH)[1], 2.2 (QH)[2], 2.43 (HF)	4.0 (QH)[1], 3.44 (QH)[2], 3.44 (HF), 4.6[3]
Affordable Independent Residences for Seniors	1.95	N/A	3.9	3.9	5.01
Community Facility	2.0	2.4	4.8	4.8	6.5
Commercial	N/A	1.0	N/A	2.0	3.4
Commercial and Community Facility	N/A	2.4	N/A	4.8	6.5
Manufacturing	N/A	1.0	N/A	N/A	N/A
Yards					
Minimum Front Yard	10′ or 18′	N/A	N/A	N/A	N/A
Minimum Side Yard	5′, 8′, or 16′	N/A	None or 8′	None or 8′	None or 8′
Minimum Rear Yard	30′	20′	30′	30′, 20′ (Commercial)	30′
Height and Set Backs					
Minimum Base Height	N/A	N/A	40′ (QH)[1], 30′ (QH)[2]	40′ (QH)[1], 30′ (QH)[2]	40′
Maximum Base Height	30′	30′ or two stories, whichever is less	65′ (QH)[1], 45′ (QH)[2]	65′ (QH)[1], 45′ (QH)[2]	65′[2], 75′[1, 3]
Maximum Building Height	40′	30′ or two stories, whichever is less	75′ (QH)[1], 55′ (QH)[2]	75′ (QH)[1], 55′ (QH)[2]	75′[2], 80′[1] or 85′[1] (w/ QGF), 135′[3]
Maximum Height of Front Wall	30′	30′ or two stories, whichever is less	65′ (QH)[1], 45′ (QH)[2]	65′ (QH)[1], 45′ (QH)[2]	65′[2], 75′[1, 3]
Sky Exposure Plane	N/A	1:1 narrow/ 1:1 wide	2.7:1 narrow/ 5.6:1 wide (HF)	2.7:1 narrow/ 5.6:1 wide (HF)	3.7:1 narrow/ 7.6:1 wide
Set Backs from Narrow Streets	Refer to Yard Requirements	20′	15′ (QH)	15′ (QH)	15′
Set Backs from Wide Streets	Refer to Yard Requirements	15′	10′ (QH)	10′ (QH)	10′
Parking					
Residential	85%	N/A	50% (QH), 70% (HF)	50% (QH), 70% (HF)	50%
Commercial	N/A	One space per 300-sf	N/A	By Use	By Use
Manufacturing	N/A	One space per 300-sf	N/A	N/A	N/A
Income-Restricted Housing Units	None (Transit Zone)	N/A	None (Transit Zone)	None (Transit Zone)	None (Transit Zone)
Affordable Independent Residences for Seniors	None (Transit Zone)	N/A	None (Transit Zone)	None (Transit Zone)	None (Transit Zone)
Government Assisted Dwelling Units	10% (AIRS) or 42.5% (IRHU)	N/A	35% (QH), 55% (HF)	35% (QH), 55% (HF)	25%

Source: *Zoning Resolution of the City of New York.*
Notes:
[1] Within 100-feet of a wide street.
[2] Beyond 100-feet of a wide street.
[3] With MIH.

Assessment

The proposed Zoning Map Amendment would increase the allowable commercial, community facility, and residential densities in the Proposed Rezoning Area within the primary study area. The proposed zoning designations would facilitate as-of-right development at densities comparable to densities currently allowed in the primary study area, as an R6A zoning district and an R7A/C2-4 district are mapped in the primary study area, on portions of Blocks 5509 and 5516. Further, it is the Applicant's opinion that the higher-density zoning designations would be appropriate, given the primary study area's location in Borough Park, a mixed-use neighborhood in proximity to public transportation.

In addition, the Proposed Rezoning Area within the primary study area would be designated as an MIH area subject to the affordability requirements of the MIH program (as an amendment to ZR Appendix F). The designation of the Applicant-controlled Development Site within the primary study area as an MIH area would be consistent with an MIH area mapped in the primary study area, on portions of Blocks 5509 and 5516. The Zoning Text Amendment to amend Appendix I of the ZR to include the entirety of Blocks 5509, 5516, and 5523 within the Transit Zone would eliminate parking requirements for qualifying

affordable housing units provided within the Project Area, including the Applicant-controlled Development Site.

For these reasons, the Proposed Actions would not represent a significant adverse impact on zoning in the primary or secondary study areas, in accordance with the criteria set forth in the *CEQR Technical Manual*.

Public Policy

Assessment

Housing Our Neighbors: A Blueprint for Housing and Homelessness

The Proposed Actions would support the policies and goals of *Housing Our Neighbors: A Blueprint for Housing and Homelessness* by establishing an MIH area encompassing the area to be rezoned, which would require development in the With-Action condition to include permanent affordable dwelling units.

The affordable dwelling units provided under the With-Action condition would provide the Borough Park neighborhood of Brooklyn CDs 11 and 12 with much needed affordable housing, and would support the City's efforts to increase the overall amount of affordable housing in New York City. Based on this information, the Proposed Actions would be consistent with the policy goals and objectives of *Housing Our Neighbors: A Blueprint for Housing and Homelessness*.

OneNYC 2050: Building a Strong and Fair City

The Proposed Actions would support the policies and goals of OneNYC 2050. The Proposed Actions and Proposed Project would create new housing opportunities, including rent-regulated (affordable) housing, introduce new commercial (office and local retail) uses, and provide new publicly accessible open space; each of these components would contribute to the community development of the surrounding Borough Park neighborhood of Brooklyn CDs 11 and 12. Therefore, the Proposed Actions would be consistent with the policy goals and objectives of OneNYC 2050.

Attachment D:

Socioeconomic Conditions

I. INTRODUCTION

This attachment assesses whether the Proposed Actions would result in significant adverse impacts to the socioeconomic character of the area surrounding the Development Site in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12. As described in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic changes may occur when a project directly or indirectly changes these elements. Although some socioeconomic changes may not result in environmental impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

As described in **Attachment A, "Project Description,"** the Applicant is seeking a series of discretionary actions (the "Proposed Actions") to facilitate the development of 14 predominantly residential buildings (the "Proposed Project") on portions of Brooklyn Blocks 5727, 5516, and 5509. Under the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Project would comprise a combined total of 347,717 gross square feet (gsf), including 270 dwelling units (DUs) (282,505 gsf) and 65,212 gsf of local retail and commercial office space. As presented in **Attachment B, "Supplemental Screening,"** the Proposed Actions do not exceed the thresholds warranting detailed analyses of direct residential or business displacement, indirect business displacement, or adverse effects on specific industries. As the Proposed Actions would exceed the *CEQR Technical Manual* threshold warranting a preliminary indirect residential displacement analysis (200 DUs), a preliminary assessment is provided herein.

In accordance with *CEQR Technical Manual* guidance, the socioeconomic analysis considers whether the Proposed Actions could result in significant adverse socioeconomic impacts due to: (1) direct displacement of residential population from the Development Site; (2) direct displacement of existing businesses or institutions from the Development Site; (3) indirect displacement of residential population; (4) indirect displacement of businesses or institutions; and (5) adverse effects on a specific industry.

II. METHODOLOGY

Under CEQR, the socioeconomic character of an area is defined by its population, housing, and economic activities. The assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, proposed action(s) affect either or both of these segments in similar ways: they may directly displace residents or businesses; or they may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses. The objective of the CEQR analysis is to disclose whether any changes created by the proposed project would have a significant impact compared with what would happen in the future without the proposed project (i.e., the "No-Action condition").

Direct displacement is defined as the involuntary displacement of residents, businesses, or institutions from the actual site of (or sites directly affected by) a proposed project. Examples include the proposed redevelopment of a currently occupied site for new uses or structures, or a proposed easement or right-

of-way that would take a portion of a parcel and thus render it unfit for its current use. Since the occupants of a particular site are usually known, the disclosure of direct displacement focuses on specific businesses and employment and an identifiable number of residents and workers.

Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses, or employees in an area adjacent to, or close to, a project site that results from changes in socioeconomic conditions created by a proposed project. Examples include rising residential rents in an area that result from a new concentration of higher-income housing introduced by a project, which ultimately could make existing housing unaffordable to lower-income residents; a similar turnover of industrial to higher-rent commercial tenancies induced by the introduction of a successful office project in an area; or the flight from a neighborhood that can occur if a proposed project creates conditions that break down the community (such as a highway dividing the area). Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

Even if projects do not directly or indirectly displace businesses, they may affect the operation and viability of a major industry or commercial operation in the City. An example would be new regulations that prohibit or restrict the use of certain processes that are critical to certain industries. In these cases, the CEQR review may involve the assessment of the economic impact of the project on the specific industry in question.

Determining Whether a Socioeconomic Assessment is Appropriate

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes in the area affected by the project that would not be expected to occur in the absence of the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

1. ***Direct Residential Displacement: Would the project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.***

The Development Site currently contains an open rail cut and one auto repair use and does not contain any residential uses. As the Proposed Actions would not directly displace more than 500 residents, an assessment of direct residential displacement is not warranted.

2. ***Direct Business Displacement: Would the project directly displace more than 100 employees, or directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location? If so, assessments of direct business displacement and indirect business displacement are appropriate.***

The Development Site consists mostly of an open rail cut, however, it does contain one auto repair business. The auto repair business employs approximately three workers. As the Proposed Actions would not directly displace more than 100 employees, an assessment of direct business displacement is not warranted.

The Proposed Actions would not directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location. As the Proposed Actions would not directly displace a business whose products or services are uniquely dependent upon its location, an assessment of direct business displacement is not warranted.

3. ***Indirect Displacement due to Increased Rents: Would the project result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 sf or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.***

The Proposed Actions would include introduce 270 dwelling units to the study area, and therefore would exceed the preliminary screening assessment threshold of 200 units warranting a preliminary assessment of indirect residential displacement. As such, the indirect displacement analysis provided below assesses the potential of the Proposed Actions to result in significant adverse impacts in regards to indirect residential displacement.

4. ***Indirect Business Displacement due to Retail Market Saturation: Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites? This type of development may have the potential to draw a substantial amount of sales from existing businesses within the study area, resulting in indirect business displacement due to market saturation.***

The Proposed Actions would introduce approximately 65,212 gsf of commercial space in the Development Site, which is well below the 200,000 sf CEQR threshold warranting assessment of indirect business displacement due to market saturation. In addition, the new residential population introduced by the Proposed Actions is expected to increase demand for retail and services generally, both for the new retail as well as for existing businesses. As such, an analysis of indirect business displacement is not warranted for the Proposed Actions.

5. ***Adverse Effects on Specific Industries: Is the project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods and services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the City.***

The Proposed Actions would not have a significant adverse impact on specific industries. The Proposed Actions would not displace any business that is critical to the viability of any specific industry within or outside of the study area. Therefore, the Proposed Actions would not directly or indirectly affect business conditions in any industry or category or business within or outside of the study area, and would not substantially reduce employment or impair viability in a specific industry or category of business.

Based on the screening assessment presented above, the Proposed Actions and subsequent RWCDS conditions warrant an analysis of indirect residential displacement.

Analysis Format

Based on *CEQR Technical Manual* guidelines, the analysis of indirect residential displacement begins with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential effects of the Proposed Actions and resultant RWCDS to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. A detailed analysis, when required, is framed in the context of existing conditions and evaluates the changes to those conditions in the With-Action condition as compared with the changes that would be expected in the No-Action condition. In conjunction with the land use task, specific development projects expected to occur by the project's analysis year are identified. These projects are described in terms of the possible changes to socioeconomic conditions that they would cause, including potential population increases, changes in income characteristics of the affected area, changes to the rents or sale prices of residential units, new commercial or industrial uses, or changes to employment or retail sales. Those conditions are then compared with the future with the Proposed Actions to determine the potential for significant adverse impacts. A preliminary assessment was sufficient to conclude that the Proposed Actions and resultant RWCDS would not result in any significant adverse socioeconomic impacts due to indirect residential displacement.

Study Area Definition

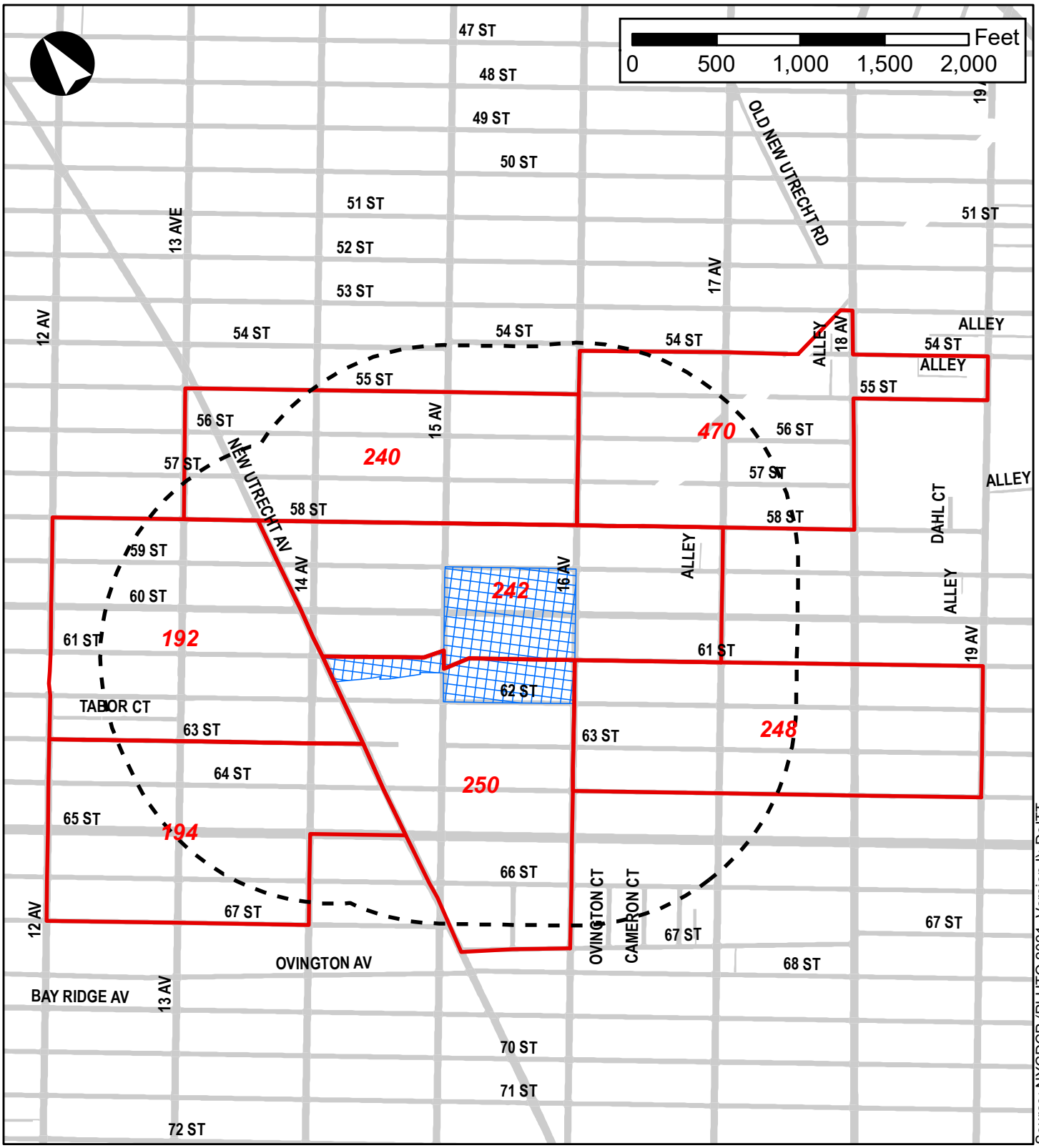
To assess these socioeconomic issues, information was gathered regarding the surrounding area's demographic characteristics, housing inventory, and housing market. Typically, the socioeconomic study area boundaries are similar to those of the land use study area. The study area generally encompasses the area affected by the Proposed Actions (i.e., directly affected area or primary study area), and an adjacent area (study area) within quarter-mile or half-mile, depending on project size and area characteristics. The socioeconomic assessment seeks to assess a project's potential to change socioeconomic character relative to the study area populations (i.e., a project that would result in a relatively large increase in population may be expected to affect a larger study area).

The *CEQR Technical Manual* explains that for projects that would increase the residential population by more than five percent as compared to the population expected to reside in the quarter-mile study area in the No-Action condition, a half-mile study area is appropriate. In the future with the Proposed Actions, the RWCDS would increase the quarter-mile population (22,783 as of 2020[1]) by an estimated 956 people[2] (approximately 4.20 percent), warranting a quarter-mile study area.

The boundary of the socioeconomic study area was modified to match the census tracts that most closely define a quarter-mile perimeter surrounding the Development Site (refer to **Figure D-1**). By conforming to census tract boundaries, the socioeconomic analysis more accurately applies Census data to depict the demographic characteristics of the surrounding area. In addition, in accordance with *CEQR Technical Manual* guidance, the indirect residential displacement analysis considers an area "near" the study area (i.e., within a quarter-mile radius of the study area) to examine real estate market trends and ascertain whether the surrounding area has experienced a readily observable trend toward increasing rents and the likely effect of the Proposed Actions on such trends.

[1] 2020 Census via DCP Population Factfinder.

[2] The estimate of the incremental residential population resulting from the Proposed Actions assumes 3.54 persons per DU, which is based on the average household size for a quarter-mile radius surrounding the Development Site according to 2020 Census data via DCP Population Factfinder.



Source: NYCDCP (PLUTO 2021, Version I); DoITT

Legend

Project Area | Quarter-Mile Radius | 240 Study Area Census Tracts

III. PRELIMINARY ASSESSMENT

Indirect Residential Displacement

As described in the *CEQR Technical Manual*, indirect residential displacement usually results from substantial new development that is markedly different from existing uses and activity in an area and that causes increased property values in the area. Increased property values can lead to increased rents in non-regulated rental housing units, which can make it difficult for some existing residents to afford to stay in their homes. Pursuant to *CEQR Technical Manual* guidance, the indirect residential displacement assessment aims to determine whether the Proposed Actions would either introduce a trend or accelerate an existing trend of changing real estate market conditions that may have the potential to displace a vulnerable residential population and substantially change the socioeconomic character of the neighborhood. Residents who are homeowners, or who are renters living in rent regulated[3] or subsidized housing units would not be vulnerable to rent pressures according to *CEQR Technical Manual* guidance.

This preliminary assessment follows the step-by-step preliminary assessment guidance described in Section 332.1 of the 2021 *CEQR Technical Manual*.

Step 1: Determine if the proposed project would add new population with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area in the future without the proposed project.

As shown in **Tables D-1** and **D-2**, household incomes are relatively low in the study area. The residents of the study area have lower mean (or average) household incomes, as compared to Brooklyn and New York City as a whole.

TABLE D-1:
Household Income Characteristics in the Quarter-Mile Study Area, Brooklyn, and New York City: 2006-2010 and 2016-2020

	Median Household Income			Mean Household Income		
	2006-2010	2016-2020	Percent Change	2006-2010	2016-2020	Percent Change
Quarter-Mile Study Area	***$46,517***	***$50,899[1]***	***N.A.***	***$69,052***	***$73,909[2]***	***N.A.***
Brooklyn	$51,836	$63,973	+23.4%	$74,548	$96,572	+29.5%
New York City	$59,829	$67,046	+12.1%	$92,682	$107,000	+15.4%

Source: Bureau of the Census, 2006-2010 and 2016-2020 American Community Survey (ACS) Five-Year Estimates, as reported on DCP's Population Factfinder.
Notes: All dollar figures have been adjusted to 2020. The statistical reliability of the data included in this table has been vetted using DCP's NYC Population FactFinder. For the study area, neither the directionality of change nor percent change over time was statistically reliable and therefore not reported for either the median or mean household income.
[1] Based on the MOE for median annual household income within the study area (according to the 2016-2020 ACS, MOE of $8,262), there is a 90 percent probability that the median house income is between $42,637 and $59,161.
[2] Based on the MOE for average annual household income within the study area (according to the 2016-2020 ACS, MOE of $9,478), there is a 90 percent probability that the average house income is between $64,431 and $83,387.

According to the 2016-2020 Five-Year American Community Survey (ACS) data, the study area had a median household income of $50,899, as compared to $46,517 in 2006-2010. The median household income in Brooklyn was $63,973 and $67,046 in the City (refer to **Table D-1**). Trends in the median

[3] Rent regulated housing includes both rent-controlled and rent stabilized apartments that are protected from steep rent increases and offer tenants greater legal protections than those living in market-rate housing.

household income in Brooklyn and the greater city indicate that the median household incomes are increasing. As shown in **Table D-1**, the median household income in Brooklyn has increased by approximately 23 percent and in the City by roughly 12 percent since 2006-2010. For the study area, the change in household median income over time was not statistically reliable.

As shown in **Table D-1**, consistent with increases in the median household income, the mean household income also increased in Brooklyn and the greater city. Like the median household income in the study area, the change in the mean household income for the study area was not statistically reliable. The 2016 to 2020 mean household income in the study area was an estimated $73,909, which is lower than the mean household income for Brooklyn ($96,572) and New York City ($107,000).

TABLE D-2:
Household Income Distribution (2016-2020)

	Total Households	Households Earning Less than $25,000		Households Earning $25,000 to $49,999		Households Earning $50,000 to $99,999		Households Earning $100,000 to $199,999		Households Earning $200,000 or more	
		#	%	#	%	#	%	#	%	#	%
Quarter-Mile Study Area	***5,835***	***1,545***	***26.5%***	***1,335***	***22.9%***	***1,532***	***26.3%***	***1,003***	***17.2%***	***420***	***7.2%***
Brooklyn	972,314	228,427	23.49%	176,162	18.1%	246,401	25.3%	217,934	22.4%	103,390	10.6%
New York City	3,191,691	713,887	22.4%	557,514	17.5%	807,028	25. 3%	726,970	22.8%	386,292	12.1%

Source: Bureau of the Census, 2016-2020 ACS Five-Year Estimates, as reported on DCP's Population Factfinder.

A breakdown of income distribution further illustrates the difference between household incomes in the study area as compared to Brooklyn and New York City as a whole. As shown in **Table D-2**, roughly 27 percent of households in the study area had incomes of $25,000 or less between 2016 and 2020, higher than the percentages in Brooklyn (23.5 percent) and New York City (22.4 percent), respectively. The study area also has a lower proportion of households with incomes of more than $100,000 than in Brooklyn and New York City.

Although ACS estimates do not provide specific rent information according to regulation status or unit size, these data can provide a general picture about the rate at which housing costs are changing in a neighborhood. According to 2016-2020 ACS Five-Year Estimates, the median gross rent in the study area was an estimated $1,465 per month in 2016-2020, as compared to $1,278 per month in 2006-2010 (refer to **Table D-3**). A comparison of median gross rent in the study area to either Brooklyn or New York was not statistically reliable. The median gross rent in the larger borough was estimated to be $1,483 and in the City $1,489.

As shown in **Table D-3**, in terms of existing residential rents and trends, residential rents have increased in the study area and increased in Brooklyn and the City since 2006-2010. The gap between how much households are earning and how much households are paying for housing is growing in the study area, as household income levels are largely rising at slower rates as compared to rent increases. Households throughout the City are struggling to adjust to higher rents.

TABLE D-3:
Median Gross Rent (2006-2010, 2016-2020 ACS)[1, 2]

	2006-2010	2015-2019	Percent Change
Quarter-Mile Study Area	***$1,278***	***$1,465***	***Increase***
Brooklyn	$1,215	$1,483	22.1%
New York City	$1,274	$1,489	16.9%

Source: Bureau of the Census, 2006-2010 and 2016-2020 ACS Five-Year Estimates, as reported on DCP's Population Factfinder.
Notes:
[1] The statistical reliability of the data included in this table has been vetted using DCP's Population FactFinder.
[2] All dollar figures are in 2020 dollars.

U.S. Census and ACS data do not provide specific rent information according to regulation status or unit size, but instead paint a general picture about the rate at which housing costs are changing in a neighborhood. Average neighborhood rents are therefore used to provide a fuller understanding of where the market is today. **Table D-4** summarizes current average rents for apartments for the study area (which falls within Borough Park, Brooklyn), as well as the larger borough. The average asking rents presented in the table are higher than the data presented in the 2016-2020 ACS Five Year estimates.

As shown in **Table D-4**, average rental rates in Borough Park are more affordable than the overall borough. According to M.N.S. Real Estate NYC's *Brooklyn Rental Market Report* (April 2022), average rental rates in Borough Park/Sunset Park have increased by roughly 21, 11, and 14 percent for studios, one-bedrooms, and two-bedrooms, respectively, within the last year. This is a lower rate of increase as compared to the larger borough, which experienced increases of nearly 25, 27, and 26 percent for studios, one-bedrooms, and two-bedrooms, respectively in the last year.

TABLE D-4:
Average Rents in Borough Park/Sunset Park in April 2022

Neighborhood	Studio	One-Bedroom	Two-Bedroom
Borough Park/Sunset Park	$1,857	$1,896	$2,331
Brooklyn	$2,589	$3,102	$3,977

Source: M.N.S Real Estate NYC, Brooklyn Rental Market Report, April 2022.

In the future with the Proposed Actions, the Proposed Rezoning Area within the Project Area would be mapped as a Mandatory Inclusionary Housing area (MIH), which would set mandatory affordable housing requirements pursuant to the MIH program and require a share of new housing be permanently affordable. Under the Proposed Actions, the production of affordable housing would be a condition of any residential development in the Proposed Rezoning Area within the Project Area and is expected to help preserve affordable housing in the surrounding area. There would be no expiration to the affordability requirement of housing units created through MIH, making these units a permanent reservoir of affordable housing in the area, a key policy to meet the City's *Housing New York: A Five-Borough, Five-Year Plan* goal of fostering diverse livable communities.

The amount of affordable housing units produced and resulting range of affordability presented would ultimately depend on which MIH Option is established through the ULURP process. The New York City Department of Housing Preservation and Development (HPD), as a supporting and regulatory agency, would at a later date establish levels of affordability for the proposed development in coordination with the applicants. The affordability requirements would be defined and ensured through regulatory agreements with HPD.

The Applicant is proposing to map MIH Options 1, 2 and 4 and the Proposed Project would comply with Option 4. Therefore, the RWCDS assumes that approximately 30 percent of the overall residential floor area of the Proposed Project would be set aside as "affordable" residential units, and that "affordable" would refer to residential units set aside for families/residents earning an average of approximately 115 percent of the Area Median Income (AMI). Based on this assumption, the Proposed Actions would introduce up to 189 market-rate housing units, and up to 81 units occupied by families/residents earning an average of 115 percent of AMI.

The levels of affordability would be based on percentages of AMI defined by the U.S. Department of Housing and Urban Development (HUD) for the region (New York, NY HUD Metro Fair Market Area [FMA]); the 2022 income limits by family size for the New York City region are presented in **Table D-5**. These levels will change over time and their future levels cannot conclusively be established at this time.

TABLE D-5:
2022 New York City Area AMI

Family Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	70% of AMI	80% of AMI	90% of AMI	100% of AMI	115% of AMI	130% of AMI
1	$28,020	$37,360	$46,700	$56,040	$65,380	$74,720	$84,060	$93,400	$107,410	$121,080
2	$32,040	$42,720	$53,400	$64,080	$74,760	$85,440	$96,120	$106,800	$122,820	$128,160
3	$36,030	$48,040	$60,050	$72,060	$84,070	$96,080	$108,090	$120,100	$138,115	$144,120
4	$40,020	$53,360	$66,700	$80,040	$93,380	$106,720	$120,060	$133,400	$153,410	$160,080

Source: HPD, https://www1.nyc.gov/site/hpd/services-and-information/area-median-income.page.

To estimate the average household income of residents introduced by the Proposed Actions, the incomes of future residents in both the market-rate and affordable units at the Development Site have been projected. Housing is considered affordable if it costs about one-third or less of income. HUD defines families who pay more than 30 percent of their income for housing as rent-burdened.

As shown in **Table D-5**, according to HUD, three-person families in the New York City region would be eligible for the affordable housing units in the Project Area if they were earning $138,115 annually, respectively, which is 115 percent of AMI. Since the study area's average household size is 3.54 persons per household, it is assumed that the average income of a family living in an affordable unit would be approximately $146,374.

Consistent with *CEQR Technical Manual* guidance, the third quartile of market-rate unit rents is assumed to represent 30 percent of the introduced population's monthly income for the market-rate apartments, given that new construction tends to be at the higher end of market rents and that 30 percent is the standard threshold for what is considered a rent-burdened household. For the market-rate units, research into current market-rate asking rents in the study area (summarized in **Table D-6**) and the assumption that incoming market-rate renters would be spending approximately 30 percent of their household income on rent[4] have been used to estimate the expected income level of future market-rate tenants.

[4] The U.S. Department of Housing and Urban Development (HUD) defines families who pay more than 30 percent of their income for housing as cost burdened.

TABLE D-6:
Estimated Income for the Proposed Market-Rate Units

Unit Type	Number of Apartments Listed [1]	Third Quartile Asking Rent [1]	Estimated Monthly Income [2]	Estimated Yearly Income [2]
One Bedroom	24	$2,038	$6,800	$81,500
Two Bedroom	32	$2,524	$8,400	$101,00
Three Bedroom	19	$3,050	$10,200	$122,000
Weighted Average		$2,501	$8,300	$100,100

Notes:
[1] Represents the number of apartments listed and the third quartile rent based on May 2022 market listings in Borough Park.
[2] Household incomes were imputed using HUD's 30 percent guideline and were rounded to nearest tenth.
[3] The proposed market-rate units' weighted average incomes were calculated assuming a similar mix of unit types as available in the study area based on recent rental listings in May 2022.
Source: Zillow (Zillow.com), apartment.com, and Street Easy, http://streeteasy.com/, accessed in May 2022.

Assuming that the incoming market-rate renters would be spending approximately 30 percent of their income on rent, a person renting a market-rate unit as a result of the Proposed Actions is expected to have an income between approximately $81,500 and $122,000 depending on the unit type (refer to **Table D-6**), all of which are higher incomes than the study area's current average household income of $73,909 (refer to **Table D-1**). Assuming that the mixture of unit types would be similar to the current distribution within the study area, a household renting a market-rate unit that would be available as a result of the Proposed Actions would have an average income of approximately $100,100.

As noted above, the Proposed Actions would result in an incremental net increase of 270 DUs, of which approximately 81 units would be affordable to families making an average of 115 percent of AMI, and 189 units would be market rate. The average income of a household in an affordable unit would be $146,374 annually, and the average income of a household in a market-rate unit would be roughly $100,100, which are both more than the study area's current average household income of $73,909 (refer to **Table D-1**). In aggregate, the weighted average household income of the project-generated population would be approximately $113,982, which would be more than the study area's current average household income.

Per *CEQR Technical Manual* guidance, if the expected average incomes of the new population would exceed the average incomes of the study area population, Step 2 of the preliminary assessment should be conducted. Although the Proposed Actions would expand housing options available to moderate-income households in the study area, given the potential difference between the study area's existing average household income and that of the project-generated population, Step 2 of the preliminary assessment is warranted.

Step 2. Determine if the project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area.

According to 2020 Census data, the study area had a population of 22,783, as compared to a population of 21,060 in 2010 (refer to **Table D-7**). In comparison, over the same time, the population of the Brooklyn increased by more than nine percent and the population of New York City increased by nearly eight percent.

TABLE D-7:
Residential Population[1]

	2010 Census	2020 Census	Percent Change
Quarter-Mile Study Area	21,060	22,783	8.2%
Brooklyn	2,504,700	2,736,074	9.2%
New York City	8,175,133	8,804,190	7.7%

Sources: Bureau of the Census, 2010 and 2020 Census, as reported on DCP's Population Factfinder: https://popfactfinder.planning.nyc.gov/explorer/selection/705d2d791ff7bfd31d069fa234c1e3a315090aae?source=decennial-change

Based on active construction projects permitted by the New York City Department of Buildings (NYCDOB), multiple No-Action development projects are anticipated to introduce residential uses in the study area in absence of the Proposed Actions. Based on information about these planned developments, 443 DUs will be added to the study area by 2030 (refer to **Table D-8**). Assuming an average household size of 3.54 persons per DU, as well as 100 percent occupancy rates, these planned development projects would add an estimated 1,568 people to the study area. **Table D-8** shows the total projections in the future without the Proposed Actions by adding the population from the No-Action development projects to the 2020 Census population estimates.

TABLE D-8:
Estimated Study Area Population in the future without & with the Proposed Actions[1]

Existing Population	2030 No-Action Condition	2030 With-Action Condition	Percent Change (%)
22,783	24,351	25,307	3.9%

Note:
[1] Based on average household size of 3.54 persons/household (2020 Census) which is the average household size for a quarter-mile radius surrounding the Project Area according to 2020 Census data via DCP's Population Factfinder.

The Proposed Actions would introduce 270 DUs into the study area. Assuming an average household size of 3.54 persons (the average household size for a quarter-mile radius surrounding the Project Area according to the 2020 Census) and 100 percent occupancy, these 270 housing units would add an estimated 956 residents to the study area over the No-Action condition. As shown in **Table D-8**, when compared to the No-Action condition, the Proposed Actions would result in an estimated 3.9 percent population increase in the study area.

According to *CEQR Technical Manual* methodology, if the project-generated population increase would be less than five percent in the study area, it would not introduce a substantial new population that could substantially affect residential real estate market conditions in the study area. As the Proposed Actions would result in an increase in the quarter-mile study area residential population of less than four percent, this would not represent a substantial new population, and no significant adverse indirect residential displacement impacts would result pursuant to *CEQR Technical Manual* guidance.

Attachment E:

Community Facilities and Services

I. INTRODUCTION

This attachment examines the potential effects of the Proposed Actions and resultant Proposed Project on community facilities and services in and around the Project Area. The 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* defines community facilities and services as public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police protection. CEQR methodology focuses on a project's potential effect on the services provided by these facilities. A project can affect facility services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

The Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project") on the Applicant-controlled Development Site within the Project Area. Absent the approval of the Proposed Actions, the Proposed Project would not be constructed and the existing conditions within the Applicant-controlled Development Site would remain.

The following analysis of community facilities and services has been conducted in accordance with *CEQR Technical Manual* guidance, utilizing data sourced from agencies such as the New York City Department of Education (DOE) and the New York City Department of City Planning (DCP).

II. PRELIMINARY SCREENING

The purpose of the preliminary screening is to determine whether an assessment of community facilities and services is required for the Proposed Actions. As recommended by the *CEQR Technical Manual*, an assessment of community facilities and services is required if a project has the potential to result in either direct or indirect effects on community facilities and services. If a project would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. Temporary direct effects should also be considered. Increased population in an area caused by a project would increase demand for existing services, which may result in potential "indirect" effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public or publicly funded educational facilities and libraries.

Direct Effects

The Proposed Actions would not directly displace or otherwise directly affect any public or publicly funded educational facilities, libraries, health care facilities, or fire/police protection services. Therefore, the

Proposed Actions would not result in any significant adverse direct effects on community facilities and services, and further analysis is not required.

Indirect Effects

The *CEQR Technical Manual* includes thresholds that provide guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts. **Table E-1** lists those *CEQR Technical Manual* thresholds for each community facility and services analysis area. If a project exceeds the threshold for a specific analysis area, a more detailed analysis is required. A preliminary screening analysis was conducted to determine if the Proposed Actions would exceed established *CEQR Technical Manual* thresholds warranting further analysis.

TABLE E-1:
Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analysis
Public Schools	50 or more elementary/intermediate school students or 150 or more high school students based on the number of residential units using the New York City School Construction Authority's (SCA's) Projected Public School Ratio
Early Childhood Programs	20 or more eligible children under age five based on the number of low or low/moderate income residential units
Libraries	More than a five percent increase in the ratio of residential units to library branches
Police/Fire Services and Health Care Facilities	Introduction of a sizeable new neighborhood

Source: *CEQR Technical Manual*, Table 6-1 "Community Facility Thresholds for Detailed Analyses."

PUBLIC SCHOOLS

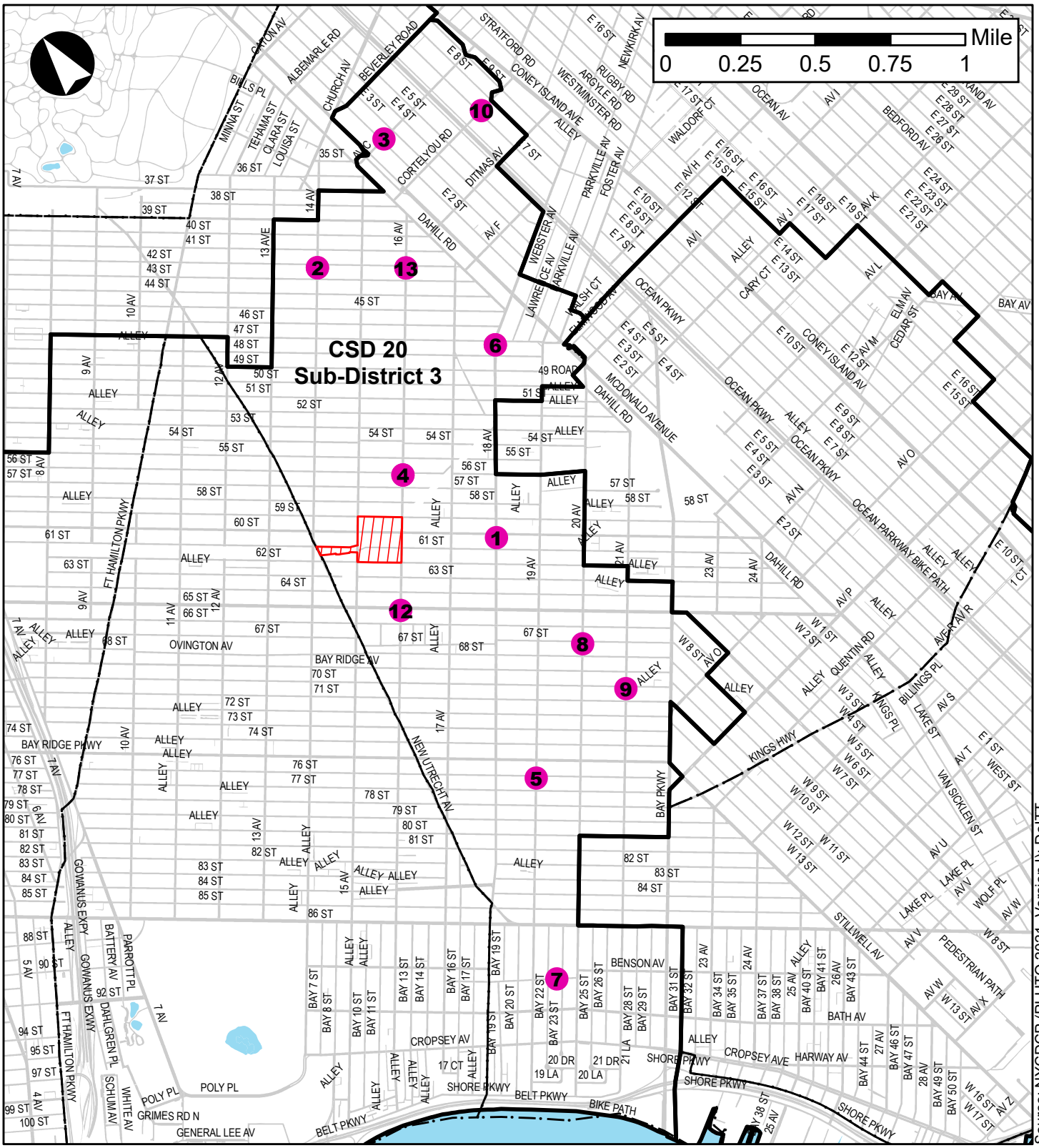
Potential impacts on schools may result if there would be insufficient seats available to serve the population. Because it is rare that a project physically displaces an operating school, impacts are more likely to occur when a project introduces school-age children to an area The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a project would yield 50 or more elementary/intermediate school students and/or 150 or more high school students. The Proposed Actions would result in the net incremental development of 270 DUs on the Applicant-controlled Development Site within the Project Area. As shown in **Figure E-1**, the Project Area is located in Community School District (CSD) 20. Based on the SCA's Projected Public School Ratio student generation rates for CSD 20, 270 DUs would generate approximately 51 public elementary school students, approximately 18 public intermediate school students, and approximately 14 public high school students.[1] Therefore, a detailed analysis of public elementary and intermediate schools is required and is provided herein. The Proposed Actions would not generate 150 or more high school students. Therefore, the Proposed Actions would not result in significant adverse impacts on public high schools and further analysis of high schools is not required.

MEANS-TESTED EARLY CHILDHOOD PROGRAMS

Publicly funded Means-tested Early Childhood Programs are available for eligible children aged five and younger (until the child is eligible to attend Kindergarten for a fall start date). According to the *CEQR*

[1] Per the SCA's Projected Public School Ratio student generation rates, residential units in CSD 20 generate 0.19 public elementary school students per DU, 0.07 public intermediate school students per DU, and 0.05 public high school students per DU.

Study Area Elementary and Intermediate Schools



Legend

- Community School District (CSD)
- CSD Sub-district
- Project Area
- 1 Study Area Public Schools (refer to Tables E-1 and E-2)

Technical Manual, if a project would add 20 or more eligible children under age five, a detailed analysis is required. For CEQR analysis purposes, the number of residential units expected to be subsidized and targeted for households with incomes at or below 80% of the Area Median Income (AMI) should be used as a proxy for eligibility (equivalent to 110 residential units in Brooklyn). This provides a conservative assessment of demand, since eligibility for subsidized child care is not defined strictly by income, but also takes into account family size and other reasons for care. The Proposed Actions would result in the net incremental development of 270 DUs on the Applicant-controlled Development Site within the Project Area, including up to 81 affordable DUs. The Applicant is proposing to map MIH Options 1, 2 and 4, and is proposing a total of 81 affordable DUs to households with incomes at or below 115 percent of AMI pursuant to Option 4. However, for CEQR analysis purposes, 20% (54 DUs) of the residential floor area is assumed to be affordable at or below 80% AMI. Therefore, the Proposed Actions would not result in significant adverse impacts on Means-tested Early Childhood Programs and further analysis of Means-tested Early Childhood Programs is not required.

LIBRARIES

Potential impacts on libraries may result from an increased user population. According to the *CEQR Technical Manual*, if a project would increase the average number of residential units served by library branches in the borough in which the project is located by more than five percent (equivalent to 834 residential units in Brooklyn), the project may cause significant impacts on library services and further analysis is required. The Proposed Actions would not generate 834 residential units in Brooklyn. Therefore, the Proposed Actions would not result in significant adverse impacts on libraries and further analysis of libraries is not required.

POLICE/FIRE SERVICES AND HEALTH CARE FACILITIES

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on health care facilities and fire and police protection services when a project would create a sizeable new neighborhood where none existed before. The Proposed Actions would facilitate the net incremental development of 270 DUs and 65,212 gsf of commercial uses on the Applicant-controlled Development Site within the Proposed Rezoning Area. Therefore, the Proposed Actions would not create a sizeable new neighborhood where none existed before, and further analysis of health care facilities and fire and police protection services is not required.

III. INDIRECT EFFECTS ON PUBLIC SCHOOLS

PUBLIC SCHOOLS

Public schools are free for all students ages five and older, and are operated and funded by DOE. Public schools include elementary (PS) schools (grades Kindergarten through 5), intermediate (IS/MS) schools (grades 6 through 8), and high (HS) schools (grades 9 through 12). CEQR analysis excludes charter or private schools, regardless of location (some charter schools are co-located in buildings owned by DOE or SCA). CEQR analyzes potential impacts to public elementary and intermediate schools at a local level (CSD sub-district), and potential impacts to high schools at a borough-wide or citywide level. Schools are analyzed based on the potential for the project to cause overcrowding (i.e., a shortage of seats for an age group within the district).

Indirect Effects Methodology

Based on the multipliers presented in Table 6-1 of the *CEQR Technical Manual*, the Proposed Project would generate approximately 69 new public elementary and intermediate school students (51 public elementary and 18 public intermediate school students), which exceeds the threshold of 50 public elementary and intermediate students warranting a more detailed analysis. The Proposed Project would generate approximately 14 public high school students, which would not exceed the *CEQR Technical Manual* threshold of 150 students warranting a more detailed analysis of public high schools.

The analysis presents the most recent capacity, enrollment, and utilization rates for public elementary and intermediate schools in the study area, including Mini-Schools and Annexes that are part of these school organizations. Enrollment, but not capacity, of Transportable Classroom Units (TCUs) should also be provided. Conditions in the future No-Action condition are then predicted based on enrollment projections and proposed residential development projects located within the study area[2], and the future utilization rate for public school facilities is calculated by adding the estimated enrollment from the proposed residential development projects in the study area to DOE's projected enrollment and then comparing that number with projected school capacity. DOE's most recent enrollment projections are provided on SCA's website.[3] In addition, new school projects identified in the DOE's Five-Year Capital Plan for Fiscal Years 2020-2024 (and/or subsequent amendments) are included if construction has begun. According to the *CEQR Technical Manual*, some schools may be included in the analysis if they are in the DOE's Five-Year Capital Plan for Fiscal Years 2020-2024 but are not yet under construction if the lead agency, in consultation with SCA, concurs that such inclusion is appropriate.

For public elementary and intermediate schools, a significant adverse impact may result if the proposed project would result in both of the following: (1) a utilization rate of the public elementary or intermediate schools that is equal to or greater than 100 percent in the With-Action condition; and (2) 100 or more new students generated from the proposed project past the 100 percent utilization rate.

STUDY AREA

The study area for the analysis of public elementary and intermediate schools should be the school district's sub-district in which the project is located. The locations of public elementary and intermediate schools within the sub-district should be shown. The Development Site is located within sub-district 3 of CSD 20.

Existing Conditions

Public Elementary Schools

As summarized in **Table E-2** and shown in **Figure E-1**, sub-district 3 of CSD 20 contains a total of nine public schools serving public elementary school students in the study area with an existing utilization rate of approximately 128 percent and a shortfall of approximately 1,683 seats.

[2] Projected New Housing Starts as Used in 2020-2029 Enrollment Projection.
[3] Enrollment Projections 2020-2029 New York City Public Schools by the Statistical Forecasting.

TABLE E-2:
2019-2020 Study Area Public Elementary School Enrollment, Capacity, and Utilization

Map No[1]	School Name	Address	Enrollment[2]	Target Capacity[2]	Available Seats	Utilization
1	P.S. 048 Mapleton	6015 18th Avenue	569	443	-126	128%
2	P.S. 164 Caesar Rodney	4211 14th Avenue	674	627	-47	107%
3	P.S. 179 Kensington	202 Avenue C	807	692	-115	117%
4	P.S. 180 The SEEALL Academy	5601 16th Avenue	574	443	-131	130%
5	P.S. 186 Dr. Irving A Gladstone	7601 19th Avenue	1,118	789	-329	142%
6	P.S. 192 The Magnet School for Math and Science Inquiry	4715 18th Avenue	472	531	59	89%
7	P.S. 200 Benson School	1940 Benson Avenue	1,335	990	-345	135%
8	P.S. 205 Clarion	6701 20th Avenue	1,297	930	-367	139%
9	P.S. 247	7000 21st Avenue	853	571	-282	149%
Study Area Totals			***7,699***	***6,016***	***-1,683***	***128%***

Notes:
[1] Refer to **Figure E-1** for the locations of public schools in the study area.
[2] P.S. / I.S. breakdown provided by SCA via DCP.
Source: DOE, Enrollment, Capacity, & Utilization Report 2019-2020.

The public elementary school located nearest to the Development Site is P.S. 180 The SEEALL Academy.

Public Intermediate Schools

As summarized in **Table E-3** and shown in **Figure E-1**, sub-district 3 of CSD 20 contains a total of six schools serving public intermediate school students in the study area with an existing utilization rate of approximately 103 percent and a shortfall of approximately 137 seats.

TABLE E-3:
2019-2020 Study Area Public Intermediate School Enrollment, Capacity, and Utilization

Map No[1]	School Name	Address	Enrollment[2,3]	Target Capacity[2,3]	Available Seats	Utilization
4	P.S. 180 The SEEALL Academy	5601 16th Avenue	498	384	-114	130%
6	P.S. 192 The Magnet School for Math and Science Inquiry	4715 18th Avenue	170	191	21	89%
10	J.H.S. 062 Ditmas	700 Cortelyou Road	1,173	1,354	181	87%
11	J.H.S. 223 The Montauk	4200 16th Avenue	892	872	-20	102%
12	J.H.S. 227 Edward B. Shallow	6500 16th Avenue	1,637	1,435	-202	114%
13	Urban Assembly School for Leadership and Empowerment	4200 16th Avenue	233	230	-2	101%
Study Area Totals			***4,603***	***4,466***	***-137***	***103%***

Notes:
[1] Refer to **Figure E-1** for the locations of public schools in the study area.
[2] P.S. / I.S. breakdown provided by SCA via DCP.
[3] I.S. / H.S. breakdown provided by SCA via DCP.
Source: DOE, Enrollment, Capacity, & Utilization Report 2019-2020.

The public intermediate schools located nearest to the Development Site are P.S. 180 The SEEALL Academy and J.H.S. 227 Edward B. Shallow.

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

In the future without the Proposed Actions, future utilization of public elementary and intermediate schools serving the study area would be affected by changes in enrollment mainly due to: (1) aging of the existing student body and new arrivals born into the study area or moving into it; and (2) changes in capacity, or number of available seats, in the public elementary and intermediate schools as a result of planned construction of new public schools or building additions to existing public schools.

Capacity Changes

As outlined in the *CEQR Technical Manual*, the No-Action condition school capacity changes considered in a community facilities and services analysis should include information on proposed and adopted "Significant Changes in School Utilization" and information provided in the DOE's Five-Year Capital Plan.

There are no new public schools planned for sub-district 3 of CSD 20 that are currently under construction. Furthermore, no changes in public school capacity were recently approved by the New York City Panel on Education Policy (PEP). As such, it is assumed that public elementary and intermediate school capacities in the No-Action condition would be the same as under existing conditions.

Enrollment Changes

SCA provides future enrollment projections by district for up to ten years. The latest available enrollment projections to 2030 (Enrollment Projections 2020-2029 New York City Public Schools by Statistical Forecasting) have been used in the analysis to project student enrollment in 2030, in accordance with *CEQR Technical Manual* guidance. SCA projections demonstrate that demand for public elementary schools in sub-district 3 of CSD 20 is expected to increase and demand for public intermediate schools in sub-district 3 of CSD 20 is expected to decrease. The projected enrollment for public elementary schools is expected to increase to 9,600 and the projected enrollment for public intermediate schools is expected to decrease to 4,180. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the study area (i.e., No-Action condition development projects).

New residential development is also expected in the study area by 2030. Utilizing numbers derived from SCA's Projected New Housing Starts for sub-district 3 of CSD 20, approximately 164 new public elementary school students and 52 new public intermediate school students are expected to be added to the study area by 2030. As such, in the future without the Proposed Actions, projected public elementary school enrollment would increase to 9,764 and projected public intermediate school enrollment would decrease to 4,232.

Public Elementary Schools

As under existing conditions, study area public elementary schools are expected to operate over capacity in the future without the Proposed Actions. Specifically, as presented in **Table E-4**, public elementary

schools are expected to operate with a utilization rate of approximately 162.3 percent and a shortfall of approximately 3,748 seats.

TABLE E-4:
Study Area No-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization

Grade Level	2030 Projected Enrollment	Students Generated from No-Action Condition Residential Development	Total Projected Enrollment in No-Action Condition	Projected No-Action Condition Capacity	Seats Available	Utilization
Elementary	9,600	164	9,764	6,016	-3,748	162.3%
Intermediate	4,180	52	4,232	4,466	234	94.75%

Source: Enrollment Projections 2020-2029 New York City Public Schools by Statistical Forecasting.

Public Intermediate Schools

In the future without the Proposed Actions, study area public intermediate schools are expected to operate with available capacity. Specifically, as presented in **Table E-4**, public intermediate schools are expected to operate with a utilization rate of approximately 94.75 percent and approximately 234 available seats.

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

As described in **Attachment A, "Project Description,"** a total of 270 DUs would be developed within the Applicant-controlled Development Site in the future with the Proposed Actions. Based on the multipliers presented in Table 6-1 of the *CEQR Technical Manual*, the Proposed Project would generate approximately 69 new public elementary and intermediate school students (51 public elementary and 18 public intermediate school students).

Public Elementary Schools

In the future with the Proposed Actions, study area public elementary schools are expected to operate over capacity, as under the No-Action condition. As presented in **Table E-5**, the addition of 51 public elementary school students is expected to increase the utilization rate of study area public elementary schools by approximately 0.85 percentage points, to approximately 163.15 percent.

TABLE E-5:
Study Area With-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization

Grade Level	Projected Enrollment in No-Action Condition	New Students Generated by the Proposed Actions	Total Projected Enrollment in With-Action Condition	Projected With-Action Condition Capacity	Seats Available	Utilization	Change in Utilization from No-Action Condition
Elementary	9,764	51	9,815	6,016	-3,799	163.15%	0.85
Intermediate	4,232	18	4,250	4,466	216	95.15%	0.40

Public Intermediate Schools

In the future with the Proposed Actions, study area public intermediate schools are expected to operate with available capacity, as under the No-Action condition. As presented in **Table E-5**, the addition of 18 public intermediate school students is expected to increase the utilization rate of study area public intermediate schools by approximately 0.40 percentage points, to approximately 95.15 percent.

According to the *CEQR Technical Manual*, a significant adverse impact may result if the proposed project would result in both of the following: (1) a utilization rate of the public elementary or intermediate schools that is equal to or greater than 100 percent in the With-Action condition; and (2) 100 or more new students generated from the proposed project past the 100 percent utilization rate. As detailed in **Table E-5**, the Proposed Actions would not result in a significant adverse impact on public elementary or intermediate schools in the study area.

It is expected that DOE will continue to monitor enrollment trends within CSD 20 and its sub-districts, as new housing units identified in the No-Action and With-Action conditions are developed and will plan for new capacity or administrative actions to accommodate new public school students accordingly. Measures utilized by DOE to address increased public elementary school enrollment could include: relocating administrative functions to other public school sites, thereby freeing up space for classrooms; making space within the study area available to DOE; restructuring or reprogramming existing public school space within CSD 20 and its sub-districts; or providing for new capacity by constructing a new public school or an addition to an existing public school.

Attachment F:

Open Space

I. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* guidance, a project that would introduce fewer than 200 residents or 500 nonresidents (e.g., workers), or a similar number of other nonresidents, is typically not considered to have indirect effects on open space.

Although the Proposed Actions would not have a direct effect on existing open space resources, development facilitated by the Proposed Actions (the "Proposed Project") is expected to result in an incremental increase of 270 dwelling units (DUs) over the 2030 No-Action condition. This would result in an incremental (net) increase of 956 residents[1] and 261 workers, which exceeds the *CEQR Technical Manual* threshold for a detailed indirect open space analysis. Therefore, a quantitative assessment was conducted to determine whether the Proposed Actions would significantly reduce the amount of open space available for the area's residential population.

II. METHODOLOGY

The analysis of open space resources has been conducted in accordance with 2021 *CEQR Technical Manual* guidance. Using CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources by the 2030 build year, both without and with the Proposed Actions. In addition, qualitative factors are considered in making an assessment of the Proposed Actions' effects on open space resources.

In accordance with *CEQR Technical Manual* guidance, the study area for open space is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a nonresidential (e.g., worker) population. As discussed in **Attachment A, "Project Description,"** the Proposed Project would introduce approximately 956 residents and 261 workers to the Proposed Rezoning Area within the Project Area compared to the 2030 No-Action condition. Because the Proposed Actions have the potential to significantly increase the local residential population, an open space assessment for the residential population generated by the Proposed Actions is warranted. The Proposed Actions would not introduce more than 500 nonresidents (e.g., workers);

[1] Based on the average household size of 3.54 for census tracts within a quarter-mile radius of the Project Area (2020 Census).

therefore, an open space assessment for the nonresidential population generated by the Proposed Actions is not warranted.

Open Space Study Area

Pursuant to *CEQR Technical Manual* guidance, the study area includes all census tracts that have at least 50 percent of their area located within a half-mile radius, as recommended in the *CEQR Technical Manual*. In this way, the study area allows an analysis of both the publicly accessible open spaces in the study area, as well as the population data.[2]

As shown in **Figure F-1**, the study area includes the following 18 census tracts in their entirety: Census tracts 190, 192, 194, 196, 214, 216, 236, 238, 240, 242, 244, 248, 250, 252, 260, 262, 470, and 472. The study area extends to portions of 49th, 51st, and 55th streets to the north; to portions of 72nd and 73rd streets to the south; to portions of 17th and 19th avenues to the east; and to portions of Fort Hamilton Parkway to the west (refer to **Figure F-1**).

Analysis Framework

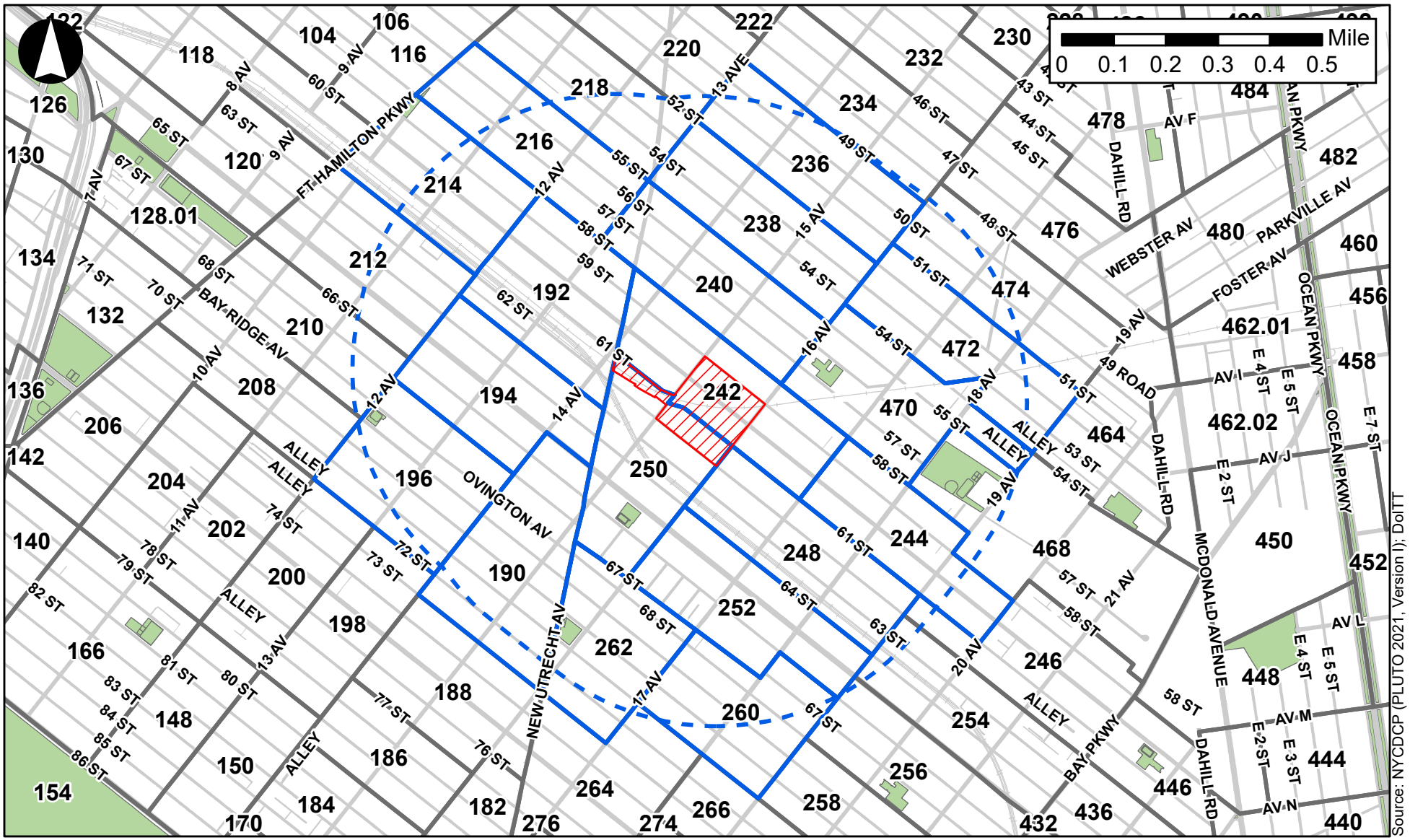
Direct Effects Analysis

According to the *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. As no open space resources would be physically altered or displaced as a result of the Proposed Actions, this chapter uses information from **Attachment B, "Supplemental Screening," Attachment I, "Air Quality," Attachment J, "Noise,"** and **Attachment K, "Construction"** to determine whether the Proposed Actions have the potential to directly affect any open space resources in close proximity to the Project Area. As (1) there are no publicly-accessible open space resources located within the Project Area, and (2) the Proposed Actions would not result in significant adverse shadow, air quality, noise, or construction impacts on area open space resources, the Proposed Actions would not have any direct effects on open space resources and no further analysis is warranted.

Indirect Effects Analysis

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residents or nonresidents (e.g., workers), to noticeably diminish the ability of an area's open space to serve the existing or future populations. Indirect effects may occur when the population generated by a proposed action overtaxes the capacity of existing public open spaces so that the service provided to existing and future populations in the area would be diminished substantially or noticeably.

[2] Pursuant to the *CEQR Technical Manual*, "public" open space that is analyzed pursuant to CEQR is defined as open space that is accessible to the public on a constant and regular basis for active and passive recreation, including for designated daily periods. Public open space may be under government or private jurisdiction.



Brooklyn Yards EAS

Figure F-1
Open Space Study Area

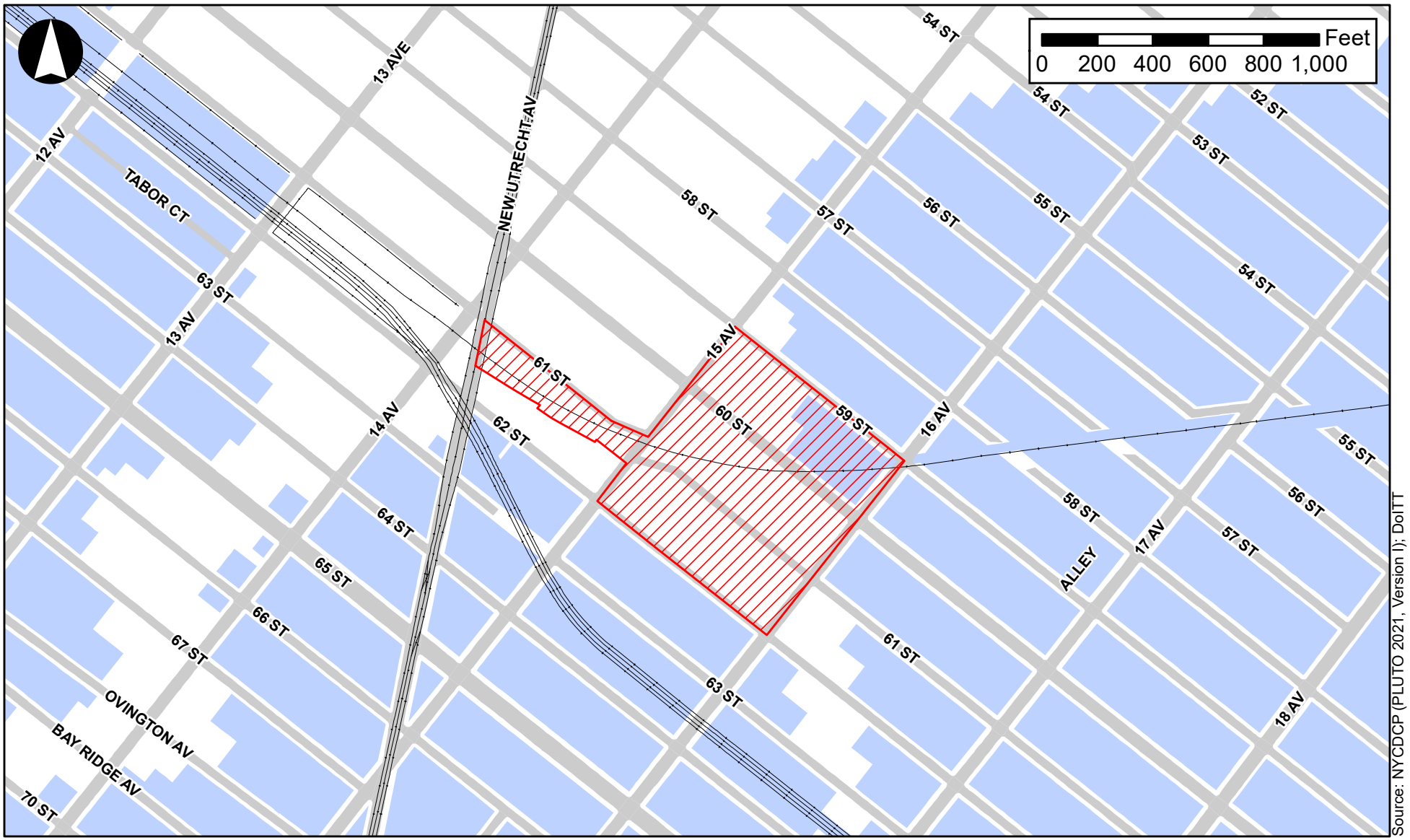
As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the City identified as a "Walk to a Park Service Area." A Walk to a Park Service Area is a component of the *OneNYC 2050 Building a Strong and Fair City* plan, in which New York City has laid out a goal for 85 percent of New York City residents living within a walking distance of a park by 2030. Existing areas located within a WtPSA are within a walking distance of a park (i.e., half-a-mile). Areas not located within a Walk to a Park Service Area are considered "walk gaps;" they are areas of New York City that are not within walking distance to a park. As shown in **Figure F-2**, the Project Area is partially located within an area that has been identified as a Walk to a Park Service Area that is within a walking distance of a park (i.e., not located within a walk gap area).

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

- Characteristics of the existing residential population. To determine the number of residents in the study area, 2020 Census data have been compiled for census tracts comprising the study area.
- An inventory of all publicly accessible passive and active recreational facilities in the study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidelines. For the residential population, the *CEQR Technical Manual* planning guidance is 2.5 acres of open space per 1,000 residents, including 2.0 acres of active open space and 0.5 acres of passive open space.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the study area.
- An assessment of expected changes in future levels of open space supply and demand in the 2030 analysis year, based on known or planned development projects within the study area. To estimate the residential population expected in the study area in the future without the Proposed Actions, known or planned No-Action developments are accounted for within the study area. Any new open space or recreational facilities that are anticipated to be operational by the 2030 analysis year are also accounted for. The open space ratio is calculated for the future No-Action condition and compared with existing ratios to determine changes in future levels of open space adequacy.

Preliminary Assessment

According to the *CEQR Technical Manual*, a preliminary assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential and nonresidential populations to the total open space in the study area. It then compares that ratio with the open space ratio in the future with the Proposed Actions. If there is a decrease in the open space ratio that would approach or exceed one percent in areas exhibiting low open space ratios that are 0.50-acres or less, a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to residents within the open space study area delineated in accordance with



Legend

Project Area | Walk to a Park Service Area | Roadbed | LIRR Tracks

Brooklyn Yards EAS

Figure F-2
NYC Parks Walk to a Park Initiative

the *CEQR Technical Manual*, as outlined above. As the Proposed Actions would introduce a large residential population in an area with a limited amount of available open space, which exhibits a low open space ratio under existing conditions, a detailed open space analysis is warranted and is provided herein.

Impact Assessment

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

A proposed action's potential effects on an area's open space are based, in part, on how a project would change the open space ratios in the study area, as well as other qualitative considerations. According to the *CEQR Technical Manual*, a project that would reduce the open space ratio by more than the general guidelines for the open space percentage change shown in **Table F-1** may be considered significant, as these reductions may result in the overburdening existing facilities or further exacerbating an existing deficiency in open space. As shown in **Table F-1**, the guidance for a tolerated percent change in the open space ratio is determined based on the open space ratio ranges outlined in the *CEQR Technical Manual*. In areas that are within a Walk to a Park Service Area, a greater percentage of change (more than five percent) may be tolerated.

TABLE F-1:
Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percent Change in Open Space Ratio
2.01 to 2.50 or Greater	5%
1.51 to 2.0	4%
1.01 to 1.5	3%
0.51 to 1.0	2%
0.50 or Less	1%
*2.5 open space ratio is the planning goal in New York City.	

Source: Table 7-1 in Chapter 7, "Open Space," of the 2021 *CEQR Technical Manual*.

In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for significant adverse impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with the City's established planning goal for open space.[3] The assessment should consider the balance of passive and active open space. A larger percent of active space is usually preferred; given the physical space requirement for active open space uses are significantly greater. It is recognized that the open space ratios of the City guidelines described above are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these benchmarks indicate how well an area is served by open space. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations such as the distribution of open space, whether a site is within a Walk to a Park Service Area, the distance to regional parks, the

[3] The City planning goal for open space is 2.5 acres per 1,000 residents and is optimally distributed as 80 percent active open space (or 2.0 acres per 1,000 residents) and 20 percent passive open space (or 0.5 acres per 1,000 residents).

connectivity of existing open space, and any additional open space provided by the proposed project, should be considered in a determination of impact significance.

III. DETAILED ANALYSIS

Existing Conditions – Demographic Characteristics of the Study Area

As shown in **Table F-2**, 2020 Census data indicate that the residential study area has a total residential population of approximately 69,503 residents.

TABLE F-2:
Study Area Population

Census Tract	Population
190	4,853
192	3,541
194	3,570
196	4,691
214	2,502
216	4,280
236	6,548
238	5,414
240	5,165
242	3,289
244	3,651
248	2,647
250	1,748
252	5,300
206	3,656
262	2,726
470	2,823
472	3,099
Study Area Total	***69,503***

Source: U.S. Census Bureau, 2020 Census.

As shown in **Table F-3**, located on page F-6, people between the ages of 20 and 64 make up the majority (approximately 52.6 percent) of the residential population in the study area. Children and teenagers (0 to 19 years old) account for approximately 35 percent of the entire study area population, and persons 65 years and over account for approximately 12.8 percent of the study area population. As also presented in **Table F-3**, compared to Brooklyn and New York City as a whole, the study area includes a larger percentage of children and teenagers and a smaller adult (20-64 years) population; the residential study area's elderly population is smaller than that of Brooklyn and New York City as a whole.

The study area's median age of 30.8 is 4.4 years younger than the median age for Brooklyn (35.2 years) and 5.9 years younger than the median age for New York City as a whole (36.7 years). It should also be

noted that the median age varies by census tract, with census tract 472 exhibiting the lowest median age (19.1) and census tract 250 exhibiting the highest median age (43.6).

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

TABLE F-3:
Residential Population and Age Distribution in the Study Area

Census Tract	Total Residential Population	Age Distribution												Median Age
		Under 5		5 to 9		10 to 14		15 to 19		20 to 64		65 and Over		
		#	%	#	%	#	%	#	%	#	%	#	%	
190	4,763	552	11.6	136	2.9	156	3.3	296	6.2	3,035	63.7	588	12.3	35.2
192	2,934	316	10.8	285	9.7	163	5.6	209	7.1	1,655	56.4	306	10.4	29.2
194	4,027	372	9.2	186	4.6	272	6.8	146	3.6	2,485	61.7	566	14.1	36.1
196	4,214	369	8.8	214	5.1	204	4.8	146	3.5	2,511	59.6	770	18.3	40.7
214	2,187	301	13.8	208	9.5	189	8.6	178	8.1	1,125	51.4	186	8.5	27.4
216	4,022	473	11.8	458	11.4	435	10.8	438	10.9	1,863	46.3	355	8.8	23.0
236	5,549	1,429	25.8	605	10.9	475	8.6	148	2.7	2,402	43.3	490	8.8	21.4
238	3,634	673	18.5	324	8.9	259	7.1	145	4.0	1,590	43.8	643	17.7	28.5
240	4,823	761	15.8	548	11.4	481	10.0	307	6.4	2,020	41.9	706	14.6	24.0
242	2,868	482	16.8	343	12.0	197	6.9	165	5.8	1,295	45.2	386	13.5	26.7
244	3,609	370	10.3	492	13.6	410	11.4	442	12.2	1,660	46.0	235	6.5	22.8
248	2,653	217	8.2	208	7.8	166	6.3	153	5.8	1,478	55.7	431	16.2	33.1
250	1,853	53	2.9	110	5.9	83	4.5	135	7.3	1,221	65.9	251	13.5	43.6
252	5,299	357	6.7	392	7.4	333	6.3	215	4.1	3,426	64.7	576	10.9	35.9
260	3,214	104	3.2	123	3.8	170	5.3	151	4.7	1,901	59.1	765	23.8	46.9
262	2,425	85	3.5	142	5.9	198	8.2	83	3.4	1,502	61.9	415	17.1	43.1
470	2,603	306	11.8	279	10.7	448	17.2	259	10.0	1,083	41.6	228	8.8	20.3
472	2,769	291	10.5	439	15.9	399	14.4	312	11.3	1,091	39.4	237	8.6	19.1
Study Area	***63,446***	***7,511***	***11.8***	***5,492***	***8.7***	***5,038***	***7.9***	***3,928***	***6.2***	***33,343***	***52.6***	***8,134***	***12.8***	***30.8***
Total for Brooklyn	2,589,974	190,959	7.4	159,422	6.2	155,921	6.0	138,939	5.4	1,592,439	61.5	352,294	13.6	35.2
Total for NYC	8,419,316	544,971	6.5	468,577	5.6	469,890	5.6	450,091	5.3	5,263,520	62.5	1,222,267	14.5	36.7

Source: U.S. Census Bureau, ACS 2015-2019 Five-Year Estimates.

Inventory of Publicly Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis, and is considered only qualitatively.

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

Within the study area, all publicly accessible open space resources were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in April 2022; the New York City Department of Parks and Recreation's (NYC Parks) website; and the New York City Open Accessible Space Information System (OASIS) database and other secondary sources of information.

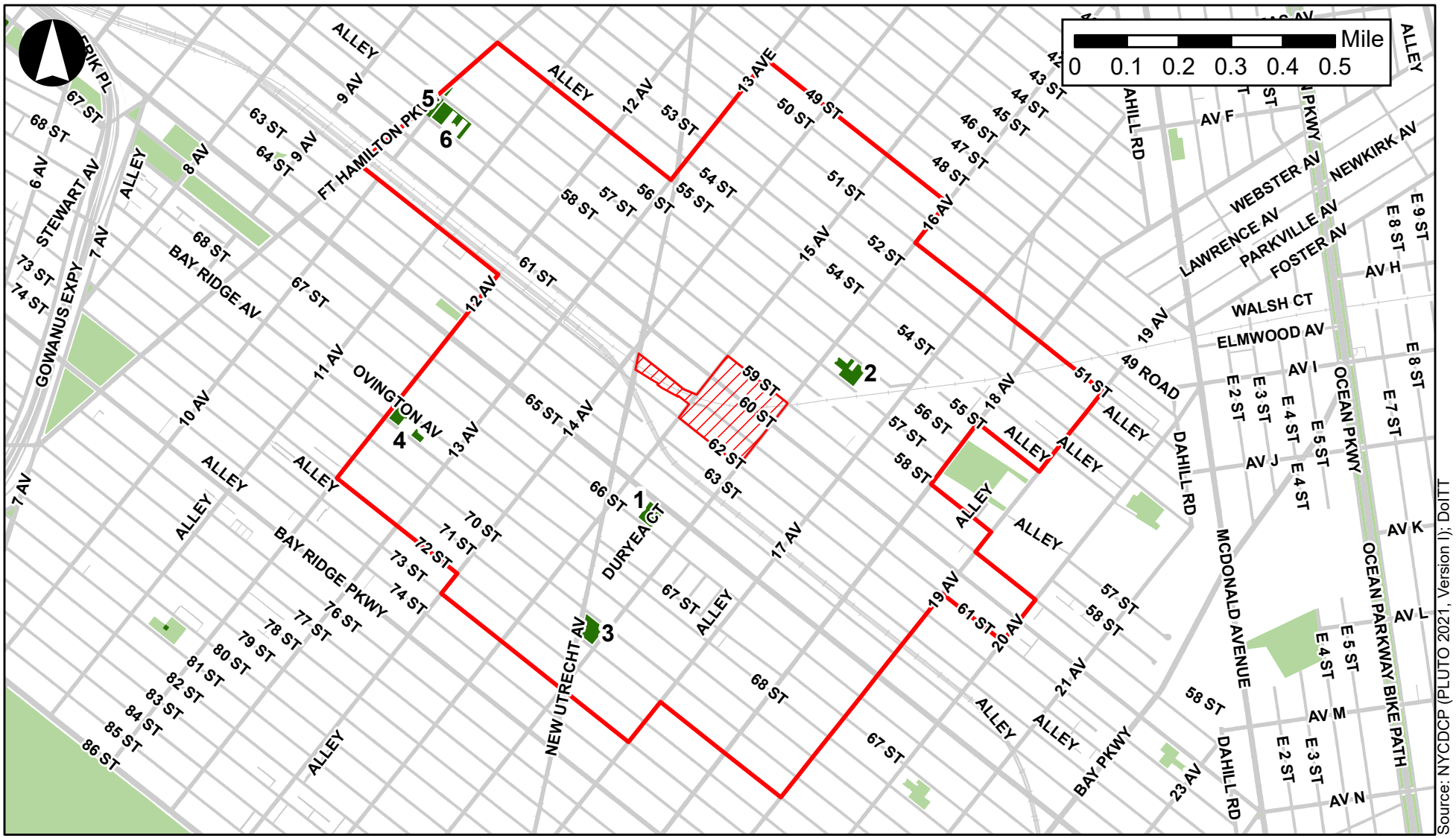
The condition of each open space resource was categorized as "Excellent," "Good," "Fair," or "Poor." A resource was considered in excellent condition if the space was clean and attractive, and all equipment was present and in a state of good repair. A good resource had minor problems such as litter or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

Likewise, judgments as to the intensity of use of the resources were qualitative, based on an observed degree of activity or utilization. If a resource seemed to be at or near capacity (i.e. the majority of benches or equipment was in use), then utilization was considered high. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered low. **Table F-4, "Inventory of Existing Open Space and Recreational Resources in the Study Area,"** identifies the address, ownership, features, and acreage of active and passive open space resources in the study area, as well as their condition and utilization. **Figure F-3** maps their location within the study area.

TABLE F-4:
Inventory of Existing Open Space and Recreational Resources in the Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	User Groups	Hours of Operation	Acreage	Active		Passive		Condition/ Utilization
								Acres	%	Acres	%	
Study Area												
1	J.H.S. 227 (K227) Edward B. Shallow Playground	6500 16th Ave.	DOE	Playgrounds, Basketball courts, Running track, Multi-purpose turf fields, Benches	Children, Teenagers, Adults, Senior Citizens	When school is in session: Open to the public after school hours until dusk; When school is out of session: 8 AM to Dusk	0.78	0.70	90%	0.08	10%	Excellent/Low
2	The SEEALL Academy (K180) Playground	5601 16th Ave.	DOE	Playgrounds, Running track, Benches	Children, Teenagers, Adults, Senior Citizens	When school is in session: Open to the public after school hours until dusk; When school is out of session: 8 AM to Dusk	0.97	0.87	90%	0.10	10%	Excellent/Moderate
3	Lt. Joseph Petrosino Park	16th Ave., New Utrecht Ave. bet. 70th St. and 71st St.	NYC Parks	Playgrounds, Spray showers, Basketball and handball courts, Fitness equipment, Benches, Game tables, Seating Areas	Children, Teenagers, Adults, Senior Citizens	6 AM - 9 PM	0.87	0.70	80%	0.17	20%	Excellent/High
4	P.S. 176 (K176) Ovington Playground	1225 69th St.	DOE	Playgrounds, Multi-purpose turf fields, Basketball courts, Seating areas	Children, Teenagers, Adults, Senior Citizens	When school is in session: Open to the public after school hours until dusk; When school is out of session: 8 AM to Dusk	0.58	0.52	90%	0.06	10%	Excellent/Moderate
5	Bochino-Dente Plaza	Fort Hamilton Pkwy. bet. 58th St. and 59th St.	NYC Parks	Plantings, Trees, Benches	Children, Teenagers, Adults, Senior Citizens	24 Hours	0.42	0.00	0%	0.42	100%	Good/High
6	P.S. 105 (K105) The Blythehouse Playground	1031 59th St.	DOE	Playgrounds, Basketball courts, Game tables, Benches	Children, Teenagers, Adults, Senior Citizens	When school is in session: Open to the public after school hours until dusk; When school is out of session: 8 AM to Dusk	0.95	0.86	90%	0.09	10%	Good/Low
Study Area Totals							***4.57***	***3.65***	***80%***	***0.92***	***20%***	

Source: OASIS, NYC Parks, 2021 Primary Land Use Tax Lot Output (PLUTO) data, site visits conducted in April 2022.
Notes:
[1] The open space resources are identified in **Figure F-3**.
NYC Parks = New York City Department of Parks and Recreation; DOE = New York City Department of Education



Legend

- Project Area
- Half-Mile Residential Study Area
- Open Space Included in Quantitative Analysis (Refer to Table F-4)
- Open Space Not Included in Quantitative Analysis (Refer to Table F-4)

Study Area

As shown in **Figure F-3** and **Table F-4**, there are six publicly accessible open space resources located in the study area. The study area contains a total of approximately 4.57 acres of publicly accessible open space, of which approximately 3.65 acres (80 percent) comprises active open space uses and approximately 0.92 acres (20 percent) comprises passive open space uses (refer to **Table F-4**).

The study area's largest open space resource is the 0.97-acre The SEEALL Academy (K180) Playground (Map No. 2), which is located in the eastern portion of the study area, approximately two blocks north of the Project Area. The SEEALL Academy (K180) Playground, which is owned by the City of New York and operated by the New York City Department of Education (DOE), is primarily programmed with active open space uses, including playgrounds and a running track. Benches present within the open space resource may be used for passive open space use.

Other substantial open space resources in the study area include the 0.95-acre P.S. 105 (K105) Blythehouse Playground (Map No. 6) and the 0.87-acre Lt. Joseph Petrosino Park (Map No. 3). The P.S. 105 (K105) Blythehouse Playground is owned by the City of New York and operated by DOE. The open space resource is primarily programmed with active open space uses, including playgrounds and basketball courts. Benches and game tables present within the open space resource may be used for passive open space use. Lt. Joseph Petrosino Park, which is owned by the City of New York and operated by NYC Parks, is partially programmed with active open space uses, including playgrounds, spray showers, basketball and handball courts, fitness equipment, as well as passive open space uses, including benches, game tables, and seating areas.

Assessment of Open Space Adequacy

Study Area

Quantitative Assessment

As previously stated, there are approximately 4.57 acres of publicly accessible open space located within the study area, including approximately 3.65 acres (80 percent) of active open space and approximately 0.92 acres (20 percent) of passive open space. A total of 69,503 residents live within the study area.

The study area has an overall open space ratio of 0.066 acres per 1,000 residents, which is lower than the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents (refer to **Table F-5**).

TABLE F-5:
Adequacy of Open Space Resources – Existing Conditions

Population		Open Space Acreage			Open Space Ratios per 1,000 People			*CEQR Technical Manual* Open Space Optimal Planning Goal		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Study Area										
Residents	69,503	4.57	0.92	3.65	0.066	0.013	0.052	2.50	0.5	2.00

With a passive open space ratio of 0.013 acres per 1,000 residents, the study area, similarly, is below the *CEQR Technical Manual* guidance threshold of 0.5 acres of passive open space per 1,000 residents. The residential active open space ratio of 0.052 acres per 1,000 residents is lower than the City's planning guideline of 2.0 acres of active open space per 1,000 residents.

Qualitative Assessment

The study area exhibits a total open space ratio that is lower than the City's optimal benchmark (2.5 acres of open space per 1,000 residents). As shown in **Table F-4**, open space resources within the study area include a variety of active open space uses appropriate for each residential user group, including playgrounds, spray showers, basketball and handball courts, multi-purpose turf fields, running tracks, and fitness equipment. Furthermore, and as noted in **Table F-4**, a majority of open space resources in the study area exhibit low to moderate utilization rates.

IV. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Study Area Population

In the future without the Proposed Actions, the existing conditions at the Project Area would remain. However, there are numerous active developments within the study area anticipated for completion by 2030. In sum, these developments are expected to introduce approximately 1,770 residents. As indicated in **Table F-6**, in 2030, the population is expected to increase to 71,273 residents.

TABLE F-6:
2030 No-Action Condition Population

	Existing Population	Additional Population from No-Action Developments	2030 No-Action Total Population
Study Area			
Residents	69,503	1,770	71,273

Open Space Resources

There are no planned changes to open space resources that would increase or decrease the overall acreage in the study area, and NYC Parks has no capital construction projects planned within the study area.

Assessment of Open Space Adequacy

Study Area

In the 2030 No-Action condition, the additional population introduced to the study area would increase the demand on the study area's open space resources. As shown in **Table F-7**, the No-Action total and active open space ratios per 1,000 residents are expected to decrease to 0.064 and 0.051, respectively, from 0.066 and 0.052 under existing conditions. As shown in **Table F-7**, the No-Action passive open space ratio per 1,000 residents is expected to remain 0.013, as under existing conditions. Therefore, the study

area total, passive, and active open space ratios would be less than the City's optimal planning guidelines for total, passive, and active open space ratios.

TABLE F-7:
Adequacy of Open Space Resources – No-Action Condition

	2030 No-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Study Area										
Residents	71,273	4.57	0.92	3.65	0.064	0.013	0.051	2.50	0.50	2.00

V. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

This section describes the open space conditions that would result from the Proposed Actions by 2030. It evaluates the potential for the Proposed Actions to result in significant adverse impacts to open space resources directly and indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

Study Area Population

In the future with the Proposed Actions, it is estimated the Proposed Project would introduce 956 incremental residents to the Proposed Rezoning Area within the Project Area.

Project Area Open Space

As described in **Attachment A, "Project Description,"** the Proposed Project would include approximately 3,684 square feet (sf) (0.08 acres) of public access area (PAA). **Appendix 1** provides the current PAA plan, while **Figure F-4** provides an illustrative site plan highlighting the location of the PAA provided in the Proposed Project. An approximately 2,038 sf publicly accessible open space (PAA 1) would be located along New Utrecht Avenue and include passive open space uses such as seating and planted areas. An approximately 512 sf publicly accessible open space (PAA 2) would be located along 61st Street and include passive open space with planted areas. An approximately 1,135 sf publicly accessible area (PAA 3), including an approximately 804 sf publicly accessible play area would be located along 60th Street and would include play equipment for children. The new PAA would be comprised of both active and passive features, increasing the total, passive, and active open space acreage for the study area to 4.65, 0.99, and 3.67 acres, respectively.

In addition to the publicly accessible open space proposed as part of the Proposed Project, private passive and active open space areas for use by residents are proposed as part of the Proposed Project. The private open space would be located in the rear of the proposed buildings and would provide a pedestrian connection through the Development Site.



Legend

- Development Site
- Proposed Buildings
- Proposed Project's Public Access Area (PAA)
- Portions of PAA Covered by Proposed Buildings
- Existing Building Footprints

Direct Effects Analysis

The Proposed Actions would not have a direct effect on any study area open space resources. Construction and operation of the Proposed Project would not cause the physical loss of public open space because of encroachment or displacement of the space; would not change the use of an open space so that it no longer serves the same user population; and would not limit public access to an open space resource. In addition, as discussed in other attachments of this EAS, the Proposed Actions would not result in significant adverse shadow, air quality, noise, or construction impacts on area open space resources.

Indirect Effects Analysis

As noted above, the open space impact analysis consists of both a quantitative assessment and a qualitative assessment. The quantitative assessment considers how a proposed project would change the open space ratios in the study area. The qualitative assessment considers factors such as proximity to nearby destination open space resources, the connectivity of open space, the effects of new open space provided by the proposed project, and private open spaces created by the proposed project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

Assessment of Open Space Adequacy

Study Area

In the 2030 With-Action condition, the additional population introduced to the study area would increase the demand on the study area's open space resources. As shown in **Table F-8**, the With-Action total and active open space ratios per 1,000 residents are expected to remain 0.064 and 0.051, unchanged from the No-Action condition. As also shown in **Table F-8**, the With-Action passive open space ratio per 1,000 residents is expected to increase slightly to 0.014.

Therefore, the study area total, passive, and active open space ratios would remain less than the City's optimal planning guidelines for total, passive, and active open space ratios.

TABLE F-8:
Adequacy of Open Space Resources – With-Action Condition

	2030 With-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Study Area										
Residents	72,229	4.65	0.99	3.67	0.064	0.014	0.051	2.50	0.50	2.00

Potential Effects of the Proposed Actions on Publicly Accessible Open Space

Quantitative Assessment

According to the 2021 *CEQR Technical Manual*, a significant adverse open space impact may occur if a proposed action would reduce the open space ratio by more than the general guidelines for the open space percentage change provided in **Table F-9**.

TABLE F-9:
Detailed Assessment – Percentage Change Guidance to Determine Possible Open Space Impact

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 open space ratio is the planning goal in New York City, with the optimal distribution goal of 2.0 active open space ratio and 0.5 passive open space ratio.			

Source: Table 7-5 in Chapter 7, "Open Space," of the 2021 *CEQR Technical Manual*.

Table F-10 displays the percentage change from the No-Action to the With-Action conditions for the study area. As noted previously, in the future with the Proposed Actions, ratios of open spaces to residents would continue to be lower than the optimal planning goals furnished by the City.

TABLE F-10:
Study Area Open Space Ratios Summary

Ratio	*CEQR Technical Manual* Open Space Optimal Planning Goal (acres per 1,000)	Open Space Ratios per 1,000			Percent Change (Future No-Action to Future With-Action)
		Existing	No-Action	With-Action	
Study Area					
Total – Residents	2.5	0.066	0.064	0.064	0.50
Passive – Residents	0.5	0.013	0.013	0.014	5.75
Active - Residents	2.0	0.052	0.051	0.051	-0.82

In the future with the Proposed Actions, the residential active open space ratio would decrease by 0.82 percent from the No-Action condition. In the future with the Proposed Actions, the residential total and passive open space ratios would increase by 0.50 percent and 5.75 percent, respectively, from the No-Action condition. As under the No-Action condition, the study area's total, passive, and active open space ratios would remain less than the City's optimal planning guidelines for total, passive, and active open space ratios. While the total, passive, and active open space ratios would remain less than the City's planning guidelines (as under the No-Action condition), these guidelines are not considered CEQR impact thresholds on their own.

The reduction in the active open space ratio in the study area would be ameliorated by several factors, including the study area's proximity to additional open space resources located beyond the boundary of the study area, including the 6.38-acre Gravesend Park. As shown in **Figures F-1** and **F-3**, Gravesend Park is located within a half-mile radius of the Project Area. Gravesend Park is primarily programmed with

active open space uses, including playgrounds, fitness equipment, baseball fields, and basketball and handball courts. Passive open space uses include Wi-Fi hot spots, bathrooms, seating areas, and benches. Additionally, as noted above, the Proposed Project would include approximately 3,684 sf (0.08 acres) of PAA (refer to **Figure F-4** for an illustrative site plan highlighting the location of the PAA provided in the Proposed Project and **Appendix 1** for the current PAA plan). An approximately 2,038 sf publicly accessible open space would be located along New Utrecht Avenue and include passive open space uses such as seating and planted areas. An approximately 512 sf publicly accessible open space would be located along 61st Street and include passive open space with planted areas. An approximately 1,135 sf publicly accessible area, including an approximately 804 sf publicly accessible play area would be located along 60th Street and would include play equipment for children. The PAA would be accessible to the residents of the study area. Therefore, the Proposed Actions would not result in a significant adverse impact on open space in the study area, in accordance with *CEQR Technical Manual* impact criteria.

Qualitative Assessment

In the future with the Proposed Actions, the study area would continue to have a shortfall of open space. However, although the existing open space ratios in the study area would remain less than the City's planning goals both without and with the Proposed Actions, the deficiency of open space resources within the study area would be ameliorated by several factors. All of the study area open space resources included in the quantitative analysis were found to be in excellent or good condition and a majority of open space resources in the study area exhibit low to moderate utilization rates. A wide variety of active open space uses appropriate for each residential user group, including playgrounds, spray showers, basketball and handball courts, multi-purpose turf fields, running tracks, and fitness equipment. Additionally, in the future with the Proposed Actions, the proximity of Gravesend Park, which is located within a half-mile radius of the Project Area, would be a factor in alleviating the study area's open space deficiency.

Attachment G:

Urban Design and Visual Resources

I. INTRODUCTION

This chapter assesses the Proposed Actions' potential effects on urban design and visual resources. As outlined in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of approximately 347,717 gross square feet (gsf) of total development within 14 buildings (the "Proposed Project") in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12. In addition to the Proposed Project, the RWCDS for the Proposed Actions includes one Potential Development Site (Block 5727, Lot 19). It is assumed that this property could be redeveloped with an approximately 15,750 gsf, two-story commercial building.

The 2021 *City Environmental Quality Review* ("CEQR") *Technical Manual* defines urban design as the totality of elements – including streets, buildings, visual resources, open space, natural features, and wind – that shape and affect a pedestrian's experience of public space. A visual resource is defined as the connection from the public realm to significant natural or built features, including, but not limited to, views of the waterfront, public parks, public art, statures or sculptures, landmark structures or districts, otherwise distinct buildings or groups of buildings that may be iconic or historic, or natural resources. In an urban design assessment pursuant to CEQR, one considers whether and how a project may change the experience of a pedestrian in the project area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built and natural environment in the context of the project. An assessment of the potential impacts of the Proposed Action on urban design and visual resources was prepared in conformance with the *CEQR Technical Manual*. This assessment describes existing conditions and compares conditions in the future without and with the Proposed Project to determine potential impacts to urban design and visual resources. The urban design and visual resources assessment is based on observations, drawings, maps, renderings, and photographs taken from the perspective of a pedestrian.

II. METHODOLOGY

In general, an assessment of urban design is warranted when a project may have effects on one or more of the elements that contribute to a pedestrian's experience of public space. These elements, the totality of which defines the concept of urban design, are described below:

- *Streets*. The dimensions, arrangement, and orientation of streets create the blocks on which buildings and open spaces are organized, set street views, and define the experience and flow of activity in an area. The apportionment of street space among cars, bicycles, transit, and sidewalks and the careful design of street furniture, grade, materials used, and permanent fixtures, including plantings, streetlights, fire hydrants, curb cuts, or any other furniture are critical in creating a successful streetscape.

- *Buildings*. Buildings and streets form the backdrop for public space and activity. A building's street wall forms the most common backdrop in the city for public space. A building's size, shape, orientation, height, setbacks, lot coverage, density, placement and use on the zoning lot and

block; the orientation of active uses; and pedestrian and vehicular entrances all play roles in the vitality of the streetscape. Furthermore, building façades and accessible spaces also make up the public realms that enrich the visual and experiential character of an area.

- *Visual Resources*. A visual resource is the connection from the public realm to significant natural or built features, including, but not limited to, views of the waterfront, public parks, public art, statues or sculptures, landmark structures or districts, otherwise distinct buildings or groups of buildings that may be iconic or historic, or natural resources.

- *Open Space*. For the purpose of urban design, open space includes public and private areas such as parks, yards, accessible cemeteries that may be used for strolling, parking lots, playgrounds, community gardens if publicly accessible on a constant and regular basis, plazas, and privately-owned public spaces.

- *Natural Features*. Natural features include vegetation (i.e., trees, shrubs, grasses, etc.), geologic, topographic, and aquatic features. Rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands may help define the overall character of an area.

- *Wind*. Channelized wind pressure from between tall buildings and "down-washed" wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety. "Down-washed" wind is wind that is propelled downward by an intervening structure, such as a high-rise building, that causes high wind speeds at the street level.

As described in **Attachment A, "Project Description,"** the Proposed Actions would facilitate as-of-right development at a higher-density than what is currently allowed within the Proposed Rezoning Area in the Project Area. Absent the Proposed Actions, no new development would occur within the Proposed Rezoning Area in the Project Area. As the Proposed Actions have the potential to change pedestrians' experience of public space surrounding the Proposed Rezoning Area within the Project Area in comparison to conditions in the No-Action scenario, it is necessary to assess the Proposed Actions' potential impacts on urban design and visual resources.

A pedestrian wind condition analysis is not warranted for the Proposed Actions pursuant to *CEQR Technical Manual* methodology. As stated in the *CEQR Technical Manual*, projects involving multiple, tall buildings at or in close proximity to waterfront sites may result in exacerbation of wind conditions due to "channelization" or "down-wash" effects that may affect pedestrian comfort and safety. The need for a wind analysis is based on a number of factors, including whether the location is exposed to high wind conditions, such as along west and northwest-facing waterfronts, as well as the size and orientation of the buildings that are proposed to be constructed. The Proposed Actions would involve the construction of 14 buildings. However, the Project Area is not located along the waterfront and thus is not exposed to high wind conditions. Therefore, a pedestrian wind condition analysis is not warranted for the Proposed Actions pursuant to *CEQR Technical Manual* methodology.

Study Areas

The study area for the assessment of urban design and visual resources corresponds to the area where the proposed project may influence land use patterns, the built environment, and pedestrian's experiences in the public realm surrounding the project. The study area is generally consistent with the

study area used for the land use analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified.

The urban design analysis considers both a primary study area, which is generally coterminous with the boundaries of the Project Area, and a secondary study area, which extends a quarter-mile from the boundary of the Project Area. Consistent with the secondary study area presented in **Attachment C, "Land Use, Zoning, and Public Policy,"** the secondary study area extends to include all tax lots with at least 50 percent of their area within the quarter-mile radius. Both the primary and secondary study areas have been established in accordance with *CEQR Technical Manual* guidance and are presented in **Figure G-1**.

III. EXISTING CONDITIONS

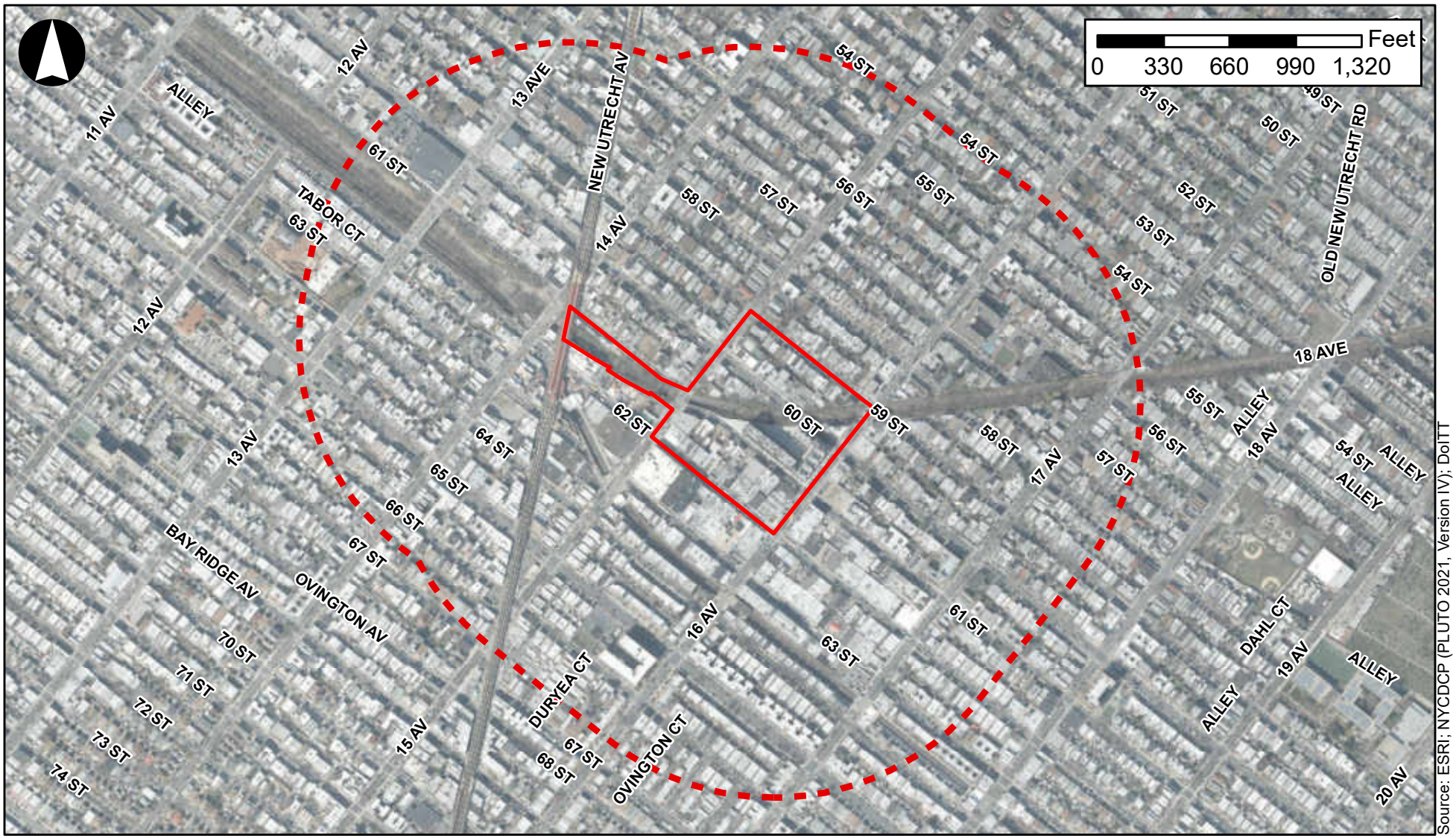
Urban Design

Primary Study Area (Project Area)

The primary study area extends across four blocks bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south. The primary study area includes the following block and lots: Block 5727, Lots 14 and 19; Block 5523, Lots 1, 6, 9, 12-16, 19, 20, 22-24, 26, 28, 32, 34, 37, 38, 43, 44, 49, 54, 58, 60, 62, 64, and 72-75; Block 5516, Lots 1, 4, 9-14, 33, 67, 133, and 7501-7513; Block 5509, Lots 1, 6, 8, 10, 12, 14-16, 18, 19, 21-36, 41, 48, 57, 58, 62, 64, 65, 68, and 70-73.

BUILDINGS

A large portion of the primary study area (Block 5727, Lot 14, Block 5516, Lots 1 and 33, and Block 5509, Lot 41) consists of an open rail cut, with tracks for the Long Island Rail Road (LIRR) Bay Ridge Branch located below (refer to **Figures G-2** through **G-4** for photos of the primary study area). The primary study area's 59th Street frontage encompasses a continuous streetwall of residential buildings, while the 16th Avenue, 60th Street, 15th Avenue, 61st Street, and New Utrecht Avenue frontages contain fragmented or non-existent streetwalls, due to the presence of the open rail cut. Within the primary study area, buildings are generally of masonry construction and range in height from one-story (9.53-feet) to six-stories (74-feet). **Table G-1** (located on the next page) summarizes the existing built conditions for each block within the primary study area.



Legend

Primary Study Area (Project Area)

Secondary Study Area (Quarter-Mile Radius)

Brooklyn Yards EAS

Figure G-1
Urban Design Study Areas



1. View of the primary study area looking west from the intersection of 59 Street and 16 Avenue.



2. View of the primary study area looking east from 60 Street.



3. View of the primary study area looking west from 60 Street.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line.



4. View of the primary study area looking west from the intersection of 61 Street and 15 Avenue.



5. View of the primary study area looking southeast from the intersection of 61 Street and 15 Avenue.



6. View of the primary study area looking northwest from the intersection of 61 Street and 15 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line.



7. View of the primary study area looking east from the intersection of 61 Street and 15 Avenue.



8. View of the primary study area looking southeast from 61 Street.



9. View of the primary study area looking east from New Utrecht Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Development Site is outlined by a red solid line.

TABLE G-1:
Primary Study Area – Existing Built Conditions

Total Number of Lots	Total Lot Area	Total Building Area	Total Buildings	Average Built FAR	Median Number of Floors/Average Building Height (in feet)
Block 5727					
2	54,713	6,650	1	0.45	1; 10.5’
Block 5523					
31	138,903	129,397	37	0.97	1; 21.6’
Block 5516					
24	142,308	250,245	23	2.85	4; 51.2’
Block 5509					
38	141,833	161,691	43	1.36	2; 25.7’

Sources: New York City Department of City Planning (DCP) 2023 PLUTO Data (Version I); New York City Department of Information Technology & Telecommunications (DoITT) Building Footprints (March 2023).

Within the primary study area, Block 5727 contains approximately 6,650 gsf of total building area and one building, an average built FAR of 0.45, a median floor count of one-story, and an average building height of 10.5-feet. Within the primary study area, Block 5523 contains approximately 129,397 gsf of total building area and 37 buildings, an average built FAR of 0.97, a median floor count of one-story, and an average building height of 21.6-feet. Within the primary study area, Block 5516 contains approximately 250,245 gsf of total building area and 23 buildings, an average built FAR of 2.85, a median floor count of four-stories, and an average building height of 51.2-feet. Within the primary study area, Block 5509 contains approximately 161,691 gsf of total building area and 43 buildings, an average built FAR of 1.36, a median floor count of two-stories, and an average building height of 25.7-feet.

STREETS AND STREETSCAPE

The area immediately surrounding the primary study area is characterized by a rectilinear street grid system, with east-west streets spaced approximately 200-feet apart and north-south avenues spaced approximately 700-feet apart. New Utrecht Avenue bisects the street grid system along the western border of the primary study area, interrupting the rectilinear street grid system to form smaller, trapezoidal-sized blocks as a result. As stated above, the LIRR’s Bay Ridge Branch tracks bisect the primary study area; as a result, the intersection of 15th Avenue and 61st Street does not form a typical four-way, stop-controlled configuration.

Most streets in the immediate vicinity of the primary study area carry local vehicular traffic. The streets adjacent to the primary study area are either one-way (59th Street, 61st Street, and 62nd Street) or two-way (New Utrecht Avenue, 15th Avenue, 60th Street, and 16th Avenue) thoroughfares with parking lanes on both sides of the street. 59th Street, 61st Street, and 62nd Street have mapped widths of 60-feet, while the remaining streets bordering the primary study area, including New Utrecht Avenue, 15th Avenue, 60th Street, and 16th Avenue, have mapped widths of 80-feet. The streets adjacent to the primary study area do not contain bike lanes.

Concrete sidewalks of variable width flank all of the streets bordering the primary study area. There are approximately 63 curb cuts in the immediate vicinity of the primary study area (approximately 11 curb cuts located along the primary study area's 59th Street frontage, approximately 15 curb cuts located along the primary study area's 60th Street frontage, approximately 13 curb cuts located along the primary study area's 61st Street frontage, approximately 14 curb cuts located along the primary study area's 62nd Street frontage, approximately seven curb cuts located along the primary study area's 15th Avenue frontage, and approximately three curb cuts located along the primary study area's 16th Avenue frontage); there are no curb cuts located along the primary study area's remaining street frontages.

Other streetscape elements include standard cobrahead streetlights, corner traffic signals, utility poles and lines, fire hydrants, standard New York City Department of Transportation ("NYCDOT") parking and street signage, ParkNYC Muni-Meters, United States Postal Service ("USPS") collection boxes, New York City Department of Sanitation ("DSNY") litter receptacles, NYCDOT CityRacks, and planters. There are approximately 41 street trees located adjacent to the primary study area (two along 62nd Street, eight along 16th Avenue, 21 along 61st Street, six along 60th Street, and four along 59th Street); there are no street trees located along the primary study area's remaining street frontages.

NATURAL FEATURES AND OPEN SPACE

The topography of the area surrounding the primary study area is generally flat and there are no natural features or open areas located in the primary study area. Open spaces in the secondary study area include surface parking lots and storage yards enclosed with fencing, as well as numerous private front and rear yards adjacent to residential buildings.

Secondary Study Area (Quarter-Mile Radius)

BUILDINGS

Overall, the secondary study area is characterized by a variety of building typologies that lack a consistent built character. Buildings in the secondary study area typically feature low lot-coverage, low-rise buildings that contain front and side yards, stoops, and driveways that set them back from adjacent buildings and streets, which serves to break up the streetwall throughout the secondary study area. In addition, the various open rail cut rights-of-way, surface parking lots, storage yards, and vacant lots present in the secondary study area also breakup the streetwall throughout the secondary study area.

As detailed in **Attachment C "Land Use, Zoning, and Public Policy,"** buildings housing residential land uses are most predominant in the secondary study area (refer to **Table C-2** in **Attachment C "Land Use, Zoning, and Public Policy"**). In the northern and eastern portions of the secondary study area, residential buildings are generally located between 54th Street and 59th Street; in the southern portion of the secondary study area, residential buildings are generally located between 64th Street and 67th Street. Residential buildings in the secondary study area are typically low-rise, two or three-story attached, semi-attached, and detached buildings (refer to photo no. 11 in **Figure G-5** and photo no. 15 in **Figure G-6**); larger, multi-story residential buildings are located above 58th Street along 14th Avenue and 15th Avenue (refer to photo no. 10 in **Figure G-5**). Residential buildings are typically oriented towards the streets and contain driveways and shallow front yards enclosed by fencing. One- and two-family residential buildings generally contain stoops from adjacent sidewalks (refer to photo no. 11 in **Figure G-5** and photo no. 15 in **Figure G-6**). Residential buildings are predominantly of wood-frame and masonry construction with brick or vinyl façades.



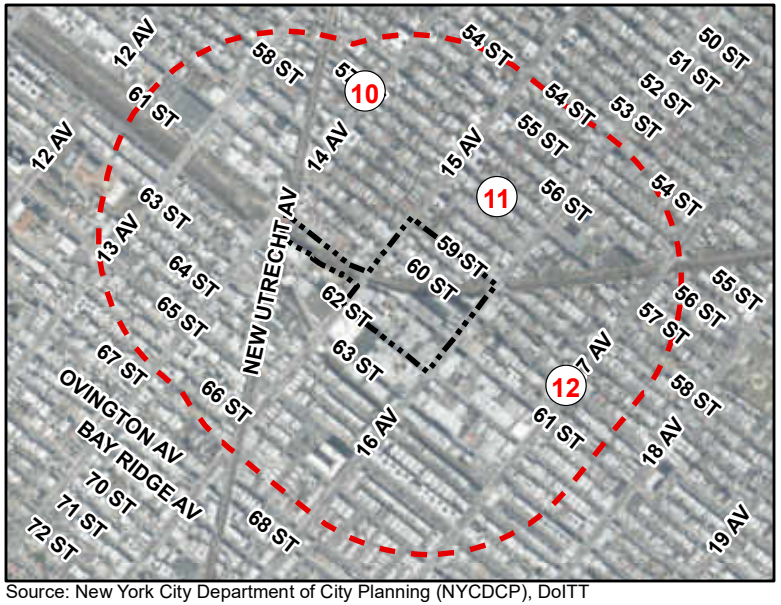
10. View of mid-rise apartment buildings looking northeast from the intersection of 57 Street and 14 Avenue.



11. View of low-rise residential buildings looking northwest on 57 Street between 15 Avenue and 16 Avenue.



12. View of a yeshiva looking west from the intersection of 60 Street and 17 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Secondary study area is outlined by a red dashed line.



13. View of storage yard looking south from 63 Street.



14. View of low-rise warehouses looking north from 63 Street.



15. View of low-rise residential buildings looking southwest from the intersection of 64 Street and 16 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Secondary study area is outlined by a red dashed line.

Public facility and institutional buildings are located throughout the secondary study area and include religious institutions, schools, health centers, and senior centers (refer to photo no. 12 in **Figure G-5**). The secondary study area also features numerous properties containing industrial/manufacturing buildings and warehouses (refer to photo no. 14 in **Figure G-6**), and transportation/utility buildings and storage yards (refer to photo no. 13 in **Figure G-6**). Industrial/manufacturing and transportation/utility buildings are generally located in the central and southern portions of the secondary study area, in an area roughly bounded by 61st Street to the north, 63rd Street to the south, 14th Avenue to the west, and 17th Avenue to the east. As shown in **Figure G-7**, buildings within the secondary study area are typically two- to four-stories tall, with taller buildings (containing more than four stories) located in the northern portion of the secondary study area; in feet, building heights in the secondary study area range from a minimum of 6.24-feet to a maximum of 83.94-feet. As shown in **Figure G-8**, taller buildings are also generally the buildings with the highest built density in the secondary study area.

STREETS AND STREETSCAPE

As discussed above, the area immediately surrounding the primary study area is characterized by a rectilinear street grid system. However, New Utrecht Avenue bisects the street grid system between 57th Street to the north and 66th Street to south, interrupting the rectilinear street grid system to form smaller, trapezoidal-sized blocks as a result. The LIRR's Bay Ridge Branch tracks that bisect the primary study area also traverse the secondary study area, extending from east to west. In addition, the BMT Sea Beach Line, serviced by the N-train, traverses the southern portion of the secondary study area.

The secondary study area features six north to south avenues. 13th Avenue and 14th Avenue are each one-way, 80-feet wide thoroughfares with two travel lanes and parking lanes on both sides of the avenue. 15th Avenue, 16th Avenue, 17th Avenue, and New Utrecht Avenue are each two-way, 80-feet wide thoroughfares with one travel lane in each direction and parking lanes on both sides of the avenue. The secondary study area features 13 east to west streets. 54th Street through 59th Street, 61st Street through 64th Street, and 66th Street and 67th Street are each one-way, 60-feet wide streets with one travel lane and parking lanes on both sides of the street. 60th Street is a two-way, 80-feet wide street with one travel lane in each direction and parking lanes on both sides of the street. 65th Street is a two-way, 100-feet wide street with one travel lane in each direction and parking lanes on both sides of the street. As shown in **Figure G-1**, the LIRR's Bay Ridge Branch right-of-way causes 57th Street and 58th Street to disconnect east of 16th Avenue. Therefore, these two streets operate as two-way streets between 16th Avenue and 17th Avenue. The BMT Sea Beach Line also causes 63rd Street to discontinue between New Utrecht Avenue and 15th Avenue. Therefore, the spur of 63rd Street east of New Utrecht Avenue functions as a two-way street. In the eastern portion of the secondary study area, the LIRR's Bay Ridge Branch tracks disrupt the east to west route of 56th Street so that the street does not form a typical four-way, stop-controlled intersection configuration at 17th Avenue. Within the secondary study area, 14th Avenue north of 60th Street features a signed bike route, while 64th Street and 66th Street to the west of 14th Avenue feature conventional bike lanes.

Figures G-9 and **G-10** show local streets and streetscapes in the secondary study area. As shown in the figures, all of the streets in the secondary study area are flanked by concrete sidewalks of varied widths. Streetscape elements include street trees, standard cobrahead streetlights, corner traffic signals, utility poles and lines, fire hydrants, standard NYCDOT parking and street signage, ParkNYC Muni-Meters, USPS collection boxes, DSNY litter receptacles, NYCDOT CityRacks, and planters. In addition, curb cuts are common features along sidewalks in the secondary study area.



Brooklyn Yards EAS

Figure G-7
Existing Building Heights



Brooklyn Yards EAS

Figure G-8
Existing Building Density



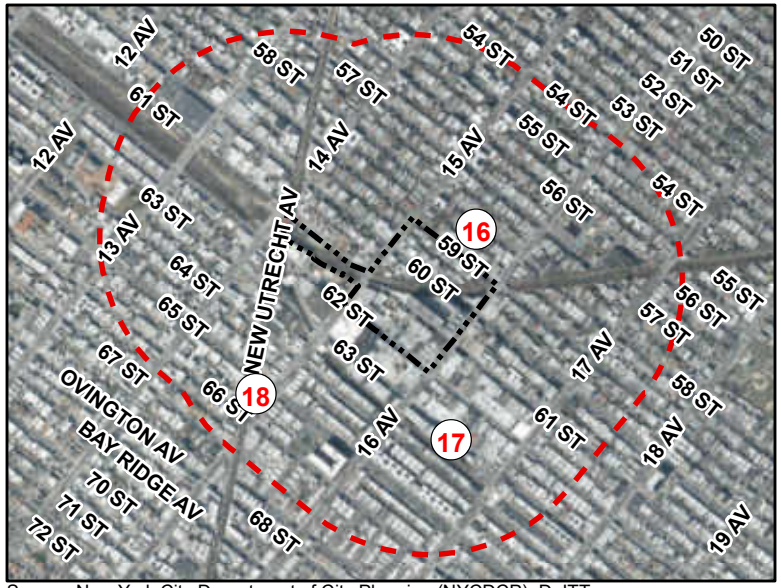
16. View of streetscape looking southeast from 58 Street bewteen 15 Avenue and 16 Avenue.



17. View of streetscape looking east from 63 Street between 16 Avenue and 17 Avenue.



18. View of streetscape looking north from the intersection of 66 Street, 15 Avenue, and New Utrecht Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Secondary study area is outlined by a red dashed line.



19. View of streetscape looking north from New Utrecht Avenue.



20. View of streetscape looking north from 14 Avenue towards 61 Street.



21. View of streetscape looking northeast from the intersection of 62 Street and 13 Avenue.



Source: New York City Department of City Planning (NYCDCP), DoITT
Notes:
1. Primary study area is outlined by a black dashed line.
2. Secondary study area is outlined by a red dashed line.

NATURAL FEATURES AND OPEN SPACE

There are no notable natural features within the secondary study area. The topography of the secondary study area is generally flat; the elevation of the secondary study area ranges from between 40- and 70-feet (NAVD88). The topography gradually slopes downward towards the open rail cut rights-of-way that traverse the secondary study area. Open spaces in the secondary study area include two publicly accessible playgrounds owned and operated by the New York City Department of Education (DOE): the SEEALL Academy (K180) Playground, located at 5601 16th Avenue, and the J.H.S. 227 (K227) Edward B. Shallow Playground, located at 6500 16th Avenue. Other non-public open spaces in the secondary study area comprise surface parking lots and storage yards enclosed with fencing, as well as numerous private front and rear yards.

Visual Resources

Primary Study Area (Project Area)

There are no visual resources located within the primary study area.

Secondary Study Area (Quarter-Mile Radius)

There are several visual resources located within the secondary study area; however, none of these visual resources are visible from the primary study area. Visual resources located in the secondary study area include the following two historic resources: (1) the State/National Registers of Historic Places (S/NR)-listed New Utrecht Avenue Subway Station; and (2) the S/NR-eligible I.S. 227.

IV. FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Urban Design

Primary Study Area (Project Area)

As detailed in **Attachment A "Project Description,"** in the future without the Proposed Actions, the Applicant-controlled Development Site would not be redeveloped. Therefore, the existing conditions within the Applicant-controlled Development Site would remain and no new development would occur. Within the primary study area, the existing conditions on Block 5727 and 5523 would remain and no new development would occur on these two blocks. However, there are three developments that are expected to be completed and occupied in the No-Action condition within the Project Area. On Block 5516, the recently constructed Maple Views Lane development comprises approximately 128 DUs and 64 parking spaces. On portions of Blocks 5516 and 5509, the 1501-1555 60th Street development would comprise approximately 102 DUs, 32,219 gsf of commercial space, and 31 parking spaces upon construction. On Block 5509, a new three-family residential development has been constructed at 1578 59th Street. No other development projects are anticipated on Blocks 5516 and 5509 in the No-Action condition.

Secondary Study Area (Quarter-Mile Radius)

BUILDINGS

As summarized in **Table C-4** in **Attachment C "Land Use, Zoning, and Public Policy,"** including the three development projects anticipated to be completed in the primary study area, there are 32 development projects anticipated to be completed in the secondary study area in the future without the Proposed Actions. In sum, these 32 development projects would introduce a total of approximately 443 DUs, 82,755 sf of commercial uses, 144,301 sf of community facility uses, and 226 parking spaces to the secondary study area.

STREETS AND STREETSCAPE

In the future without the Proposed Actions, no changes to streets and streetscape elements are anticipated within the secondary study area. There are no known streetscape improvement plans in the secondary study area.

NATURAL FEATURES AND OPEN SPACE

No changes to the secondary study area's natural features or open space are anticipated in the future without the Proposed Actions.

Visual Resources

Primary Study Area (Project Area)

There are no visual resources within the primary study area itself, and no new visual resources are anticipated to be introduced within the primary study area in the absence of the Proposed Actions.

Secondary Study Area (Quarter-Mile Radius)

In the future without the Proposed Actions, the setting of visual resources within the secondary study area is not expected to change substantially. Therefore, no changes to visual resources are anticipated within the secondary study in the future without the Proposed Actions.

V. FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

This section describes the effects of the Proposed Actions on the urban design and visual resource conditions in both the primary and secondary study areas and evaluates the potential for the Proposed Actions to result in significant adverse impacts. As outlined in **Attachment A "Project Description,"** the Proposed Actions include several discretionary approvals necessary to facilitate the Proposed Project on the Applicant-controlled Development Site. In sum, the Proposed Actions would facilitate the development of approximately 347,717 gsf of total development within 14 buildings. In addition to the Proposed Project, the RWCDS for the Proposed Actions includes one Potential Development Site (Block 5727, Lot 19). It is assumed that this property could be redeveloped with an approximately 15,750 gsf, two-story commercial building.

Urban Design

Primary Study Area (Project Area)

BUILDINGS

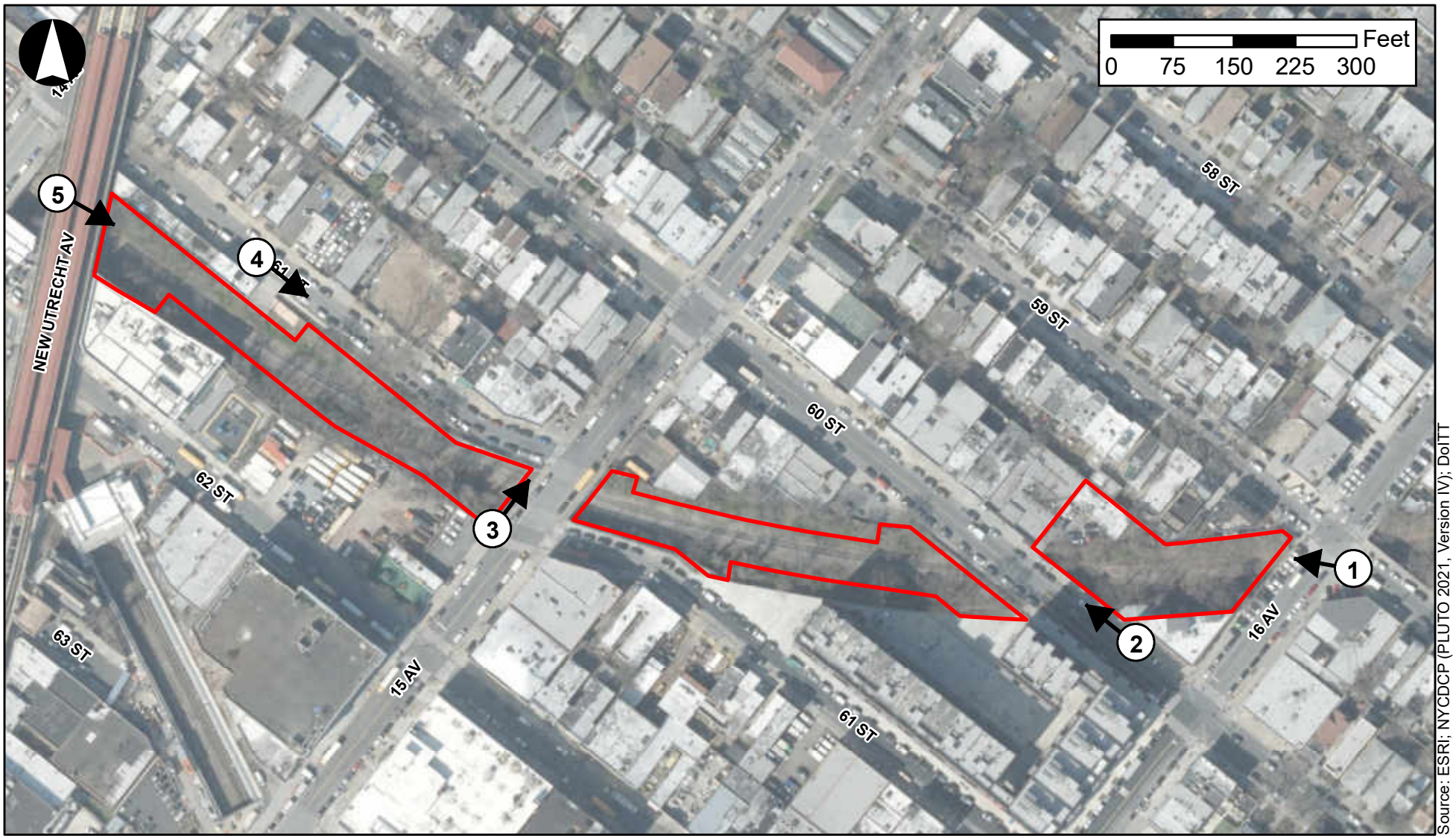
In the future with the Proposed Actions, the Proposed Actions would facilitate the development of the Proposed Project on the Applicant-controlled Development Site. As outlined in **Table A-2** and **Figures A-4**, **A-5a**, and **A-5b** in **Attachment A "Project Description,"** the Proposed Project would comprise 14 attached buildings containing a combined 270 DUs (282,505 gsf) and approximately 65,212 gsf of commercial (local retail and commercial office) space (comprising a total built FAR of 3.24).

The Proposed Project's westernmost building, Building 1, would contain frontage on New Utrecht Avenue and 61st Street. The western portion of Building 1 (labeled B1-C in **Figure A-4**) would stand 10-stories tall (176-feet) and contain commercial uses, including commercial office space located above ground floor retail space. The western portion of Building 1 (B1-C) would feature frontage on New Utrecht Avenue only. The eastern portion of Building 1 (labeled B1-R in **Figure A-4**) would stand six-stories tall (75-feet) and contain residential uses (41 DUs). The eastern portion of Building 1 (B1-R) would feature frontage on 61st Street only. The commercial and residential portions of Building 1 would be separate and not share common space. To the north of Building 1, the Potential Development Site could be redeveloped with an approximately 15,750 gsf, two-story commercial building. On the remainder of Block 5727, Buildings 2 through 7 would each stand five-stories tall (55-feet) and contain residential uses (nine DUs in each building). Buildings 2 through 6 would contain frontage on 61st Street and Building 7 would contain frontage on 61st Street and 15th Avenue.

On Block 5516, Buildings 8, 9, and 10 would each stand five-stories tall (55-feet) and contain residential uses (nine DUs in each building). Building 8 would contain frontage on 61st Street and 15th Avenue and Buildings 9 and 10 would contain frontage on 61st Street. Building 11 would stand six-stories tall (75-feet) and contain residential uses (82 DUs); the building would contain frontage on 60th Street. Building 12 would stand five-stories tall (55-feet) and contain residential uses (eight DUs); the building would contain frontage on 60th Street.

On Block 5509, Building 13 would stand seven-stories tall (75-feet) and contain residential uses (58 DUs); the building would contain frontage on 60th Street. The easternmost building, Building 14, would stand two-stories tall (30-feet) and contain commercial (local retail) uses; the building would contain frontage on 59th Street and 16th Avenue. An approximately 40-space accessory parking lot would be located on Block 5509 between Buildings 13 and 14. Access to the parking lot would be facilitated via a new curb cut on 16th Avenue.

Figures G-12 through **G-14** provide illustrative views of the Applicant-controlled Development Site and the Potential Development Site within the primary study area comparing the No-Action condition to the With-Action condition. **Figure G-11** provides a photo location map for the No-Action and With-Action comparison views. As shown in these figures, the Proposed Project and the building on the Potential Development Site would introduce new buildings that would alter the visual setting of the Applicant-controlled Development Site and the Potential Development Site within the primary study area. As compared to the No-Action condition, the With-Action condition would introduce 15 new buildings of varied bulks and heights. However, the Proposed Project's varied bulks and heights would be contextual



Legend

Development Site

Photo Locations

Brooklyn Yards EAS

Figure G-11

No-Action and With-Action Massing Figures - Photo Location Map



View 1: No-Action condition looking west from the intersection of 59 Street and 16 Avenue.



View 1: With-Action condition looking west from the intersection of 59 Street and 16 Avenue.



View 2: No-Action condition looking northwest from 60 Street.



View 2: With-Action condition looking northwest from 60 Street.



View 3: No-Action condition looking northeast from the intersection of 61 Street and 15 Avenue.



View 3: With-Action condition looking northeast from the intersection of 61 Street and 15 Avenue.



View 4: No-Action condition looking southeast from 61 Street.



View 4: With-Action condition looking southeast from 61 Street.



View 5: No-Action condition looking southeast from New Utrecht Avenue.



View 5: With-Action condition looking southeast from New Utrecht Avenue.

and compatible with existing and planned buildings in the primary study area, including: (1) 13 six-story buildings recently completed on Block 5516 (Lots 54, 56, 66, 67, 133, and 7501-7510) as part of the Maple Lanes Rezoning (C090154 ZMK; 11DCP022K), which all feature maximum building heights of 74-feet; and (2) the planned development project located on Blocks 5509 and 5516, which was mapped in 2021 as part of the 1501-1555 60th Street Rezoning (200086ZMK; 18DCP038K). The planned development project would comprise two seven-story buildings that would feature maximum building heights of 75-feet on Block 5509 and one eight-story building that would feature a maximum building height of 85-feet on Block 5516.

STREETS AND STREETSCAPE

The Proposed Actions would alter and enhance the streetscape adjacent to the Applicant-controlled Development Site and the Potential Development Site within the primary study area by introducing active, pedestrian-oriented ground floors and improving the public sidewalks adjoining the Applicant-controlled Development Site and the Potential Development Site. The Proposed Actions would not change the configuration of the primary study area's existing blocks. Consistent with City policy, the sidewalks adjoining the Applicant-controlled Development Site and the Potential Development Site within the primary study area would be reconstructed and new street trees would be provided where practical. As part of the sidewalk reconstruction process, all existing, obsolete curb cuts adjacent to the Applicant-controlled Development Site and the Potential Development Site would be eliminated. For the Proposed Project, a single new curb cut would be constructed along the Applicant-controlled Development Site's 16th Avenue frontage, where the Proposed Project's accessory surface parking lot would be accessed. The ground floor commercial spaces, where present in Buildings 1, 14, and the building on the Potential Development Site, would serve to form a visually dynamic ground floor connecting the pedestrian to the commercial interiors of these three buildings.

NATURAL FEATURES AND OPEN SPACE

The Proposed Project would result in the creation of approximately 0.08 acres of public access area (PAA), consisting of approximately 3,684 sf of publicly accessible passive and active open space. **Appendix 1** provides the current PAA plan. An approximately 2,038 sf publicly accessible area (PAA 1) would be located along New Utrecht Avenue, adjacent to Building 1, and would include seating and planted areas. An approximately 512 sf publicly accessible area (PAA 2) would be located on 61st Street, adjacent to Building 10. An approximately 1,135 sf publicly accessible area (PAA 3), including an approximately 804 sf publicly accessible play area, would be located along 60th Street, adjacent to Building 12. The Proposed Project would also include private passive and active open space areas for use by residents of the Proposed Project. The primary study area does not contain natural features or open space.

Secondary Study Area (Quarter-Mile Radius)

BUILDINGS

Within the secondary study area, 32 development projects are anticipated to be completed in the secondary study area in the future with the Proposed Actions, as under the No-Action condition. In sum, these 32 development projects would introduce a total of approximately 443 DUs, 82,755 sf of commercial uses, 144,301 sf of community facility uses, and 226 parking spaces to the secondary study area.

STREETS AND STREETSCAPE

The Proposed Actions would not alter any street patterns, street hierarchies, streetscape arrangements, or block forms in the secondary study area.

NATURAL FEATURES AND OPEN SPACE

The Proposed Actions would not result in changes to the secondary study area's open space, including the SEEALL Academy (K180) and the J.H.S. 227 (K227) Edward B. Shallow playgrounds. The secondary study area does not contain natural features.

Visual Resources

Primary Study Area (Project Area)

In the future with the Proposed Actions, construction of the Proposed Project and the building on the Potential Development Site would not obstruct any view corridors or alter any visual resources in the primary study area, as the new development would occur on existing blocks that contain no visual resources, and no new visual resources are anticipated to be introduced within the primary study area as a result of the Proposed Actions. Therefore, the Proposed Actions would not result in any significant adverse impacts on visual resources.

Secondary Study Area (Quarter-Mile Radius)

The Proposed Actions are site-specific, and would not alter building uses, bulks, or arrangements in the surrounding area, or result in any changes to streets, blocks, topography, open spaces, or natural features in the secondary study area under the With-Action condition. The Proposed Project and the building on the Potential Development Site would not obstruct public views of the S/NR-listed New Utrecht Avenue Subway Station and the S/NR-eligible I.S. 227. Therefore, no changes to visual resources are anticipated in the secondary study area as a result of the Proposed Actions.

Assessment

The Proposed Actions would not result in significant adverse impacts to urban design or visual resources in the primary study area or the surrounding secondary study area. Although the Proposed Project and the building on the Potential Development Site would represent a significant change for the primary and secondary study areas, the Proposed Actions would not result in a significant adverse impact to urban design or visual resources. The Proposed Project and the building on the Potential Development Site within the primary study area would be constructed on existing blocks and would not entail any changes to topography, street patterns, street hierarchy, block shapes, or natural features in the primary or secondary study areas. Additionally, the Proposed Actions would not create land uses nor structures that would be substantially incompatible with the existing and emerging character of the surrounding Borough Park neighborhood.

As illustrated in **Figures G-12** through **G-14**, the secondary study area would undergo a noticeable transformation in relation to the visual context of the primary study area, with the Proposed Project and the building on the Potential Development Site representing a visible change to the perspective of a

pedestrian adjacent to the Applicant-controlled Development Site and the Potential Development Site within the primary study area. As presented in these figures, the Proposed Project and the building on the Potential Development Site would alter the visual setting of the Applicant-controlled Development Site and the Potential Development Site within the primary study area by replacing the existing low-rise structures and open rail cut, which would remain in the No-Action condition, with 15 new buildings that differ in scale, both in bulk and height. Although the varied bulks and heights of the Proposed Project and the building on the Potential Development Site would be a departure from the existing built conditions in both the primary and secondary study areas, they would not be incompatible with existing and planned buildings or bulk in both the primary and secondary study areas. As shown in **Figures G-12** through **G-14**, the Proposed Project and the building on the Potential Development Site would feature a variety of building heights and tiered forms to provide a contextual transition from the Applicant-controlled Development Site and the Potential Development Site to the surrounding secondary study area.

In addition, the Proposed Project and the building on the Potential Development Site would not obstruct any public views of visual resources, nor would the Proposed Project and the building on the Potential Development Site adversely impact any public view corridors within the secondary study area. The Proposed Project and the building on the Potential Development Site would enhance the pedestrian experience adjacent to the Applicant-controlled Development Site and the Potential Development Site within the primary study area through the improvement of streetscape and sidewalk conditions, including the reconstruction of concrete sidewalks along all street frontages, the elimination of unnecessary curb cuts, and, where practical, the addition of new street trees. Additionally, both the Proposed Project's and the Potential Development Site building's ground-floor commercial spaces would help to enhance the pedestrian experience adjacent to the primary study area. Therefore, while the addition the Proposed Project and the building on the Potential Development Site to the primary study area would represent a significant change from the perspective of a pedestrian, the change would not represent a significant adverse impact. As such, the Proposed Actions would not result in significant adverse urban design or visual resource impacts in the primary study area or the surrounding secondary study area.

Attachment H:

Transportation

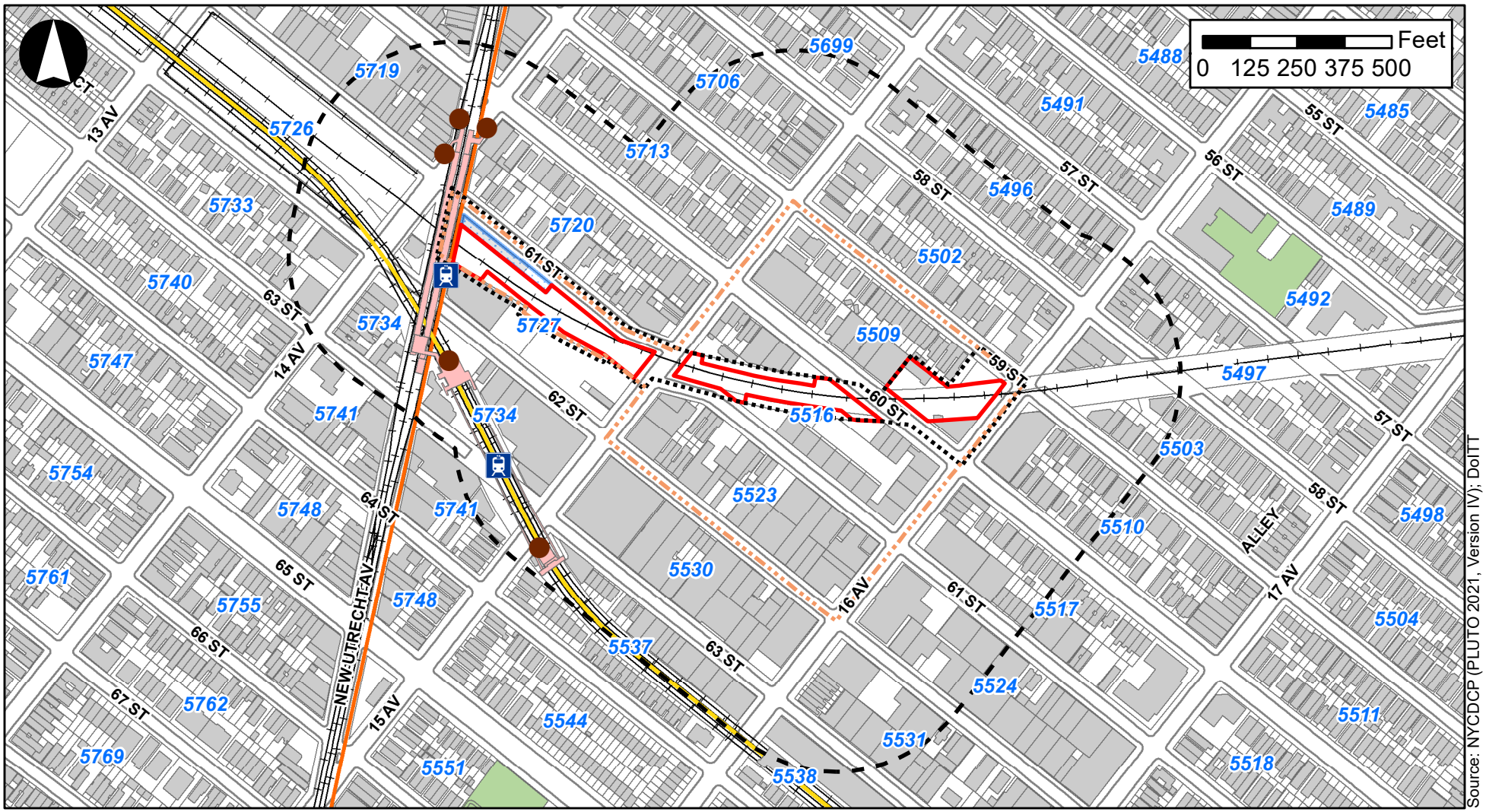
I. INTRODUCTION

Brooklyn Yards Develompent, LLC (the "Applicant") is seeking a series of discretionary actions subject to City Planning Commission (CPC) approval in order to facilitate the development of the Applicant-controlled Development Site in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12 (refer to **Figure H-1**). The discretionary actions include: (i) a Zoning Map Amendment to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4; (ii) a Zoning Text Amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) to designate portions of the Project Area as a Mandatory Inclusionary Housing (MIH) area, which would require the construction of permanently affordable residential units within portions of the Project Area, in accordance with City policy, and to amend Appendix I of the ZR to include the entirety of the Project Area as part of the Transit Zone; (iii) three Special Permits to permit development over a railroad right-of-way; (iv) a Special Permit to allow for the distribution of floor area and lot coverage within a Large-Scale General Development (LSGD) without regard for zoning lot boundaries and to modify yard, court, and distance between legal window and lot line requirements; (v) two Special Permits to reduce the amount of required accessory parking spaces; (vi) a Special Permit to allow parking to be distributed throughout an LSGD without regard for zoning lot boundaries; (vii) a Special Permit to modify location of commercial uses within a building; (viii) three Zoning Authorizations to waive required enclosed accessory residential bicycle parking; and (ix) a Zoning Authorization to waive required enclosed accessory commercial bicycle parking spaces (collectively the "Proposed Actions"). The Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project").

The Proposed Project is expected to be completed and fully operational by 2030. The incremental difference between the No-Action and With-Action conditions serves as the basis of the transportation impact analysis, which was conducted in accordance with the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*.

II. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed action. According to the *CEQR Technical Manual*, if the proposed action is expected to result in fewer than 50 peak hour vehicle or ferry trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 analysis) are to be performed to estimate the incremental trips that would be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, 25 or more peak hour trips by Citywide Ferry Service in a single direction on a single route or 50 or more at a ferry landing, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be



Legend

- Project Area
- 400-Foot Radius
- Proposed Rezoning Area
- Development Site
- Potential Development Site
- Existing Building Footprints
- Subway Stations
- Subway Entrances
- D Train
- N Train
- Rail Structures
- LIRR Tracks
- 5516 Tax Blocks
- Open Space



Brooklyn Yards EAS

Figure H-1
Project Location

warranted to assess the potential for significant adverse impacts on traffic, transit, ferries, pedestrians, street user safety, and parking.

III. LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the Proposed Actions during the peak hours for project-generated travel demand. These estimates were then compared to the *CEQR Technical Manual* analysis thresholds to determine if a Level 2 screening and/or quantified operational analyses may be warranted. The travel demand assumptions used for the assessment are described in the following sections along with a detailed forecast of the travel demand that would be generated by the Proposed Project.

As summarized in **Table H-1**, compared to the No-Action condition, the Proposed Actions would result in the incremental development of approximately 270 DUs, 57,586 gsf of commercial office space, 7,626 gsf of local retail space, 3,684 sf of PAA, and a decrease of 2,648 gsf of auto repair space.

TABLE H-1:
Comparison of the No-Action and With-Action Conditions: Increment for Analysis

	No-Action	With-Action	Increment
Land Use			
Residential	0 gsf	282,505 gsf	+282,505
DUs	0	270	+270
Office	0 gsf	57,586 gsf	+57,586 gsf
Local Retail	0 gsf	7,626 gsf	+7,626 gsf
Public Access Area (PAA)	0 sf	3,684 sf	+3,684 sf
Auto Repair	2,648 gsf	0 gsf	-2,648 gsf

Transportation Planning Factors

Table H-2 (located on the next page) shows the transportation planning factors that were used to forecast the travel demand generated by the Proposed Project during the weekday AM, midday, and PM peak hours, as well as the Saturday midday peak hour. These include trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies, and truck trip factors for the incremental differences between the No-Action and With-Action conditions. The factors shown in **Table H-2** were based on data cited in the *CEQR Technical Manual*, 2016-2020 American Community Survey (ACS) Means of Transportation to Work data, data provided by the New York City Department of Transportation (NYCDOT), and data from previously approved CEQR documents for projects with similar uses, including the 2016 *East New York Rezoning Proposal FEIS* and the *2021 Gowanus Neighborhood Plan FEIS*.

TABLE H-2:
Transportation Planning Factors

Land Use:	**Residential**		**Local Retail**		**Office**		**Active Open Space**		**Auto Repair Shop**	
Size/Units:	270 DU		7,626 gsf		57,586 gsf		0.08 acres		-2,648 gsf	
Trip Generation:	(1)		(1)		(1)		(1)		(3)	
Weekday	8.18		329		18.0		139		19.42	
Saturday	9.08		358		3.9		196		19.42	
	per DU		per 1,000 gsf		per 1,000 gsf		per acre		per 1,000 gsf	
Temporal Distribution:	(1)		(1)		(1)		(1)		(3)	
AM	9.3%		4.8%		12.4%		3.0%		13.2%	
Midday	5.6%		8.0%		11.0%		14.0%		11.0%	
PM	8.5%		10.9%		10.5%		14.0%		14.2%	
Saturday	8.4%		11.7%		14.1%		16.0%		10.7%	
	(2)		(6)		(5)	(4)	(4)		(3)	
Modal Splits:	All Periods		All Periods		AM/PM/SAT	MD	All Periods		All Periods	
Auto	32.3%		11.0%		41.3%	2.0%	20.0%		85.0%	
Taxi	0.1%		0.0%		0.5%	1.0%	1.0%		5.0%	
Subway	34.0%		3.0%		20.3%	7.0%	12.0%		1.0%	
Bus	6.2%		2.0%		13.2%	7.0%	11.0%		1.0%	
Walk/Other	27.4%		84.0%		24.7%	83.0%	56.0%		8.0%	
	100.0%		100.0%		100.0%	100.0%	100.0%		100.0%	
	(1)		(1)		(1)		(1)		(3)	
Directional Distribution:	In	Out	In	Out	In	Out	In	Out	In	Out
AM	22%	78%	52%	48%	86%	14%	59%	41%	65%	35%
Midday	50%	50%	50%	50%	52%	48%	55%	45%	50%	50%
PM	62%	38%	50%	50%	16%	84%	55%	45%	50%	50%
Saturday	55%	45%	50%	50%	48%	52%	55%	45%	50%	50%
Vehicle Occupancy:	(2)(3)		(6)		(5)		(4)		(3)	
	All Periods		All Periods		All Periods		All Periods		All Periods	
Auto	1.19		1.20		1.11		2.90		1.30	
Taxi	1.30		1.20		1.11		3.00		1.30	
Truck Trip Generation:	(1)		(1)		(1)		(4)		(3)	
Weekday	0.06		0.35		0.32		0.01		0.89	
Saturday	0.02		0.04		0.01		0.01		0.89	
	per DU		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Truck Temporal Distribution:	(1)		(1)		(1)		(4)		(3)	
AM	12%		8%		10%		6%		14%	
Midday	9%		11%		11%		6%		9%	
PM	2%		2%		2%		1%		1%	
Saturday	9%		11%		11%		6%		0%	
Truck Directional Distribution:	In	Out	In	Out	In	Out	In	Out	In	Out
All Periods	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%

Notes :

(1) Based on data from the 2021 *City Environmental Quality Review (CEQR) Technical Manual.*

(2) Based on 2015-2019 *American Community Survey (ACS) journey-to-work* data for Brooklyn census tracts 192, 194, 240, 242, 250, and 470.

(3) Based on data from the 2016 *East New York Rezoning Proposal FEIS* .

(4) Based on data from the 2021 *Gowanus Neighborhood Plan FEIS* .

(5) Based on 2012-2016 *American Community Survey (ACS)* Reverse Journey-to-Work data for Brooklyn census tracts 192,194, 240, 242, 250, and 470.

(6) Based on data provided by NYC DOT.

Travel Demand Forecast

Table H-3 (located on the next page) summarizes the results of that travel demand forecast for the Proposed Project based on the factors shown in **Table H-1**. **Table H-3** shows the weekday peak hour person trips, transit trips, walking trips, and vehicle trips that would be generated by each of the Proposed Project's land uses. As shown in **Table H-3**, the Proposed Project would generate an incremental increase of approximately 427, 395, 512, and 541 person trips (in + out combined) during the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. During the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, the Proposed Project would generate an incremental increase of approximately 110, 52, 108, and 91 incremental vehicle trips (auto, taxi, and trucks combined). The Proposed Project would generate an incremental increase of approximately 98, 58, 86, and 86 subway trips in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. The Proposed Project would generate an incremental increase of approximately 33, 18, 33, and 22 bus trips during the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. In addition, the Proposed Project would generate a total of approximately 422, 393, 508, and 536 pedestrian trips (including walk-only trips, as well as persons en route to and from subway station entrances, bus stops, and off-site parking) in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. Of these incremental pedestrian trips, approximately 169, 263, 260, and 321 are walk-only trips during the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively.

TABLE H-3:
Travel Demand Forecast

Land Use:		Residential		Local Retail		Office		Open Space		Auto Repair		Total	
Size/Units:		270 DU		7,626 gsf		57,586 gsf		0.08 acres		-2,648 gsf			
Peak Hour Person Trips:													
	AM	205		100		129		0		-7		427	
	MD	124		162		114		1		-6		395	
	PM	187		222		109		1		-7		512	
	Saturday	205		308		32		2		-6		541	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto	15	51	5	5	46	7	0	0	-4	-3	62	60
	Taxi	0	0	0	0	1	0	0	0	0	0	1	0
	Subway	15	54	1	1	23	4	0	0	0	0	39	59
	Bus	4	10	1	1	15	2	0	0	0	0	20	13
	Bike	0	4	0	0	0	0	0	0	0	0	0	4
	Walk/Other	11	41	44	42	27	4	0	0	0	0	82	87
	Total	45	160	51	49	112	17	0	0	-4	-3	204	223
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	Auto	20	20	9	9	1	1	0	0	-3	-3	27	27
	Taxi	0	0	0	0	1	1	0	0	0	0	1	1
	Subway	22	22	3	3	4	4	0	0	0	0	29	29
	Bus	4	4	1	1	4	4	0	0	0	0	9	9
	Bike	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	16	16	68	68	49	45	1	0	0	0	134	129
	Total	62	62	81	81	59	55	1	0	-3	-3	200	195
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto	37	23	12	12	7	38	0	0	0	0	56	73
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	38	24	4	4	4	19	0	0	-4	-3	42	44
	Bus	8	5	3	3	2	12	0	0	0	0	13	20
	Bike	3	1	0	0	0	0	0	0	0	0	3	1
	Walk/Other	29	19	92	92	5	22	1	0	0	0	127	133
	Total	115	72	111	111	18	91	1	0	-4	-3	241	271
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto	37	29	17	17	6	7	0	0	-3	-3	57	50
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	38	32	5	5	3	3	0	0	0	0	46	40
	Bus	7	5	3	3	2	2	0	0	0	0	12	10
	Bike	3	2	0	0	0	0	0	0	0	0	3	2
	Walk/Other	29	23	129	129	4	5	2	0	0	0	164	157
	Total	114	91	154	154	15	17	2	0	-3	-3	282	259

Land Use:		Residential		Local Retail*		Office		Open Space		Auto Repair		Total	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto	13	43	4	4	41	6	0	0	-3	-2	55	51
	Taxi (Balanced)	0	0	0	0	1	1	0	0	0	0	1	1
	Truck	0	0	0	0	1	1	0	0	0	0	1	1
	Total	13	43	4	4	43	8	0	0	-3	-2	57	53
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	Auto	16	16	8	8	1	1	0	0	-2	-2	23	23
	Taxi (Balanced)	0	0	0	0	2	2	0	0	0	0	2	2
	Truck	0	0	0	0	1	1	0	0	0	0	1	1
	Total	16	16	8	8	3	3	0	0	-2	-2	26	26
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto	32	19	11	11	6	34	0	0	-3	-2	46	62
	Taxi (Balanced)	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
	Total	32	19	11	11	5	34	0	0	-3	-2	46	62
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto	32	24	14	14	5	6	0	0	-2	-2	49	42
	Taxi (Balanced)	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
	Total	32	24	14	14	5	6	0	0	-2	-2	49	42

50% and 10% linked-trip credit applied to local retail uses for Building 1 (1-C) during weekdays and Saturdays, respectively.

	Total Vehicle Trips			Total Pedestrian Trips**		
	In	Out	Total	In	Out	Total
AM	57	53	110	203	219	422
MD	26	26	52	199	194	393
PM	46	62	108	238	270	508
Saturday	49	42	91	279	257	536

**** includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-street parking spaces.**

Traffic

Based on *CEQR Technical Manual* guidance, a detailed traffic analysis is typically required if a proposed action would result in 50 or more vehicle trip ends in a peak hour at one or more intersections. As shown in **Table H-3**, the Proposed Actions' number of incremental vehicle trips — approximately 110, 52, 108, and 91 in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively — would exceed the 50-trip threshold in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour. Therefore, a Level 2 screening assessment is warranted for all peak hours to determine which intersections would require quantified analysis.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus route in one direction, or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted. Transit analyses typically focus on the weekday AM and PM commuter peak hours, as it is during these peak hours that overall demand on the subway and bus systems is usually highest.

As shown in **Table H-3**, the Proposed Actions are expected to generate a total of approximately 98 and 86 incremental subway trips in the weekday AM and PM peak hours, respectively. As the number of incremental subway trips would be less than the 200-trip threshold, significant adverse impacts to subway service are not expected to occur under the Proposed Actions, and a detailed analysis of subway service is not warranted pursuant to *CEQR Technical Manual* guidance. As also shown in **Table H-3**, the Proposed Actions are expected to generate a total of approximately 33 bus trips in both the weekday AM and PM peak hours. Therefore, significant adverse impacts to bus service are not expected to occur under the Proposed Actions, and a detailed analysis of bus service is not warranted pursuant to *CEQR Technical Manual* guidance.

Pedestrians

Under *CEQR Technical Manual* guidance, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more new peak-hour pedestrians at any sidewalk, corner areas, or crosswalk. As shown in **Table H-3**, the Proposed Actions would generate a total of approximately 422, 393, 508, and 536 total pedestrian trips (including walk-only trips, as well as persons en route to and from subway station entrances, bus stops, and off-site parking) in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. As the number of trips in all periods would exceed the 200-trip threshold, a Level 2 screening analysis is warranted to determine which, if any pedestrian elements would require quantified analysis.

IV. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, pedestrian elements, and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and therefore require a quantitative analysis.

Transportation Network

As shown in **Figure H-2**, the Applicant-controlled Development Site is generally bounded by New Utrecht Avenue to the west, 59th Street to the north, 16th Avenue to the east, and 62nd Street to the south. Approximately 40 accessory parking spaces would be provided on Block 5509, Lot 41 within an at-grade surface parking lot. Access to the parking lot would be via 16th Avenue. Building 1-C's (commercial office and local retail uses) pedestrian entrances would be located along New Utrecht Avenue and Building 1-R's (residential uses) pedestrian entrances would be located along 61st Street. For Buildings 2-7 (residential uses), the pedestrian entrances would be located along 61st Street. Building 8's (residential uses) pedestrian entrance would be located along 15th Avenue and 61st Street. For Buildings 9 and 10 (residential uses), the pedestrian entrances would be located along 61st Street. Building 11's (residential uses) pedestrian entrances would be located along 60th Street and facilitated via a private courtyard, which would be accessible from 61st Street. For Building 12 (residential uses), the pedestrian entrance would be located along 60th Street. For Buildings 13 (residential uses) and 14 (local retail uses), the pedestrian entrances would be located along 60th Street and 16th Avenue, respectively.

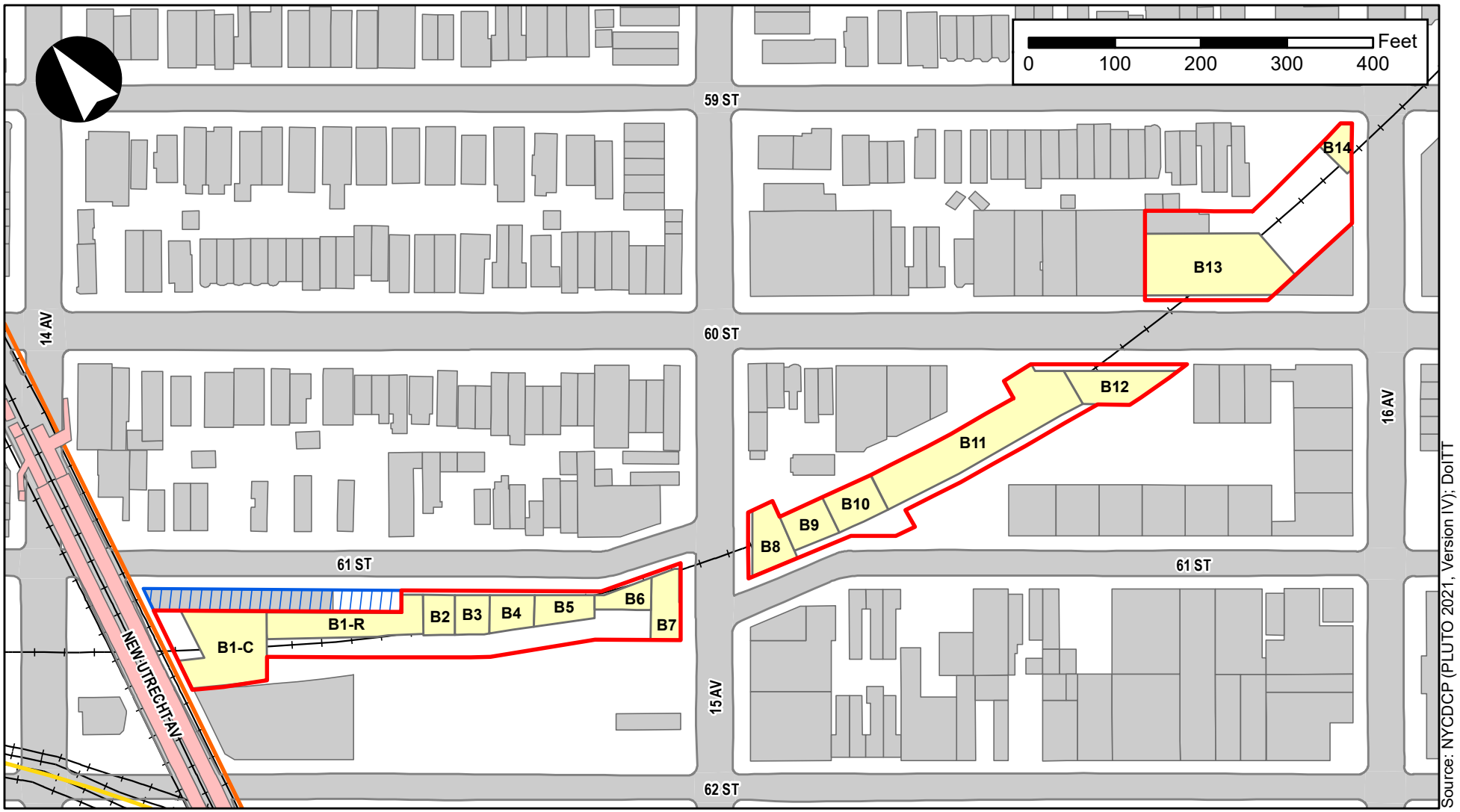
As shown in **Figure H-3**, the street network in proximity to the Applicant-controlled Development Site is comprised of a grid network of east-west streets and north-south avenues. The Applicant-controlled Development Site extends from 16th Avenue and 59th Street to the east to New Utrecht Avenue and 61st Street to the west and is crossed by both 15th Avenue and 60th Street. The surrounding street network's north-south avenues operate as two-way thoroughfares, typically with one to two moving lanes and parking along both curbs. New Utrecht Avenue bisects the street network diagonally, intersecting with 14th Avenue near the westernmost boundary of the Applicant-controlled Development Site. The surrounding street network's east-west streets typically operate as one-way thoroughfares, with one moving lane and parking along both curbs. However, an exception is 60th Street, which operates as a two-way east-west minor arterial. Also of note in the street network is 61st Street, a one-way westbound thoroughfare, which, as a result of the LIRR's Bay Ridge Branch, does not form a typical four-way, stop-controlled configuration at its intersection with 15th Avenue. At this location, vehicles traveling on 61st Street must cross from the south side of the open rail cut to the north side of the open rail cut via 15th Avenue in order to continue west on 61st Street.

The Applicant-controlled Development Site is located adjacent to the elevated 62nd Street station for the D train. The Applicant-controlled Development Site is one block north of the New Utrecht Avenue station for the N train. The N train line in the vicinity of the Applicant-controlled Development Site runs along a below-grade open rail cut. Both of these train lines offer service from South Brooklyn to points north. The B9 makes stops along 60th Street and provides service between Bay Ridge and Kings Plaza.

Traffic

As discussed above, the Proposed Actions' RWCDS is expected to result in an incremental increase of approximately 110, 52, 108, and 91 vehicle trips in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. As these incremental traffic volumes would exceed the 50-trip threshold (the *CEQR Technical Manual* Level 1 screening assessment threshold), an assignment of the incremental traffic volumes was prepared for each of these peak hours (a Level 2 screening assessment).

The assignment of auto and taxi trips to the street network in proximity to the Applicant-controlled Development Site were based on the anticipated origins and destinations of vehicle trips associated with the different land uses projected under the RWCDS (i.e., residential, commercial office, local retail, and auto repair uses). The "*Transportation Planning Factors and Travel Demand Forecast Technical Memorandum"* shows the directional distributions of auto and taxi trips by land use based on origin/destination data. The

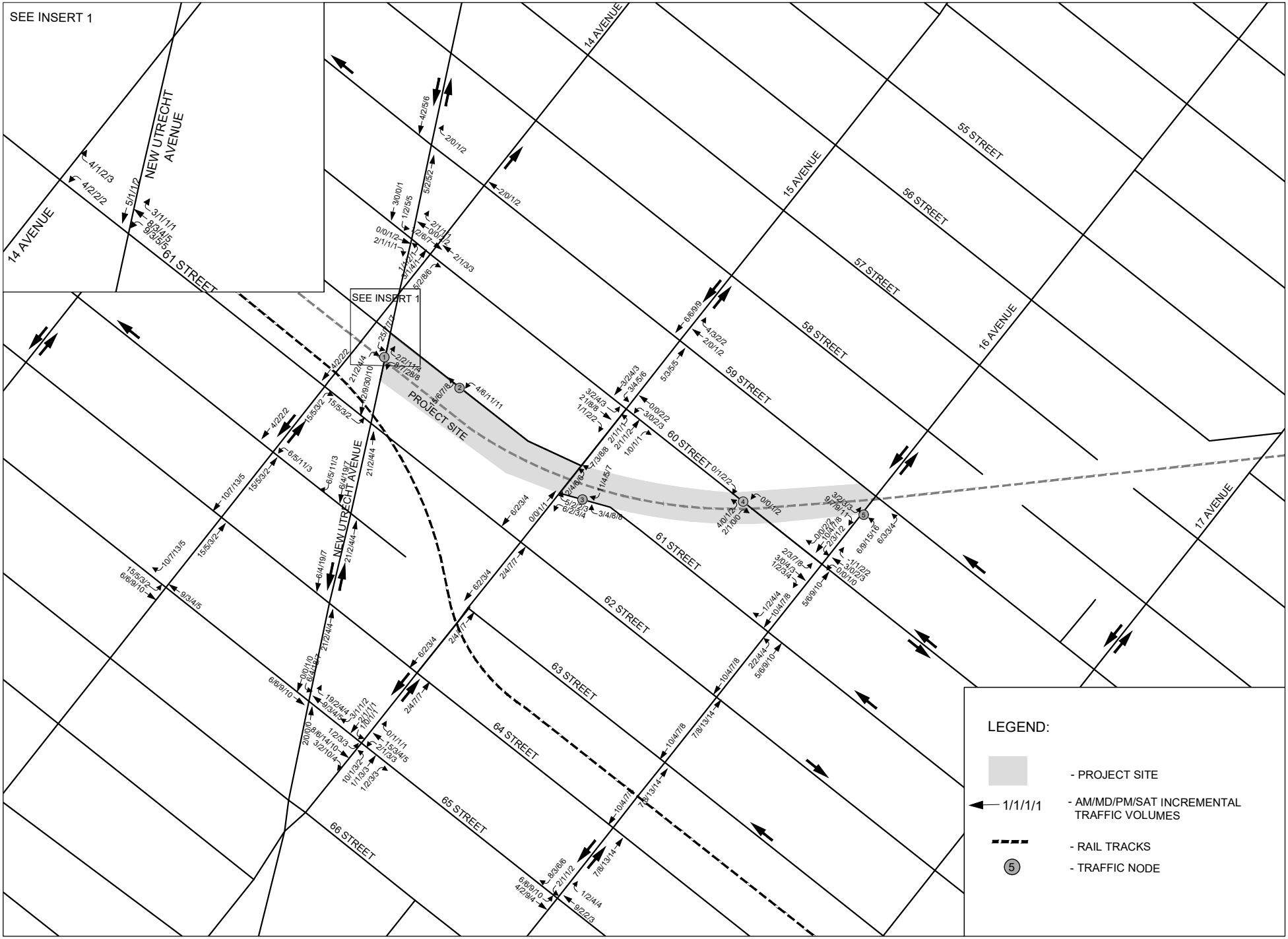


Legend

- Development Site
- Potential Development Site
- Proposed Buildings
- Existing Building Footprints
- Rail Structures
- LIRR Tracks
- D Train
- N Train

Brooklyn Yards EAS

Figure H-2
With-Action Illustrative Site Plan



BROOKLYN YARDS

FIGURE H-3

AM/MD/PM/SAT PEAK HOUR INCREMENTAL TRAFFIC VOLUMES

origins/destinations of residential trips were based on 2012-2016 ACS journey-to-work data, while the origins/destinations of commercial office trips were based on 2012-2016 ACS reverse journey-to-work data. The origins/destinations for the local retail and auto repair uses, which generate mostly local trips, were based on population density in proximity to the Project Area and surrounding neighborhoods within a half-mile radius of the Project Area.

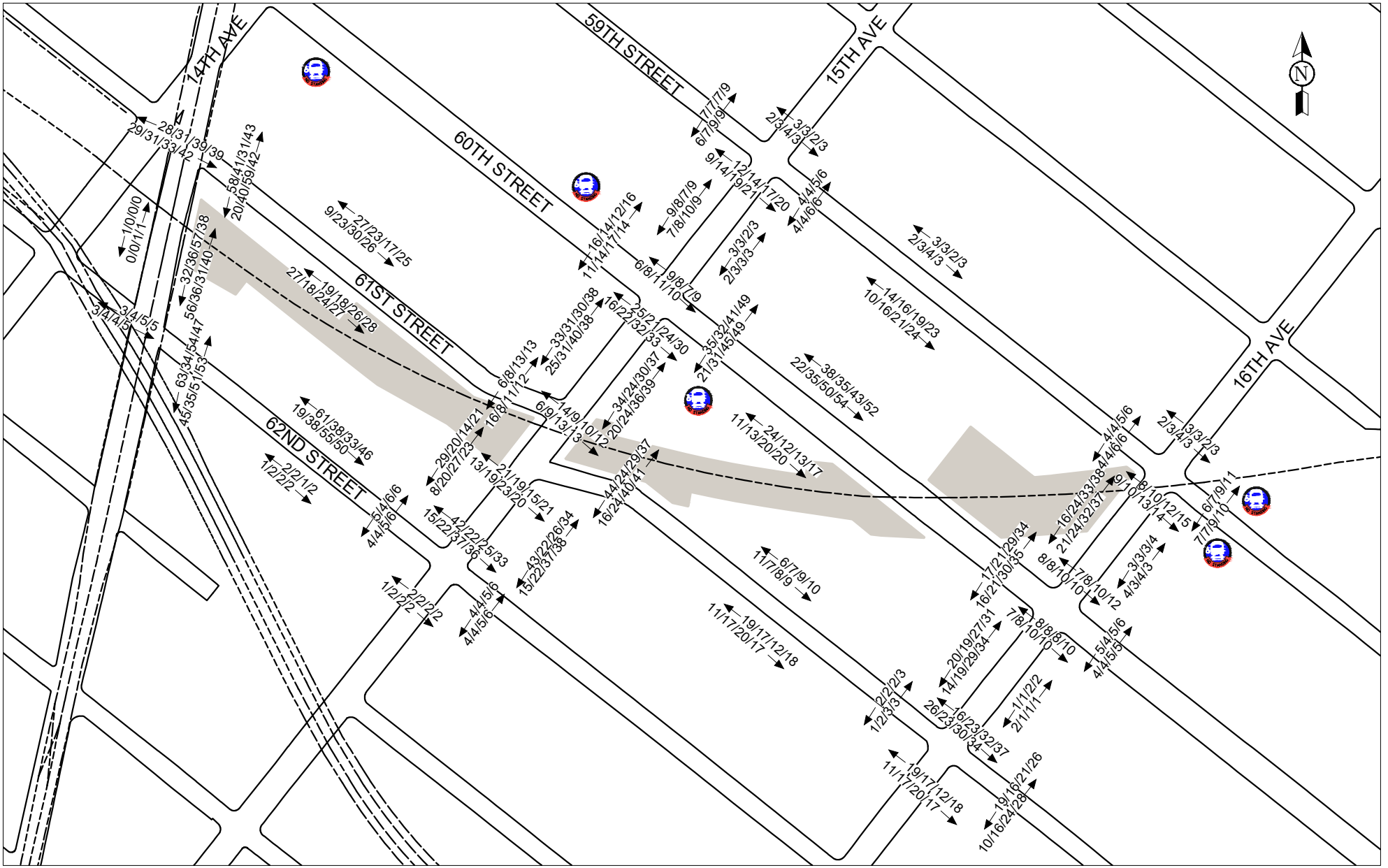
Using the distributions, auto and taxi trips were first assigned to various portals on the periphery of the Project Area and from there via the most direct route to the Applicant-controlled Development Site. As described previously, approximately 40 accessory parking spaces would be provided in a surface parking lot at the easternmost boundary of the Applicant-controlled Development Site. However, given the limited capacity of this parking lot, and the fact that the Applicant-controlled Development Site spans three blocks, it is anticipated that the parking provided on-site would be primarily used by residents in the Proposed Project's easternmost buildings (i.e., Buildings 11, 12, and 13). Auto trips en route to and from these buildings were therefore assigned to the parking lot entrance on 16th Avenue between 59th Street and 60th Street. Drivers en route to and from the remaining residential buildings and the Proposed Project's commercial office and local retail uses (primarily located at the westernmost boundary of the Applicant-controlled Development Site, in Building 1-R) would likely utilize curbside parking along nearby streets. However, for conservative analysis purposes, these auto trips, along with taxi trips, were assigned to the various Applicant-controlled Development Site frontages along 61st Street to the east of 15th Avenue (for Buildings 8-11), 61st Street to the west of 15th Avenue (for Buildings 1-7), and New Utrecht Avenue (for Building 1).

Truck trips were first assigned to NYCDOT-designated "Through" and "Local" truck routes providing access to the Applicant-controlled Development Site, including 65th Street, the Gowanus Expressway, and McDonald Avenue. From these truck routes, truck trips were then assigned to the various Applicant-controlled Development Site frontages along 60th Street and 61st Street, as well as along 15th Avenue, 16th Avenue, and New Utrecht Avenue.

Figure H-3 shows the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour incremental vehicle trip assignments that would be generated by the Proposed Actions' RWCDS. As shown in **Figure H-3**, no intersection in the vicinity of the Applicant-controlled Development Site would experience an incremental increase of 50 or more project-generated vehicle trips during the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour. Therefore, significant adverse impacts to traffic conditions are not expected to occur under the Proposed Actions, and a detailed traffic analysis is not warranted based on *CEQR Technical Manual* guidance.

Pedestrians

As discussed above, the Proposed Actions' RWCDS is expected to result in an incremental increase of approximately 422, 393, 508, and 536 total pedestrian trips in the weekday AM, midday, and PM peak hours, and the Saturday midday peak hour, respectively. As these incremental pedestrian volumes would exceed the 200-trip threshold (the *CEQR Technical Manual* Level 1 screening assessment threshold), an assignment of the incremental pedestrian volumes was prepared for each of these periods. The pedestrian trips were widely dispersed across the Applicant-controlled Development Site, which spans three blocks, as shown in **Figure H-4** of the preliminary pedestrian assignment for the weekday AM, midday, and PM, and Saturday peak hours. As shown in **Figure H-4**, no pedestrian element is expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold at any one point during each peak hour. Therefore, a detailed pedestrian analysis is not warranted as no significant adverse impacts to pedestrian conditions are expected.



BROOKLYN YARDS

FIGURE H-4

PEDESTRIAN ASSIGNMENT

V. PARKING

As discussed in **"Attachment A, Project Description,"** the Applicant is seeking two Special Permits pursuant to ZR Section 74-533(a) to reduce the amount of required accessory parking spaces to facilitate the development of affordable housing. The Proposed Project would require either 95 or 128 accessory parking spaces, dependent on whether MIH Option 2 or 4 is used, to be provided on-site. However, as a majority of the Applicant-controlled Development Site consists of an open rail cut, providing the required accessory parking spaces would not be feasible. The Applicant is proposing 40 at-grade parking spaces, which would be located on Block 5509, Lot 41.

Existing Conditions

As shown in **Table H-4**, weekday parking accumulation under the Proposed Actions' RWCDS would peak at approximately 159 spaces during the overnight period (i.e., 11 PM to 5AM). As shown in **Table H-4**, because the weekday parking demand would exceed the available accessory off-street parking capacity, a detailed parking inventory for the midday and overnight periods was conducted in the area surrounding the Applicant-controlled Development Site.

The parking inventory encompassed two study areas: a quarter-mile radius (an approximate five-minute walk) from the Applicant-controlled Development Site, as recommended by the *CEQR Technical Manual*; and a half-mile radius (an approximate 10-minute walk) from the Applicant-controlled Development Site, which is the extent to which drivers would generally travel to locate available parking. It should be noted that there are no off-street public parking facilities located within either a quarter-mile radius or a half-mile radius of the Applicant-controlled Development Site. Therefore, an on-street parking inventory was conducted in the area surrounding the Applicant-controlled Development Site.

TABLE H-4:
Weekday Parking Accumulation – Proposed Project

	Residential 270 DU			Office 57,586 gsf			Local Retail 7,626 gsf			Total		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1	5	2	156	0	1	1	0	0	0	5	3	**157**
1-2	2	1	157	0	1	0	0	0	0	2	2	**157**
2-3	1	0	158	0	0	0	0	0	0	1	0	**158**
3-4	1	1	158	0	0	0	0	0	0	1	1	**158**
4-5	1	1	158	1	0	1	0	0	0	2	1	**159**
5-6	2	5	155	1	1	1	0	0	0	3	6	**156**
6-7	3	11	147	3	1	3	1	0	1	7	12	**151**
7-8	7	25	129	10	1	12	1	1	1	18	27	**142**
8-9	13	43	99	24	2	34	3	3	1	40	48	**134**
9-10	10	24	85	41	6	69	4	4	1	55	34	**155**
10-11	8	14	79	10	5	74	5	5	1	23	24	**154**
11-12	11	13	77	4	4	74	5	5	1	20	22	**152**
12-1	16	16	77	1	1	74	7	7	1	24	24	**152**
1-2	15	14	78	1	1	74	8	8	1	24	23	**153**
2-3	15	14	79	5	5	74	8	8	1	28	27	**154**
3-4	18	15	82	8	9	73	8	8	1	34	32	**156**
4-5	19	16	85	7	15	65	8	8	1	34	39	**151**
5-6	23	15	93	6	34	37	9	9	1	38	58	**131**
6-7	32	19	106	3	23	17	10	10	1	45	52	**124**
7-8	26	17	115	3	12	8	7	8	0	36	37	**123**
8-9	24	13	126	2	5	5	4	4	0	30	22	**131**
9-10	20	10	136	1	3	3	4	4	0	25	17	**139**
10-11	16	6	146	1	2	2	1	1	0	18	9	**148**
11-12	12	5	153	1	1	2	1	1	0	14	7	**155**
Total	300	300		133	133		94	94				

Notes:
(1) Assumes 0.57 autos/DU based on 2015-2019 ACS auto ownership data for rental households in Brooklyn census tracts 192, 194, 240, 242, 250, and 470.

(2) Hourly parking patterns based on data provided by NYCDOT.

Table H-5 presents the on-street parking occupancy within a quarter-mile radius and a half-mile radius of the Applicant-controlled Development Site. As indicated in **Table H-5**, there are approximately 3,427 on-street parking spaces within a quarter-mile radius of the Applicant-controlled Development Site during the weekday midday peak hour, approximately 96 percent of which were occupied. There are approximately 3,522 parking spaces within a quarter-mile radius of the Applicant-controlled Development Site during the overnight period, approximately 95 percent of which were occupied. Considering the additional approximately 6,409 and 6,463 parking spaces within a half-mile of the Applicant-controlled Development Site during the weekday midday and overnight periods, respectively, there are approximately 636 parking spaces available in the midday period and approximately 602 parking spaces available in the overnight period (an approximate 10-minute walk from the Applicant-controlled Development Site).

Table H-5:
Existing On-Street Parking Conditions

	Quarter-Mile Radius				Half-Mile Radius			
	Capacity	Occupied	Available	% Utilized	Capacity	Occupied	Available	% Utilized
Midday	3,427	3,278	149	96%	9,836	9,200	636	94%
Overnight	3,522	3,352	170	95%	9,985	9,383	602	94%

Note: On-street capacities in both study areas have been determined by surveys conducted by Philip Habib & Associates (PHA) on Tuesday May 14, 2019 and Thursday June 6, 2019.

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

Under the 2030 No-Action condition, background growth in the study area and No-Action developments in proximity to the Applicant-controlled Development Site are expected to increase the demand for on-street parking. The background growth rate assumed for traffic[1] — 0.5 percent per year for the first five years and 0.25 percent per year for each additional year until 2030 — was applied to determine the 2030 No-Action condition parking demand. As shown in **Table H-6**, under the No-Action condition, on-street parking occupancy is expected to reach approximately 102 percent and approximately 100 percent in the quarter-mile study area during the midday and overnight periods, respectively, and approximately 98 percent in both the half-mile study area during the midday and overnight hours.

Table H-6:
No-Action Condition On-Street Parking Conditions

	Quarter-Mile Radius				Half-Mile Radius			
	Capacity	Occupied	Available	% Utilized	Capacity	Occupied	Available	% Utilized
Midday	3,427	3,481	-54	102%	9,836	9,642	194	98%
Overnight	3,522	3,537	-15	100%	9,985	9,812	173	98%

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

Table H-4 shows the 24-hour parking accumulation generated by each of the Proposed Project's land uses. As shown in **Table H-4**, the maximum parking demand is expected to total approximately 159 parking spaces and would occur during the overnight period (i.e., 11 PM to 5AM). As shown in **Table H-7**, during the overnight period, the Proposed Actions' RWCDS would result in a shortfall of approximately 119 parking spaces in the quarter-mile study area. On-street parking demand within a quarter-mile radius of the Applicant-controlled Development Site would therefore total approximately 3,656 spaces during the overnight period, and the utilization would increase from approximately 100 percent under the No-Action condition to approximately 103 percent as a result of the Proposed Actions' RWCDS (refer to **Table H-7**).

As shown in **Table H-7**, outside of the overnight period, the Proposed Actions' RWCDS would generate a maximum parking demand of approximately 156 spaces during the midday period. As shown in **Table H-7**, during the midday period, the Proposed Actions' RWCDS would result in a shortfall of approximately 160 parking spaces in the quarter-mile study area. On-street parking demand within a quarter-mile radius of the Applicant-controlled Development Site would therefore total approximately 3,598 spaces during the midday period, and the utilization would increase from approximately 102 percent under the No-Action condition to approximately 105 percent as a result of the Proposed Actions' RWCDS (refer to **Table H-7**).

[1] The background growth rates are based on information provided in Table 16-4 of the 2021 *CEQR Technical Manual*.

TABLE H-7:
With-Action Condition On-Street Parking Conditions

	Quarter-Mile Radius				Half-Mile Radius			
	Capacity	Occupied	Available	% Utilized	Capacity	Occupied	Available	% Utilized
Midday	3,438	3,598	-160	105%	9,847	9,758	89	99%
Overnight[1]	3,533	3,656	-123	103%	9,996	9,931	65	99%

Note:
[1] Assumes the addition of 11 on-street parking spaces under the With-Action condition. Within a third-mile radius of the Applicant-controlled Development Site, there are 11 on-street parking spaces that could be opened up once NYCDOT prohibitions are removed. For each of these parking spots, there are curb cuts that no longer lead to parking or loading facilities. Therefore, current parking prohibitions in these locations could be removed and the adjacent curb space used for approximately 11 on-street parking spaces.

As shown in **Table H-7**, on-street parking demand within a half-mile radius of the Applicant-controlled Development Site would total approximately 9,758 spaces during the midday period, and the utilization would increase from approximately 98 percent under the No-Action condition to approximately 99 percent as a result of the Proposed Actions' RWCDS. As shown in **Table H-7**, on-street parking demand within a half-mile radius of the Applicant-controlled Development Site would total approximately 9,931 spaces during the overnight period, and the utilization would also increase from approximately 98 percent under the No-Action condition to approximately 99 percent under the With-Action condition. As indicated in **Table H-7**, there would be approximately 89 and 65 available on-street parking spaces within the half-mile study area during the midday and overnight periods, respectively.

According to the *CEQR Technical Manual*, should a proposed project generate the need for more parking than it provides and/or is available, this shortfall of spaces may be considered significant, however, a significant shortfall would not be considered an impact. The availability of on-street and off-street parking spaces within a convenient walking distance (about a quarter-mile radius) as well as the availability of alternative modes of transportation are considered in making this determination.

Pursuant to *CEQR Technical Manual* guidance, different criteria for determining impact significance are applied based on whether or not a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2, as shown in Map 16-2 (CEQR Parking Zones). If a site is located outside of Parking Zones 1 and 2, as shown in Map 16-2 (CEQR Parking Zones), a project's parking shortfall that exceeds the available on-street and off-street parking spaces within a quarter-mile radius of the site when compared to the No-Action condition, can be considered significant. Additional factors should be considered to determine whether such parking shortfall is significant, including: the availability and extent of transit in the area; the proximity of the project to such transit; any features of the project that are considered trip reduction or travel demand management (TDM) measures as set forth in Chapter 16, Subsection 515 of the 2021 *CEQR Technical Manual*; and travel modes of customers of area commercial businesses; and patterns of automobile usage by area residents. The sufficiency of parking within a half-mile (rather than a quarter-mile radius) of the site to accommodate the projected parking shortfall may also be considered.

As discussed above, the Proposed Project would provide 40 on-site accessory parking spaces. The maximum incremental off-site demand attributable to the Proposed Actions' RWCDS during the weekday overnight period (approximately 119 vehicles) would only amount to approximately three percent of the total on-street public parking capacity within a quarter-mile radius of the Applicant-controlled Development Site, and approximately one percent within a half-mile radius.

Furthermore, pursuant to *CEQR Technical Manual* guidance, one of the factors to be considered in determining significance is the availability of alternative modes of transportation. As discussed previously, the Applicant-controlled Development Site is located adjacent to the elevated 62nd Street station for the D train. The Applicant-controlled Development Site is one block north of the New Utrecht Avenue station for the N train. The N train line in the vicinity of the Applicant-controlled Development Site runs along a below-grade open rail cut. Both of these train lines offer service from South Brooklyn to points north. The B9 makes stops along 60th Street and provides service between Bay Ridge and Kings Plaza.

Although a portion of drivers destined for the Applicant-controlled Development Site would have to travel a greater distance (e.g., up to a half-mile) to find available on-street parking spaces, the shortfall in on-street parking spaces within a quarter-mile radius of the Applicant-controlled Development Site during the midday and overnight periods under the Proposed Actions' RWCDS would not be considered a significant adverse impact. This determination is in consideration of the availability of alternative modes of transportation in proximity to the Applicant-controlled Development Site, the magnitude of the parking shortfall (approximately three percent of the quarter-mile study area's total capacity), and the fact that a portion of the Proposed Project's parking demand would be accommodated by the on-site accessory parking to be provided by the Proposed Project.

VI. TRAFFIC CONTROL WARRANT ANALYSES

The intersection of 15th Avenue and 61st Street is currently an unsignalized intersection with a stop control along 61st Street. All-way stop and traffic signal warrant analyses were performed to determine if additional intersection controls are warranted for this intersection. The traffic signal warrant analysis determined that a traffic signal is not warranted for the intersection of 15th Avenue and 61st Street. The all-way stop warrant analysis determined that an all-way stop is warranted for the intersection of 15th Avenue and 61st Street. However, upon review by NYCDOT, the agency determined that it would be infeasible to install the all-way stop at the intersection of 15th Avenue and 61st Street, as this intersection is situated along a signalized corridor (15th Avenue) and the installation of an all-way stop would have the potential to create a conflict in proximity to existing signalized crossings.

In addition, enhanced crossing warrant analyses were performed to determine if a midblock crosswalk would be necessary on 60th Street between 15th Avenue and 16th Avenue. The enhanced crossing warrant analyses determined that an enhanced midblock crossing is warranted for this location. NYCDOT, through its review, determined that an enhanced midblock crossing is warranted for 60th Street between 15th Avenue and 16th Avenue and tentatively approved of the installation. The installation of the enhanced midblock crossing will be included as a Project Component Related to the Environmental (PCRE) under the Proposed Actions. Upon construction of the Proposed Project, the Applicant will, at its own cost and expense, conduct a Transportation Monitoring Program ("TMP") to determine whether an enhanced midblock crossing is warranted for 60th Street between 15th Avenue and 16th Avenue based on actual future traffic conditions. The Applicant will coordinate with NYCDOT on the scope of work for the TMP prior to undertaking the TMP. The Applicant will also coordinate with NYCDOT on the future design and implementation of the enhanced midblock crossing, subject to the conclusions of the TMP.

Attachment I:

Air Quality

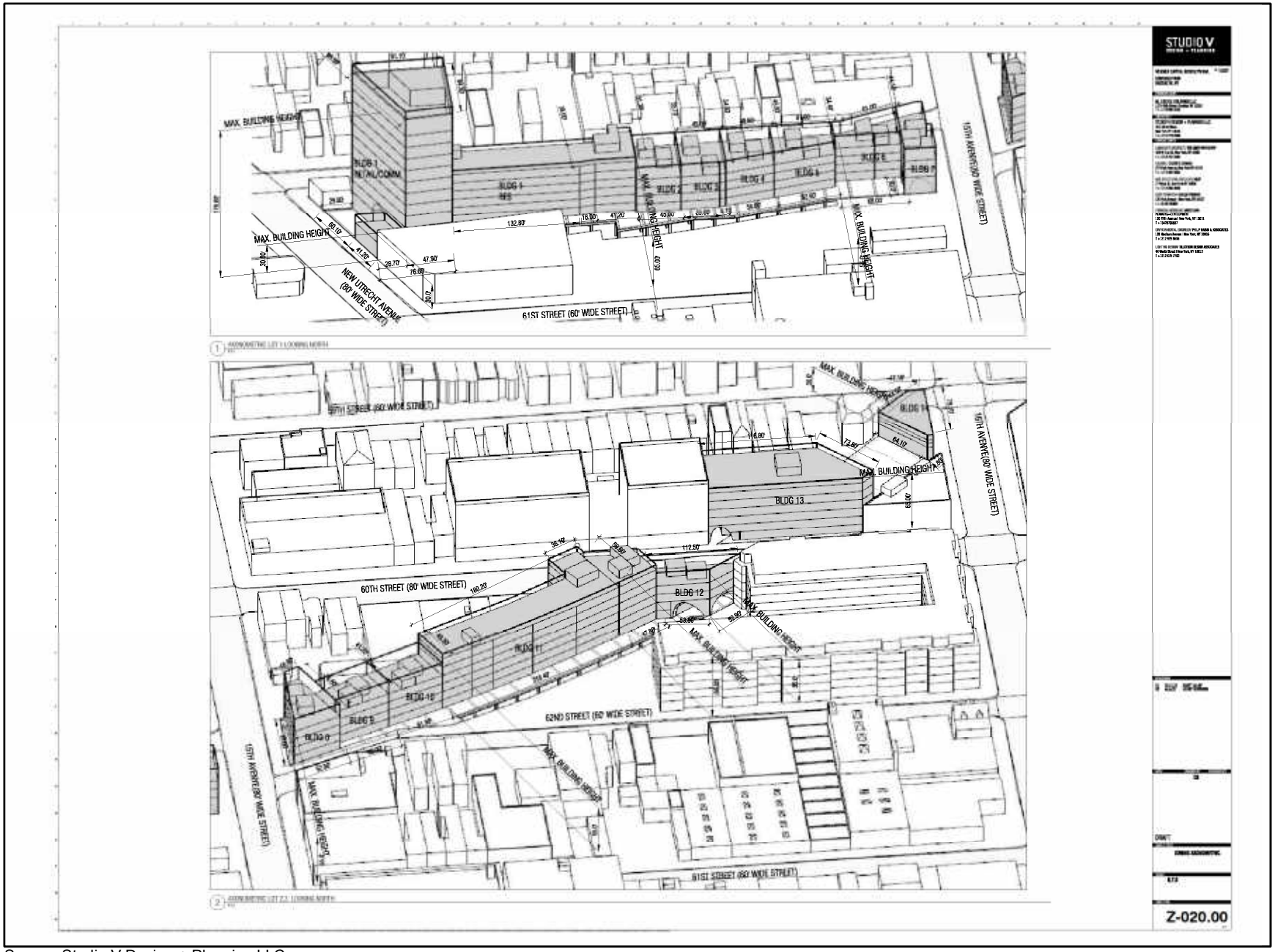
I. INTRODUCTION

Brooklyn Yards Development, LLC (the "Applicant") is seeking a series of discretionary actions subject to City Planning Commission (CPC) approval in order to facilitate the development of the Applicant-controlled Development Site in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12. The Applicant-controlled Development Site comprises Block 5727, p/o Lot 14, Block 5516, p/o Lots 1 and 33, and Block 5509, Lots 41 and 57. The total lot area of the Applicant-controlled Development Site measures approximately 105,278 square feet (sf). The entire Applicant-controlled Development Site consists of an open rail cut with the exception of Block 5509, Lot 57, which contains an auto repair use.

The Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project"). Absent the approval of the Proposed Actions, the Proposed Project would not be constructed and the existing conditions within the Applicant-controlled Development Site would remain. The non-Applicant-controlled property located on Block 5727, Lot 19 is not associated with Proposed Project but has been included in the analysis presented herein as a Potential Development Site (referred to as "Building 15" in this attachment). The Potential Development Site is located directly adjacent to Building 1 of the Proposed Project and could be developed with a two-story (25-feet tall) commercial building containing approximately 15,750 gsf.

Figures I-1 and **I-2** provide aerial views of the of the Proposed Project's 14 buildings. The westernmost building, Building 1, would feature frontage on New Utrecht Avenue and 61st Street. The western commercial portion of Building 1 (1C) would stand ten-stories tall and contain 57,586 gsf of office uses and 2,904 gsf of ground floor retail uses. The eastern residential portion of Building 1 (1R) would stand six-stories tall and contain 41 DUs (45,840 gsf). The commercial and residential portions of Building 1 would be separate and not share common space. To the east of Building 1, Buildings 2, 3, 4, 5, 6, 7, 8, 9, and 10 would each stand five-stories tall (including penthouses) and contain nine DUs in each building. To the east of Building 10, Building 11 would comprise a six-story multi-family residential building with 82 DUs (77,370 gsf). To the east Building 11, Building 12 would stand five-stories tall and contain eight DUs. Building 13 would comprise a six-story multi-family residential building with 58 DUs (55,964 gsf). Building 14 would comprise a two-story commercial building containing 4,722 gsf of retail uses. The residential multi-family buildings would range in height from 55 to 75 feet. Ten of the 14 buildings would be 55 feet tall and relatively small (approximately 10,000 gsf), two larger buildings (Buildings 11 and 13) would be 75 feet tall with more than 45,000 gsf. Of the two buildings with commercial components, Building 1's western commerical portion (1C) would be 176 feet tall and Building 1's residential eastern portion (1R) would be 75 feet tall, and Buildng 14 would be 30 feet tall. As stated above, the building on the Potential Development Site, located on Lot 19, would be a two-story (25-foot-tall) commercial building with 15,750 gsf.

Table I-1 provides information for all 15 builldings included in the analysis: building heights, total floor area (in gsf), land use, use group, and number of DUs. Each building would maintain its own natural gas fueled heating, ventilation, and air conditioning (HVAC) system.

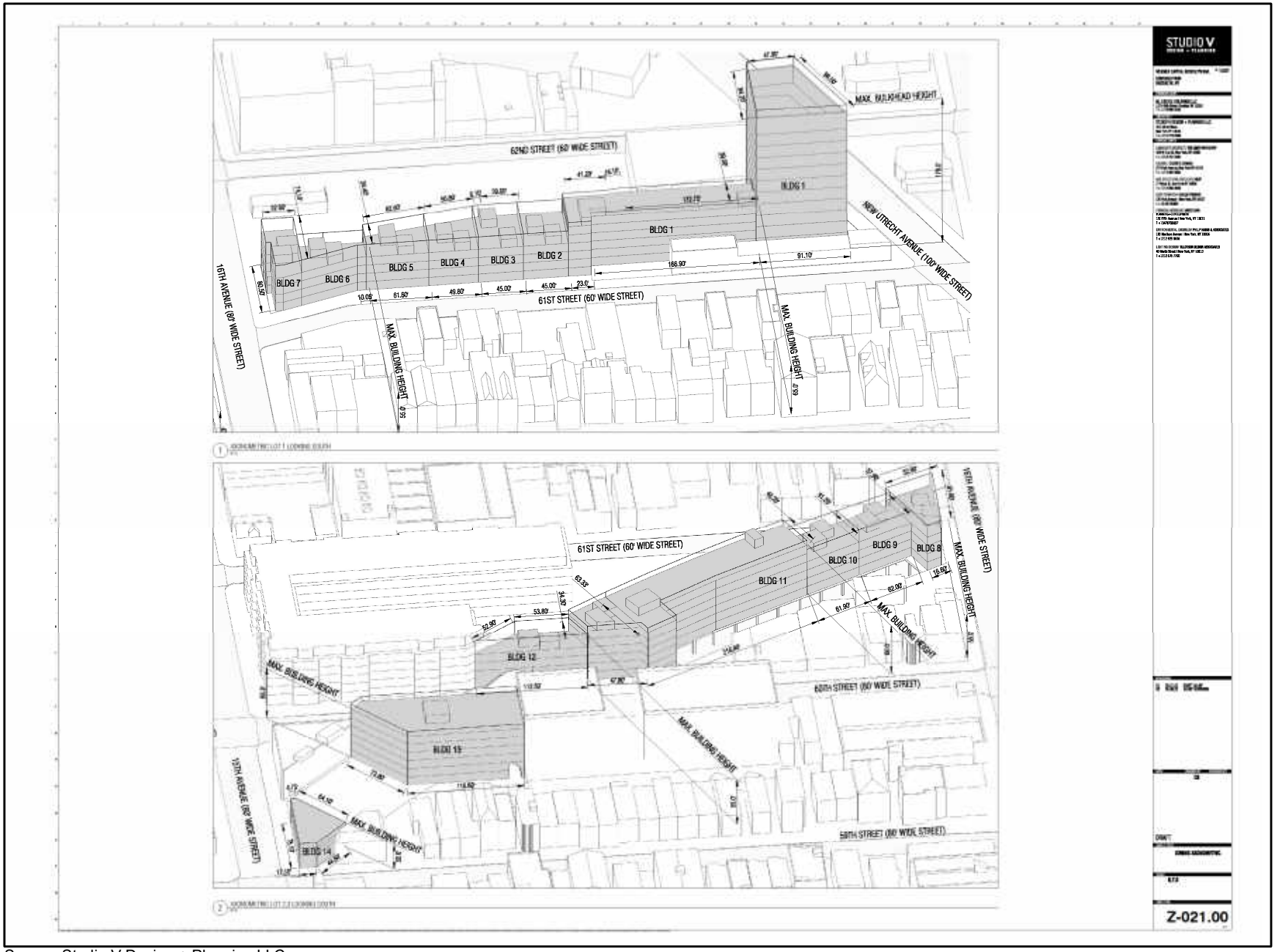


Source: Studio V Design + Planning LLC.
Note: For Illustrative Purposes Only.

Brooklyn Yards EAS

Figure I-1

Proposed Project Aerial Rendering - View Looking North



Source: Studio V Design + Planning LLC.
Note: For Illustrative Purposes Only.

Brooklyn Yards EAS

Figure I-2

Proposed Project Aerial Rendering - View Looking South

TABLE I-1:
Proposed Project Buildings – Parameters

Building	Use	Use Group	Use Group Type	GSF	DUs	Height
1	Commercial	6	Local Retail	2,904	0	176’
		6	Office	57,586		
	Residential	2	Multi-Family Residences	45,840	41	75’
2	Residential	2	Multi-Family Residences	10,646	9	55’
3	Residential	2	Multi-Family Residences	10,634	9	55’
4	Residential	2	Multi-Family Residences	10,610	9	55’
5	Residential	2	Multi-Family Residences	10,482	9	55’
6	Residential	2	Multi-Family Residences	9,642	9	55’
7	Residential	2	Multi-Family Residences	9,273	9	55’
8	Residential	2	Multi-Family Residences	11,202	9	55’
9	Residential	2	Multi-Family Residences	10,390	9	55’
10	Residential	2	Multi-Family Residences	11,026	9	55’
11	Residential	2	Multi-Family Residences	77,370	82	75’
12	Residential	2	Multi-Family Residences	9,426	8	55’
13	Residential	2	Multi-Family Residences	55,964	58	75’
14	Commercial	6	Local Retail	4,722	0	30’
15*	Commercial	6	Local Retail	15,750	0	25’

Note: *Potential Development Site

Ambient air quality, which is a general term used to describe pollutant levels in the atmosphere, would be affected by the development associated with the Proposed Actions. The analysis presented in this attachment examines three potential impacts for the Proposed Actions:

1. Potential impacts from the HVAC emissions from the Proposed Project’s shorter buildings on the Proposed Project’s adjacent taller (or of equal height) buildings (i.e., a project-on-project analysis);
2. Potential impacts from air toxic emissions from existing industrial sources operating within a 400-feet radius of the Proposed Project (i.e., an industrial source analysis); and
3. Potential impacts from emissions from diesel fueled freight train operations operating beneath the platform underlying the Proposed Project (i.e., a train emissions analysis).

An analysis of the potential impacts of the HVAC emissions on existing buildings surrounding the Proposed Project (i.e., a project-on-existing analysis) is not warranted for the Proposed Actions because there are no existing taller buildings located within a 400-feet radius of the Proposed Project. An analysis of the potential impacts of major emission sources is not warranted for the Proposed Actions because there are no large or major emission sources (Title V facilities or State facilities) located within a 1,000-feet radius of the Proposed Project.

Potential air quality impacts were estimated following the procedures and methodologies detailed in the 2021 *CEQR Technical Manual*.

II. HVAC ANALYSES

Relevant Air Pollutants

The U.S. Environmental Protection Agency (EPA) has identified several pollutants, which are known as criteria pollutants, as being of concern nationwide. As the proposed 15 buildings would be heated by natural gas, the two criteria pollutants associated with natural gas combustion – nitrogen dioxide (NO_2) and particulate matter smaller than 2.5 microns ($PM_{2.5}$) – were considered for analysis.

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act (CAA), National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants in order to protect public health and the nation's welfare, and New York has adopted the NAAQS as State ambient air quality standards.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ significant impact criteria (based on concentration increments) developed by the New York City Department of Environmental Protection (NYCDEP) to determine whether potential adverse $PM_{2.5}$ impacts would be significant. If the estimated impacts of a proposed project are less than these increments, the impacts are not considered to be significant. This analysis addressed compliance of the potential impacts with the 24-hour and annual $PM_{2.5}$ CEQR significant impact criteria.

NO_2 NAAQS

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

The 1-hour NO2 NAAQS standard of 0.100 ppm (188 µg/m3) is the three-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. The annual NO_2 standard is 0.053 ppm (100 $\mu g/m^3$). A NO_2/NOx ratio of 0.75 percent, recommended by NYCDEP for an annual NO_2 analysis, was applied.

$PM_{2.5}$ CEQR Significant Impact Criteria

CEQR Technical Manual guidance includes the following criteria for evaluating significant adverse $PM_{2.5}$ incremental impacts:

> *Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour $PM_{2.5}$ background concentration and the 24-hour standard.*

The three-year (2017-2019) average of the 98th percentile 24-hour $PM_{2.5}$ background concentration for Brooklyn J.H.S. 126 monitoring station from the New York State Department of Environmental Conservation (NYSDEC) 2019 monitoring report is 17.8 $\mu g/m^3$ (2017= 17.2 $\mu g/m^3$, 2018=17.9 $\mu g/m^3$, and

2019=18.4 µg/m^3).[1] Half the difference between the 24-hour $PM_{2.5}$ NAAQS of 35 µg/m^3 and the background value of 17.8 µg/m^3 is 8.6 µg/m^3. As such, a significant impact threshold of 8.6 µg/m^3 was used for determining whether a potential 24-hour $PM_{2.5}$ impact is significant.

For an annual average adverse $PM_{2.5}$ incremental impact, according to *CEQR Technical Manual* guidance:

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

The 24-hour and annual significant impact criteria were used to evaluate the significance of predicted $PM_{2.5}$ impacts. The annual $PM_{2.5}$ background concentration averaged over the three-year period (2017-2019) from J.H.S. 126 is 7.6 µg/m^3.

The current NAAQS, together with their health-related averaging periods, are provided in **Table I-2**.

TABLE I-2:
Applicable National Ambient Air Quality Standards and CEQR Significant Impacts Criteria

Pollutant	Averaging Time	NAAQS	Form	CEQR Significant Impact Criteria
NO_2	1 Hour	0.10 ppm (188 µg/m^3)	98th percentile of 1-hour daily maximum concentrations averaged over 3 years	-
	Annual	0.053 ppm (100 µg/m^3)	Annual Mean	-
$PM_{2.5}$	24 Hour	35 µg/m^3	98th percentile averaged over 3 years	8.6 µg/m^3
	Annual	12 µg/m^3	annual mean averaged over 3 years	0.3 µg/m^3
PM_{10}	24 Hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years	-
SO_2	1-hour	196 µg/m^3	99th percentile of 1-hour daily maximum concentrations averaged over 3 years	-
CO (ppm)	1-hour	35	Not to be exceeded more than once per year	-
	8-hour	9		

Source: US Environmental Protection Agency, "National Primary and Secondary Ambient Air Quality Standards." (49 CFR 50) (www.epa.gov/adepir/criteria.html) and New York State Department of Environmental Conservation (NYSDEC) (http://www.dec.ny.gov/chemical/8542.html.
Notes:
ppm = parts per million.
µg/m^3 = micrograms per cubic meter.

HVAC Stationary Source Screening Analysis

Based on *CEQR Technical Manual* guidance, a preliminary screening analysis was conducted as a first step to predict whether the potential impacts of the HVAC emissions of each applicable proposed building would have the potential to significantly impact the other buildings and therefore require a more detailed analysis.

Methodology

[1] NEW YORK STATE AMBIENT AIR QUALITY REPORT FOR 2019 (ny.gov)

CEQR screening procedures are applicable to buildings where the stack of a proposed building is 30 feet or more from an affected receptor building that is of similar or greater height. Buildings located less than 30-feet from each other require detailed, not screening level, analyses.

Many of the Proposed Project's buildings are the same height and are immediately adjacent to each other. These include Buildings 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 15. Therefore, Buildings 1 through 12, as well as Building 15, require detailed project-on-project analyses.

Buildings separated by streets or avenues have stacks that are usually more than 30 feet from the affected receptor buildings. These include Buildings 7 and 8, which would be separated by 16th Avenue; Buildings 12 and 13, which would be separated by 60th Street; and Buildings 13 and 14, which would be separated by a proposed surface parking lot.

The total square footage (in gsf) of each proposed building was used and the conservative generic nomograph (Figure 17-2 "Boiler Screen, Residential Development - Natural Gas," of the 2021 *CEQR Technical Manual Appendix: Air Quality*) was applied. This nomograph depicts the size of a building versus the distance below which a potential impact could occur and provides a threshold distance.

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

Project-on-Project Analysis Results

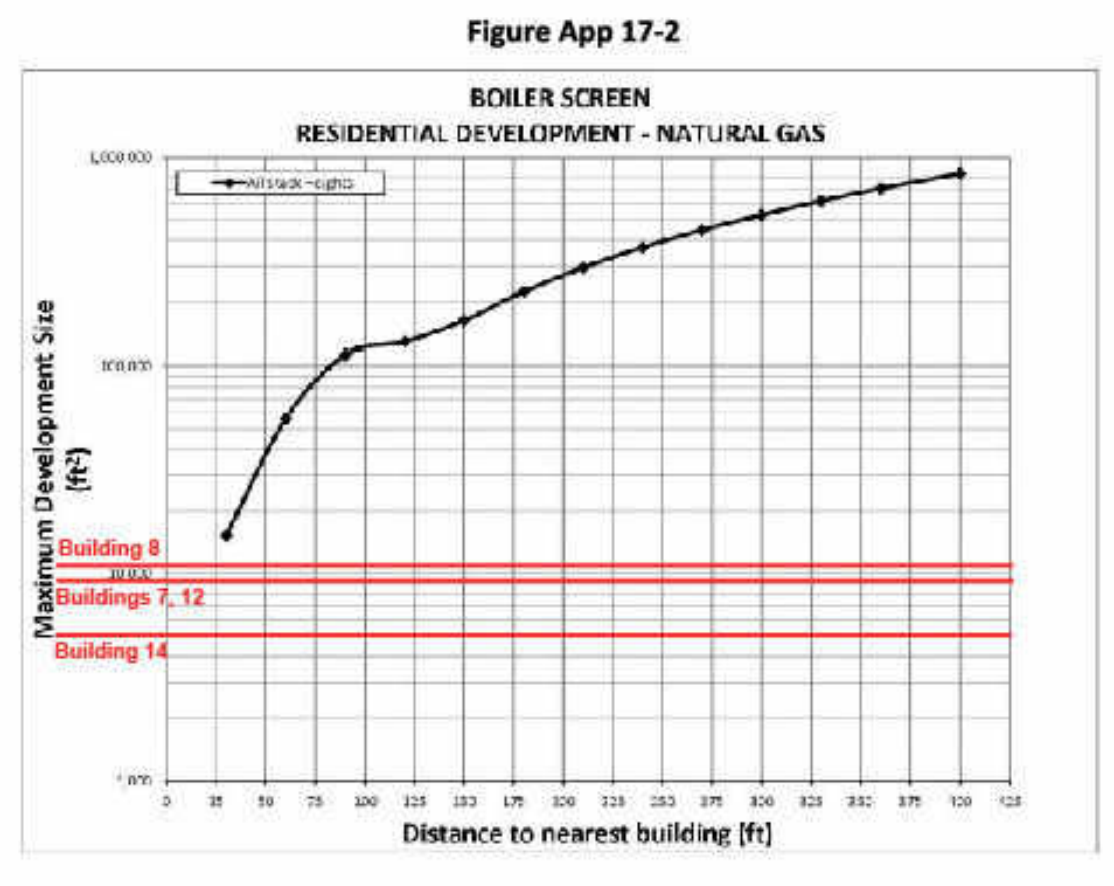
The results of the screening project-on-project analysis, presented in **Table I-3** and **Figure I-3**, demonstrate that the actual distances between all proposed buildings are greater than the threshold distances determined by Figure 17-2 "Boiler Screen, Residential Development - Natural Gas," of the 2021 *CEQR Technical Manual Appendix: Air Quality*, indicating that all of these proposed buildings passed the screening analysis, and detailed analyses are not required.

TABLE I-3:
Screening Results – Project-on-Project Analysis

Building	Floor Area GSF	Potentially Impacted Building	Distance to Building Feet	Threshold Distance by Nomograph Feet	CEQR Nomograph Results (Pass/Fail)
Building 7	9,273	Building 8	89	25	Pass
Building 8	11,202	Building 7	89	25	Pass
Building 12	9,426	Building 13	90	25	Pass
Building 14	4,722	Building 13	120	25	Pass

Note: Building 13 would be taller than nearby Buildings 12 and 14 and was therefore considered a receptor building.

Figure I-3: Proposed Project Buildings 7, 8, 12, and 14 Screening Analysis



Detailed Analysis

A detailed dispersion analysis was conducted for the following building-on-building combinations:

- Building section 1R (residential) on Building section 1C (commercial);
- Building 2 on Building section 1R (residential);
- Building 2 on Building 3 and Building 3 on Building 2 (as these buildings are the same height);
- Building 3 on Building 4 and Building 4 on Building 3 (as these buildings are the same height);
- Building 4 on Building 5 and Building 5 on Building 4 (as these buildings are the same height);
- Building 5 on Building 6 and Building 6 on Building 5 (as these buildings are the same height);
- Building 6 on Building 7 and Building 7 on Building 6 (as these buildings are the same height);
- Building 8 on Building 9 and Building 9 on Building 8 (as these buildings are the same height);
- Building 9 on Building 10 and Building 10 on Building 9 (as these buildings are the same height);
- Building 10 on Building 11;
- Building 12 on Building 11; and
- Building 15 on Building sections 1R (residential) and 1C (commercial).

The analysis employed the latest version of the EPA's AERMOD dispersion model (version 22112). AERMOD is a steady-state plume model applicable for rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume). It can be used to

calculate pollutant concentrations based on hourly meteorological data, and has the capability of calculating pollutant concentrations at locations when the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures.

In accordance with *CEQR Technical Manual* guidance, analyses were conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. Five years of meteorological data (for 2015-2019), provided by NYSDEC, were used. Analyses were conducted with and without the effects of downwash, and both sets of results are reported.

Emissions

Emission rates were estimated as follows:

- As the proposed buildings would be heated by natural gas, emission rates of NO_x and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the heated area of each building (in gsf) and EPA AP-42 emission factors for firing natural gas combustion in small boilers;
- $PM_{2.5}$ emissions from natural gas combustion accounted for both filterable and condensable particulate matter; and
- Short-term NO_2 and $PM_{2.5}$ emission rates were estimated by accounting for seasonal variation in heat and hot water demand. Based on recent New York City Department of City Planning (DCP) guidance, a seasonal emission factor was set as one for the winter season and 0.5 for each of the three other seasons of the year.
- An average annual natural gas consumption factor was obtained from Table CE1.2 "Summary Annual Household Site Consumption and Expenditures in the Northeast", Middle Atlantic, US Energy Information Administration, 2015, Residential Energy Consumption Survey, and converted to standard cubic feet per square feet per year using natural gas heating value.
-

Stack diameters and exit velocities were estimated based on values obtained from NYCDEP's "CA Permit" database for the corresponding boiler size (i.e., rated heat input or MMBtus per hour). Boiler sizes were estimated based on the assumption that all fuel would be consumed during the 100-day (or 2,400-hour) heating season. All stack exit temperatures were assumed to be 300°F (423°K), which is appropriate for building boilers. **Table I-4** provides pollutant emission rates from natural gas combustion in the boilers that were used in the dispersion analysis.

TABLE I-4: Estimated Pollutant Emission Rates

Building	Building Height	Stack Height	Total Floor Area	$PM_{2.5}$ Emission Rate[1]		NO_2 Emission Rate[2]	
				g/sec	g/sec	g/sec	g/sec
	Feet	Feet	GSF	24-hour	Annual	One-hour	Annual
Building 1 (Section 1R)	75	78	45,840	8.05E-4	2.20E-04	1.06E-02	2.90E-03
Building 2	55	58	10,646	1.87E-04	5.12E-05	2.46E-03	6.74E-04
Building 3	55	58	10,634	1.87E-04	5.11E-05	2.46E-03	6.73E-04
Building 4	55	58	10,610	1.86E-04	5.10E-05	2.45E-03	6.71E-04
Building 5	55	58	10,482	1.84E-04	5.04E-05	2.42E-03	6.63E-04
Building 6	55	58	9,642	1.69E-04	4.64E-05	2.23E-03	6.10E-04
Building 7	55	58	9,273	1.63E-04	4.46E-05	2.14E-03	5.87E-04
Building 8	55	58	11,202	1.97E-04	5.39E-05	2.59E-03	7.09E-04
Building 9	55	58	10,390	1.82E-04	5.00E-05	2.40E-03	6.58E-04
Building 10	55	58	11,026	1.94E-04	5.30E-05	2.55E-03	6.98E-04
Building 11	75	78	77,370	1.36E-03	3.72E-04	1.79E-02	4.90E-03
Building 12	55	58	9,426	1.65E-04	4.53E-05	2.18E-03	5.97E-04
Building 13	75	78	55,964	9.82E-04	2.69E-04	1.29E-02	3.54E-03
Building 14	30	33	4,722	8.29E-05	2.27E-05	1.09E-03	2.99E-04
Building 15	25	28	15,750	2.77E-04	7.58E-05	3.64E-03	9.97E-04

Notes:

[1] The $PM_{2.5}$ emission factor for natural gas combustion is 7.6 lb/10^6 cubic feet included filterable and condensable particulate matter (Filterable $PM_{2.5}$ =1.9 lb/10^6 cubic feet and condensable $PM_{2.5}$=5.7 lb/10^6 cubic feet (AP-42, Table 1.4-2)).

[2] The NO_x emission factor for natural gas is 100 lb/10^6 cubic feet for uncontrolled boilers (AP-42, Table 1.4-1).

Meteorological Data

All analyses were conducted using the five consecutive years of meteorological data (2015-2019) provided by NYSDEC. Surface data were obtained from LaGuardia Airport – LGA New York, NY (Queens County) and upper air data were obtained from Brookhaven station, New York. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over a five-year period. Five years of meteorological data were combined into a single multiyear file to conduct $PM_{2.5}$ and NO_2 analyses for all averaging periods.

Pollutant Background Concentrations

Three-year period (2017-2019) average background concentrations for all pollutants, except $PM_{2.5}$, were obtained from Queens College monitoring station for the three-year period, as follows:

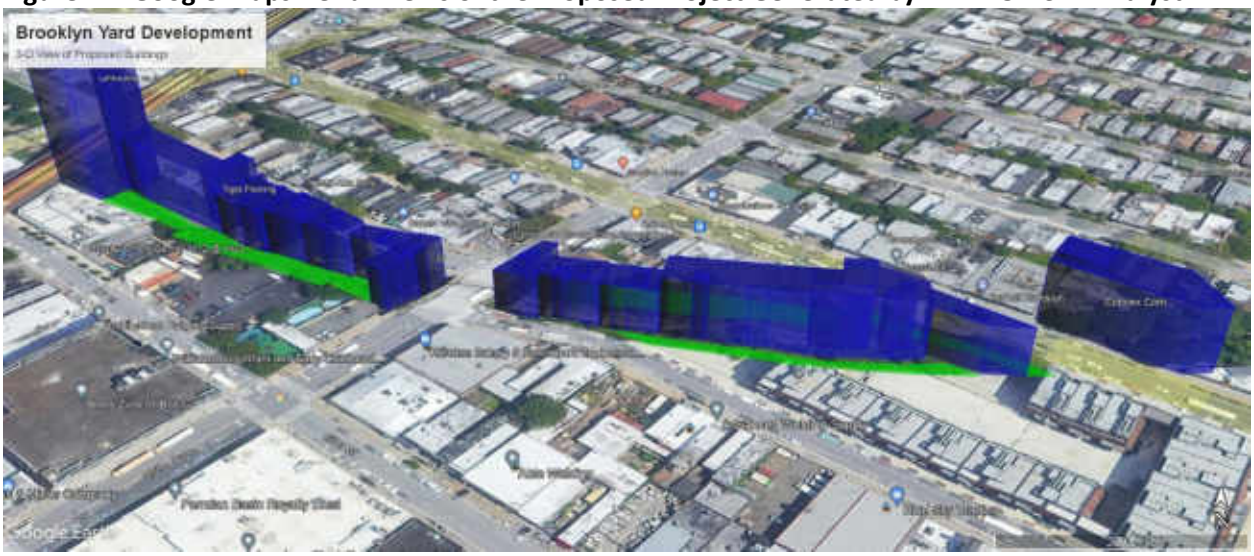
- The three-year period average of the 98thpercentile of the annual distribution of the daily maximum 1-hour NO_2 concentration was 55.1 ppb (104 µg/m^3);
- The highest annual NO_2 concentration over the three-year period was 14.62 ppb (27.6 µg/m^3); and
- The average of the highest 24-hour PM_{10} concentrations over the three-year period was 28 µg/m^3

Receptors

Receptors (windows) were placed around all façades of each analyzed building in ten-foot increments horizontally and vertically, starting above the ground level and extending up to the level of the upper windows, which were assumed to be five feet below the roof of each building. In order to assure that maximum impacts are estimated, more than 4,500 receptors were placed on all the affected proposed

buildings. A Google Maps aerial view of the Proposed Project developed for the AERMOD 3-D Analyst is shown in **Figure I-4**.

Figure I-4: Google Maps Aerial Views of the Proposed Project Generated by AERMOD 3-D Analyst



Stack Locations

All stacks were initially located at a minimum of ten feet distance from the building edge facing the nearby impacted building. If exceedances of the *CEQR* significant impact criteria or the NAAQS were predicted, setbacks from the building edge were increased until compliance was achieved.

Summary of Modeling Inputs

All modeling assumptions are provided in **Table I-5**.

TABLE I-5:
Modeling Parameters

Model	AERMOD (EPA Version 22112)
Source Type	Point
Emission Sources and Receptor Coordinates	UTM NAD83 Datum and UTM Zone 18
Downwash Program	Building Profile Input Program (BPIP)
Surface Characteristics	Urban Area Option
Urban Surface Roughness Length	1
Population of the area (Brooklyn)	2.6 million
Surface Meteorological Data	LaGuardia Airport (2015-2019)
Profile Meteorological Data	Brookhaven Station (2015-2019)
$PM_{2.5}$ and 1-hour NO_2 Analysis	Special procedure incorporated into AERMOD where model calculates concentration at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest across all receptors of the N-year averaged highest values
$PM_{2.5}$ and 1-hour NO_2 Background Concentrations	Brooklyn J.H.S. 126 and Queens College 2 monitoring station data for 2017-2019

Stack Setback Requirements

Buildings Requiring Stack Setbacks

Potentially significant impacts can occur when emissions from shorter buildings affect taller buildings that are in close proximity. This would be the case for the 75-foot-tall Building 1R (western residential section of Building 1) on the 176-foot-tall Building 1C (eastern commercial section of Building 1), Building 15 (i.e., the Potential Development Site) on Building 1 (sections 1R and 1C), and Buildings 10 and 12 on Building 11.

Potentially significant impacts for these buildings were found to be primarily associated with 1-hour NO_2 impacts, and stack setbacks were required to mitigate these impacts. The same stack setback distances determined in the NO_2 analysis were used in the $PM_{2.5}$ analysis, and resulted in substantial reductions of $PM_{2.5}$ impacts compared to the values estimated without stack setback distances.

The commercial section of Building 1 (1C) would be the tallest building (176-feet tall) and is only considered as a receptor building because it would not significantly impact any of the shorter proposed buildings. However, Building 1C, in turn, is impacted by emissions from the two adjacent shorter buildings – the residential section of Building 1 (1R) and Building 15. The most significant impact is from Building 1R, which has a relatively large floor area (45,840 gsf) and therefore relatively large emission rates. The impacts from Building 15 (15,750 gsf) on Building 1 (both the 1R and 1C sections) are also potentially significant. To alleviate impacts, the stack on Building 1R would need to be set back from Building 1C at least 50 feet away, which translates to approximately 160 feet from New Utrecht Avenue for Building 1R. For Building 15, compliance with the 1-hour NO_2 NAAQS would be achieved by locating the stack at least 32 feet away from Building 1C, which translates to no more than approximately 10 feet from New Utrecht Avenue and no more than approximately 11 feet from 61st Street.

For Building 2 (55 feet tall) on Building 1R (75 feet tall), a stack setback of at least 14 feet from the frontage of Building 1R would be necessary to avoid exceedances of the 1-hour NO_2 NAAQS, which translates to approximately 325 feet from New Utrecht Avenue and 32 feet from 61st Street.

For Buildings 10 and 12 (both 55 feet tall) on Building 11 (75 feet tall), stack setbacks of at least 35 feet for Building 10 and 15 feet for Building 12 from the frontage of Building 11 would be necessary to avoid exceedances of the 1-hour NO_2 NAAQS. This translates to set-back requirements of approximately 122 feet from 15th Avenue and 36 feet from 61st Street for Building 10, and 23 feet from 60th Street and no more than approximately 300 feet from 16th Avenue for Building 12.

As such, Buildings 1R, 2, 10, 12, and 15 (which is not controlled or owned by Applicant) would require (E) Designations, with restrictive stack locations, to avoid potential significant impacts.

Buildings Not Requiring Stack Setbacks

Building 7 on Building 8 (and Building 8 on Building 7), Building 13, and Building 14 passed the screening analysis. Buildings 3, 4, 5, 6, 7 (and Building 7 on Building 6), Building 8 (and Building 8 on Building 9), and Building 9, which were subject to detailed analyses, are the same height (55 feet tall) with stacks assumed to be three (3) feet above the roof. The plumes from each building should not significantly impact the other building because receptors (windows) would be below the stack heights (and plume centerline). As

such, HVAC emissions from each of these buildings would not significantly impact the other nearby buildings and no stack restrictions are warranted for Buildings 3 through 9, 13, and 14.

Results

$PM_{2.5}$

Results of the $PM_{2.5}$ analysis, which are provided in **Tables I-6** and **I-7**, demonstrate that the maximum estimated 24-hour and annual $PM_{2.5}$ impacts are all less than the *CEQR* significant impact criteria of 8.6 µg/m³ and 0.3 µg/m³ (with or without downwash), and the total concentrations are all less than the 24-hour/annual NAAQS. As such, $PM_{2.5}$ emissions from each building (with required stack restrictions) would not significantly impact the other nearby buildings and no significant project-on-project impacts would occur.

TABLE I-6:
$PM_{2.5}$ Analysis Results with Downwash

Building	Receptor Building	24-hour Impact µg/m³	Annual Impact µg/m³	CEQR Significant Impact Criteria 24-hour µg/m³	CEQR Significant Impact Criteria Annual µg/m³
Building 1 (Section 1R)[1]	Building 1 (Section 1C)	0.19	0.02	8.6	0.3
Building 2[1]	Building 1 (Section 1R)	0.60	0.01		
	Building 3	0.21	0.007		
Building 3	Building 2[1]	0.07	0.004		
	Building 4	0.19	0.007		
Building 4	Building 3	0.07	0.004		
	Building 5	0.15	0.006		
Building 5	Building 4	0.07	0.005		
	Building 6	0.15	0.005		
Building 6	Building 5	0.09	0.005		
	Building 7	0.16	0.005		
Building 7	Building 6	0.07	0.005		
Building 8	Building 9	0.07	0.005		
Building 9	Building 8	0.09	0.005		
	Building 10	0.06	0.003		
Building 10[1]	Building 9	0.08	0.004		
	Building 11[1]	0.03	0.004		
Building 12[1]	Building 11	1.63	0.062		
Building 15[1]	Building 1 (Sections 1R and 1C)	1.04	0.028		

Note:
[1] With stack setback.

TABLE I-7:

$PM_{2.5}$ Analysis Results without Downwash

Building	Receptor Building	24-hour Impact µg/m³	Annual Impact µg/m³	CEQR Significant Impact Criteria 24-hour µg/m³	CEQR Significant Impact Criteria Annual µg/m³
Building 1 (Section 1R)[(1)]	Building 1 (Section 1C)	1.32	0.04	8.6	0.3
Building 2[(1)]	Building 1 (Section 1R)	2.42	0.08		
	Building 3	0.01	0.0004		
Building 3	Building 2[(1)]	0.02	0.0005		
	Building 4	0.01	0.0005		
Building 4	Building 3	0.02	0.0005		
	Building 5	0.02	0.0007		
Building 5	Building 4	0.02	0.0003		
	Building 6	0.02	0.0007		
Building 6	Building 5	0.02	0.0003		
	Building 7	0.01	0.0003		
Building 7	Building 6	0.01	0.0002		
Building 8	Building 9	0.01	0.0007		
Building 9	Building 8	0.02	0.0005		
	Building 10	0.02	0.0006		
Building 10[(1)]	Building 9	0.02	0.0003		
	Building 11[(1)]	2.39	0.069		
Building 12[(1)]	Building 11	4.27	0.116		
Building 15[(1)]	Building 1 (Sections 1R and 1C)	2.32	0.064		

Note:

[1] With stack setback.

NO_2 Analysis

The EPA recommends a three-tiered modeling approach for 1-hour NO_2 modeling. Tier 1, the most conservative approach, assumes a full (100 percent) conversion of NOx to NO_2. The Tier 2 Ambient Ratio Method (ARM2) applies a conservative ambient NOx/NO_2 ratio to the NOx estimated concentrations. Tier 3 employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module to account for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

The Tier 3 analysis followed NYSDEC DAR-10 guidance. As required, source-specific (or default) in-stack ratios (ISR) of NO_2/NO_x emissions, ambient equilibrium ratios, and hourly ozone concentration were used. The single highest ozone value (212 µg/m^3) was obtained from the 2017-2019 datasets provided by NYSDEC (which was concurrent with the meteorological data). The NO_2 background concentration represented a uniform monitored background value of a three-year average of the 98th percentile of the annual distribution of the daily maximum 1-hour concentrations. The background concentration was added to the modeled concentration and the sum was compared to the 1-hour NO_2 NAAQS to determine compliance with 1-hour NO_2 NAAQS.

Tier 1 analyses were sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS for Buildings 3, 4, 5, 6, 7, 8, and 9 (refer to **Tables I-8** and **I-9**). The estimated impacts (with the added background

concentration) were compared with the 1-hour NO_2 NAAQS. Results of this analysis demonstrate that no exceedances of 1-hour NO_2 NAAQS, as well as the annual NO_2 NAAQS, are estimated.

For Buildings 1R, 2, 10, 12, and 15, a 1-hour Tier 3 NO_2 analysis was necessary to demonstrate NAAQS compliance.

Results of the NO_2 analysis, which are provided in **Tables I-8** and **I-9,** demonstrate that the estimated 1-hour NO_2 total concentrations for Buildings 1R, 2, 10, 12, and 15, with the required stack setbacks, are less than the 1-hour NAAQS (with or without downwash). Annual NO_2 estimated concentrations are also less than the annual NO_2 NAAQS. As such, NO_2 emissions from each proposed building would not significantly impact the other nearby buildings. Based on these results, no significant impacts would occur for any of the 14 proposed buildings or Building 15 on the Potential Development Site.

TABLE I-8:
NO_2 Analysis Results with Downwash

Building	Receptor Building	1-hour Conc.[2] µg/m³	Annual Conc.[2] µg/m³	NAAQS 1-hour/Annual µg/m³
Building 1 (Section 1R)[1]	Building 1 (Section 1C)	108.2	27.8	188/100
Building 2[1]	Building 1 (Section 1R)	155.5	27.8	
	Building 3	108.0	27.7	
Building 3	Building 2	105.2	27.6	
	Building 4	107.5	27.7	
Building 4	Building 3	107.0	27.6	
	Building 5	107.2	27.7	
Building 5	Building 4	106.3	27.6	
	Building 6	106.9	27.6	
Building 6	Building 5	105.6	27.6	
	Building 7	110.5	27.6	
Building 7	Building 6	105.4	27.6	
Building 8	Building 9	105.7	27.6	
Building 9	Building 8	106.1	27.6	
	Building 10	105.6	27.6	
Building 10[1]	Building 9	105.8	27.6	
	Building 11[1]	105.4	27.6	
Building 12[1]	Building 11	163.3	28.2	
Building 15[1]	Building 1 (Sections 1R and 1C)	152.5	27.9	

Notes:
[1] Using a Tier 3 analysis with stack setbacks.
[2] All estimated concentrations include 1-hour/annual NO_2 background concentrations of 104 µg/m³ and 27.6 µg/m³, respectively.

TABLE I-9:
NO_2 Analysis Results without Downwash

Building	Receptor Building	1-hour Conc.[2] µg/m³	Annual Conc.[2] µg/m³	NAAQS 1-hour/Annual µg/m³
Building 1 (Section 1R)[1]	Building 1 (Section 1C)	170.5	28.0	188/100
Building 2[1]	Building 1 (Section 1R)	169.2	28.6	
	Building 3	104.7	27.6	
Building 3	Building 2	104.7	27.6	
	Building 4	104.8	27.6	
Building 4	Building 3	104.7	27.6	
	Building 5	104.9	27.6	
Building 5	Building 4	104.6	27.6	
	Building 6	104.9	27.6	
Building 6	Building 5	104.5	27.6	
	Building 7	104.6	27.6	
Building 7	Building 6	104.5	27.6	
Building 8	Building 9	104.9	27.6	
Building 9	Building 8	104.7	27.6	
	Building 10	104.9	27.6	
Building 10[1]	Building 9	104.6	27.6	
	Building 11[1]	156.3	28.3	
Building 12[1]	Building 11	184.1	28.7	
Building 15[1]	Building 1 (Sections 1R and 1C)	165.4	28.2	

Notes:
[1] Using a Tier 3 analysis with stack setbacks.
[2] All estimated concentrations include 1-hour/annual NO_2 background concentrations of 104 µg/m³ and 27.6 µg/m³, respectively.

(E) Designations (E-749)

Based on the results of the analyses, to ensure that there would be no significant air quality impacts from the Proposed Project, the following restrictions should be placed on six of the 14 proposed buildings as well as Building 15 on the Potential Development Site:

Building 1C

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property on Lot 14 that has western frontage on New Utrecht Avenue must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 1C is located at the highest tier at least 176 feet above grade. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 1R

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property on Lot 14 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 1R is located at the highest tier at least 78 feet above grade and at least 160 feet from the lot line facing New Utrecht Avenue. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 2

Block 5727, Lot 14: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack on Building 2 is located at the highest tier at least 58 feet above grade and at least 325 feet from the lot line facing New Utrecht Avenue and 32 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 10

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack on Building 10 is located at the highest tier at least 58 feet above grade and at least 122 feet from the lot line facing 15th Avenue and 36 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 11

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 11 is located at the highest tier at least 78 feet above grade. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 12

Block 5516, Lot 1 and Lot 33: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 12 is located at the highest tier at least 58 feet above the grade and at least 23 feet from the lot line facing 60th Street and at most 300 feet from the lot line facing 16th Avenue. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Building 15 (not controlled or owned by Applicant)

Block 5727, Lot 19: Any new development or enlargement on the above-referenced property must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment and ensure that the HVAC stack on Building 15 is located at the highest tier at least 28 feet above grade and at most 10 feet from New Utrecht Avenue and at most 11 feet from the lot line facing 61st Street. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

Buildings 3, 4, 5, 6, 7, 8, 9, 13, and 14

Block 5516, Lot 1 and Lot 33, Block 5727, Lot 14, and Block 5509, Lot 41 and Lot 57: Any new development or enlargement on the above-referenced properties must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment. Adherence to these conditions would avoid any potential significant adverse air quality impacts.

With adherence to the above (E) Designations (E-749) for stack location and fuel use restriction, the Proposed Actions would not cause any potentially significant air quality impacts.

III. INDUSTRIAL SOURCE ANALYSIS

As numerous existing permitted industrial facilities are located within a 400-feet radius of the Applicant-controlled Development Site, an analysis was conducted to determine whether the air toxic emissions released from these identified facilities would result in potentially significant adverse impacts on the Proposed Project.

Permits

The first step in the industrial source analysis, which is to determine the types and amounts of emissions generated by the nearby industrial facilities, is to obtain emission data for these facilities that are permitted by NYCDEP.

A formal request for this information, with nearby block and lot numbers, was submitted to NYCDEP, and, based on the information received, permits for fourteen (14) permitted industrial facilities were identified as currently operating within a 400-feet radius of the Applicant-controlled Development Site. An original analysis was conducted for this project that considered all of these facilities. However, because several of these facilities are no longer in operation, this analysis considered only the remaining active facilities. In addition, several of these facilities continue to operate under a different name in the same building using the same equipment. For these facilities, information on pollutants and emission rates from the original facility were utilized in this revised analysis.

The facilities that were eliminated from further consideration or substituted by a new facility at the same address include:

- PA103-90X: G&J Auto Truck Repair Collision at 1522 60th Street (Block 5516, Lot 17). This building is currently being demolished.
- PB4010-03R: Best Quality Auto Repair at 1450 62nd Street (Block 5734, Lot 40). The name of the facility operated at this address was changed to “Auto Progress,” which has no NYCDEP permit. Information on pollutant and emission rates from the previous permit was applied.
- PA0318-10P: P&W Fleet Service Corp located at 6512 New Utrecht Avenue (Block 5734, Lot 12). This facility was eliminated based on a field survey.
- PB0025-11Z: SScorpio Auto, Inc. at 6104 16th Avenue (Block 5523, Lot 38). The name of the facility currently operating at this address is “EZ Collision.” Pollutant emission rates are assumed to be the same as for original SSCorpio Auto, Inc.
- PB0112-11J: Frankie & Sal Auto Body at 6104 16th Avenue (Block 5523, Lot 38). The name of the facility currently operating at this address is “Deleague Auto.” Pollutant emission rates are assumed to be the same as for the original Frankie & Sal Auto Body.
- PB0263-12K: Penn Body Work Inc. at 1576 61st Street (Block 5523, Lot 38. The name of the facility currently operated at this address is “Finest Automotive & Recovery.” Pollutant emission rates are assumed to be the same those as for the original Penn Body Work Inc.
- PB026493P International Frame & Import at 1535 63rd Street was eliminated. This facility no longer operates at this address.

- Permits PB078901L, PA69672, PB0598-94R, and PA0597-94J were eliminated as they no longer operate at original addresses.
- A non-permitted facility, "Classic Auto Collision," located at 6209 14th Avenue (Block 5134, Lot 7), was included in the analysis. Pollutant emission rates are assumed to be the same as for "EZ Collision."

The following remaining facilities, currently operating under their original or different names, were therefore included in this revised analysis:

1. PB4010-03R: Auto Progress Inc at 1450 62nd Street (Block 5734, Lot 40).
2. PB0025-11Z: EZ Collision at 6104 16th Avenue (Block 5523, Lot 38).
3. PB0112-11J: Deleague Auto at 6104 16th Avenue (Block 5523, Lot 38).
4. PB0024-11K: New Image Collision at 6104 16th Avenue (Block 5523, Lot 38).
5. PB0263-12K: Finest Automotive & Recovery at 1576 61st Street (Block 5523, Lot 38).
6. PW006517: H & B Auto Center at 1543 62nd Street (Block 5523, Lot 60).
7. PB002409: Perfect Collision at 1547 60th Street (Block 5509, Lot 38), and
8. Classic Auto Collision At 6209 14th Ave (Block 5734, Lot 7).

The locations of these industrial sources relative to the Proposed Project are shown in **Figure I-5**.

Figure I-5: Industrial Sources Considered in the Analysis



Existing Industrial Sources Permit Information

Industrial sources, facility types, permit numbers, and emitted pollutants for the facilities considered are provided in **Table I-10**.

TABLE I-10:
Existing Industrial Sources Permit Information

No.	Facility Name	Block	Lot	Address	Permit No.	Facility Type	Pollutant Name	CAS No.	Pollutant Emission Rates	
									lb/hr	lb/year
Spray Booth Facilities										
1	Auto Progress Inc	5734	40	1450 62nd Street	PB4010-03R	Spray Booth	Solids	NY079-00-0	0.008	6.5
							Solvents	NY998-00-0	0.775	620
2	EZ Collision	5523	38	6104 16th Avenue	PB002511Z	Spray Booth	Solids	NY079-00-0	0.065	97.6
							Solvents	NY998-00-0	3.1	4,650
3	Deleague Auto				PB0112-11J	Spray Booth	Solids	NY079-00-0	0.065	97.6
							Solvents	NY998-00-0	3.1	4,650
4	New Image Collision				PB0024-11K	Spray Booth	Solids	NY079-00-0	0.065	97.6
							Solvents	NY998-00-0	3.1	4,650
5	Finest Automotive & Recovery				PB0263-12K	Spray Booth	Solids	NY079-00-0	0.065	97.6
							Solvents	NY998-00-0	3.1	4,650
6	H & B Auto Center, Inc.	5523	60	1543 62nd Street	PW006517	Spray Booth	n-butyl acetate	123-86-4	4.08	978.8
							Xylene	1330-20-7	1.07	256.7
							MPA	107-98-2	1.33	319
							MEK	78-93-3	0.81	195.2
							MIK	108-10-1	0.37	88.8
							Ethylbenzene	100-41-4	0.27	65.7
							n-Butanol	71-36-3	0.31	73.5
							BEA	112-07-2	0.14	34.4
							Toluene	108-88-3	0.14	32.9
							Solids	NY075-00-0	0.21	50.5
7	Perfect Collision	5509	58	1547 60th Street	PB002409	Spray Booth	n-butyl acetate	123-86-4	3.1	3,100
							n-butanol	71-36-3	0.614	614
							Xylene	1330-20-7	0.198	198
							AH	64742-48-9	0.236	236
							Ethylbenzene	100-41-4	0.062	62
							Aluminum Powder	7429-90-5	0.310	310
8	Classic Auto Collision	5734	7	6209 14th Avenue	Non-permitted	Spray Booth	Solids	NY079-00-0	0.065	97.6
							Solvents	NY998-00-0	3.1	4,650

Notes:
AH = aromatic hydrocarbons (naphtha hydrotreated heavy);
LAN = Light Aromatic Naphtha;
MEK = Methyl Ethyl Ketone;
MIK = Methyl Isobutyl Ketone;
MPA = Methoxy Propyl Acetate (CAS Number 107-98-2);
BEA = 2-Butohyethyl Acetate

Permits and Solvent Emission Rates

As shown in **Table I-10**, only one of the eight spray booth permits (PW006517) provides data for individual pollutants together with emission rates while the other permits contain emission data on only generic-type (non-individual) pollutants – solids under CAS NY079-00-0 and solvents under CAS NY998-00-0. Both of these compounds are not registered in the current 2021 edition of DAR-1 but represent particulate matter (current CAS NY075-00-0) and the group of total VOCs, which is a family of compounds with different toxicities that have no established DAR-1 guideline values.

One permit (PB002409) for Perfect Collision provides no emission data at all, even though the pollutants emitted should be VOCs and PM, as indicated on the front page of the permit. Hourly and annual emission rates under this permit are shown as zero even though the permit is valid through 8/19/2021. However, the permit contains reference to Material Safety Data Sheets (MSDSs), which served as a base to obtain emission rates for the specified pollutants. For two spray booth permits (PB0025-11Z and PB0112-11J) available MSDS data also served as the basis for selecting representative solvents. All solids listed for facilities with spray booths are assumed to be particulate matter consisting of $PM_{2.5}$ and PM_{10} fractions. However, one spray booth permit (PA002409) also contains aluminum powder as a stabilizer.

Spray Booth Facilities

Facility No. 1 (Permit PB4010-03R)

The facility under PB4010-03R has changed owner and name from "Best Quality Auto Repair" to "Auto Progress Inc." Data on pollutants and emission rates for spray both operations were assumed to be the same as those under original facility. The permit lists a group of generic-type pollutants – solids and solvents emitted from the spray booth. The facility is equipped with a high efficiency filter with 90 percent efficiency to control solid particles. The estimated emission rates are 0.008 lb/hr and 6.5 lb/year for solids and 0.775 lb/hr and 620 lb/year for the solvent group. Solids were considered as $PM_{2.5}$/PM_{10} fractions and, as a substitute for the group of solvents, 11 individual solvents with known guideline values were selected from NYCDEP's Generic Report for spray booth emissions. Emission rates of solvents were calculated based on the weight percentage of each solvent and paint consumption rates.

Facility No. 2 (Permit PB0025-11Z)

The facility under PB0025-11Z has changed owner and name from "SScorpio Auto, Inc" to "EZ Collision." Data on pollutants and emission rates for spray both operations were assumed to be the same as those under original facility. The permit lists a group of generic-type pollutants – solids and solvents emitted from the spray booth. Solids emission rates are estimated as 0.065 lb/hr and 97.6 lb/year with 80 percent control efficiency, and the solvent group emission rate as 3.1 lb/hr and 4,650 lb/year.

As a substitute for a group of solvents, individual chemicals with known guideline values were selected from the MSDSs, which were attached to permit application (as opposed to NYCDEP's Generic Report). However, the MSDSs do not refer to the paint composition, which includes all paint-making ingredients (pigments, binders, solvents, and additives) but lists each chemical in this groups by its individual MSDS. The application contains more than 28 MSDSs for different primers, hardeners, binders, and solvents. MSDSs for hardeners, in turn, includes 13 MSDSs for the whole family of acrylics – iso- and poly-isocyanates (NCX285, DCH2086, DCU2010, DCU2042, DCU2090, DCX2011, DCX2012, DCX2091, DCX2092, DXR80, DFH636, DEX7, and DFX11); a group of epoxies that include three chemicals with MSDSs (DPX801,

NCP280, and NCS1996DX830); a group of primers that includes two chemicals with MSDSs (NCP270 and NCP271), and a group of solvents that include chemicals with MSDSs (DX393, DX394, and DX830).

In order to estimate solvent emission rates from this collection of MSDSs, a group of representative solvents that includes the most volatile compounds, compounds with high toxicities, and high content was selected to represent a worst-case combination. These are methyl ethyl ketone (70 percent), methyl n-amyl ketone (40 percent), and methyl isobutyl ketone (10 percent); xylene (30 percent), toluene (20 percent), acetone (20 percent), polyisocyanate (30 percent), n-butyl acetate (40 percent), and 2-butoxethyl acetate (10 percent); petroleum distillates (20 percent), and 1-methoxy-2-propyl acetate (50 percent). While the total sum of these chemicals combined exceeds 100 percent, all of these compounds were included in paint's composition for the conservative purpose of this analysis. Emission rates for each individual solvent were calculated based on its weight percentage and paint consumption rate.

Facility No.3 (PB0112-11J)

The facility under PB0112-11J has changed owner and name from "Frankie & Sal Auto Body" to "Delegue Auto." Data on pollutants and emission rates for spray booth operation were assumed to be the same as those under the original facility. The permit lists a group of generic-type pollutants – solids and solvents emitted from the spray booth.

The facility is equipped with a fiber glass filter with an 80 percent control efficiency. However, similar to PB0025-11Z, the selection process of individual chemicals with known guideline values as a substitute for the groups of solvents is complicated by the fact that available the MSDS for paint (Deltron 2000 Base Coat) contains more than 40 chemicals that are a mixture of solvents and non-volatile solid-based compounds, such as minerals, amorphous silicate, silica gel, glass oxide, carbon black, aluminum powder, titanium dioxide, etc. Of these solvents, 19 have applicable DAR-1 guideline values. In addition, the percentage of each compound in the paint is expressed not as definite numbers but as ranges – with lower and upper limits. Some of solvents are contained in significant quantities, such as n-butyl acetate (60-100 percent), 2-methoxy-1-methylethyl acetate (15-40 percent), butanone (10-30 percent), 4-methylpentan-2-one (10-30 percent), and heptane-2-one (10-30 percent); others in smaller quantities, such as toluene (7-13 percent) and solvent naphtha (5-10 percent), and some in tiny quantities, such as styrene (0.1-1 percent), benzyl butyl phthalate (0.1-1 percent) 2-ethylhexyl acrylate (0.1-1 percent), and 2-methoxypropyl acetate (0.1-1 percent). If combined, the sum of these chemicals would exceed 100 percent. However, for conservative purposes of this analysis, the representative composition included most of these compounds. Emission rates for each individual solvent were calculated based on its weight percentage and the total VOC emission rate listed in the permit – 3.1 lb/hr and 4,650 lb/year.

The solvents included in the analysis contain n-butyl acetate (CAS 123-86-4), 2-methoxy-1-methylethyl acetate (CAS 108-65-6), xylene (CAS 1330-20-7), butanone (CAS 78-93-3), 4-methylpentan-2-one (CAS 108-10-1), butan-1-ol (CAS 71-36-3), heptane-2-one (CAS 110-43-0), toluene (CAS 108-88-3), petroleum solvent naphtha light aromatic (CAS 64742-95-6) and heavy alkylate (CAS 64741-65-7), solvent naphtha (CAS 64742-89-8), ethylbenzene (CAS 100-41-4), 2-butoxyethylacetate (CAS 112-07-2), benzyl butyl phthalate (CAS 85-68-7), styrene (CAS 100-42-5), 2-ethylhexyl acrylate (CAS 103-11-7), 2-methoxypropyl acetate (CAS 70657-70-4), titanium dioxide (CAS 13463-67-7), iron oxide (CAS 1309-37-1), aluminum oxide (CAS 1344-28-1), and tin dioxide (CAS 18282-10-5).

Facility No.4 (PB0024-11K)

New Image Collision is involved in auto body touch-up painting operations via a spray booth. The facility is equipped with fiber glass filter with 80 percent control efficiency. The permit lists a group of generic-type pollutants – solids and solvents emitted from the spray booth. Solid emission rates are estimated as 0.065 lb/hr and 97.6 lb/year with 80 percent of control efficiency and solvent group emission rate as 3.1 lb/hr and 4,650 lb/year. Solids were considered as $PM_{2.5}/PM_{10}$ fractions. As a substitute for a group of solvents, 11 individual solvents with known guideline values were selected from NYCDEP's Generic Report. Emission rates for each individual solvent were calculated based on its weight percentage and paint consumption rate - 0.5 gallon of paint per hour and 750 gal/year.

Facility No. 5 (PB0263-12K)

The facility under PB0263-12K has changed owner and name from "Penn Body Works" to "Finest Automotive &Recovery." Data on pollutants and emission rates for spray booth operations were assumed to be the same as those under the original facility. The permit lists two generic types of pollutants – solids and solvents. Similar to the above, solids (CAS NY079-00-0) and solvents (CAS NY998-00-0) need to be substituted by the individual chemicals with known DAR-1 guideline values. The facility consumes 0.5 gallon of paint per hour for four hours of operation per day and 250 days/year. Emission rates of solvents and solids listed in the permit are calculated based on material balance and paint consumption rates of 0.5 gal/hr or 750 gal/year. All calculations are provided in the spreadsheet attached to the permit application. The solvent emission rates calculated on an hourly and annual basis are 3.1 lb/hr and 4,650 lb/yr (uncontrolled) and 0.065 lb/hr and 97.6 lb/year (controlled) with a control efficiency of 80 percent.

Facility No. 6 (PW006517)

H&B Auto Center is involved in auto body painting operations via a spray booth. The facility uses a mix of three types of paints (black base-coat DMD1683, white base-coat DMD1684, and yellow overcoat DMD642) that have different VOC contents – 6.13 lb of VOC per gallon for DMD1683, 5.19 lb/gal for DMD 1684, and 3.95 lb/gal for DMD642 – but the same chemicals in different proportions (n-butyl acetate, xylene, methoxy propanol acetate, butanone, methyl pentanone, and ethylbenzene). The facility operates one hour a day for 240 hours a year, with a maximum hourly paint usage of 0.625 gal/hr and 150 gal/year. Based on the percentage of each paint in the total mixture and paint consumption rate, hourly and annual emission rates of each solvent and total solids were estimated, and these values are provided in **Table I-12**.

Facility No.7 (PB0024-09)

Perfect Collision is involved in auto body painting operations via a spray booth. The facility is equipped with a fiber glass filter. The permit does not list either pollutants or their emission rates but references the type of paint used in painting operations – Permacron, Series 295. Based on this type of paint, the MDSD was identified through a computer search, where it was found that this is an auto paint made in Germany that could contain the following solvents: n-butyl acetate (CAS 126-86-4), n-butanol (CAS 71-36-3), 1-ethoxypropan-2-ol (CAS 1569-02-4), 3-butoxypropan-2-ol (CAS 5131-66-8), xylene (CAS 1330-20-7), aromatic hydrocarbon (CAS 64742-48-9), ethylbenzene (CAS 100-41-4), and aluminum powder as stabilizer (CAS 7429-90-5). All ingredient percentages in the mixture are given as ranges but not definite numbers. The upper range for each contaminant was conservatively applied. The chemicals 1-ethoxypropan-2-ol (CAS 1569-02-4) and 3-butoxypropan-2-ol (CAS 5131-66-80) have no guideline values

in the DAR-1 and were therefore not included in the analysis. The facility operates four hours a day for 250 hours a year, with maximum hourly paint usage of 1 gal/hr. Emission rates for each individual component were calculated based on their weight percentage in the mixture and the paint consumption rates.

Facility No. 8 (Non-permitted)

The Classic Auto Collison facility has no permit but is involved in auto body painting operations via a spray booth. Emission rates for solvents and particulate matter were assumed (per DCP guidance) to be the same as for facility No.2 EZ Collison.

DAR-1 Standards for Criteria Pollutants

The current (December 2021) edition of the DAR-1 separates criteria pollutants, particularly $PM_{2.5}/PM_{10}$, (i.e., pollutants for which national ambient air quality standards NAAQS have been established) from the list of toxic pollutants even though criteria pollutants are also toxics based on health implications. This edition no longer includes short-term (1-hour SGC) and annual (AGC) guideline values for $PM_{2.5}/PM_{10}$ but uses the federal standards for this pollutant (e.g., NAAQS). As per the DAR-1 guidance, federal standards for criteria pollutants are not SGC or AGC and are only included in the DAR-1 to facilitate screening or regulatory analysis.

DCP and NYCDEP currently require analyzing solids released from spray booth operations as $PM_{2.5}/PM_{10}$ emissions based on the $PM_{2.5}/PM_{10}$ fractions in the total mass of particulate matter. Following this revision of DAR-1, if a $PM_{2.5}$ analysis from industrial sources is required, the 24-hour NAAQS of 35 $\mu g/m^3$ and the annual standard of 12 $\mu g/m^3$ are to be applied. Because the NAAQS as well as the *CEQR Technical Manual* significant impact criteria established for $PM_{2.5}$ are based on 24-hour and annual averaging time periods, the analysis of $PM_{2.5}$ requires use of the AERMOD dispersion model, which contains a special procedure for this type of analysis.

Approach

Based on NYCDEP recommendations related to the analysis of the spray both emissions, the following methodologies and assumptions were applied to this analysis:

1. If a permit does not have data on volatile solvents (which is a group of volatile organic compounds [VOCs]) and/or if the Material Safety Data Sheets (MSDSs) for the paints being used are not available, paint ingredients provided in the NYCDEP Generic Report could be used.
2. Unless there is information specifying the amounts of paint ingredients that remain on the painted cars and how much goes into the atmosphere during spray painting operations, it should be conservatively assumed that 100 percent of the VOC composition in the paint, regardless of volatility, would be evaporated and released into the atmosphere. Emission rates for solvents are calculated by multiplying paint usage rates by the weight percentage of each solvent in the paint. The content of each solvent in the paint is obtained from the NYCDEP Generic Report when permit does not specify the type of paints used or individual chemicals emission rates.
3. The emission calculations presented by some permits indicate that a transmission rate and removal rate were assumed for the solids and, therefore, 100% of the solids in the paint were not assumed to be released to the air. Rather than using solids emission rates specified in permits, solids should be considered as fractions of $PM_{2.5}$ and PM_{10} particles, and the percentages of $PM_{2.5}$

and PM_{10} in the total mass of particulate matter should be estimated using the cumulative particle size distribution for surface coating operations of spray booths. The particulate $PM_{2.5}/PM_{10}$ emission rates are estimated by multiplying total solid content by the percentage of each fraction in the total mass of particulate matter (i.e., 28.5% for $PM_{2.5}$ and 46.7% for PM_{10}).

4. Separate analyses for $PM_{2.5}$ and PM_{10} from spray booth facility operations should be conducted, and estimated concentrations (with added background concentrations) should be compared with applicable NAAQS (i.e., for $PM_{2.5}$ and PM_{10}).
5. For detailed dispersion analyses, exhaust stacks should be located according to roof plan drawings. If drawings are not available and a field survey could not determine stack locations, stacks should be placed at minimum distances from the impacted proposed building.

CEQR Screening Analysis

In the evaluation of potential impacts, the *CEQR Technical Manual* recommends using a screening procedure for industrial emission sources with toxic air pollutants as a first step in an analysis. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of one gram per second (g/sec) from Table 17-3, "Industrial Source Screen," of the *CEQR Technical Manual* for the applicable averaging time periods. This approach, which can be used to estimate maximum short-term and annual average concentration values at various distances from an emission source (from 30- to 400-feet), was used to assess the potential impacts of the emissions from the existing permitted facilities.

Due to the large size of the area proposed to be occupied by 14 proposed buildings combined with the eight existing industrial sources spread over an even larger area, each industrial source could impact many of the buildings located within 400-feet of the subject source. Therefore, the shortest distance from the industrial source to the cluster of impacted buildings within a 400-feet radius was used as criteria for the screening analysis. This approach was utilized to screen all solvents from the related permits (and aluminum powder) while particulates from all permits and those pollutants that failed the screening analysis were analyzed using detailed dispersion analyses.

Facility No. 1, Block 5734 Lot 40 (PB4010-03R)

Emissions from this industrial source could affect Buildings 1-8, which are within 400 feet. The minimum distance from this source to the closest building is approximately 197-feet. For conservative analysis purposes, a distance of 165 feet was used for the analysis. At this distance, based on a one gram per second emission rate (using Table 17-3), the maximum one-hour and annual concentrations are estimated to be 4,702 $\mu g/m^3$ and 236 $\mu g/m^3$, respectively.

Facilities No.2 through 5, Block 5523 Lot 38 (PB0025-11Z, PB0112-11J, PB0024-11K, and PB0263-12K)

Emissions from these industrial sources could affect Buildings 11-14, which are within 400 feet. The minimum distance from this source to the closest building is approximately 295 feet. For conservative analysis purposes, a distance of 265 feet was used for the analysis. At this distance, based on a one gram per second emission rate (using Table 17-3), the maximum one-hour and annual concentrations are estimated to be 2,175 $\mu g/m^3$ and 103 $\mu g/m^3$, respectively.

Facility No. 6, Block 5523 Lot 60 (PW006517)

Emissions from this industrial source could affect Buildings 9-14, which are within 400 feet. The minimum distance from this source to the closest building is approximately 243-feet. For conservative analysis purposes, a distance of 230 feet was used for the analysis. At this distance, based on a one gram per second emission rate (using Table 17-3), the maximum one-hour and annual concentrations are estimated to be 2,657 $\mu g/m^3$ and 131 $\mu g/m^3$, respectively.

Facility No. 7, Block 5509 Lot 38 (PB002409)

Emissions from this industrial source could affect Building 14. The minimum distance from this source to Building 14, measured from the engineering drawings, is approximately 62 feet. At this distance, based on a one gram per second emission rate (using Table 17-3), the maximum one-hour and annual concentrations are estimated to be 36,235 $\mu g/m^3$ and 1,778 $\mu g/m^3$, respectively.

Facility No. 8, Block 5734 Lot 7 (Non-permitted)

Emissions from this industrial source could affect Buildings 1-7, which are within 400 feet. The minimum distance from this source to the closest building is approximately 220 feet. For conservative analysis purposes, a distance of 210 feet was used for the analysis. At this distance, based on a one gram per second emission rate (using Table 17-3), the maximum one-hour and annual concentrations are estimated to be 2,599 $\mu g/m^3$ and 138 $\mu g/m^3$, respectively.

All values obtained using Table 17-3 of the *CEQR Technical Manual* for an emission rate of one gram per second were then multiplied by the actual emission rates of each solvent to arrive at actual solvent concentrations.

Solvent Emission Rates

Solvent emission rates for one facility (PW006517) were obtained from the permit. Solvent emission rates for the three other facilities (PB4010-03P, PB0024-11K, PB0263-12K) that provided generic-type groups of pollutants (solids and solvents) were calculated using prototypical solvent compositions provided in NYCDEP's Generic Report (refer to **Table I-11**). For the remaining three facilities (PB0025-11Z, PB0112-11J, and PB002409), the representative chemicals were selected from the MSDS data provided in the permits. In all cases, solvent emission rates were estimated by multiplying total VOC content by the weight percentage of each chemical in the paint composition.

TABLE I-11:
Composition of the Paint Used in the Spray Booth Analysis (As shown in the NYCDEP Generic Report)

Chemical Name	CAS No.	Maximum % By Weight
Acetone	67-64-1	43%
APD[(1)]	64742-94-5	10%
Butene[(2)]	106-97-8	11%
Ethanol	64-17-5	3%
EER[(3)]	763-69-9	9%
Ethylbenzene	100-41-4	5%
Methyl Ethyl Ketone	78-93-3	8%
n-Butyl Acetate[(4)]	123-86-4	16%
Stoddard Solvents	74-98-6	10%
Toluene	8052-41-3	10%
Xylene	108-88-3	10%

Notes:
[1] APD = Aromatic Petroleum Distillate
[2] Butane is substituted by butene because butane was removed from 2020 DAR-1.
[3] EER = Ethyl 3-Ethoxypropionate
[4] n-Butyl acetate content was increased by 11% to substitute for propane, which was removed from 2020 DAR-1.

Estimated hourly and annual emission rates for solvents from the applicable permits are provided in **Table I-12**; estimated solvent concentrations in comparison with DAR-1 SGC and AGC values are provided in **Tables I-13** and **I-14**; and cumulative concentrations for identical solvents are provided in **Tables I-15** and **I-16**.

TABLE I-12:
Estimated Hourly and Annual Emission Rates of Solvents Emitted from Spray Booths under Applicable Permits

Pollutant	Hourly Emission Rate		Annual Emission Rate	
	lb/hr	g/sec	lb/year	g/sec
PB4010-03P				
Acetone	0.3333	0.0420	266.6	0.0038
APD[(1)]	0.0775	0.0098	62.0	0.0009
Butene	0.0853	0.0107	68.2	0.0010
Ethanol	0.0233	0.0029	18.6	0.0003
EER[(2)]	0.0698	0.0088	55.8	0.0008
Ethylbenzene	0.0388	0.0049	31.0	0.0004
MEK[(3)]	0.0620	0.0078	49.6	0.0007
N-Butyl Acetate	0.1240	0.0156	99.2	0.0014
Stoddard Solvents	0.0775	0.0098	62.0	0.0009
Toluene	0.0775	0.0098	62.0	0.0009
Xylene	0.0775	0.0098	62.0	0.0009
PB002511Z				
Methyl Ethyl Ketone	2.1700	0.2734	3255.0	0.0468
1-methoxy-2-propyl acetate	1.5500	0.1953	2325.0	0.0334
Methyl Amyl Ketone	1.2400	0.1562	1860.0	0.0268
Butyl acetate	1.2400	0.1562	1860.0	0.0268
Xylene	0.9300	0.1172	1395.0	0.0201

Barium sulfate	0.6200	0.0781	930.0	0.0134
Acetone	0.6200	0.0781	930.0	0.0134
Toluene	0.6200	0.0781	930.0	0.0134
Aromatic naphtha	0.6200	0.0781	930.0	0.0134
2-butoxethyl acetate	0.3100	0.0391	465.0	0.0067
Methyl Isobutyl Ketone	0.3100	0.0391	465.0	0.0067
Titanium Dioxide	0.3100	0.0391	465.0	0.0067
PB0112-11J				
Butyl acetate	1.86	0.2344	2790	0.0401
Titanium dioxide	1.86	0.2344	2790	0.0401
Methoxypropyl acetate	0.465	0.0586	697.5	0.01
Xylene	0.465	0.0586	697.5	0.01
Iron Oxide	0.465	0.0586	697.5	0.01
Mca-group minerals	0.31	0.0391	465	0.0067
Methyl Ethyl Ketone	0.31	0.0391	465	0.0067
Methyl Isobutyl Ketone	0.31	0.0391	465	0.0067
Butyl alcohol	0.31	0.0391	465	0.0067
Aluminum oxide	0.31	0.0391	465	0.0067
Methyl Amyl Ketone	0.31	0.0391	465	0.0067
Toluene	0.217	0.0273	325.5	0.0047
2-butoxyethyl acetate	0.031	0.0039	46.5	0.0007
Styrene	0.031	0.0039	46.5	0.0007
Methyl methacrylate	0.031	0.0039	46.5	0.0007
2-ethylhexyl acrylate	0.031	0.0039	46.5	0.0007
Solvent naphtha	0.031	0.0039	46.5	0.0007
Barium sulfate	0.031	0.0039	46.5	0.0007
Tin dioxide	0.031	0.0039	46.5	0.0007
PB0024-11K				
Acetone	1.333	0.168	1999.5	0.0288
APD[(1)]	0.31	0.0391	465	0.0067
Butene	0.496	0.0625	511.5	0.0074
Ethanol	0.093	0.0117	139.5	0.002
EER[(2)]	0.279	0.0352	418.5	0.006
Ethylbenzene	0.155	0.0195	232.5	0.0033
MEK[(3)]	0.248	0.0312	372	0.0054
n-Butyl Acetate	0.496	0.0625	744	0.0107
Stoddard Solvents	0.341	0.043	465	0.0067
Toluene	0.31	0.0391	465	0.0067
Xylene	0.31	0.0391	465	0.0067
PB026312K				
Acetone	1.333	0.168	1999.5	0.0288
APD[(1)]	0.31	0.0391	465	0.0067
Butene	0.341	0.043	511.5	0.0074
Ethanol	0.093	0.0117	139.5	0.002

EER[2]	0.279	0.0352	418.5	0.006
Ethylbenzene	0.155	0.0195	232.5	0.0033
MEK[3]	0.248	0.0312	372	0.0054
N-Butyl Acetate	0.496	0.0625	744	0.0107
Stoddard Solvents	0.31	0.0391	465	0.0067
Toluene	0.31	0.0391	465	0.0067
Xylene	0.31	0.0391	465	0.0067
PW006517				
n-butyl acetate	4.078	0.5138	978.8	0.0141
Xylene	1.069	0.1347	256.7	0.0037
MPA[4]	1.329	0.1675	319	0.0046
MEK[3]	0.813	0.1024	195.2	0.0028
MIK[5]	0.37	0.0466	88.8	0.0013
Ethylbenzene	0.273	0.0344	65.7	0.0009
n-Butyl Alcohol	0.306	0.0386	73.5	0.0011
BEA[6]	0.143	0.018	34.4	0.0005
Toluene	0.137	0.0173	32.9	0.0005
PB002409				
n-butyl acetate	3.1	0.391	3,100	0.0446
n-butanol	0.614	0.077	614	0.0088
Xylene	0.198	0.025	198	0.0029
AH[7]	0.236	0.03	236	0.0034
Ethylbenzene	0.062	0.008	62	0.0009
Aluminum Powder	0.31	0.039	310	0.0045
Classic Auto Collision				
Methyl Ethyl Ketone	2.1700	0.2734	3255.0	0.0468
1-methoxy-2-propyl acetate	1.5500	0.1953	2325.0	0.0334
Methyl Amyl Ketone	1.2400	0.1562	1860.0	0.0268
Butyl acetate	1.2400	0.1562	1860.0	0.0268
Xylene	0.9300	0.1172	1395.0	0.0201
Barium sulfate	0.6200	0.0781	930.0	0.0134
Acetone	0.6200	0.0781	930.0	0.0134
Toluene	0.6200	0.0781	930.0	0.0134
Aromatic naphtha	0.6200	0.0781	930.0	0.0134
2-butoxethyl acetate	0.3100	0.0391	465.0	0.0067
Methyl Isobutyl Ketone	0.3100	0.0391	465.0	0.0067
Titanium Dioxide	0.3100	0.0391	465.0	0.0067

[1] APD = Aromatic Petroleum Distillate
[2] EER = Ethyl 3-Ethoxypropionate
[3] MEK = Methyl Ethyl Ketone
[4] MPA = Methoxy Propyl Acetate (CAS Number 107-98-2)
[5] MIK = Methyl Isobutyl Ketone
[6] BEA = 2-Butohyethyl Acetate
[7] AH = aromatic hydrocarbons (naphtha hydrotreated heavy)

TABLE I-13:
Estimated 1-hour Concentrations for Spray Booth Facilities

Chemical Name	CAS No.	Max Estimated 1-hour Concentration µg/m³	SGC µg/m³	Exceed Yes/No
PB4010-03R				
Acetone	67-64-1	197.4	180,000	No
APD(1)	64742-94-5	45.9	N/A	N/A
Butene(2)	106-97-8	50.5	N/A	N/A
Ethanol	64-17-5	13.8	N/A	N/A
EER(3)	763-69-9	41.3	140	No
Ethylbenzene	100-41-4	23.0	N/A	N/A
Methyl Ethyl Ketone	78-93-3	36.7	13,000	No
n-Butyl Acetate(4)	123-86-4	73.5	71,300	No
Stoddard Solvents	8052-41-3	45.9	N/A	N/A
Toluene	108-88-3	45.9	37,000	No
Xylene	1330-20-7	45.9	22,000	No
PB002511				
Methyl Ethyl Ketone	78-93-3	594.7	13,000	No
1-methoxy-2-propyl acetate	108-65-6	424.8	36,850	No
Methyl Amyl Ketone	110-43-0	339.8	N/A	N/A
Butyl acetate	123-83-4	339.8	71,300	No
Xylene	1330-20-7	254.9	22,000	No
Barium sulfate	7727-43-7	169.9	N/A	N/A
Acetone	67-64-1	169.9	180,000	No
Toluene	108-88-3	169.9	37,000	No
Aromatic naphtha	64742-95-6	169.9	N/A	N/A
2-butoxethyl acetate	112-07-2	85.0	N/A	N/A
Methyl Isobutyl Ketone	108-10-1	85.0	31,000	No
Titanium Dioxide	13453-67-7	85.0	N/A	N/A
PB0112-11J				
Butyl acetate	123-86-4	509.7	71,300	No
Titanium dioxide	13463-67-7	509.7	N/A	N/A
Methoxypropyl acetate	108-65-6	127.4	36,850	No
Xylene	1330-20-7	127.4	22,000	No
Iron Oxide	1309-37-1	127.4	N/A	N/A
Mica-group minerals	12001-26-2	85.0	N/A	N/A
Methyl Ethyl Ketone	78-93-3	85.0	13,000	No
Methyl Isobutyl Ketone	108-10-1	85.0	31,000	No
Butyl alcohol	71-36-3	85.0	N/A	N/A
Aluminum oxide	1344-28-1	85.0	N/A	N/A
Methyl Amyl Ketone	110-43-0	85.0	N/A	N/A
Toluene	108-88-3	59.5	37,000	No

2-butoxyethyl acetate	112-07-2	8.5	N/A	N/A
Styrene	100-42-5	8.5	17,000	No
Methyl methacrylate	80-62-6	8.5	41,000	No
2-ethylhexyl acrylate	103-11-7	8.5	N/A	N/A
Solvent naphtha	64742-89-8	8.5	N/A	N/A
Barium sulfate	7727-43-7	8.5	N/A	N/A
Tin dioxide	18282-10-5	8.5	N/A	N/A
PB0024-11K				
Acetone	67-64-1	365.3	180,000	No
APD(1)	64742-94-5	85.0	N/A	No
Butene(2)	106-97-8	93.4	N/A	No
Ethanol	64-17-5	25.5	N/A	No
EER(3)	763-69-9	76.5	140	No
Ethylbenzene	100-41-4	42.5	N/A	No
Methyl Ethyl Ketone	78-93-3	68.0	13,000	No
n-Butyl Acetate(4)	123-86-4	135.9	71,300	No
Stoddard Solvents	8052-41-3	93.4	N/A	No
Toluene	108-88-3	85.0	37,000	No
Xylene	1330-20-7	85.0	22,000	No
PB0263-12K				
Acetone	67-64-1	365.3	180,000	No
APD(1)	64742-94-5	85.0	N/A	N/A
Butene(2)	106-97-8	93.4	N/A	N/A
Ethanol	64-17-5	25.5	N/A	N/A
EER(3)	763-69-9	76.5	140	No
Ethylbenzene	100-41-4	42.5	N/A	N/A
Methyl Ethyl Ketone	78-93-3	68.0	13,000	No
n-Butyl Acetate(4)	123-86-4	135.9	71,300	No
Stoddard Solvents	8052-41-3	85.0	N/A	N/A
Toluene	108-88-3	85.0	37,000	No
Xylene	1330-20-7	85.0	22,000	No
PW006517				
n-Butyl acetate	123-86-4	1,365.2	71,300	No
Xylene	1330-20-7	357.9	22,000	No
MPA(5)	107-98-2	444.9	36,850	No
MEK(6)	78-93-3	272.2	13,000	No
MIK(7)	108-10-1	123.9	31,000	No
Ethylbenzene	100-41-4	91.4	N/A	N/A
n-Butyl Alcohol	71-36-3	102.5	N/A	N/A
BEA(8)	112-07-2	47.9	N/A	N/A
Toluene	108-88-3	45.9	37,000	No
PB002409				
n-Butyl acetate	123-86-4	14,153	71,300	No
n-Butanol	71-36-3	2,802	N/A	N/A

Xylene	1330-20-7	906	22,000	No
AH[7]	64742-48-9	1,076	N/A	N/A
Ethylbenzene	100-41-4	283	N/A	N/A
Aluminum Powder	7429-90-5	1,415	N/A	N/A
Classic Auto Collison				
Methyl Ethyl Ketone	78-93-3	710.6	13,000	No
1-methoxy-2-propyl acetate	108-65-6	507.6	36,850	No
Methyl Amyl Ketone	110-43-0	406.1	N/A	N/A
Butyl acetate	123-83-4	406.1	71,300	No
Xylene	1330-20-7	304.5	22000	No
Barium sulfate	7727-43-7	203.0	N/A	N/A
Acetone	67-64-1	203.0	180,000	No
Toluene	108-88-3	203.0	37,000	No
Aromatic naphtha	64742-95-6	203.0	N/A	N/A
2-butoxethyl acetate	112-07-2	101.5	N/A	N/A
Methyl Isobutyl Ketone	108-10-1	101.5	31,000	No
Titanium Dioxide	13453-67-7	101.5	N/A	N/A

Notes:
[1] APD = Aromatic Petroleum Distillate
[2] EER = Ethyl 3-Ethoxypropionate
[3] MEK = Methyl Ethyl Ketone
[4] MPA = Methoxy Propyl Acetate (CAS Number 107-98-2)
[5] MIK = Methyl Isobutyl Ketone
[6] BEA = 2-Butohyethyl Acetate
[7] AH = aromatic hydrocarbons (naphtha hydrotreated heavy)

TABLE I-14:
Estimated Annual Concentrations for Spray Booth Facilities

Chemical Name	CAS No.	Max Estimated Annual Concentration µg/m³	AGC µg/m³	Exceed Yes/No
PB4010-03R				
Acetone	67-64-1	0.905	30,000	No
APD[1]	64742-94-5	0.210	100	No
Butene[2]	106-97-8	0.232	1,400	No
Ethanol	64-17-5	0.063	45,000	No
EER[3]	763-69-9	0.189	64	No
Ethylbenzene	100-41-4	1.916	1,000	No
Methyl Ethyl Ketone	78-93-3	0.168	5,000	No
n-Butyl Acetate[4]	123-86-4	0.337	565	No
Stoddard Solvents	8052-41-3	0.210	900	No
Toluene	108-88-3	0.210	5,000	No
Xylene	1330-20-7	0.210	100	No

PB002511				
Methyl Ethyl Ketone	78-93-3	4.822	5,000	No
1-methoxy-2-propyl acetate	108-65-6	3.444	2,000	No
Methyl Amyl Ketone	110-43-0	2.756	550	No
Butyl acetate	123-83-4	2.756	565	No
Xylene	1330-20-7	2.067	100	No
Barium sulfate	7727-43-7	1.378	12	No
Acetone	67-64-1	1.378	30,000	No
Toluene	108-88-3	1.378	5,000	No
Aromatic naphtha	64742-95-6	1.378	100	No
2-butoxethyl acetate	112-07-2	0.689	310	No
Methyl Isobutyl Ketone	108-10-1	0.689	3,000	No
Titanium Dioxide	13453-67-7	0.689	24	No
PB0112-11J				
Butyl acetate	123-86-4	4.133	565	No
Titanium dioxide	13463-67-7	4.133	24	No
Methoxypropyl acetate	108-65-6	1.033	2,000	No
Xylene	1330-20-7	1.033	100	No
Iron Oxide	1309-37-1	1.033	12	No
Mca-group minerals	12001-26-2	0.689	7.1	No
Methyl Ethyl Ketone	78-93-3	0.689	5,000	No
Methyl Isobutyl Ketone	108-10-1	0.689	3,000	No
Butyl alcohol	71-36-3	0.689	1,500	No
Aluminum oxide	1344-28-1	0.689	2.4	No
Methyl Amyl Ketone	110-43-0	0.689	550	No
Toluene	108-88-3	0.482	5,000	No
2-butoxyethyl acetate	112-07-2	0.069	310	No
Styrene	100-42-5	0.069	1,000	No
Methyl methacrylate	80-62-6	0.069	700	No
2-ethylhexyl acrylate	103-11-7	0.069	17	No
Solvent naphtha	64742-89-8	0.069	3,200	No
Barium sulfate	7727-43-7	0.069	12	No
Tin dioxide	18282-10-5	0.069	6.0	No
PB0024-11K				
Acetone	67-64-1	2.962	30,000	No

APD[1]	64742-94-5	0.689	100	No
Butene[2]	106-97-8	0.758	1,400	No
Ethanol	64-17-5	0.207	45,000	No
EER[3]	763-69-9	0.620	64	No
Ethylbenzene	100-41-4	0.344	1,000	No
Methyl Ethyl Ketone	78-93-3	0.551	5,000	No
N-Butyl Acetate[4]	123-86-4	1.102	565	No
Stoddard Solvents	8052-41-3	0.689	900	No
Toluene	108-88-3	0.689	5,000	No
Xylene	1330-20-7	0.689	100	No
PB0263-12K				
Acetone	67-64-1	2.962	30,000	No
APD[1]	64742-94-5	0.689	100	No
Butene[2]	106-97-8	0.758	1,400	No
Ethanol	64-17-5	0.207	45,000	No
EER[3]	763-69-9	0.620	64	No
Ethylbenzene	100-41-4	0.344	1,000	No
Methyl Ethyl Ketone	78-93-3	0.551	5,000	No
N-Butyl Acetate[4]	123-86-4	1.102	565	No
Stoddard Solvents	8052-41-3	0.689	900	No
Toluene	108-88-3	0.689	5,000	No
Xylene	1330-20-7	0.689	100	No
PW006517				
n-Butyl acetate	123-86-4	1.844	565	No
Xylene	1330-20-7	0.48	100	No
MPA[5]	107-98-2	0.60	2,000	No
MEK[6]	78-93-3	0.37	5,000	No
MIK[7]	108-10-1	0.168	3,000	No
Ethylbenzene	100-41-4	0.123	1,000	No
n-Butyl Alcohol	71-36-3	0.139	1,500	No
BEA[8]	112-07-2	0.064	310	No
Toluene	108-88-3	0.062	5,000	No
PA002409				
n-Butyl acetate	123-86-4	79.28	565	No
n-Butanol	71-36-3	15.70	1,500	No

Xylene	1330-20-7	5.07	100	No
AH[7]	64742-48-9	6.03	900	No
Ethylbenzene	100-41-4	1.59	1,000	No
Aluminum Powder	7429-90-5	7.93	2.4	Yes
Classic Auto Collison				
Methyl Ethyl Ketone	78-93-3	6.461	5,000	No
1-methoxy-2-propyl acetate	108-65-6	4.615	2,000	No
Methyl Amyl Ketone	110-43-0	3.692	550	No
Butyl acetate	123-83-4	3.692	565	No
Xylene	1330-20-7	2.769	100	No
Barium sulfate	7727-43-7	1.846	12	No
Acetone	67-64-1	1.846	30,000	No
Toluene	108-88-3	1.846	5,000	No
Aromatic naphtha	64742-95-6	1.846	100	No
2-butoxethyl acetate	112-07-2	0.923	310	No
Methyl Isobutyl Ketone	108-10-1	0.923	3,000	No
Titanium Dioxide	13453-67-7	0.923	24	No

Notes:
[1] APD = Aromatic Petroleum Distillate
[2] EER = Ethyl 3-Ethoxypropionate
[3] MEK = Methyl Ethyl Ketone
[4] MPA = Methoxy Propyl Acetate (CAS Number 107-98-2)
[5] MIK = Methyl Isobutyl Ketone.
[6] BEA = 2-Butohyethyl Acetate.
[7] AH = aromatic hydrocarbons (naphtha hydrotreated heavy)

TABLE I-15:

Estimated 1-hour Cumulative Solvent Concentrations

Chemical Name	CAS No.	Max Estimated 1-hour Concentration ($\mu g/m^3$)	SGC ($\mu g/m^3$)	Exceed Yes/No
Acetone	67-64-1	1,301	180,000	No
EER	763-69-9	194	140	Yes
Methyl Ethyl Ketone	78-93-3	1,835	13,000	No
Methyl Isobutyl Ketone	108-10-1	395	31,000	No
N-Butyl Acetate	123-86-4	17,119	71,300	No
Toluene	108-88-3	694.1	37,000	No
Xylene	1330-20-7	2166.3	22,000	No

TABLE I-16:
Estimated Annual Cumulative Concentration for Solvents

Chemical Name	CAS No.	Max Estimated Annual Concentration ($\mu g/m^3$)	AGC ($\mu g/m^3$)	Exceed Yes/No
Acetone	67-64-1	10.053	30,000	No
APD	64742-94-5	1.588	100	No
Butene	106-98-9	2.505	1,400	No
Ethanol	64-17-5	0.476	45,000	No
Ethyl Benzene	100-41-4	0.917	1,000	No
EER	763-69-9	1.429	64	No
Methyl Ethyl Ketone	78-93-3	13.611	5,000	No
n-Butyl Acetate	123-86-4	94.244	565	No
Stoddard Solvents	8052-41-3	1.588	900	No
Toluene	108-88-3	5.356	5,000	No
Xylene	1330-20-7	13.014	100	No
Methyl Isobutyl Ketone	108-10-1	2.301	3,000	No

Results of the CEQR Screening Analysis

With the exception of EER, the estimated short-term and annual concentrations of all solvents, individually and cumulatively, are less than the corresponding DAR-1 SGC and AGC values, indicating that all solvents passed the screening analysis and that no further analysis is required. Cumulative EER concentrations from emissions generated under all applicable permits combined did not pass the screening analysis, and a detailed 1-hour EER impact analysis was conducted. Maximum estimated aluminum powder concentrations from emissions generated under PB002409 also did not pass the screening analysis, and a detailed annual impact analysis was conducted for this pollutant.

Hazard Index

To account for the potential for the combined health effects, the individual hazard quotients for solvents were estimated and summed together to calculate a multi-contaminant Hazard Index (HI) of these non-carcinogenic pollutants. The hazard quotient (which is unit less) for an air contaminant is calculated by dividing the annual maximum predicted air concentration by the AGC. The total hazard index of all solvents combined, except EER and aluminum powder, is estimated to be less than 1.

Detailed Analysis

Detailed dispersion analyses were conducted to estimate the individual and cumulative impacts of those pollutants from industrial sources that failed the screening analysis. The same AERMOD model with meteorological data for 2015-2019 and dispersion options used in the HVAC analysis were employed. The pollutants that were considered in the detailed analysis are $PM_{2.5}/PM_{10}$, EER, and aluminum powder, all of which failed the screening analysis.

$PM_{2.5}/PM_{10}$ Analysis

As stated above, DCP and NYCDEP currently require analyzing particulate matter released from spray booth operations as $PM_{2.5}/PM_{10}$ emissions based on the $PM_{2.5}/PM_{10}$ content in the total mass of particulate matter. EPA data on cumulative particle size distribution for surface coating operations via spray booths shows that 28.6 percent of the total mass of particulate matter are $PM_{2.5}$ particles and 46.7 percent of the total mass of particulate matter are PM_{10} particles (EPA-42, Appendix B1, Page B.1-12, Particle Size Distribution Data and Sized Emission Factors for selected Sources, Table 4.2.2.8 Automobile and Light-Duty Track Surface Coating Operations, Automobile Spray Booths). Therefore, the particulate emission rates from the spray booth operations were estimated using total solids emission rates as shown in the permit and the $PM_{2.5}$ and PM_{10} fractions ratio in the mass of the total particulate matter (i.e., factors of 0.286 and 0.467, respectively). Estimated $PM_{2.5}/PM_{10}$ emission rates from spray booths and other operations are provided in **Table I-17**.

TABLE I-17:
Estimated $PM_{10}/PM_{2.5}$ Emission Rates

	Emissions of Particulate Matter			$PM_{10}/PM_{2.5}$ Content in		
	24-hr		Annual	Total Mass of Particulate Matter	Hourly	Annual
Pollutant	lb/hr	g/s	lb/year	%	g/s	g/s
Spray Booth Operations						
PB4010-03P						
$PM_{2.5}$	0.008	0.0010	6.5	28.6%	0.0003	0.00003
PM_{10}	0.008	0.0010		46.7%	0.0005	N/A
PB002511						
$PM_{2.5}$	0.065	0.0082	97.6	28.6%	0.0023	0.00040
PM_{10}	0.065	0.0082		46.7%	0.0038	N/A
PB0112-11J						
$PM_{2.5}$	0.065	0.0082	97.6	28.6%	0.0023	0.00040
PM_{10}	0.065	0.0082		46.7%	0.0038	N/A
PB0024-11K						
$PM_{2.5}$	0.065	0.0082	97.6	28.6%	0.0023	0.00040
PM_{10}	0.065	0.0082		46.7%	0.0038	N/A
PB0263-12K						
$PM_{2.5}$	0.065	0.0082	97.6	28.6%	0.0023	0.00040
PM_{10}	0.065	0.0082		46.7%	0.0038	N/A
PW006517						
$PM_{2.5}$	0.21	0.0265	50.5	28.6%	0.0076	0.00021
PM_{10}	0.21	0.0265		46.7%	0.0124	N/A
Classic Auto Collision						
$PM_{2.5}$	0.065	0.0082	97.6	28.6%	0.0023	0.00040
PM_{10}	0.065	0.0082		46.7%	0.0038	N/A

Stack Parameters and Locations

Stack parameters for the $PM_{2.5}/PM_{10}$ and EER analyses were obtained from each permit and are provided in **Table I-18**. Stack parameters and emission rates for Classic Auto Collision, which is a non-permitted facility, were assumed to be the same as for facility under PB002511Z. Four facilities (PB002511Z, PB0012-11J, PB0024-11K, and PB0263-12K) are located within the same building. Engineering drawings for all permits with spray booths provide the configuration of the booth itself, with the exhaust routed from the booths to the roof of the facility. However, on roofs of buildings with multiple stack (vents), stack locations associated with each individual permit (as well as their heights) could not be identified. Therefore, all stacks (except for PW006517) were assumed to be located at the minimum distance (10 feet) from the impacted buildings they would face and the exhaust points would be three feet above roof heights.

For the facility under PW006517, stack heights, along with building heights, were obtained directly from the permits. The other stacks parameters (i.e., diameters, temperatures, and flow rates) were obtained from the permits where available. The stack location under PB002409, where an exceedance of AGC for aluminum powder was estimated, was determined by scaling the engineering drawings provided. The remaining stack parameters were obtained from the permit. All emission sources of EER and one source of aluminum powder were included in the detailed analysis.

TABLE I-18:
Stack Parameters Used in Modeling Analysis

	Emission Rate			Height		Diameter		Temperature		Flow Rate	
	24-hr $PM_{2.5}$	24-hr PM_{10}	Annual $PM_{2.5}$								
Permit No.	g/sec	g/sec	g/sec	feet	m	inches	meters	°F	°K	ft^3/min	m^3/sec
PB4010-03P	0.0003	0.0005	0.00003	15	4.57	30	0.7620	70	294	12,600	5.947
PB002511	0.0023	0.0038	0.00040	19	5.8	24	0.6096	70	294	4,130	1.949
PB0112-11J	0.0023	0.0038	0.00040	19	5.8	24	0.6096	70	294	4,300	2.029
PB002411K	0.0023	0.0038	0.00040	19	5.8	26.2*	0.6655	70	294	4.130	1.949
PB026312K	0.0023	0.0038	0.00040	19	5.8	24	0.6096	75	297	4,891	2.308
PW006517	0.0076	0.0124	0.00021	20	6.1	24	0.6096	70	293	9,300	4.389
PB002409**			0.0045	21	6.4	32.8*	0.8331	70	294	13,500	6.37
Classic Auto Collision	0.0023	0.0038	0.00040	19	5.8	24	0.6096	70	294	4,130	1.949

Notes:
* Equivalent round diameter for 24" x 24" and 30" x 30" cross-section are 26.2 and 32.8 feet.
** Source of aluminum powder.

Receptor Locations

The same receptors as those used in the HVAC analysis for the proposed buildings were utilized. As in the HVAC analysis, receptors were located around all building façades in ten-foot increments horizontally and vertically starting from the ground level and extending up to the upper window receptor level which was assumed to be five feet below each building's roof. More than 4,500 receptors were placed on all buildings to assure that maximum impacts are estimated.

In order to estimate cumulative effect of $PM_{2.5}/PM_{10}$ emissions, AERMOD was run using actual emission rates estimated for each applicable permit. Results of the $PM_{2.5}/PM_{10}$ cumulative analysis are provided in

Tables I-19 and **I-20**.

TABLE I-19:
Estimated 24-hour/Annual $PM_{2.5}$ Cumulative Impact and Total Concentrations With Downwash

Pollutant	Impact (µg/m³)	Background Concentration (µg/m³)[1]	Total Concentration (µg/m³)	NAAQS (µg/m³)
$PM_{2.5}$ 24-hour	2.5	17.8	20.3	35
$PM_{2.5}$ Annual	0.07	7.6	7.7	12
PM_{10} 24-hour	5.2	28	33.2	150

Note:
[1] 24-hour $PM_{2.5}$ background concentration is 17.8 µg/m³, which is the average of the 98th percentiles for the 2017-2019 period from the NYS Monitoring Report for Brooklyn J.H.S. 126; the annual $PM_{2.5}$ concentration is 7.6 µg/m³, which is also the three-year average value. The 24-hour PM_{10} background concentration is 28 µg/m³.

TABLE I-20:
Estimated 24-hour/Annual $PM_{2.5}$ Cumulative Impact and Total Concentrations Without Downwash

Pollutant	Impact (µg/m³)	Background Concentration (µg/m³)[1]	Total Concentration (µg/m³)	NAAQS (µg/m³)
$PM_{2.5}$ 24-hour	2.5	17.8	20.3	35
$PM_{2.5}$ Annual	0.075	7.6	7.7	12
PM_{10} 24-hour	5.2	28	33.2	150

Note:
[1] 24-hour $PM_{2.5}$ background concentration is 17.8 µg/m³, which is the average of the 98th percentiles for the 2017-2019 period from the NYS Monitoring Report for Brooklyn J.H.S. 126; the annual $PM_{2.5}$ concentration is 7.6 µg/m³, which is also the three-year average value. The 24-hour PM_{10} background concentration is 28 µg/m³.

The result of the analysis is that no exceedances of the $PM_{2.5}$ NAAQS or the 24-hour PM_{10} NAAQS are predicted from the combined $PM_{2.5}$/PM_{10} emissions of the nearby industrial sources operating near the Proposed Project.

Cumulative EER Analysis

To estimate cumulative effect of EER emissions from the three applicable permits (PB0024-11K, PB0263-12K, and PB4010-03P), AERMOD was run using actual EER emission rates estimated for each permit. Results of the EER cumulative analysis are provided in **Tables I-21** and **I-22**. Estimated 1-hour cumulative EER concentrations with or without downwash are less than the DAR-1 SGC value of 140 µg/m³. As such, EER emissions from industrial sources would not significantly impact the Proposed Project.

TABLE I-21:
Estimated 1-hour EER Cumulative Concentration with Downwash

Pollutant	Max Estimated Cumulative 1-hr Conc.	DAR-1 SGC	Exceed Yes/No
	µg/m³	µg/m³	
EER	45.5	140	No

TABLE I-22:
Estimated 1-hour EER Cumulative Concentration without Downwash

Pollutant	Max Estimated Cumulative	DAR-1 SGC	
	µg/m³	µg/m³	Exceed Yes/No
EER	45.5	140	No

Aluminum Powder Analysis

Results of the aluminum emissions analysis are provided in **Tables I-23** and **I-24**. Estimated annual aluminum concentrations with or without downwash are less than the DAR-1 AGC value of 2.4 µg/m³. As such, aluminum powder emissions from the industrial sources would not significantly impact the Proposed Project.

TABLE I-23:
Estimated Annual Aluminum Concentration with Downwash under PB002409

	Max Estimated Annual Conc.	DAR-1 AGC	
Pollutant	µg/m³	µg/m³	Exceed Yes/No
Aluminum	0.86	2.4	No

TABLE I-24:
Estimated Annual Aluminum Concentration without Downwash under PB002409

	Max Estimated Annual Conc.	DAR-1 AGC	
Pollutant	µg/m³	µg/m³	Exceed Yes/No
Aluminum	0.97	2.4	No

Conclusion

The results of the toxic air emissions analysis demonstrate that no exceedances of the applicable NAAQS for $PM_{2.5}$ and PM_{10}, or for the NYS DAR-1 guideline concentrations for all solvents and aluminum powder are predicted. As such, the emissions released from the nearby existing permitted industrial sources would not cause any potentially significant air quality impacts.

IV. ANALYSIS OF DIESEL TRAIN EMISSIONS

The Proposed Project would be built over an active rail line operated by the New York & Atlantic (NY&A) Railway, a private freight rail line company that holds a license to exclusively operate and manage the Long Island Railroad (LIRR) Bay Ridge Branch until 2026. The trains travel to and from the 65th Street Rail Yard in Sunset Park, Brooklyn to the Fresh Pond Yard in Glendale, Queens, and to and from the Greenville Yard in New Jersey.

At different points along the alignment, the Bay Ridge Branch trains travel at street grade, above street grade, and below street grade, which is the case for the area near the Proposed Project. The Bay Ridge Branch currently contains a single track, operates solely with diesel motor trains (with no plans to electrify), and the LIRR has the right to add additional tracks in the future. The freight trains typically transport commodities such as lumber, paper, building materials, plastics, and recyclable materials.

The rail line below a portion of the Applicant-controlled Development Site is in a rail cut with tracks located below grade. The Proposed Project would be built on top of a permanent platform that would be constructed above the rail road and cover the Applicant-controlled Development Site (although a few adjacent locations would not be decked). For the conservative purpose of this analysis, it is assumed that the entire Applicant-controlled Development Site and the Applicant-controlled uncovered adjacent sections, would be covered by the platform.

Train Emissions

Older line-haul locomotives are typically powered by engines of approximately 2,200 kW (3,000 hp) while newer line-haul locomotives are powered by engines of approximately 3,000 kW (4,000 hp). The EPA projected fleet-wide weighted emission factors for line-haul locomotives under Tier 2 (2005 +) are 102.96 grams/gal for NO_x and 3.74 gram/gal for PM_{10} and 26.624 grams/gal for CO.[2]

The fuel consumption rate of 2.3 gallons per train-mile was obtained from the Amtrak train ventilation analysis in the 505-513 West 43rd Street EAS (CEQR No. 14DCP183M; ULURP Nos. N140407ZRM; 140408ZSM; 140409ZSM). Idle emissions were excluded because trains would not idle under the platform.

Running locomotive emissions within the corridor were calculated based on length of the corridor underneath the platform (approximately 0.25-miles) and the freight train's average speed (15 miles per hour).

Modeling of Train Emissions

Dispersion analyses were conducted for the pollutants most of concern for diesel engines – NO_2 and $PM_{2.5}/PM_{10}$, as well as for CO – and for the averaging time periods corresponding to the NAAQS for those pollutants. The Tier 3 analysis was used for 1-hour NO_2 modeling, as described in Section II, "HVAC ANALYSES."

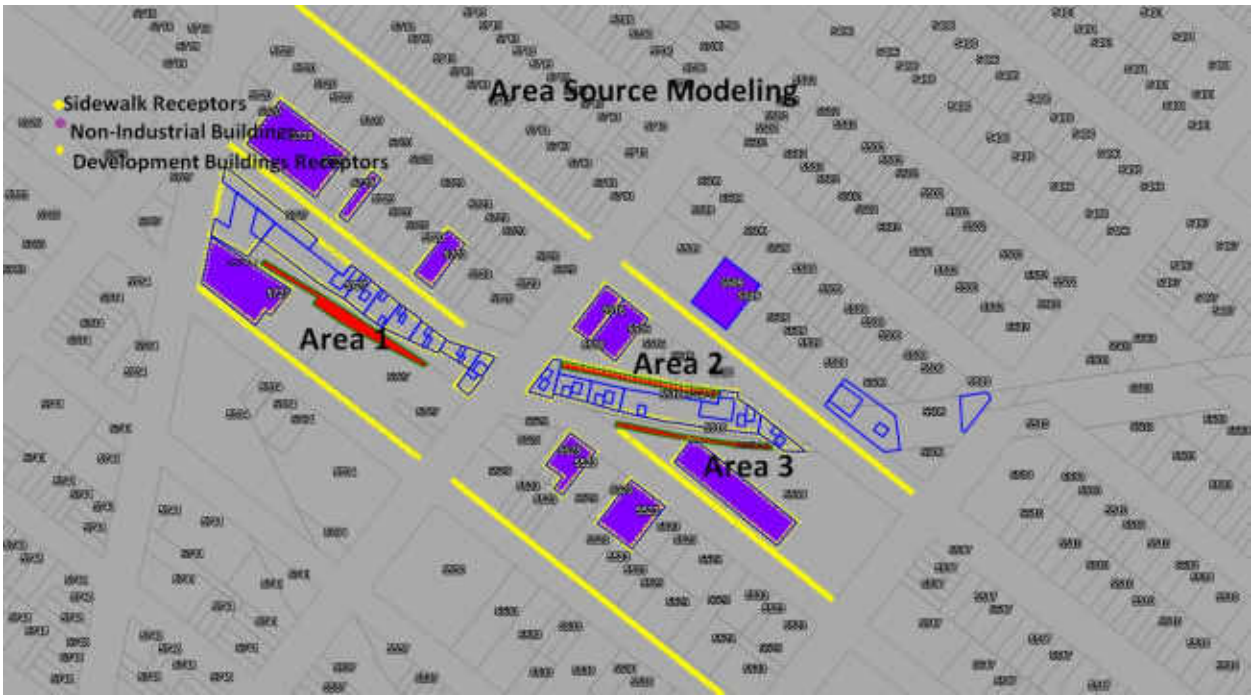
Based on DCP guidance for the procedure of train emissions modeling, the volume source of the AERMOD was changed to the area source option to model train emissions. The three areas being identified as areas where emissions can escape obstacles and the decked platform were modeled. The analysis used recommended parameters for the area source – zero release height and zero initial vertical dimension. Train travel accounted for daily round-trip and future six trips per day. Receptors were placed on all of the Proposed Project's 14 buildings, the building on Potential Development Site ("Building 15") and additional non-industrial buildings on Blocks 5727, 5523, and 5509, as well as other blocks, and sidewalks on 60th, 61st, and 62nd streets. A total of 1,500 receptors were located to ensure that the maximum impacts were estimated (refer to **Figure I-6**). The AERMOD model and meteorological data used in the HVAC and industrial source analyses were employed (refer to **Figure I-6**).

Six trains per day were modeled for estimating PM impacts on an hourly, daily, and annual basis. One train per peak hour was modeled for the 1-hour NO_2 analysis and six trains per day were modeled for the annual NO_2 period. Because emissions would occur only during the time the train is moving underneath the

[2] PowerPoint Presentation (epa.gov)

platform, variable emission rate factors (i.e., varying by hour of day) were incorporated. After the train(s) pass through the corridor, there would be no emissions released into the atmosphere.

Figure I-6: Area Source Modeling



Results

The estimated pollutant concentrations were compared to the *CEQR de minimis* criteria for 24-hour/annual $PM_{2.5}$, 8-hour CO, and respective NAAQS for $PM_{2.5}$, PM_{10}, and 1-hour/annual NO_2 . As shown in **Table I-25**, the concentrations of all pollutants considered are predicted to be less than the CEQR *de minimis* and respective NAAQS. A 1-hour NO_2 contour map is provided in **Figure I-7**.

Figure I-7: 1-Hour NO_2 Contour Map

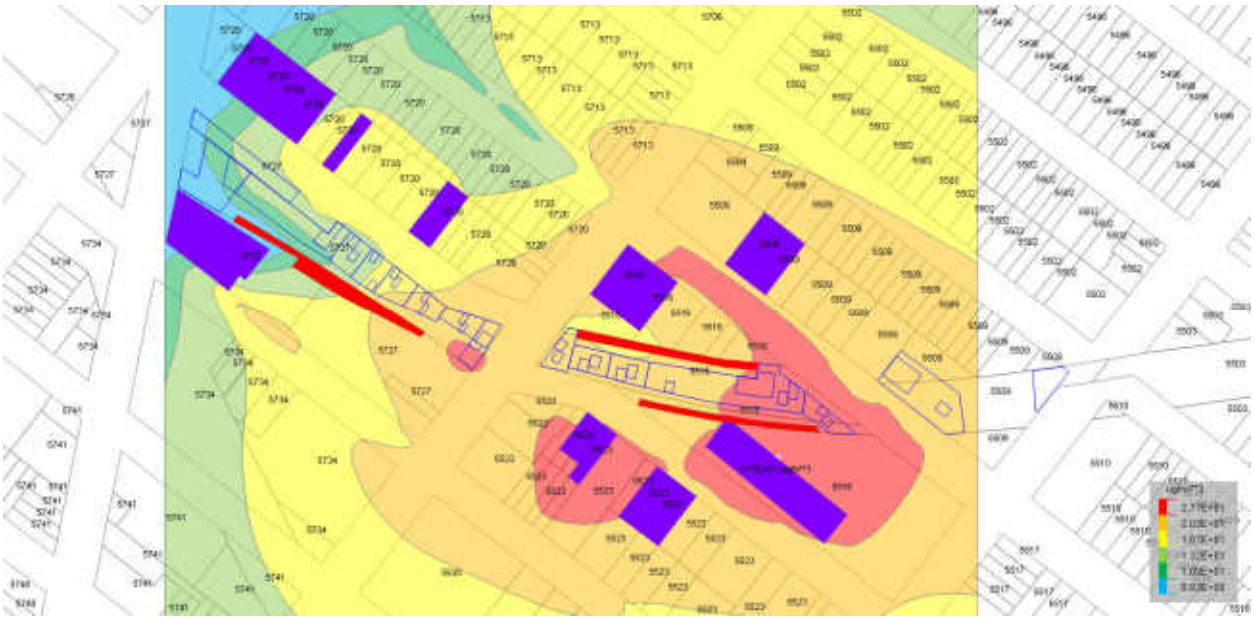


TABLE I-25:
Results of the Train Emissions Analysis

Pollutant	Max Modeled Concentration (µg/m³)	Background Concentration (µg/m³)	Total Concentration (µg/m³)	CEQR *de minimis* Criteria (µg/m³)	NAAQS (µg/m³)
$PM_{2.5}$ 24-hour	0.7	17.8	18.5	8.6	35
$PM_{2.5}$ Annual	0.02	7.6	7.6	0.3	12
PM_{10} 24-hour	0.7	28	28.7	N/A	150
NO_2 1-hour	9.2	104	113.2	N/A	188
NO_2 Annual	0.4	27.6	28.0	N/A	100
CO 8-hr (ppm)	0.003	1.1	1.1	4.0	9

Conclusion

The results of the train emissions analysis demonstrate that the freight train operations would not cause any potentially significant air quality impacts.

Attachment J:

Noise

I. INTRODUCTION

This attachment assesses the potential for the Proposed Actions to result in significant adverse noise impacts. The noise analysis for the proposed actions was carried out in compliance with 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* guidance and consists of two parts:

1. A screening analysis to determine whether traffic changes resulting from the Proposed Actions would have the potential to result in significant noise impacts on existing sensitive receptors; and
2. An analysis to determine the level of building attenuation necessary to ensure that the Proposed Project's interior noise levels satisfy applicable interior noise criteria.

This attachment does not include an analysis of mechanical equipment because such mechanical equipment would be designed to meet all applicable noise regulations (i.e., Subchapter 5, Section 24-227 of the New York City Noise Control Code and the New York City Department of Buildings (NYCDOB) Code) and, therefore, would not result in significant adverse noise impacts.

II. NOISE FUNDAMENTALS

Quantitative information on the effects of airborne noise on people is well documented. If sufficiently loud, noise may adversely affect people in several ways. For example, noise may interfere with human activities such as sleep, speech communication, and tasks requiring concentration or coordination. It may also cause annoyance, hearing damage, and other physiological problems. Although it is possible to study these effects on people on an average or statistical basis, it must be remembered that all the stated effects of noise on people vary greatly with the individual. Several noise scales and rating methods are used to quantify the effects of noise on people. These scales and methods consider factors such as loudness, duration, time of occurrence, and changes in noise level with time.

A-Weighted Sound Level (dB(A))

Noise is typically measured in units called decibels (dB), which are ten times the logarithm of the ratio of the sound pressure squared to a standard reference pressure squared. Because loudness is important in the assessment of the effects of noise on people, the dependence of loudness on frequency must be taken into account in the noise scale used in environmental assessments. Frequency is the rate at which sound pressures fluctuate in a cycle over a given quantity of time and is measured in Hertz (Hz), where one Hz equals one cycle per second. Frequency defines sound in terms of pitch components.

In the measurement system, one of the simplified scales that accounts for the dependence of perceived loudness on frequency is the use of a weighting network (known as A-weighting) that simulates the response of the human ear. For most noise assessments, the A-weighted sound pressure level in units of dB(A) is used due to its widespread recognition and its close correlation to perception. In this analysis, all measured noise levels are reported in dB(A) or A-weighted decibels. Common noise levels in dB(A) are shown in **Table J-1**.

TABLE J-1:
Common Noise Levels

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

Sources: Cowan, James P., *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, *Architectural Acoustics,* McGraw-Hill Book Company, 1988.
Notes: A change in 3 dB(A) is a just noticeable change in SPL. A change in 10 dB(A) is perceived as a doubling or halving in SPL.

Community Response to Changes in Noise Levels

Table J-2 shows the average ability of an individual to perceive changes in noise. Generally, changes in noise levels less than three dB(A) are barely perceptible to most listeners. However, as indicated in **Table J-2**, five dB(A) changes are readily noticeable. Ten dB(A) changes are normally perceived as doublings (or halvings) of noise levels. These guidelines permit direct estimations of an individual's probable perception of changes in noise levels.

TABLE J-2:
Average Ability to Perceive Changes in Noise Levels

Change (dB(A))	Human Perception of Sound
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A dramatic change
40	Difference between a faintly audible sound and a very loud sound

Source: Bolt Beranek and Neuman, Inc., *Fundamentals and Abatement of Highway Traffic Noise* (Report No. PB-222-703). Prepared for the Federal Highway Administration (FHA), June 1973.

Noise Descriptors Used In Impact Assessment

Because the sound pressure level unit, dB(A), describes a noise level at just one moment, and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level", L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., one-hour, denoted by $L_{eq(1)}$, or 24-hours, denoted as $L_{eq(24)}$), conveys the same sound-energy as the actual time-varying sound. The Day-Night Sound Level (i.e., L_{dn}) refers to a 24-hour average noise level with a 10 dB penalty applied to the noise levels during the hours between 10:00 PM and 7:00 AM, due to increased sensitivity to noise levels during these hours. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and

L_x, are sometimes used to indicate noise levels that are exceeded one, ten, 50, 90 and x percent of the time, respectively. Discrete event peak levels are given as L_1 levels. L_{eq} is used in the prediction of future noise levels, by adding the contributions from new sources of noise (i.e., increases in traffic volumes) to the existing levels and in relating annoyance to increases in noise levels.

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

For purposes of this analysis, the maximum one-hour equivalent continuous sound level (i.e., L_{eq}) has been selected as the noise descriptor to be used in the noise impact evaluation. L_{eq} is the noise descriptor recommended for use in the *CEQR Technical Manual* for vehicular traffic and is used to provide an indication of highest expected sound levels. The one-hour L_{10} and day-night equivalent sound level L_{dn} are the noise descriptors used in the *CEQR Technical Manual* noise exposure guidance for city environmental impact review classification depending on the dominant noise source.

III. APPLICABLE NOISE STANDARDS AND IMPACT CRITERIA

New York City Noise Code

The New York City Noise Control Code, as amended in December 2005, contains prohibitions regarding unreasonable noise and specific noise standards, including plainly audible criteria for specific noise sources. In addition, the amended code specifies that no sound source operating in connection with any commercial or business enterprise may exceed the decibel levels in the designated octave bands at specified receiving properties. The New York City Department of Environmental Protection (NYCDEP) has set external noise exposure standards. These standards are shown in **Table J-3**.

CEQR Technical Manual Noise Standards

Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise levels (refer to **Table J-4**). For dominant traffic noise, recommended noise attenuation values for buildings are designed to maintain interior L_{10} noise levels of 45 dB(A) or lower for residential uses and 50 dB(A) or lower for commercial office uses. For dominant train noise, recommended noise attenuation values for buildings are designed to maintain interior L_{dn} noise levels of 40 dB(A) or lower for residential uses. Attenuation requirements are shown in **Table J-4**.

TABLE J-3:
Noise Exposure Guidance for Use in City Environmental Impact Review[1]

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]		$L_{10} \leq 55$ dB(A)	---------- DNL ≤ 60 dB(A) ----------		---------- 60 < DNL ≤ 65 dB(A) ----------		(1) 65 < DNL ≤ 75 dB(A)		---------- 75 dB(A) < DNL ----------
2. Hospital, Nursing Home		$L_{10} \leq 55$ dB(A)		55 < $L_{10} \leq$ 65 dB(A)		65 < $L_{10} \leq$ 80 dB(A)		L_{10} > 80 dB(A)	
3. Residence, residential hotel, or motel	7 AM to 10 PM	$L_{10} \leq 65$ dB(A)		65 < $L_{10} \leq$ 70 dB(A)		70 < $L_{10} \leq$ 80 dB(A)		L_{10} > 80 dB(A)	
	10 PM to 7 AM	$L_{10} \leq 55$ dB(A)		55 < $L_{10} \leq$ 70 dB(A)		70 < $L_{10} \leq$ 80 dB(A)		L_{10} > 80 dB(A)	
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	

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

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

[3] One may use the Federal Aviation Administration- (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 octave bands).

TABLE J-4:
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	70<L_{10}≤73	73<L_{10}≤76	76<L_{10}≤78	78<L_{10}≤80	80<L_{10}
Aircraft[A]	65<DNL≤68	68<DNL≤71	71<DNL≤73	73<DNL≤75	75<DNL
Train	65<L_{dn}≤68	68< L_{dn}≤71	71< L_{dn}≤73	73< L_{dn} ≤75	75<L_{dn}
Attenuation[B]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	See note [C]

Source: NYCDEP.

Notes:

[A] DNL descriptor based on average values of L_{dn} 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 the above categories require a closed window situation and hence an alternate means of ventilation.

[C] The required attenuation value is the difference between L_{build} and $L_{interior}$, using the appropriate noise descriptor

Where:

L_{build} is the projected noise level under the build condition rounded up to the whole number

$L_{interior}$ is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

Impact Significance Criteria

According to *CEQR Technical Manual*, for the purposes of determining a significant impact during daytime hours, it is reasonable to consider a L_{eq} noise level of 65 dB(A) as an absolute noise level that should not be significantly exceeded. Therefore, a significant noise impact would occur at a sensitive noise receptor (i.e., residences, play areas, parks, schools, libraries, and houses of worship) during daytime hours under the following circumstances:

- A noise increase of 3 dB(A) or greater is predicted in the future as a result of the proposed action (the With-Action scenario), when the future noise levels without the proposed action (the No-Action scenario) is at 62 dB(A) or greater; or
- When the No-Action noise level is below 62 dB(A), a predicted noise increase with the proposed action exceeds the difference between 65 dB(A) and the No-Action noise level. For example, if the No-Action noise level is 61 dB(A), then the maximum noise increment with the proposed action would be 4 dB(A), since an increase higher than 4 dB(A) would result in a noise level that exceeds the 65 dB(A) L_{eq} significant impact threshold.
- Additionally, an increase of With-Action noise levels by 5 dB(A) over a No-Action noise level that is below 60 dB(A) would be considered significant.

IV. NOISE PREDICTION METHODOLOGY

General Methodology

Future noise levels were calculated using a proportional modeling technique, which was used as a screening tool to estimate change in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual*. The noise analysis examined the typical weekday AM, midday, and PM peak hours.

The selected time periods are when development facilitated by the Proposed Actions would be expected to produce the maximum traffic generation (based on the traffic analysis presented in **Attachment H, "Transportation"**) and, therefore, result in the maximum potential for significant increases in noise levels. The methodologies used for the noise analyses are described below.

Proportional Modeling

Proportional modeling was used to determine locations with the potential for having significant noise impacts. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels where traffic is the dominant noise source is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No-Action and With-Action noise levels. The proportional modeling utilized the future (2030) No-Action and With-Action traffic volumes anticipated in the surrounding area, consistent with the vehicle trips generated as a result of the Proposed Actions (refer to **Attachment H, "Transportation"**).

Vehicular traffic volumes are then converted into Noise Passenger Car Equivalent (PCE) values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed

to generate the noise equivalent of 13 cars, and one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of 18 cars. Future noise levels are calculated using the following equation:

$$F\ NL - E\ NL = 10 * \log_{10} (F\ PCE / E\ PCE)$$

where:

F NL = Future Noise Level

E NL = Existing Noise Level

F PCE = Future PCEs

E PCE = Existing PCEs

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

To calculate the No-Action noise levels, an annual background growth rate of 0.50 percent (to account for the five-year span between data collection in 2018 and 2023) was applied to the PCE noise values based on counted vehicles.[1] For the seven-year span between 2023 and the 2030 analysis year, a 0.25 percent annual background growth rate was applied to the 2023 PCE noise values. To calculate the 2030 With-Action PCE values, a With-Action condition trip generation was prepared based on the incremental development program compared to the No-Action condition: approximately 270 DUs, 57,586 gsf of commercial office space, 7,626 gsf of local retail space, 3,684 sf of public access area (PAA), and a decrease of 2,648 gsf of auto repair space.[2] The total incremental vehicles (including trucks) generated per hour in the With-Action condition were estimated at 110, 52, and 108 during the weekday AM, midday, and PM peak hours, respectively. For trip assignment purposes, it was conservatively assumed that all project-generated trips would be analyzed along the thoroughfares adjacent to each receptor location.

Play Area Noise

While people are not usually thought of as stationary noise, children in playgrounds or spectators at outdoor sporting events or concerts can introduce additional sources of noise within communities. According to the *CEQR Technical Manual*, noise generated by children in playgrounds or people using parks is considered a stationary source of noise. As noted above, the Proposed Project would include approximately 0.08 acres of PAA, including an approximately 804 sf publicly accessible play area located along 60th Street, adjacent to Building 12 (refer to **Appendix 1** for the current PAA plan). As such, a play area noise analysis was conducted to determine significant adverse noise impact at nearby existing receptors and the need for additional attenuation requirements for Buildings 12 and 13, all of which would have direct frontage on, or a direct line of sight to the proposed play area. In addition, Buildings 1R and 2 would be located in close proximity to, and have a direct line of sight to an existing playground at the

[1] The background growth rates are based on information provided in Table 16-4 of the 2021 *CEQR Technical Manual*.
[2] Refer to **Attachment H, "Transportation"** for more information relating to trip generation data sources.

District 20 Pre-K Center (Z112) located at 1423 62nd Street. Therefore, a play area noise analysis was conducted to determine the need for additional attenuation requirements for the southern façades (facing 62nd Street) of Buildings 1R and 2.

Potential noise impacts for the Proposed Actions due to the use of both the proposed play areas and the existing playground were determined using methodology based on the measurements and procedures outlined in a study entitled, "SCA Playground Noise Study" (1992).[3] To predict potential noise impacts at a given distance from a play area boundary, the study suggests a 4.5 dB(A) reduction in Play Area L_{eq} noise levels per doubling of distance at a distance between 40- and 300-feet, with initial reductions of 4.8 dB(A) at 20-feet, 6.8 dB(A) at 30-feet, and 9.1 dB(A) at 40-feet. Noise levels can be estimated with the following equation at sensitive receptor with a direct line of sight to the play area between 40- to 300-feet:

$Lp1 = Lp2 - 15*\log(d/10)$

Where:

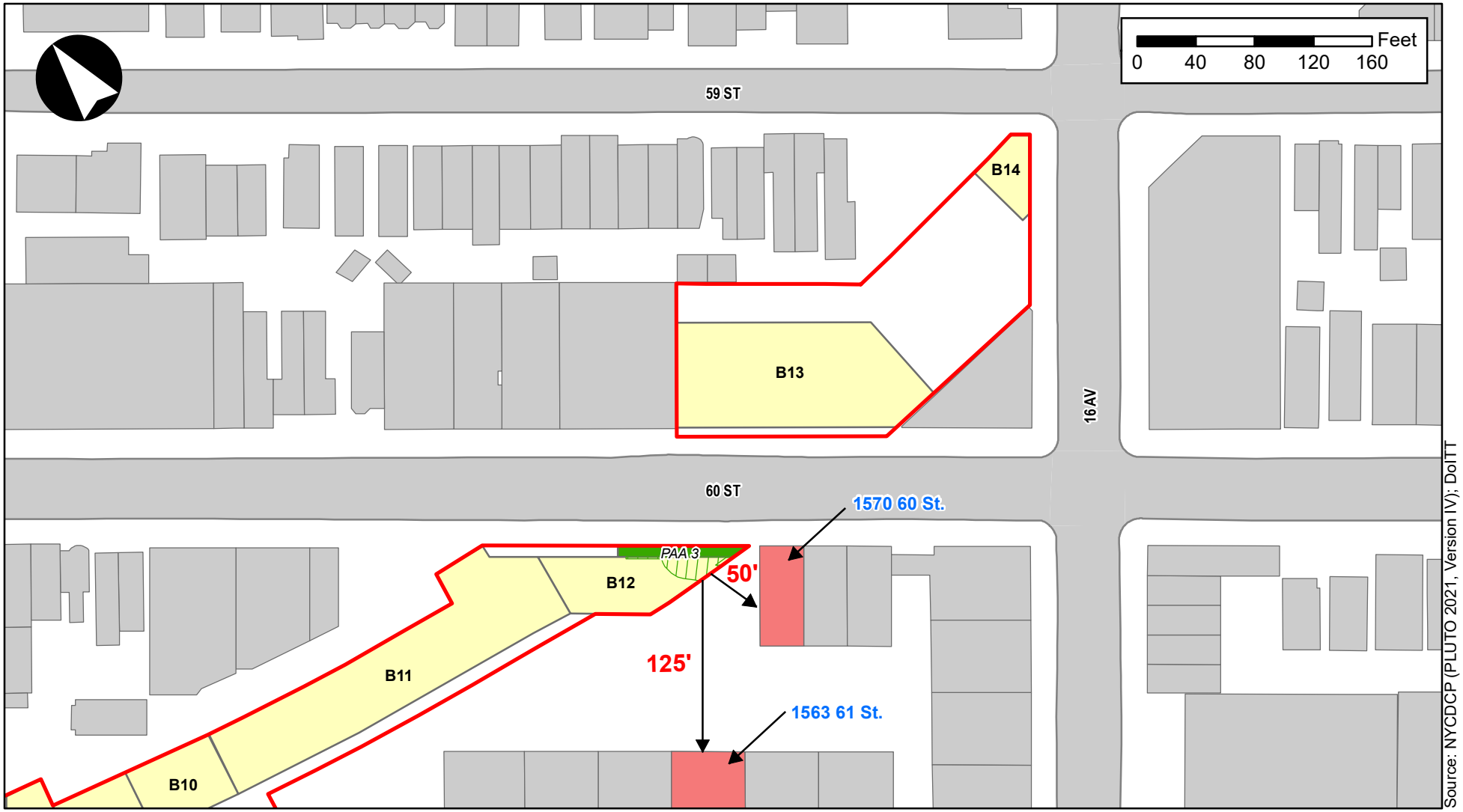
Lp1 = the predicted noise level at a specific distance.
Lp2 = the maximum L_{eq} at the boundary of the play area.
d = the distance from the play area boundary to the sensitive receptor in feet.

In certain situations these values may overstate play area noise levels.

The Proposed Project, as well as existing residential buildings on Block 5516, would have the greatest potential for noise level impacts due to noise from the proposed play area. Specifically, as shown in **Figure J-1**, the northern façade of Building 12, the southern façade of Building 13, as well as the western façade of a residential building located at 1570 60th Street, and the northern façade of a residential building located at 1563 61st Street would be the most likely to experience noticeable noise level increases during certain limited periods due to the proposed play area, as these buildings would be located adjacent to this proposed source of stationary noise and would have a direct line of sight to the proposed play area.

Table J-5 (located on the next page) shows the results of the playground noise assessment at these receptors using the methodology described above for predicting play area-generated noise levels. As indicated in the table, due to the existing playground, the maximum predicted Play Area L_{eq} noise levels along the southern façades of Building 1R and Building 2 would be 62.4 dB(A) and 61.0 dB(A), respectively. As also indicated in the table, due to the Proposed Project's proposed play area, the maximum predicted Play Area L_{eq} noise levels along the northern façade of Building 12 would be 71.5 dB(A); the maximum predicted Play Area L_{eq} noise levels along the southern façade of Building 13 would be 59.8 dB(A); the maximum predicted Play Area L_{eq} noise levels along the western façade of the residential building located at 1570 60th Street would be 61.0 dB(A); and the maximum predicted Play Area L_{eq} noise levels along the northern façade of the residential building located at 1563 61st Street would be 55.0 dB(A). The predicted play area noise levels presented in **Table J-5** will be utilized to determine the maximum predicted L_{eq} and L_{10} noise levels at each sensitive receptor by combining the predicted play area noise values with predicted With-Action noise values based on the proportional modeling methodology, further detailed in Section VII.

[3] Cowan, James P. & Holley, Stephen J, AKRF Inc. "SCA Playground Noise Study," October 1992.



Legend

- Development Site
- Proposed Buildings
- Proposed Project's Public Access Area (PAA) Play Area
- Portions of PAA Play Area Covered by Proposed Buildings
- Sensitive Receptors (Refer to Tables J-5 and J-11)

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Figure J-1

Proposed Project's Play Area and Distances to Off-site Receptors

TABLE J-5:
Highest Predicted Noise Levels due to the Existing and Proposed Play Areas Only (in dB(A))

Sensitive Receptor Location		Closest Approximate Distance (feet) to Proposed or Existing Play Areas	Play Area L_{eq} at Receptor (in dB(A))
Description/Location	Façade		
Proposed Project – Building 12	Northern	0’	71.5
Proposed Project – Building 1R	Southern	40’	62.4
Proposed Project – Building 2	Southern	50’	61.0
Proposed Project – Building 13	Southern	60’	59.8
1570 60th Street	Western	50’[1]	61.0
1563 61st Street	Northern	125’[1]	55.0

Notes:
[1] Refer to **Figure J-1**, which illustrates the closest approximate distances between the two existing sensitive receptor locations and the Proposed Project’s proposed play area.
[2] Play Area L_{eq} noise levels presented in this table do not factor in background noise levels.

V. EXISTING NOISE LEVELS

Selection of Noise Receptor Locations

A total of 10 receptor locations were selected within the vicinity of the Proposed Rezoning Area in the Project Area for impact assessment and used for evaluation of noise attenuation requirements. For reference, these locations are detailed in **Table J-6** and mapped in **Figure J-2**. Noise receptor locations were selected based on the following criteria: (1) the locations and anticipated uses of the identified projected development sites under the reasonable worst case development scenario (RWCDS); (2) shared street frontages among the projected and potential development sites; (3) the location of the elevated tracks of the D train and the Long Island Rail Road (LIRR) Bay Ridge Branch open rail cut; (4) the pattern of existing land uses throughout the vicinity of the Project Area (commercial corridors, playgrounds, existing utilities, and industrial- and transportation-related uses); and (5) the comprehensive geographic coverage of noise receptors throughout the vicinity of the Proposed Rezoning Area in the Project Area, in order to obtain a comprehensive characterization of the ambient noise levels in the area surrounding the Proposed Rezoning Area in the Project Area.

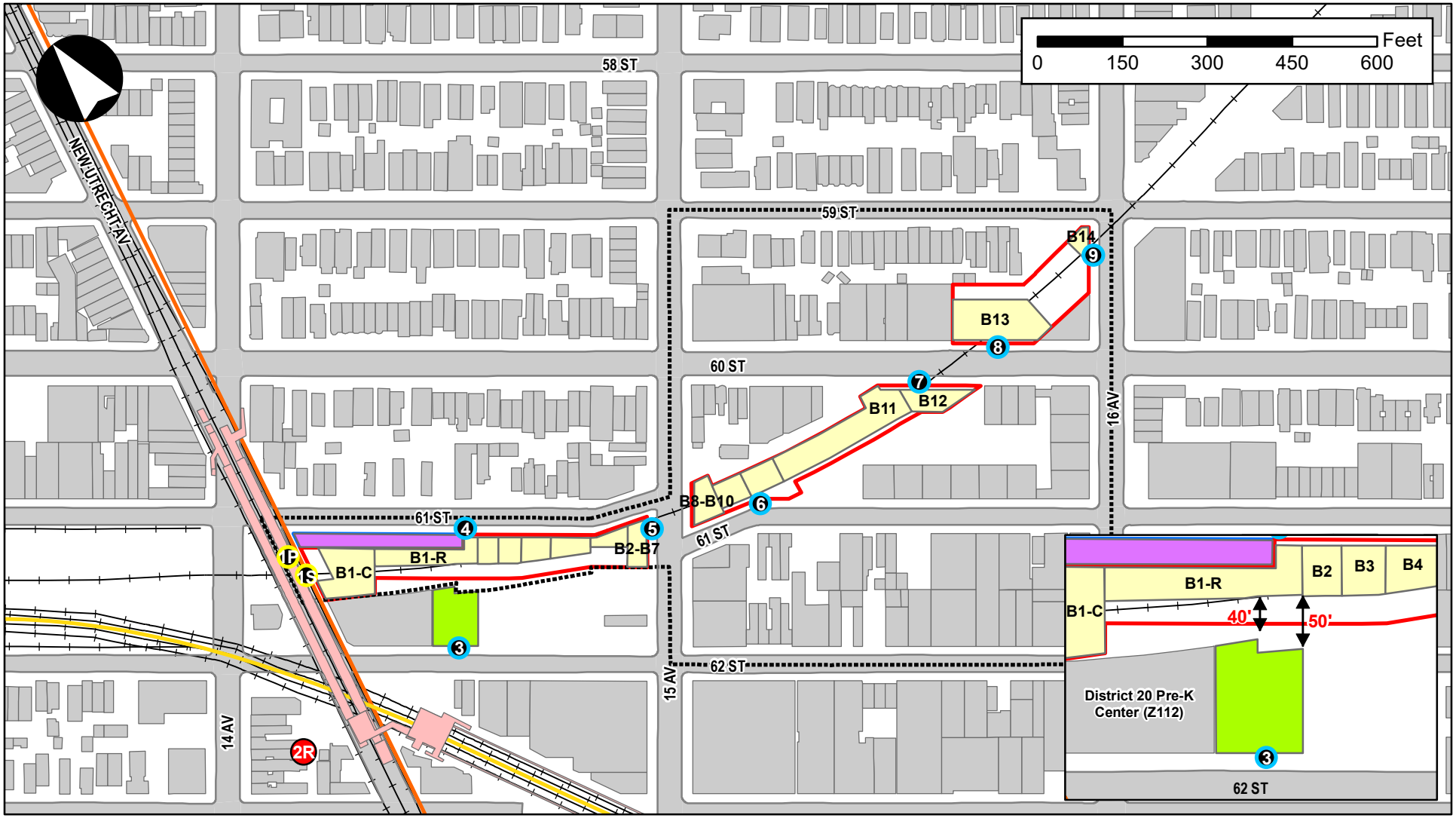

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Figure J-2
Noise Receptor Locations

TABLE J-6:
Noise Receptor Locations

Receptor	Duration	Location
1P	1 Hour	Manhattan-bound Platform level of the elevated 62nd Street station (D train)
1S	1 Hour	New Utrecht Avenue between 61st and 62nd streets; east side of street
2R	24 Hours	Rooftop of 6215 14th Avenue (Block 5734, Lot 4) at a distance of 125 feet from the elevated D train; Easternmost portion of rooftop with a direct line of sight to the elevated D train
3	20 Minutes	62nd Street between New Utrecht and 15th avenues; north side of street
4	20 Minutes	61st Street midway between New Utrecht and 15th avenues; south side of street
5	20 Minutes	Southwestern corner of 61st Street and 15th Avenue
6	20 Minutes	61st Street between 15th and 16th avenues; north side of street
7	20 Minutes	60th Street midway between 15th and 16th avenues; south side of street
8	20 Minutes	60th Street between 15th and 16th avenues; north side of street
9	20 Minutes	16th Avenue between 59th and 60th streets; west side of street

Note: Refer to **Figure J-2** for noise monitoring receptor locations.

Noise Monitoring

At each receptor location, existing noise levels were determined by field measurements. Noise monitoring was performed between October and November 2018 for Receptor Locations 1S, and 3 – 9. Noise monitoring was performed between February and March 2023 for Receptor Locations 1P and 2R. At Receptor Locations 1P and 1S, one-hour spot measurements were performed to accurately capture noise related to D train operations located adjacent to the Proposed Rezoning Area's westernmost boundary in the Project Area. At Receptor Location 2R, 24-hour measurements were performed on the rooftop of 6215 14th Avenue (Block 5734, Lot 4), a two-story mixed-use commercial/residential building with a direct line of sight to the elevated D train. At Receptor Locations 3 through 9, 20-minute spot measurements were performed for the following weekday peak periods: AM (8:00 AM to 9:00 AM), midday (12:00 PM to 1:00 PM), and PM (5:00 PM to 6:00 PM). An additional 20-minute spot noise measurement was not performed at Receptor Location 3 during the school PM (2:30 PM to 3:30 PM) peak period, as it was determined that the District 20 Pre-K Center (Z112) is only in operation between the hours of 8:20 AM and 2:40 PM; therefore, play area noise would be significantly reduced between the hours of 2:40 PM and 8:20 AM, as the play area is private and not accessible to the public at any time of the day.

Equipment Used During Noise Monitoring

Measurements were performed using Brüel & Kjær Sound Level Meters (SLM) Types 2260, 2250, and 2270, Brüel & Kjær ½-inch microphones Type 4189, and Brüel & Kjær Sound Level Calibrators Type 4231. The Brüel & Kjær SLMs are Type 1 instruments according to ANSI Standard S1.4-1983 (R2006). The SLMs had a laboratory calibration date within the past year at the time of use, as is standard practice. The microphones were mounted at a height of approximately five feet above the ground surface on a tripod and approximately six feet or more away from any large sound-reflecting surface to avoid major interference with sound propagation. The SLMs were calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. The data were digitally recorded by the SLMs and displayed at the end of the measurement period in units of dB(A). Measured quantities included the Leq, L1, L10, L50, L90, and 1/3 octave band data. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

Existing Noise Levels at Noise Receptor Locations

The results of the 20-minute and one-hour measurements of existing noise levels at nine (9) receptor locations are summarized in **Tables J-7** and **J-8**. Noise levels at the receptor locations varied over a wide range and reflect the proximity of receptors to major roadways and elevated rail lines and their respective level of vehicular and train activity. Vehicular traffic was the dominant noise source at Receptor Locations 3 through 9, while elevated subway noise was the dominant noise source at Receptor Locations 1S and 1P.[4] Measured noise levels are low to moderate and reflect the level of activity on the adjacent streets, with the highest monitored noise levels generally occurring in the AM and PM peak hours when area vehicle volumes are at their peak. The highest monitored noise levels occur at Receptor Location 1S adjacent to the elevated tracks of the D train (located along New Utrecht Avenue fronting the Proposed Rezoning Area's western boundary in the Project Area), with a peak L_{10} of 81.3 dB(A) ("Clearly Unacceptable" CEQR Noise Exposure category) in the weekday AM peak hour.

TABLE J-7:
Existing Noise Levels (in dB(A))

Receptor	Time	L_{max}	L_{min}	L_{eq}	L_1	L_{10}[1]	L_{50}	L_{90}	CEQR Noise Exposure Category
1S	AM	97.2	53.1	78.3	91.3	**81.3**	67.7	61.1	Clearly Unacceptable
	MD	100.7	52.9	74.4	86.3	76.7	66.8	57.7	
	PM	96.6	52.2	76.2	88.9	77.8	65.8	57.8	
1P	AM	92.2	54.5	72.9	84.1	**77.5**	64.1	59.3	Marginally Unacceptable (III)
	MD	90.6	52.5	70.3	82.7	73.2	62.2	57.0	
	PM	94.2	54.1	72.0	84.1	75.1	62.4	57.6	
3	AM	86.6	51.9	66.6	79.0	67.7	60.6	55.6	Marginally Acceptable
	MD	88.3	50.4	65.2	75.9	67.9	59.8	54.5	
	PM	91.1	50.9	66.6	75.4	**68.5**	64.5	56.1	
4	AM	83.0	46.9	58.5	66.5	60.4	54.7	50.4	Acceptable
	MD	74.8	48.5	56.0	63.3	58.1	54.5	51.7	
	PM	80.4	48.5	61.8	72.2	**64.2**	57.4	52.6	
5	AM	85.3	50.8	64.8	73.9	**67.7**	61.5	55.7	Marginally Acceptable
	MD	81.9	50.2	61.4	71.6	64.1	57.7	53.8	
	PM	87.0	51.7	64.4	74.6	67.0	59.6	55.7	
6	AM	91.0	48.5	64.9	75.9	61.4	54.4	51.4	Acceptable
	MD	81.1	48.6	59.7	69.6	62.3	55.0	51.8	
	PM	81.3	46.8	60.4	72.5	**62.4**	54.6	50.0	
7	AM	81.6	53.3	64.0	73.2	**66.8**	61.4	57.0	Marginally Acceptable
	MD	77.6	51.5	62.6	71.0	65.8	59.8	55.4	
	PM	86.6	48.5	64.9	75.8	65.8	59.6	53.8	
8	AM	90.7	51.2	66.2	76.0	**67.8**	61.2	55.7	Marginally Acceptable
	MD	83.5	51.2	63.0	72.0	66.8	59.2	54.1	
	PM	86.4	50.6	64.8	75.1	65.8	59.8	54.0	
9	AM	87.9	52.1	65.7	74.2	**68.8**	61.2	56.8	Marginally Acceptable
	MD	79.7	49.2	62.6	74.8	64.9	57.7	53.8	
	PM	81.3	48.5	62.5	72.8	65.3	58.9	53.9	

Note:
[1] The highest L_{10} value at each receptor location is shown in **bold**.

In terms of *CEQR Technical Manual* criteria, existing noise levels at Receptor Locations 4 and 6 are in the "Acceptable" CEQR Noise Exposure category, existing noise levels at Receptor Locations 3, 5, 7, 8, and 9 are in the "Marginally Acceptable" CEQR Noise Exposure category, and existing noise levels at Receptor Location 1P are in the "Marginally Unacceptable (III)" CEQR Noise Exposure category.

[4] It should be noted that while portions of the LIRR Bay Ridge Branch rail line are located within the Project Area, train volumes along this freight-only line run infrequently throughout the day, and therefore, were not considered a dominant source of noise at any of the nine (9) receptor locations.

L_{dn} and Train Noise

L_{dn} is the day-night equivalent sound level, defined as a 24-hour continuous L_{eq} 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.

Train noise is inclusive of transit or freight train activity. Similar to aircraft noise, train noise is comprised of a series of single events over time. Depending on the location of the receptor and ambient noise levels, these single events may be easily distinguishable from background noise levels. This is particularly true, for example, at noise receptors close to elevated train lines. The Federal Transit Administration (FTA) uses $L_{eq(1)}$ and/or L_{dn} as its principal noise descriptors for mass transit noise, depending on the adjacent land use. Noise assessments require the use of the daily L_{dn} for impact assessment. Because of these standards, the *CEQR Technical Manual* recommends that the L_{dn} be used in the analysis of train noise.

The elevated D train is located adjacent to the Proposed Rezoning Area's westernmost boundary in the Project Area. At Receptor Location 2R, 24-hour measurements were performed on the rooftop of 6215 14th Avenue (Block 5734, Lot 4), a two-story mixed-use commercial/residential building with a direct line of sight to the elevated D train. The building at 6215 14th Avenue is located at a distance of 125 feet from the elevated D train. The 24-hour measurements, completed in early February 2023, were used to calculate the L_{dn}. The calculated L_{dn} noise level is 66.66 dB(A).

MTA plans to connect Brooklyn's and Queens' neighborhoods via a new transit link, the Interborough Express (IBX). This new passenger rail service would run along the currently freight rail corridors Bay Ridge Branch, which is the open cut located directly underneath and within the Project Area. The exact details of this new rail service are being worked out but it is anticipated to be a Light Rail transit that could operate at up to 5-minute frequencies during the peak periods, with off-peak headways of up to 15 minutes at other times of the day. While the service is expected to begin around 2027, there are still many unknown details about the new rail line that makes it difficult to provide representative noise impact assessment at this early stage. Therefore, noise analysis provided in this attachment does not account for noise impact from the future IBX service; instead, it is anticipated that any impact from the IBX would be wholly analyzed during the MTA's environmental review process for the IBX.

VI. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Using the methodologies previously described, No-Action noise levels for the 2030 analysis year were calculated at Receptor Locations 3 through 9. The projected No-Action values are provided in **Table J-8** (located on the next page). As presented in the table, in the 2030 No-Action condition, L_{eq} noise levels at Receptor Locations 3 through 9 would increase by 0.18 dB(A). Changes of this magnitude would be barely perceptible. In terms of *CEQR Technical Manual* criteria, noise levels at Receptor Locations 4 and 6 would remain in the "Acceptable" CEQR Noise Exposure category and noise levels at Receptor Locations 3, 5, 7, 8, and 9 would remain in the "Marginally Acceptable" CEQR Noise Exposure category.

At Receptor Locations 1S and 1P, the dominant noise source is elevated subway noise from the elevated D train. In the No-Action condition, as the D train would not change its operation in the future conditions, it is expected that train noise will continue to be the dominant noise source at Receptor Locations 1S and 1P. Therefore, future No-Action noise levels at Receptor Locations 1S and 1P are expected to remain the same as existing noise levels. No-Action noise levels at Receptor Locations 1P would remain in the

"Marginally Unacceptable (III)" CEQR Noise Exposure category and No-Action noise levels at Receptor Location 1S would remain in the "Clearly Unacceptable" CEQR Noise Exposure category.

TABLE J-8:
2030 No-Action Condition Noise Levels (in dB(A))

Receptor	Time	Existing Total PCEs	No-Action Total PCEs	Existing L_{eq}	No-Action L_{eq}	L_{eq} Change	No-Action L_{10}[1]	CEQR Noise Exposure Category
1S[2]	AM	201.0	209.7	78.3	78.3	0.0	**81.3**	Clearly Unacceptable
	MD	183.0	190.9	74.4	74.4	0.0	76.7	
	PM	263.0	274.4	76.2	76.2	0.0	77.8	
1P[2]	AM	-	-	72.9	72.9	0.0	**77.5**	Marginally Unacceptable (III)
	MD	-	-	70.3	70.3	0.0	73.2	
	PM	-	-	72.0	72.0	0.0	75.1	
3	AM	540.0	563.4	66.6	66.8	0.18	67.9	Marginally Acceptable
	MD	438.0	457.0	65.2	65.4	0.18	68.1	
	PM	498.0	519.6	66.6	66.8	0.18	**68.6**	
4	AM	126.0	131.5	58.5	58.6	0.18	60.6	Acceptable
	MD	51.0	53.2	56.0	56.1	0.18	58.3	
	PM	165.0	172.1	61.8	62.0	0.18	**64.4**	
5	AM	1,095.0	1,142.4	64.8	65.0	0.18	**67.9**	Marginally Acceptable
	MD	531.0	554.0	61.4	61.6	0.18	64.3	
	PM	816.0	851.4	64.4	64.6	0.18	67.1	
6	AM	297.0	309.9	64.9	65.1	0.18	61.6	Acceptable
	MD	96.0	100.2	59.7	59.9	0.18	62.5	
	PM	327.0	341.2	60.4	60.6	0.18	**62.6**	
7	AM	2,040.0	2,128.4	64.0	64.2	0.18	**67.0**	Marginally Acceptable
	MD	1,269.0	1,324.0	62.6	62.8	0.18	65.9	
	PM	1,245.0	1,298.9	64.9	65.1	0.18	66.0	
8	AM	2,040.0	2,128.4	66.2	66.4	0.18	**68.0**	Marginally Acceptable
	MD	1,269.0	1,324.0	63.0	63.2	0.18	67.0	
	PM	1,245.0	1,298.9	64.8	65.0	0.18	66.0	
9	AM	705.0	735.5	65.7	65.9	0.18	**68.9**	Marginally Acceptable
	MD	426.0	444.5	62.6	62.7	0.18	65.0	
	PM	567.0	591.6	62.5	62.7	0.18	65.4	

Notes:
[1] The highest L_{10} at each receptor location is shown in **bold**.
[2] In the No-Action condition, it is expected that train noise will continue to be the dominant noise source at Receptor Locations 1S and 1P. Therefore, future No-Action noise levels at Receptor Locations 1S and 1P are expected to remain the same as existing noise levels.

VII. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

Noise Impact Identification

Using the methodologies previously described, With-Action noise levels were calculated at Receptor Locations 3 through 9 for the 2030 analysis year. The With-Action noise levels for all receptors are provided in **Table J-9**.

TABLE J-9:
2030 With-Action Condition Noise Levels (in dB(A))

Receptor	Time	No-Action Total PCEs	With-Action Total PCEs	No-Action L_{eq}	With-Action L_{eq}	L_{eq} Change	With-Action L_{10}[1]	CEQR Noise Exposure Category
1S	AM	209.7	345.7	78.3	78.3	0.0	**81.3**	Clearly Unacceptable
	MD	190.9	264.9	74.4	74.4	0.0	76.7	
	PM	274.4	378.4	76.2	76.2	0.0	77.8	
1P	AM	-	-	72.9	72.9	0.0	**77.5**	Marginally Unacceptable (III)
	MD	-	-	70.3	70.3	0.0	73.2	
	PM	-	-	72.0	72.0	0.0	75.1	
3	AM	563.4	697.4	66.8	67.7	0.9	68.8	Marginally Acceptable
	MD	457.0	533.0	65.4	66.0	0.7	68.8	
	PM	519.6	627.6	66.8	67.6	0.8	**69.5**	
4	AM	131.5	265.5	58.6	61.7	3.1	63.7	Marginally Acceptable
	MD	53.2	129.2	56.1	60.0	3.9	62.2	
	PM	172.1	280.1	62.0	64.1	2.1	**66.5**	
5	AM	1,142.4	1276.4	65.0	65.5	0.5	**68.4**	Marginally Acceptable
	MD	554.0	630.0	61.6	62.2	0.6	64.8	
	PM	851.4	959.4	64.6	65.1	0.5	67.7	
6	AM	309.9	443.9	65.1	66.6	1.6	63.1	Acceptable
	MD	100.2	176.2	59.9	62.4	2.5	**64.9**	
	PM	341.2	449.2	60.6	61.8	1.2	63.8	
7	AM	2,128.4	2262.4	64.2	64.4	0.3	**67.3**	Marginally Acceptable
	MD	1,324.0	1400.0	62.8	63.0	0.2	66.2	
	PM	1,298.9	1406.9	65.1	65.4	0.3	66.4	
8	AM	2,128.4	2262.4	66.4	66.7	0.3	**68.2**	Marginally Acceptable
	MD	1,324.0	1400.0	63.2	63.5	0.2	67.2	
	PM	1,298.9	1406.9	65.0	65.3	0.3	66.3	
9	AM	735.5	869.5	65.9	66.6	0.7	**69.7**	Marginally Acceptable
	MD	444.5	520.5	62.7	63.4	0.7	65.7	
	PM	591.6	699.6	62.7	63.4	0.7	66.2	

Notes:
[1] The highest L_{10} at each receptor location is shown in **bold**.
[2] In the With-Action condition, it is expected that train noise will continue to be the dominant noise source at Receptor Locations 1S and 1P. Therefore, future With-Action noise levels at Receptor Locations 1S and 1P are expected to remain the same as existing and No-Action noise levels.

Noise levels at Receptor Location 4 would increase by a maximum of 3.9 dB(A) in the weekday midday peak hour; however, as the corresponding No-Action L_{eq} noise level is less than 60 dB(A) (56.1 dB(A)), this incremental increase would not constitute a significant adverse impact pursuant to CEQR impact criteria (5 dB(A)). Noise levels at Receptor Location 4 would increase by a maximum of 3.1 dB(A) in the weekday AM peak hour; however, as the corresponding No-Action L_{eq} noise level is less than 60 dB(A) (58.6 dB(A)), this incremental increase would not constitute a significant adverse impact pursuant to CEQR impact criteria (5 dB(A)).

In terms of CEQR noise exposure guidance, noise levels at Receptor Locations 3, 5, 7, 8, and 9 would remain in the "Marginally Acceptable" CEQR Noise Exposure category and noise levels at Receptor Location 6 would remain in the "Acceptable" CEQR Noise Exposure category. Noise levels at Receptor Location 4 would change from the "Acceptable" CEQR Noise Exposure category to the "Marginally Acceptable" category.

At Receptor Locations 1S and 1P, the dominant noise source is subway noise from the D train. In the With-Action condition, as the D train would not change its operation in the future conditions, it is expected that train noise will continue to be the dominant noise source at Receptor Locations 1S and 1P. Therefore, future With-Action noise levels at Receptor Locations 1S and 1P are expected to remain the same as existing and No-Action noise levels. With-Action noise levels at Receptor Locations 1P would remain in the "Marginally Unacceptable (III)" CEQR Noise Exposure category and With-Action noise levels at Receptor Location 1S would remain in the "Clearly Unacceptable" CEQR Noise Exposure category.

Play Area Noise

As the Proposed Project includes a proposed play area and would be located near the District 20 Pre-K Center (Z112) playground, this noise assessment will utilize the maximum playground boundary noise levels presented in **Table J-5**. Therefore, the referenced noise levels in L_{eq} from the Proposed Project's proposed play area and the District 20 Pre-K Center (Z112) playground are assumed to be:

- 62.4 dB(A) at the southern façade of Building 1R of the Proposed Project;
- 61.0 dB(A) at the southern façade of Building 2 of the Proposed Project;
- 71.5 dB(A) at the northern façade of Building 12 of the Proposed Project;
- 59.8 dB(A) at the southern façade of Building 13 of the Proposed Project;
- 61.0 dB(A) at the western façade of the residential building located at 1570 60th Street;
- 55.0 dB(A) at the northern façade of the residential building located at 1563 61st Street.[5]

As presented in **Table J-10**, due to the location of the existing District 20 Pre-K Center (Z112) playground, the southern façade of Building 1R of the Proposed Project would experience combined L_{eq} play area noise levels of up to 68.8 dB(A) and the southern façade of Building 2 of the Proposed Project would experience combined L_{eq} play area noise levels of up to 68.6 dB(A). As also presented in **Table J-10**, due to the location of the proposed play area, the northern façade of Building 12 of the Proposed Project would experience combined L_{eq} play area noise levels of up to 72.5 dB(A) and the southern façade of Building 13 of the Proposed Project would experience combined L_{eq} play area noise levels of up to 66.5 dB(A).

[5] Cowan, James P. & Holley, Stephen J, AKRF Inc. "SCA Playground Noise Study," October 1992.

TABLE J-10:
Noise Levels due to Proposed Play Area Noise and Existing Play Area Noise (in dB(A))

Sensitive Receptor		Approximate Distance (feet) to Existing or Proposed Play Area	Play Area L_{eq} at Receptor[1]	Highest Predicted Combined L_{eq} at Receptor	Highest Predicted Combined L_{10} at Receptor
Building	Façade				
Proposed Project – Building 1R	Southern	40’	62.4	68.8	70.6
Proposed Project – Building 2	Southern	50’	61.0	68.6	70.3
Proposed Project – Building 12	Northern	0’	71.5	72.5	75.3
Proposed Project – Building 13	Southern	60’	59.8	66.5	68.6

Notes:
[1] Estimated play area noise level based on the $L_{eq(1)}$ noise levels at the boundary of a playground being 71.5 dB(A) (Source: Cowan, James P. & Holley, Stephen J, AKRF Inc. “SCA Playground Noise Study,” October 1992).
[2] Play area noise was conservatively calculated by logarithmically combining the estimated play area noise levels with noise levels at Receptor Location 3 for Buildings 1R and 2 of the Proposed Project, Receptor Location 7 for Buildings 12 and 13.
[3] For conservative analysis purposes, predicted L_{10} play area noise levels calculated by combining the playground L_{eq} and the difference between L_{eq} and L_{10} monitored noise levels under existing conditions at Receptor Location 3 (for Buildings 1R and 2), Receptor Location 7 (for Buildings 12 and 13).

After calculating the predicted L_{10} noise levels from the existing and proposed stationary noise sources (refer to **Table J-10**), the southern façade of Building 1R of the Proposed Project would fall in the “Marginally Unacceptable (I)” CEQR Noise Exposure category, the southern façade of Building 2 of the Proposed Project would fall in the “Marginally Unacceptable (I)” CEQR Noise Exposure category, the northern façade of Building 12 of the Proposed Project would fall in the “Marginally Unacceptable (II)” CEQR Noise Exposure category, and the southern façade of Building 13 of the Proposed Project would fall in the “Marginally Acceptable” CEQR Noise Exposure category. With implementation of the attenuation levels outlined in Section VII, the Proposed Project would provide sufficient attenuation to achieve *CEQR Technical Manual* interior L_{10} noise level guidance of 45 dB(A) for residential/community facility uses.

As shown in **Figure J-1**, existing noise sensitive land uses adjacent to the proposed play area include residential buildings on Block 5516; these land uses would have the greatest potential for noise level impacts due to noise from the Proposed Project’s proposed play area. The proposed publicly accessible play area located along 60th Street, adjacent to Building 12, would be located adjacent to two residential buildings on Block 5516. The closest existing sensitive receptor with a direct line of sight to the Proposed Project’s proposed publicly accessible play area located along 60th Street is the western façade of a residential building located at 1570 60th Street, located at a distance of approximately 50 feet to the southeast from the proposed publicly accessible play area. At this distance, the worst-case noise level generated by the proposed play area is predicted to be approximately 61.0 dB(A), based on the methodology discussed above (refer to **Table J-5**). In addition, the northern façade of a residential building located at 1563 61st Street, located at a distance of approximately 125 feet to the southwest from the proposed publicly accessible play area. At this distance, the worst-case noise level generated by the proposed play area is predicted to be approximately 55.0 dB(A), based on the methodology discussed above (refer to **Table J-5**).

As shown in **Table J-11**, the projected No-Action L_{eq} hourly noise levels at the Applicant-controlled Development Site in the vicinity of the proposed play area range from 62.8 dB(A) to 65.1 dB(A) at Receptor Location 7. Because the No-Action L_{eq} noise levels are above 62 dB(A) during all weekday peak periods, with the Proposed Actions, 3.0 dB(A) would be the maximum noise increment below which no significant noise impact would occur. Based on the logarithmic relationship, the combined noise levels from (1) the worst-case project-generated L_{eq} play area noise level of 61.0 dB(A) at a distance of 50 feet from the proposed play area boundary or 55.0 dB(A) at a distance of 125 feet from the proposed play area boundary and (2) the predicted With-Action background noise levels during the weekday peak hours, were calculated for the closest sensitive receptor and are presented in **Table J-11**.

TABLE J-11:
Measured and Predicted Noise Levels At Nearest Sensitive Receptors Due To the Proposed Play Area (dB(A))

Sensitive Receptor Location	Nearest Associated Noise Receptor Location[1]	Period	Predicted No-Action Scenario L_{eq}	Closest Approximate Distance (feet) to Proposed Play Areas[1]	Play Area L_{eq} at Receptor	Highest Predicted Combined With-Action Scenario L_{eq} at Receptor[2]	Change in L_{eq} from the No-Action Scenario	Highest Predicted Combined L_{10} at Receptor
1570 60th Street	7	AM	64.2	50’	61.0	66.1	1.9	68.9
		MD	62.8			65.1	2.4	68.3
		PM	65.1			**66.8**	1.7	67.7
1563 61st Street	7	AM	64.2	125’	55.0	64.9	0.7	67.8
		MD	62.8			63.7	0.9	66.8
		PM	65.1			**65.8**	0.7	66.8

Notes:
[1] Refer to **Figure J-1**, which illustrates the closest approximate distances between the two existing sensitive receptor locations and the Proposed Project’s proposed play area.
[2] Highest Predicted Combined With-Action Scenario L_{eq} noise value indicated in **bold**.

Comparing the predicted combined Play Area L_{eq} noise levels with No-Action noise levels, increases in noise levels at 1570 60th Street would range from 1.7 to 2.4 dB(A) and increases in noise levels at 1563 61st Street would range from 0.7 to 0.9 dB(A). Increases of these magnitudes would not be perceptible as they are less than 3.0 dB(A) and based upon CEQR impact criteria would not be significant. As the noise levels at sensitive receptors located at 1570 60th Street and 1563 61st Street would experience changes of less than 3.0 dB(A) in all peak hours, the overall changes to noise levels as a result of the Proposed Project’s proposed publicly accessible play area would not result in any significant adverse impacts at existing receptors.

VIII. ATTENUATION REQUIREMENTS

The *CEQR Technical Manual* has set noise attenuation requirements for buildings based on exterior noise levels. For dominant traffic noise, recommended noise attenuation values for buildings are designed to maintain interior L_{10} noise levels of 45 dB(A) or lower for residential uses and 50 dB(A) or lower for commercial office uses. For dominant train noise, recommended noise attenuation values for buildings are designed to maintain interior L_{dn} noise levels of 40 dB(A) or lower for residential uses.

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Typically, a building façade is composed of the wall, windows, and any vents or louvers for HVAC systems in various ratios of area. Since the Proposed Project would most likely be of masonry construction, which typically provides a high level of sound attenuation, the attenuation requirements for CEQR or HUD purposes apply primarily to the windows, but may also represent a composite window/wall attenuation value. Window/wall attenuation can be described in terms of sound transmission class (STC), transmission loss (TL), and outdoor-indoor transmission class (OITC). Although these terms are sometimes used interchangeably, they are unique from one another. Transmission loss refers to how many decibels of sound a façade (wall) or façade accessory (window or door) can stop at a given frequency. The TL for a given construction material varies with the individual frequencies of the noise.

To simplify the noise attenuation properties of a wall, the STC rating was developed. It is a single number that describes the sound isolation performance of a given material for the range of test frequencies between 125 and 4,000 Hz. These frequencies sufficiently cover the range of human speech. Higher STC values reflect greater efficiencies to block airborne sound. HUD uses the STC when identifying the required sound attenuation for a façade.

The OITC is similar to the STC, except that it is weighted more towards the lower frequencies associated with aircraft, rail, and truck traffic. The OITC classification is defined by the American Society of Testing and Materials (ASTM E1332-90 (Reapproved 2003)) and provides a single-number rating that is used for designing a building façade including walls, doors, glazing, and combinations thereof. The OITC rating is designed to evaluate building elements by their ability to reduce the overall loudness of ground and air transportation noise. NYCDEP uses the OITC when identifying the required sound attenuation for a façade.

Noise Attenuation Measures

Composite building attenuation requirements were calculated based on the maximum With-Action L_{10} noise levels and are presented in **Table J-12**; composite building attenuation requirements are illustrated in **Figures J-3a** and **J-3b**. Based on the values presented in **Table J-12**, required attenuation levels were determined for all proposed buildings within the Applicant-controlled Development Site, as well as the Potential Development Site (Block 5727, Lot 19).

TABLE J-12:
Required Attenuation (CEQR)

Building	Façade	Associated Receptor Location[1]	Maximum Calculated Total L_{10} Noise Level in dB(A)[2,3]	Maximum Calculated Total L_{dn} Noise Level in dB(A)[4]	CEQR Minimum Required Attenuation in dB(A)[5,6]
B 5727; L 14 Building 1C[7]	North (Above 40') (≤ 50' from New Utrecht Avenue)	1P	76.3	N/A	33
	North (Below 40') (≤ 50' from New Utrecht Avenue)	1S	81.3	N/A	37
	North (> 50' from New Utrecht Avenue)	4	66.5[2]	N/A	N/A
	South (Above 40') (≤ 50' from New	1P	76.3	N/A	33

	Utrecht Avenue)				
	South (Below 40') (≤ 50' from New Utrecht Avenue)	1S	81.3	N/A	37
	South (> 50' from New Utrecht Avenue)	3	69.5[2]	N/A	N/A
	East	N/A	N/A	N/A	N/A
	West (Above 40')	1P	76.3	N/A	33
	West (Below 40')	1S	81.3	N/A	37
B 5727; L 14 Building 1R	North	4	66.5[2]	N/A	N/A
	South	Play Area, 2R	70.6[3]	68.3	31
	East	4	66.5[2]	N/A	N/A
	West	N/A	N/A	N/A	N/A
B 5727; L 19 Potential Development Site[7]	North (Above 40') (≤ 50' from New Utrecht Avenue)	1P	76.3	N/A	33
	North (Below 40') (≤ 50' from New Utrecht Avenue)	1S	81.3	N/A	37
	North (> 50' from New Utrecht Avenue)	4	66.5[2]	N/A	N/A
	South (Above 40') (≤ 50' from New Utrecht Avenue)	1P	76.3	N/A	33
	South (Below 40') (≤ 50' from New Utrecht Avenue)	1S	81.3	N/A	37
	South (> 50' from New Utrecht Avenue)	3	69.5[2]	N/A	N/A
	East	4	66.5[2]	N/A	N/A
	West (Above 40')	1P	76.3	N/A	33
	West (Below 40')	1S	81.3	N/A	37
B 5727; L 14 Building 2	North	4	66.5[2]	N/A	N/A
	South	Play Area, 2R	70.3[3]	63.2	28
	East	4	66.5[2]	N/A	N/A
	West	4	66.5[2]	N/A	N/A
B 5727; L 14 Building 3	North	4	66.5[2]	N/A	N/A
	South	1P, 2R	61.2	62.6	N/A
	East	4	66.5[2]	N/A	N/A
	West	4	66.5[2]	N/A	N/A
B 5727; L 14 Building 4	North	4	66.5[2]	N/A	N/A
	South	1P, 2R	60.6	62.0	N/A
	East	4	66.5[2]	N/A	N/A
	West	4	66.5[2]	N/A	N/A
B 5727; L 14 Building 5	North	4	66.5[2]	N/A	N/A
	South	1P, 2R	60.1	61.4	N/A
	East	5	68.4[2]	N/A	N/A
	West	5	68.4[2]	N/A	N/A
B 5727; L 14 Building 6	North	4	66.4[2]	N/A	N/A
	South	1P, 2R	59.5	60.8	N/A
	East	5	68.4[2]	N/A	N/A
	West	5	68.4[2]	N/A	N/A
B 5727; L 14	North	5	68.4[2]	N/A	N/A

Building 7	South	5	68.4[2]	N/A	N/A
	East	5	68.4[2]	N/A	N/A
	West	4	66.4[2]	N/A	N/A
B 5516; L 1 and L 33 Building 8	North	5	68.4[2]	N/A	N/A
	South	5	68.4[2]	N/A	N/A
	East	6	64.9[2]	N/A	N/A
	West	5	68.4[2]	N/A	N/A
B 5516; L 1 and L 33 Building 9	North	N/A	N/A	N/A	N/A
	South	6	64.9[2]	N/A	N/A
	East	6	64.9[2]	N/A	N/A
	West	6	64.9[2]	N/A	N/A
B 5516; L 1 and L 33 Building 10	North	N/A	N/A	N/A	N/A
	South	6	64.9[2]	N/A	N/A
	East	6	64.9[2]	N/A	N/A
	West	6	64.9[2]	N/A	N/A
B 5516; L 1 and L 33 Building 11	North	7	67.3[2]	N/A	N/A
	South	N/A	N/A	N/A	N/A
	East	7	67.3[2]	N/A	N/A
	West	N/A	N/A	N/A	N/A
B 5516; L 1 and L 33 Building 12	North	Play Area	75.3[3]	N/A	31
	South	N/A	N/A	N/A	N/A
	East	7	67.3[2]	N/A	N/A
	West	7	67.3[2]	N/A	N/A
B 5509; L 41 and L 57 Building 13	North	N/A	N/A	N/A	N/A
	South	Play Area	68.6[3]	N/A	N/A
	East	8	68.2[2]	N/A	N/A
	West	8	68.2[2]	N/A	N/A
B 5509; L 41 and L 57 Building 14	North	9	69.7[2]	N/A	N/A
	South	9	69.7[2]	N/A	N/A
	East	9	69.7[2]	N/A	N/A
	West	9	69.7[2]	N/A	N/A

Notes:

[1] The receptor locations are shown in **Figure J-2**.

[2] The maximum calculated L_{10} noise levels are based on proportional modeling.

[3] Refer to "Play Area Noise" in Section VII of this attachment for play area noise analysis and building attenuation methodology.

[4] The maximum calculated L_{dn} noise levels have been calculated to account for distance.

[5] The above composite window-wall attenuation values are for residential/community facility uses. All the above categories require a closed window situation and an alternate means of ventilation. "N/A" indicates that the maximum calculated L_{10} noise level is below 70 dB(A) and the maximum calculated L_{dn} noise level is below 65 dB(A). The 2021 *CEQR Technical Manual* does not specify minimum attenuation guidance for exterior L_{10} and L_{dn} values below these levels. Commercial office uses would require attenuation values 5 dBA less.

[6] The required attenuation values are shown in **Figures J-3a** and **J-3b**.

[7] As Building 1C and the Potential Development Site would contain commercial office uses, the L_{dn} noise level is not applicable for determining Building 1C's and the Potential Development Site's attenuation requirements.

(E) Designation

The composite window/wall noise attenuations outlined above in **Table J-12** would be required through the assignment of an (E) Designation for noise to portions of the Proposed Rezoning Area in the Project Area (Block 5727, Lots 14 and 19; Block 5516, Lots 1 and 33) in conjunction with the Proposed Actions. With the implementation of this composite window/wall noise attenuation, no significant adverse noise impacts would occur as a result of the Proposed Actions. The text of the (E) Designation (E-749) for window/wall attenuation would be as follows:

Block 5727, Lot 14 (Building 1C)
In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 32 dB(A) window/wall attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors below the elevated rail line and 28 dB(A) of attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors at or above the elevated rail line to maintain an interior L_{10} noise level not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. 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.

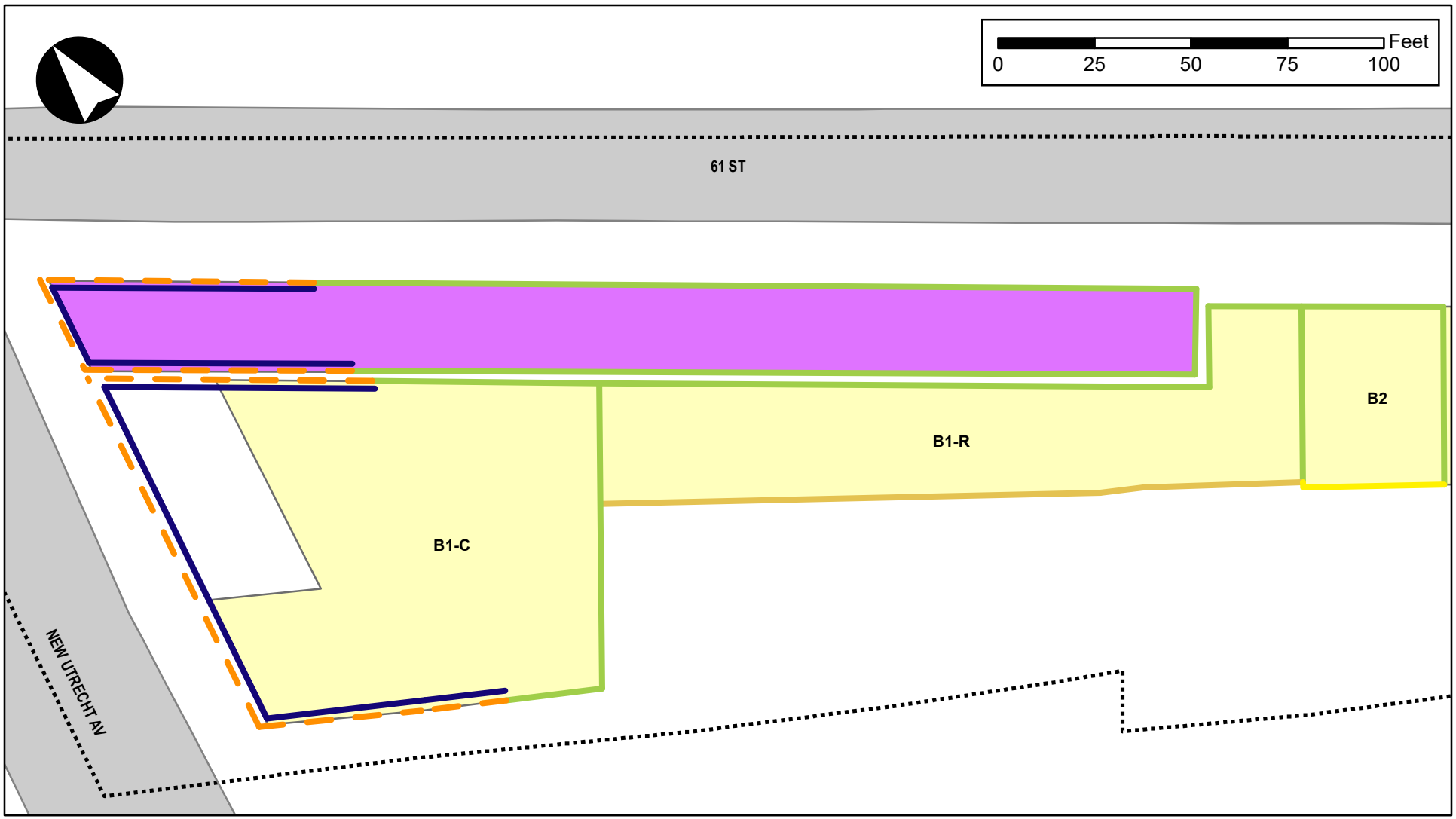
Block 5727, Lot 14 (Building 1R)
In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the façades facing 62nd Street to maintain an interior L_{10} noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. 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 5727, Lot 14 (Building 2)
In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum attenuation of 28 dB(A) window/wall attenuation on the façades facing 62nd Street to maintain an interior L_{10} noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. 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 5727, Lot 19 (Potential Development Site)
In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 32 dB(A) window/wall attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors below the elevated rail line and 28 dB(A) of attenuation on the western, northern, and southern façades within 50 feet of New Utrecht Avenue for floors at or above the elevated rail line to maintain an interior L_{10} noise level not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. 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 5516, Lots 1 and 33 (Building 12)
In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on the façades facing 60th Street to maintain an interior L_{10} noise level not greater than 45 dB(A) for residential uses as illustrated in the EAS. 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.

With the implementation of the attenuation levels outlined above and outlined in **Table J-12**, the Proposed Project would provide sufficient attenuation to achieve *CEQR Technical Manual* interior noise level guidance. Therefore, the Proposed Actions would not result in any significant adverse noise impacts.



Legend

- Proposed Buildings
- Potential Development Site Building
- Project Area

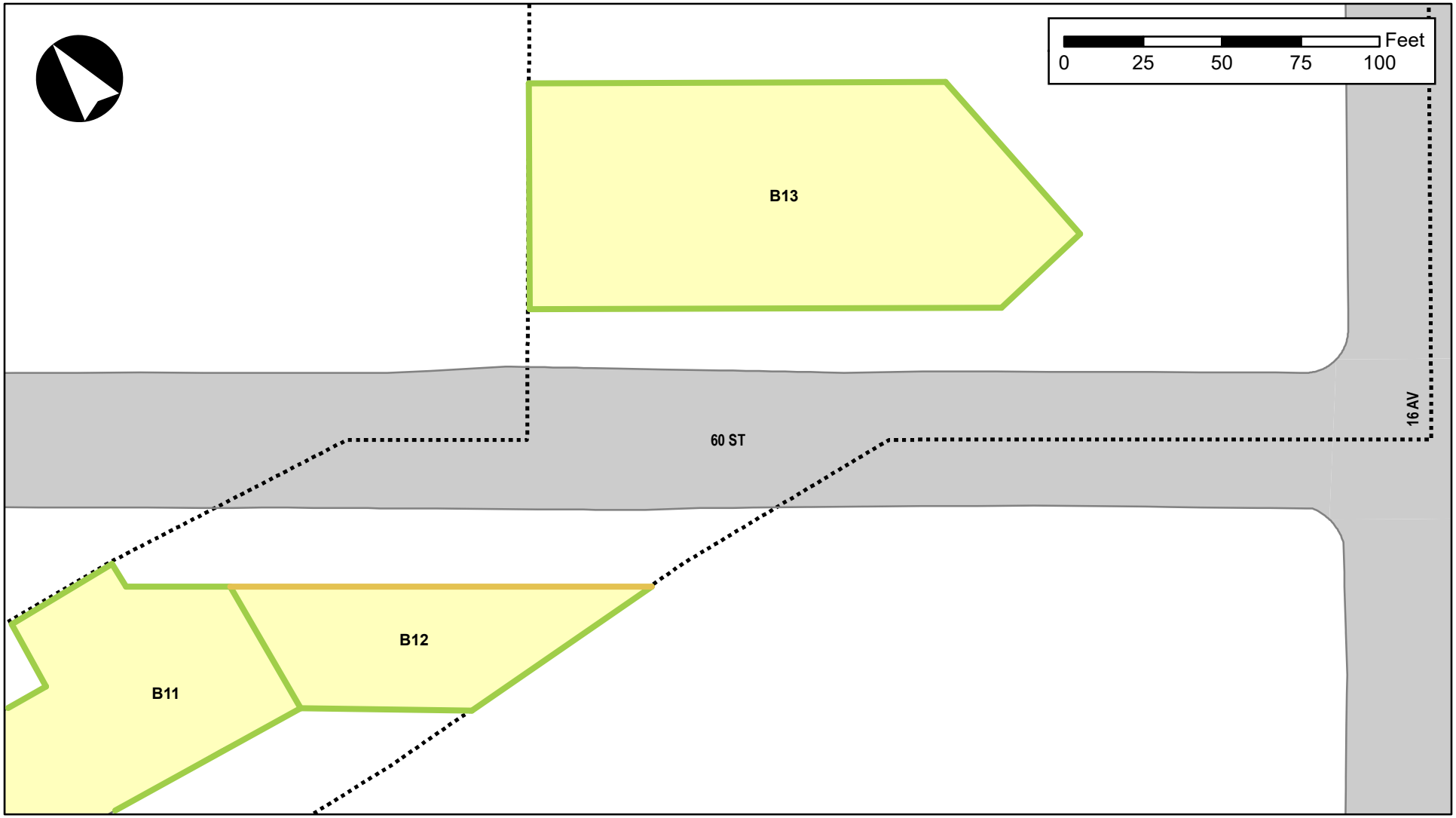
CEQR Window/Wall Attenuation Requirements for Residential/Community Facility Uses

33 dB(A) (Above Rail Line) | 37 dB(A) (Below Rail Line) | 31 dB(A) | 28 dB(A) | No Attenuation

Above attenuation values are for residential and community facility uses. Commercial office uses would require attenuation values 5 dBA less.

Brooklyn Yards EAS

Figure J-3a
Noise Attenuation Requirements



Legend

Proposed Buildings

Project Area

CEQR Window/Wall Attenuation Requirements for Residential/Community Facility Uses

31 dB(A) **No Attenuation**

Above attenuation values are for residential and community facility uses. Commercial office uses would require attenuation values 5 dBA less.

Brooklyn Yards EAS

Figure J-3b
Noise Attenuation Requirements

IX. OTHER NOISE CONCERNS

Mechanical Equipment

No detailed designs of the Proposed Project's mechanical systems (i.e., heating, ventilation, and air conditioning [HVAC] systems) are available at this time. However, those systems will 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 increase in ambient noise levels in the vicinity of the Proposed Rezoning Area in the Project Area or the surrounding neighborhood.

Aircraft Noise

An initial aircraft noise impact screening analysis is appropriate if the proposed project would: generate or reroute aircraft, such as airplanes and helicopters; or introduce a new receptor that is within a 65 dB(A) DNL contour. Since the Proposed Actions would not generate or reroute aircraft, and as the Proposed Rezoning Area in the Project Area is not within a 65 dB(A) DNL contour, no initial aircraft noise impact screening analysis is warranted.

Attachment K:

Construction

I. INTRODUCTION

This attachment assesses the potential impacts associated with the construction of the Proposed Project, the construction of which would be induced as a result the approval of the Proposed Actions. Construction impacts, although temporary, can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. As stated in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, determination of the significance of construction impacts and the need for mitigation is generally based on the duration and magnitude of the construction impacts. Construction impacts are usually important when construction activities could affect traffic conditions, hazardous materials, archaeological resources, the integrity of historic resources, community noise patterns, and/or air quality conditions.

As detailed in **Attachment A, "Project Description,"** Brooklyn Yards Development, LLC (the "Applicant") is seeking a series of discretionary actions subject to City Planning Commission (CPC) approval in order to facilitate the development of the Applicant-controlled Development Site in the Borough Park neighborhood of Brooklyn Community Districts (CDs) 11 and 12. The discretionary actions include: (i) a Zoning Map Amendment to rezone portions of the Project Area from M1-1 and R5 to C4-5, R6, and R6/C2-4; (ii) a Zoning Text Amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) to designate portions of the Project Area as a Mandatory Inclusionary Housing (MIH) area, which would require the construction of permanently affordable residential units within portions of the Project Area, in accordance with City policy, and to amend Appendix I of the ZR to include the entirety of the Project Area as part of the Transit Zone; (iii) three Special Permits to permit development over a railroad right-of-way; (iv) a Special Permit to allow for the distribution of floor area and lot coverage within a Large-Scale General Development (LSGD) without regard for zoning lot boundaries and to modify yard, court, and distance between legal window and lot line requirements; (v) two Special Permits to reduce the amount of required accessory parking spaces; (vi) a Special Permit to allow parking to be distributed throughout an LSGD without regard for zoning lot boundaries; (vii) a Special Permit to modify location of commercial uses within a building; (viii) three Zoning Authorizations to waive required enclosed accessory residential bicycle parking; and (ix) a Zoning Authorization to waive required enclosed accessory commercial bicycle parking spaces (collectively the "Proposed Actions"). The Proposed Actions would facilitate the development of 14 predominantly residential buildings comprising approximately 282,505 gross square feet (gsf) of residential space (encompassing 270 total dwelling units (DUs), including up to 81 affordable DUs), as well as 65,212 gsf of commercial space (the "Proposed Project"). Construction of the 347,717 gsf Proposed Project is anticipated to commence in 2024 with all components complete and operational in 2030 following an approximate seven-year construction period.

According to the *CEQR Technical Manual*, construction duration is often broken down into short-term (less than two years) and long-term (two or more years). Where the duration of construction is expected to be short-term, any impacts resulting from short-term construction generally do not require detailed assessment. Multi-sited projects with overall construction periods lasting longer than two years and that are near sensitive receptors should undergo a preliminary impact assessment.

Construction of the Proposed Project is expected to occur over a period greater than two years and is therefore considered long-term. The construction activities also have the potential to affect sensitive receptors over a sustained period. In addition, based on the conceptual construction schedule prepared for the Proposed Project, there is the potential for on-site sensitive receptors to be completed before the final build-out of the Proposed Project (i.e., one component of the Proposed Project being completed and occupied while construction on the Development Site is ongoing). This attachment provides a preliminary impact assessment following the guidance of the *CEQR Technical Manual*. The preliminary assessment evaluates the duration and severity of the disruption or inconvenience to nearby sensitive receptors. To conduct these assessments, this attachment describes the City, state, and federal regulations and policies that govern construction, followed by the construction schedule and the types of activities likely to occur during construction of the Proposed Project. The types of construction equipment are also discussed, along with the expected number of workers and truck deliveries. Finally, the potential impacts from construction activity are assessed.

II. GOVERNMENTAL COORDINATION AND OVERSIGHT

The governmental oversight of construction in New York City is extensive and involves a number of City, state, and federal agencies. **Table K-1** lists the principal agencies involved in construction oversight and each agency's areas of responsibility. The primary responsibilities lie with New York City agencies.

TABLE K-1:
Construction Oversight in New York City

Agency	Area(s) of Responsibility
New York City	
Department of Buildings (NYCDOB)	Primary oversight for Building Code and site safety
Department of Parks and Recreation (NYC Parks)	Tree protection and removal
Department of Environmental Protection (NYCDEP)	Noise, hazardous materials, dewatering, dust
Fire Department (FDNY)	Compliance with Fire Code, tank operation
Department of Transportation (NYCDOT)	Traffic lane and sidewalk closures
Landmarks Preservation Commission (NYCLPC)	Archaeological and historic architectural protection
New York State	
Department of Labor (NYSDOL)	Asbestos workers
New York City Transit Authority (NYCTA)	Bus stop relocation; any subsurface construction within 200-feet of a subway
Department of Environmental Conservation (NYSDEC)	Dewatering, hazardous materials, tanks, Stormwater Pollution Prevention Plan, Industrial SPDES, if any discharge into the Hudson River
United States	
Environmental Protection Agency (EPA)	Air emissions, noise, hazardous materials, toxic substances
Occupational Safety and Health Administration (OSHA)	Worker safety

The New York City Department of Buildings (NYCDOB) has the primary responsibility for ensuring that construction activities meet the requirements of the New York City Building Code and that buildings are structurally, electrically, and mechanically safe. In addition, NYCDOB enforces safety regulations to protect both construction workers and the public. The areas of responsibility include the enforcement of regulations pertaining to the installation and operation of construction equipment, such as cranes and lifts, sidewalk sheds, and safety netting and scaffolding. The New York City Department of Parks and

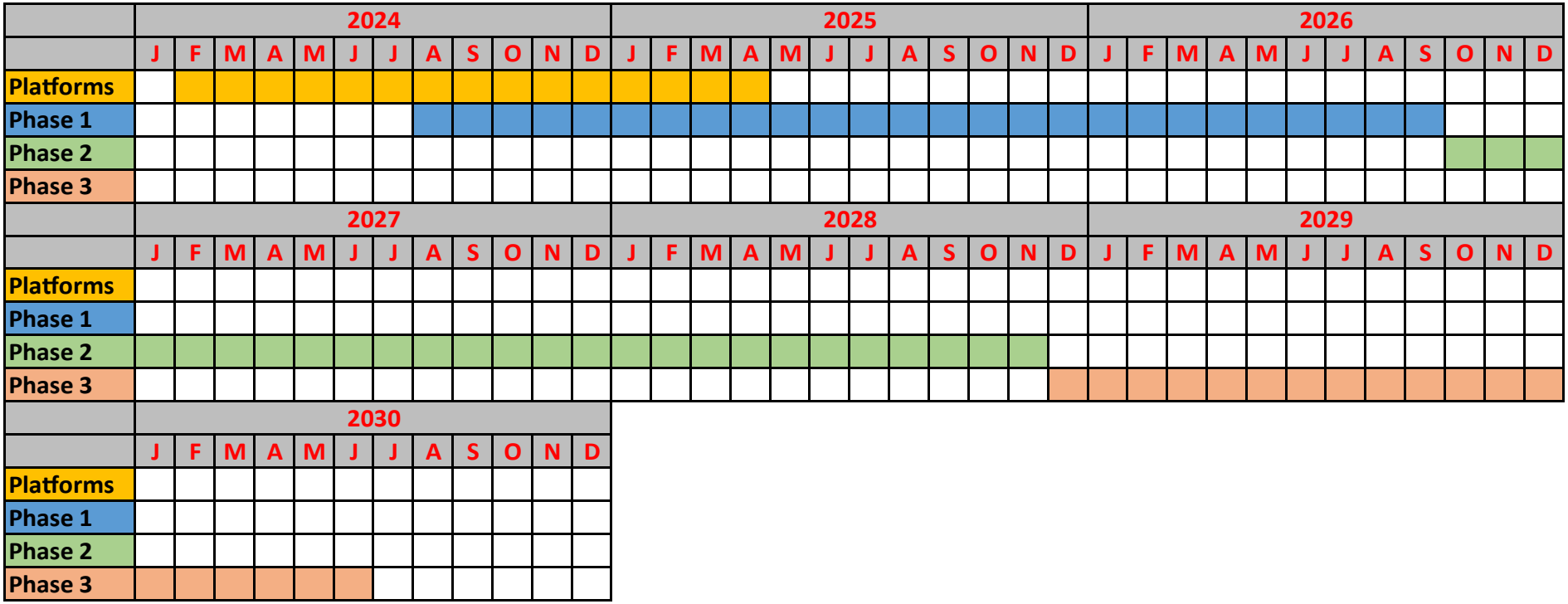
Recreation (NYC Parks) has oversight on tree protection and tree removal during construction. The New York City Department of Environmental Protection (NYCDEP) enforces the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and NYCDEP Notice of Adoption Rules for Citywide Construction Noise Mitigation (also known as Chapter 28), approves Remedial Action Plans (RAPs) and Construction Health and Safety Plans (CHASPs), regulates water disposal into the sewer system, and oversees dust control for construction activities. The New York City Fire Department (FDNY) has primary oversight for compliance with the New York City Fire Code and for the installation of tanks containing flammable materials. The New York City Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures. The New York City Landmarks Preservation Commission (NYCLPC) approves studies and testing to prevent loss of archaeological materials and to prevent damage to fragile historic structures.

At the state level, the New York State Department of Environmental Conservation (NYSDEC) regulates discharge of water into rivers and streams, disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. The New York State Department of Labor (NYSDOL) licenses asbestos workers. The New York City Transit Authority (NYCTA) is in charge of bus stop relocations, and any subsurface construction within 200-feet of a subway.

On the federal level, the U.S. Environmental Protection Agency (EPA) has wide ranging authority over environmental matters, including air emissions, noise emission standards, hazardous materials, and the use of poisons. Much of the responsibility is delegated to the state level. The U.S. Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

III. CONSTRUCTION SCHEDULE

The anticipated construction schedule is illustrated in **Figure K-1**. The anticipated construction schedule reflects the preliminary sequencing of construction events as currently contemplated by the Applicant. As illustrated in **Figure K-1**, construction of Proposed Project would occur over an approximately seven-year (26-quarter) period, with an anticipated start date in the first quarter of 2024. Due to the Development Site's unique configuration spread across three different blocks, the Development Site may be further distinguished into three separate construction sites. The platform structures would begin construction first, followed by Phases 1, 2, and 3. As illustrated in **Figure K-1**, construction of the platform structures would occur over approximately 15 months, and work performed would comprise excavation and construction of the foundations for the platform structures. As illustrated in **Figure K-1**, Phase 1, which entails construction of Buildings 1 – 7 on Block 5727, would occur over approximately 26 months, including approximately 12 months for superstructure- and exterior-related work, and approximately 14 months for interior fit-out. As illustrated in **Figure K-1**, Phase 2, which entails construction of Buildings 8 – 12 on Block 5516, would occur over approximately 26 months, including approximately 12 months for superstructure- and exterior-related work, and approximately 14 months for interior fit-out. As illustrated in **Figure K-1**, Phase 3, which entails construction of Buildings 13 and 14 on Block 5509, would occur over approximately 19 months, including approximately four months for the demolition of an existing one-story building located on Block 5509, Lot 57, approximately seven months for superstructure- and exterior-related work, and approximately eight months for interior fit-out.


2024
2025
2026
2027
2028
2029
2030
J F M A M J J A S O N D
Platforms
Phase 1
Phase 2
Phase 3

IV. DESCRIPTION OF CONSTRUCTION ACTIVITIES

General Construction Practices

Hours of Work

Construction of the Proposed Project would be carried out in accordance with New York City laws and regulations, which allow construction activities between the hours of 7:00 AM and 6:00 PM on weekdays, with most workers arriving between the hours of 6:00 AM and 7:00 AM. Typically, work would end at 3:30 PM, but it can be expected that in order to complete certain critical tasks (e.g., finishing a concrete pour for a floor deck), the workday may occasionally be extended beyond typical work hours. Any extended workdays would generally last until approximately 6:00 PM and would not include all construction workers on-site, but only those involved in the specific task requiring additional work time.

Weekend or night work may also be occasionally required for certain construction activities. Appropriate work permits from NYCDOB would be obtained for any necessary work outside of typical construction hours and no work outside of typical construction hours would be performed until such permits are obtained. The numbers of workers and pieces of equipment in operation for night or weekend work would typically be limited to those needed to complete the particular authorized task(s). Therefore, the level of activity for any weekend or night work would be less than that of a standard workday.

Deliveries, Access, and Staging Areas

Access to the Development Site during construction would be fully controlled. The work areas would be fenced off and limited access points for workers and construction-related trucks would be provided and maintained. Construction workers are generally prohibited from parking their vehicles on-site during the construction period. Truck movements would be spread throughout the day and would generally occur between the hours of 6:00 AM and 3:00 PM, depending on the stage of construction. Material deliveries to the site would be controlled and scheduled. To aid in adhering to delivery schedules, as is typical for building construction in New York City, flaggers would be employed at each construction gate. The flaggers could be supplied by the subcontractor on-site or by the construction manager. The flaggers would control trucks entering and exiting the site so that they would not interfere with one another. In addition, the sub-contractor would provide a traffic aid as the trucks enter and exit onto the street to preclude conflicts with on-street traffic streams.

NYCDOT's Office of Construction Mitigation and Coordination (OCMC) reviews and approves all maintenance and protection of traffic (MPT) plans which specify any planned lane or sidewalk closures and staging for all construction sites. MPT plans would be developed for any required temporary lane, sidewalk, 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 NYCDOT's OCMC. Measures specified in the MPT plans that are anticipated to be implemented would include parking lane closures, safety signs, safety barriers, and construction fencing.

Description of Construction Activities

Large construction projects in New York City typically follow a general pattern. The first task is construction startup, which involves the siting of work trailers, installation of temporary power and communication

lines, and the erection of site perimeter fencing. If a site has existing structures, the structures are demolished with some of the materials (such as concrete, block, and brick) either recycled or crushed on-site to be reused as fill and the debris taken to a licensed disposal facility. Hazardous materials remediation typically occurs at this point. Excavation of the soils is next along with the construction of the foundations. Once the below-grade construction is completed, construction of the superstructure of the new building commences. As the core and floor decks of the building are being erected, installation of the mechanical and electrical internal networks would start. As the building progresses upward, the exterior cladding is placed, and the interior fit-out begins. During what is typically considered the busiest time of building construction, the upper core and structure is being built while mechanical/electrical connections, exterior cladding, and interior finishing are progressing on lower floors.

The following provides a description of each of the anticipated construction tasks for the Development Site.

Construction Startup Tasks

Construction startup work prepares a site for the construction work and would involve the installation of public safety measures, such as fencing, sidewalk sheds, and Jersey barriers. For the entire Development Site, the construction site would be fenced off, typically with solid fencing to minimize interference between the persons passing by the site and the construction work. Separate gates for workers and for trucks would be installed, and sidewalk sheds and Jersey barriers would be erected. Trailers for the construction engineers and managers would be hauled to the site and installed within the Development Site. On-site power generation capabilities would also be placed at this time where necessary.

Demolition

The Development Site will not require extensive demolition, as a majority of the site is vacant, the exception being an existing one-story building located on Block 5509, Lot 57. The building on Block 5509, Lot 57 would be demolished to facilitate construction of Building 13. Before the commencement of demolition of any structure, the building to be demolished would first be abated of any hazardous materials. A New York City-certified asbestos investigator would inspect the building for asbestos-containing materials (ACM), and if present, those materials would be removed by a NYSDOL-licensed asbestos abatement contractor prior to interior demolition. Asbestos abatement is strictly regulated by NYCDEP, NYSDOL, EPA, and OSHA to protect the health and safety of construction workers and nearby residents, workers, and visitors. Depending on the extent and type of ACMs (if any), these agencies would be notified of the asbestos removal and may inspect the abatement area to ensure that work is being performed in accordance with applicable New York State and New York City regulations. Any activities with the potential to disturb lead-based paint (LBP) would be performed in accordance with the applicable OSHA regulation (including federal OSHA regulation 29 CFR 1926.62—Lead Exposure in Construction). In addition, any suspected polychlorinated biphenyls (PCB)-containing equipment (such as fluorescent light ballasts) would be evaluated prior to disturbance. Unless labeling or test data indicate the contrary, such equipment would be assumed to contain PCBs, and would be removed and disposed of at properly licensed facilities in accordance with all applicable regulatory requirements.

Prior to demolition, any economically salvageable materials that could be reused would typically be removed. Then the building would be demolished and demolition debris removed from the site. Hand tools, excavators with hoe ram attachments, loaders, and generators would be used during this stage of

construction. Demolition debris would typically be sorted prior to being disposed of at landfills to maximize recycling opportunities.

Excavation and Foundation

The Proposed Project would require excavation for the foundations of the platform structures. Excavators would be used to excavate soil and the excavated materials would be loaded onto dump trucks for transport to a licensed disposal facility or for reuse on any portion of the Development Site that requires fill. No blasting is anticipated for the construction of the Proposed Project. This stage of construction would include the construction of the foundations of the platform structures. Piles would be installed with the use of drill rigs. If boulders are encountered during pile installation activities, the obstructions would be removed by a rock hammer. Concrete mixing trucks and concrete pumps would be used to pour the foundations of the platform structures. Excavation and foundation activities may also involve the use of rebar benders, generators, air compressors, cherry pickers, rock hammers, and saws.

Superstructure and Exterior Façade – Core and Shell Construction

The core is the central part of the building and is the main part of the structural system. It contains the building's beams and columns, as well as elevator shafts, vertical risers for mechanical, electrical, and plumbing systems, electrical and mechanical equipment rooms, and core stairs. The shell is the exterior of the building. Cranes would be brought onto the construction area as needed and would be used to lift structural components, façade elements, and other large materials, and load and place materials into and on the building. Core and shell construction activities would also require the use of generators, concrete trowels, welders, saws, rebar benders, and a variety of small handheld tools. In addition, temporary construction elevators (hoists) would be used for the vertical movement of workers and materials during this stage of construction.

Interior Fit-Out

Interior fit-out activities would typically include the construction of interior partitions, installation of lighting fixtures, and interior finishes (e.g., flooring, painting, etc.), and mechanical and electrical work, such as the installation of elevators and lobby finishes. Final cleanup and touchup of the buildings and final building system (e.g., electrical system, fire alarm, plumbing, etc.) testing and inspections would be part of this stage of construction. Equipment used during this stage of construction would include hoists, delivery trucks, and a variety of small handheld tools. In addition, grid power is expected to be available during this stage of construction although generators may be needed for welding operations. Interior fit-out activities would typically be the quietest period of construction in terms of its effect on the public, because most of the construction activities would occur inside the buildings with the façades substantially complete.

Number of Construction Workers and Material Deliveries

The number of workers and the number of truck trips associated with material deliveries vary with the scale of the project and the general construction task. **Table K-2**, located on the next page, shows the estimated number of workers and truck deliveries to the Development Site by calendar quarter for all construction activities, based on the anticipated construction schedule. As shown below in **Table K-2**, the average number of workers would be approximately 43 per day throughout the construction period and the average number of trucks would be approximately seven (7) per day throughout the construction

period. The number of daily workers would peak at 92 during the fourth quarter of 2024 and the first quarter 2025, while the number of daily construction trucks would peak at 16 during the fourth quarter of 2024 and the first quarter of 2025.

TABLE K-2:
Average Number of Quarterly Daily Workers and Trucks

Year	2023				2024				2025				2026			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Construction Workers	-				16	16	67	92	92	81	65	60	60	60	60	44
Construction Trucks	-				6	6	13	16	16	12	6	4	4	4	4	7
Year	2027				2028				2029				2030			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Construction Workers	44	44	44	35	35	35	35	26	9	22	22	19	18	18	-	-
Construction Trucks	7	7	7	7	7	7	7	6	3	3	3	3	3	3	-	-

	Project Total	
	Peak	Average
Construction Workers	92	43
Construction Trucks	16	7

VI. PRELIMINARY ASSESSMENT

In accordance with *CEQR Technical Manual* guidance, this preliminary assessment evaluated the effects associated with the Proposed Actions' construction-related activities including transportation (traffic, transit, pedestrians, and parking), air quality, noise, land use and neighborhood character, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, and hazardous materials.

Transportation

Traffic

Construction activities would generate construction worker auto trips and truck trips. As shown in **Table K-2**, the number of daily workers would peak at 92 during the fourth quarter of 2024 and the first quarter of 2025; the number of daily construction trucks would peak at 16 during the same period. These represent peak days of work, and many days during the construction period would have fewer construction workers and trucks on-site.

Similar to other construction projects in New York City, most of the construction activity at the Development Site is expected to take place during the typical construction shift hours of 7:00 AM to 3:30 PM. The estimated daily vehicle trips were distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. While construction truck trips would be made throughout the day (with more trips typically being made during the early morning hours), construction workers would typically commute during the hours before and after the standard work shift. For analysis purposes, each truck delivery was assumed to result in two truck trips during the same hour (one "in" and one "out"), and each truck trip was assumed to have a passenger car equivalent (PCE) of 2.0, consistent with *CEQR Technical Manual* guidance. For construction workers, the majority (80 percent) of arrival and departure trips are expected to take place during the

hour before and after each shift. For construction trucks, deliveries would typically peak during the early morning hours, with an estimated 25 percent overlapping with construction worker arrival traffic. Based on 2000 Census reverse journey-to-work data for construction workers employed in census tracts in proximity to the Development Site[1], it is anticipated that construction workers' travel to the Development Site would be primarily by the auto mode (approximately 57.1 percent by private autos and 0.0 percent by taxis/rideshare services), with smaller numbers using public transportation (11.5 percent) and walking (31.4 percent). It is also estimated that auto occupancy would average approximately 1.01 persons per vehicle. These trip generation assumptions were used as the basis for assessing the potential transportation-related impacts during construction.

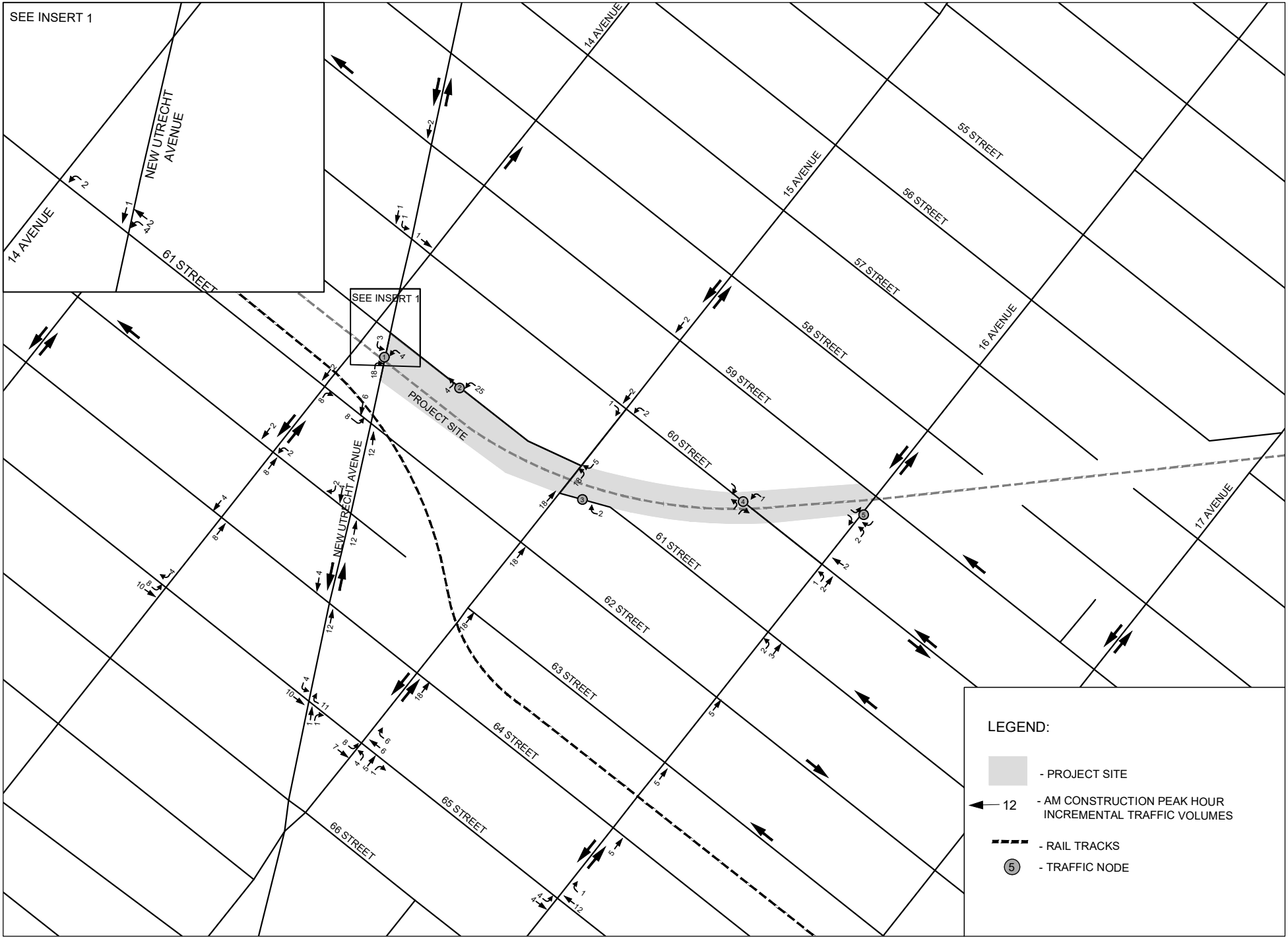
Table K-3 shows a forecast of hourly construction worker auto and construction truck trips during the fourth through first quarters (Q4 – Q1) of 2024 to 2025 based on the assumptions described above. As shown in **Table K-3**, it is estimated that peak construction activities would result in 58 PCEs between 6:00 AM and 7:00 AM during the fourth through first quarters (Q4 – Q1) of 2024-2025. For the 3:00 PM to 4:00 PM period, there would be a maximum of 44 PCEs associated with construction activities.

TABLE K-3:
2024(Q4)/2025(Q1) Peak Construction Vehicle Trip Projections (in PCEs)

	Auto/Taxi Trips					Truck Trips					Total Vehicle Trips		
	In		Out			In		Out					
Hour	%	#	%	#	Total	%	#	%	#	Total	In	Out	Total
6-7 AM	80	42	0	0	21	25	8	25	8	16	50	8	58
7-8 AM	20	10	0	0	5	10	3	10	3	6	13	3	16
8-9 AM	0	0	0	0	0	10	3	10	3	6	3	3	6
9-10 AM	0	0	0	0	0	10	3	10	3	6	3	3	6
10-11 AM	0	0	0	0	0	10	3	10	3	6	3	3	6
11 AM-12 PM	0	0	0	0	0	10	3	10	3	6	3	3	6
12-1 PM	0	0	0	0	0	10	3	10	3	6	3	3	6
1-2 PM	0	0	0	0	0	5	2	5	2	4	2	2	4
2-3 PM	0	0	5	3	1	5	2	5	2	4	2	5	7
3-4 PM	0	0	80	42	21	2.5	1	2.5	1	2	1	43	44
4-5 PM	0	0	15	7	4	2.5	1	2.5	1	2	1	8	9
5-6 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

As shown in **Table K-3**, no intersection would exceed 50 PCEs during the 3:00 PM to 4:00 PM construction peak hour as the peak hour would only experience an increase of 44 PCEs. However, as the 6:00 AM and 7:00 AM construction peak hour would exceed the 50-trip threshold, a Level 2 screening assessment was prepared. **Figure K-2** shows the 6:00 AM and 7:00 AM construction peak hour vehicle trip assignment that would be generated during the construction peak period of the Proposed Project. As shown in **Figure K-2**, no intersection would experience an increase of 50 or more construction-generated vehicle trips during the 6:00 AM and 7:00 AM construction peak hour. As peak traffic from construction trucks and worker vehicles would not exceed *CEQR* threshold for a detailed traffic analysis at any intersection, significant adverse traffic impacts are not expected to occur in the construction peak hours during the fourth quarter of 2024 and the first quarter of 2025 peak construction periods.

[1] AASHTO CTPP 2000 reverse journey-to-work data for the area encompassed by 2010 Brooklyn census tracts 242, 248, and 250.



BROOKLYN YARDS EAS

FIGURE K-2

AM CONSTRUCTION PEAK HOUR INCREMENTAL TRAFFIC VOLUMES

Curb Lane Closures and Staging

Construction staging would most likely occur on the Development Site and may extend within portions of sidewalks, curbs, and travel lanes of public streets adjacent to the Development Site. Similar to many other construction projects in New York City, temporary curb lane and sidewalk closures are expected to be required adjacent to the Development Site, which would have dedicated gates, driveways, or ramps for delivery vehicle access. It is anticipated that construction activity would mostly take place within the Development Site. Any sidewalk or street closures would require the approval of NYCDOT's OCMC, the entity that ensures critical travel arteries are not interrupted, especially in peak travel periods.

Flaggers are expected to be present at active site driveways, where needed, to manage the access and movement of trucks to ensure no on-street queuing. Some of the site deliveries may also occur along the perimeter of the site within delineated closed-off areas for concrete pour or steel delivery.

Transit

As discussed above and shown in **Table K-2**, in the fourth quarter of 2024 and first quarter of 2025 peak construction periods, approximately 92 construction workers would travel to and from the Development Site each day. As also discussed above, a total of approximately 11.5 percent of construction workers are expected to travel to and from the Development Site by public transit (subway, bus) and 31.4 percent by walking. In addition, it is estimated that approximately 80 percent of all construction workers would arrive and depart in the peak hour before and after each shift. Therefore, it is estimated that approximately eight (8) construction workers would travel to and from the Development Site via public transit each day, and that approximately eight (8) of these trips would occur in each of the 6:00 AM to 7:00 AM and 3:00 PM to 4:00 PM construction peak hours.

As peak transit demand from construction workers on the Development Site would not meet the 200 trips/hour *CEQR Technical Manual* analysis threshold for a detailed subway analysis, nor the 50 trips/hour/direction analysis threshold for a detailed bus analysis, significant adverse impacts to subway and bus services are not expected to occur in the construction peak hours during the fourth quarter of 2024 and the first quarter of 2025 peak construction periods.

Pedestrians

As discussed previously, it is anticipated that approximately 92 construction workers would travel to and from the Development Site in the fourth quarter of 2024 and first quarter of 2025 peak construction periods. An estimated 74 of these workers (80 percent) would arrive and depart in the peak hour before and after each shift. Therefore, peak pedestrian demand from construction workers on the Development Site would not meet the 200 trips/hour *CEQR Technical Manual* analysis threshold for a detailed pedestrian analysis, and significant adverse pedestrian impacts are not expected to occur during the fourth quarter of 2024 and the first quarter of 2025 peak construction periods. During construction, where sidewalk closures are required, adequate protection or temporary sidewalks would be provided in accordance with NYCDOT's OCMC requirements.

Parking

Of the estimated 92 construction workers who would travel to the Development Site during the fourth quarter of 2024 and the first quarter of 2025 peak construction periods, approximately 57.1 percent are

expected to travel by private auto. Based on an average auto occupancy of 1.01 persons per auto, the maximum daily parking demand from construction workers would total approximately 52 spaces. As it is assumed that there would be no on-site parking until full completion of the Proposed Project, it is anticipated that construction workers would park on-street or in nearby off-street public parking facilities located in proximity to the Development Site during this period.

As discussed in **Attachment H, "Transportation,"** under *CEQR Technical Manual* guidance, the inability of the Proposed Actions or the surrounding area to accommodate future parking demands would be considered a parking shortfall but would generally not be considered significant due to the magnitude of available alternative modes of transportation (including the N and D subway routes). Therefore, should any parking shortfall occur due to incremental demand from construction workers during the fourth quarter of 2024 and the first quarter of 2025 peak construction periods, it would be short-term and not be considered a significant parking shortfall pursuant to *CEQR Technical Manual* guidance.

Air Quality

Construction under the Proposed Actions would require use of both non-road construction equipment and on-road vehicles, which results in emissions that have the potential to affect air quality. Non-road construction equipment includes equipment operating on-site, such as excavators, loaders, and cranes. On-road vehicles include construction delivery trucks, dump trucks, concrete trucks, and construction worker vehicles arriving at and departing from the Development Site, as well as operating on-site. In addition, emissions from dust-generating construction activities (i.e., truck loading and unloading operations) also have the potential to affect air quality. The *CEQR Technical Manual* lists several factors for consideration in determining whether a quantified on-site and/or off-site construction impact assessment for air quality is appropriate. These factors include the use of emission control measures, the duration and intensity of construction activities, the location of nearby sensitive receptors, and project-generated, construction-related vehicle trips. This guidance was followed to assess the potential for construction air quality impacts from the Proposed Actions.

According to the *CEQR Technical Manual* screening thresholds, if 170 or more project-generated vehicles pass through an intersection in any peak hour (for CO impact), or if a project would result in greater than 12 to 23 heavy duty diesel vehicle (HDDV) trips or its equivalent vehicle emissions based on the type of road (for $PM_{2.5}$ impact), there is the potential for mobile source air quality impacts and a detailed analysis is required. Using the *CEQR Technical Manual* screening thresholds for mobile sources, an intersection mobile source screening analysis was performed for the Proposed Actions' construction traffic for intersections proximate to the Development Site.

As shown in **Table K-2**, the number of daily workers would peak at 92 during the fourth quarter of 2024 and the first quarter of 2025; the number of daily construction trucks would peak at 16 during the same period. **Table K-3** shows a forecast of hourly construction worker auto and construction truck trips during the fourth through first quarters (Q4 – Q1) of 2024 to 2025. It is estimated that peak construction activities would result in 58 PCEs between 6:00 AM and 7:00 AM during the fourth through first quarters (Q4 – Q1) of 2024-2025. The number of total vehicle trips not converted to PCEs is approximately 50 total vehicle trips (eight truck trips and 42 auto/taxi trips). Therefore, the Proposed Actions' construction activities would not generate 170 or more vehicles through an intersection in any peak hour. As such, a detailed mobile source air quality analysis for CO emissions is not warranted for the Proposed Actions' construction traffic.

The $PM_{2.5}$ equivalent truck calculation in vehicular emission screen ranges from 12 to 23 HDDVs depending on the type of roadway. As described above, it is estimated that peak construction activities would result in approximately 50 total vehicle trips (eight truck trips and 42 auto/taxi trips) between 6:00 AM and 7:00 AM during the fourth through first quarters (Q4 – Q1) of 2024-2025. **Figure K-2** shows the 6:00 AM and 7:00 AM construction peak hour vehicle trip assignment that would be generated during the construction peak period of the Proposed Project. During the construction peak period, it is anticipated that the 61st Street between New Utrecht Avenue and 15th Avenue would experience the greatest number of construction peak hour vehicle trips (four truck trips and 17 auto/taxi trips). All autos were assumed to be LDGT1 class vehicles, and all trucks were assumed to be HDDV7 class vehicles, based on guidance from DCP. **Table K-4** shows the peak hour construction traffic generated by the Proposed Actions (by vehicle type) and the *CEQR Technical Manual* Equivalent Truck Calculation.

TABLE K-4:
2024(Q4)/2025(Q1) Construction Peak Hour Construction Traffic Volumes

Roadway	Roadway Classification (Threshold HDDVs screen)[1]	Peak-Hour Period	Trucks Per Hour	Vehicle Per Hour	Equivalent Truck	Equivalent Truck Threshold	Pass/Fail
61st Street (Between 15th Avenue and New Utrecht Avenue)	Paved Road < 5000 veh/day	6-7 AM	4	17	12	13	Pass

Note:
[1] Roadway classification obtained from the New York State Department of Transportation (NYSDOT) Functional Class Maps <https://www.dot.ny.gov/gisapps/functional-class-maps> (May 2023).

As shown in **Table K-4**, the Proposed Actions' $PM_{2.5}$ equivalent truck calculation in vehicular emissions does not exceed the HDDVs screening threshold criterion for the 6:00 AM and 7:00 AM construction traffic peak hour for 61st Street between 15th Avenue and New Utrecht Avenue. As such, a detailed mobile source air quality analysis for $PM_{2.5}$ emissions is not warranted for Proposed Actions' construction traffic. Therefore, the Proposed Actions would not result in significant adverse mobile source construction air quality impacts.

While the overall construction for the Proposed Project is anticipated to occur over approximately seven years, the seven years of construction is to develop the projected 13 buildings, most of which are of a small scale and are spread out over three blocks. For each of three construction phases, the number of construction equipment and the number of trucks applied would be fewer compared with bigger scale projects. The operation of the equipment would also be distributed across a relatively wide geographic area. Therefore, construction air quality impact from each building or each phase would be limited and partial to the overall construction schedules and impacts would be considered spread out rather than locally concentrated. Taking these specific contexts into account and as construction would implement emission control measures as detailed below, the Proposed Actions would not likely cause significant adverse construction air quality impacts and would not require further analysis.

Emission Control Measures

Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures and idling restrictions:

- *Clean Fuel*. Ultra-low-sulfur diesel (ULSD)[2] fuel will be used exclusively for all diesel engines throughout the Development Site.
- *Dust Control.* To minimize dust emissions from construction activities, a dust control plan, including a robust watering program, would be required as part of contract specifications. For example, all trucks hauling loose material would be equipped with tight-fitting tailgates and their loads securely covered prior to leaving the Development Site; and water sprays would be used for all demolition, excavation, and transfer of soils to ensure that materials would be dampened as necessary to avoid the suspension of dust into the air. All measures required by the portion of the NYCDEP Construction Dust Rules regulating construction-related dust emissions would be implemented.
- *Idling Restriction.* In accordance with Title 24, Chapter 1, Subchapter 7, Section 24-163 of the Administrative Code of the City of New York, the local law restricting unnecessary idling on roadways, truck idle time will be restricted to three (3) minutes except for vehicles that are using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or are otherwise required for the proper operation of the engine.
- *Diesel Equipment Reduction*. Electrically powered equipment would be utilized over diesel-powered and gasoline-powered versions of that equipment to the extent practicable.

Overall, the emissions control measures identified above are expected to significantly reduce air pollutant emissions during construction under the Proposed Actions.

Potential Air Quality Effects during Construction

On-Site Sources

DURATION AND INTENSITY OF CONSTRUCTION ACTIVITIES

Construction of the Proposed Project, as is the case with any construction project, would result in temporary disruption to the surrounding area. While the overall construction for the Proposed Project is anticipated to occur over approximately seven years, the construction of the platform structures and Phase 3 would each be completed over time periods of approximately less than 24 months, while Phases 1 and 2 would each be completed over approximately 26 months. Therefore, the entire Development Site would not experience construction activities for the full duration of construction. Furthermore, the most intense construction activities in terms of air pollutant emissions from diesel engines (i.e., demolition, excavation, and platform construction activities where the largest number of large non-road diesel engines such as excavators, concrete mixing trucks, and concrete pumps would be employed) would occur over a period of approximately 15 months between 2024 and 2025 (during construction of the platform structures) and approximately four months between 2028 and 2029 (during demolition of the existing one-story building on

[2] EPA required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel. Sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million (ppm).

Block 5509, Lot 57); diesel engines would only be in use during a portion of these periods. The other stages of construction, including superstructure, exteriors, and interiors work would result in substantially lower air emissions since these stages would require fewer pieces of heavy duty diesel equipment. These later stages of construction would not involve soil disturbance activities and therefore would result in lower dust emissions. In addition, interior construction work would occur within an enclosed building shielded from nearby sensitive receptors.

The approach and procedures for constructing the proposed buildings would be typical of the methods utilized in other building construction projects throughout New York City and therefore would not be considered out of the ordinary in terms of intensity. The air pollutant emission levels associated with construction of the Proposed Project are typical of ground-up building construction in New York City that would require limited demolition, limited excavation, and limited platform construction (where large equipment such as excavators, concrete mixing trucks, and concrete pumps would be employed).

LOCATION OF NEARBY SENSITIVE RECEPTORS

The area surrounding the Development Site contains a mixture of sensitive uses, including residential buildings and community facility/institutional uses. In addition, since the buildings included in the Proposed Project would be constructed in phases such that one or more project buildings would be completed and occupied while construction occurs at another building or buildings, those completed and occupied buildings would constitute newly introduced sensitive receptors.

As discussed above under "Emission Control Measures," measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. For example, a robust watering program would be implemented to minimize dust emissions from construction activities. Furthermore, construction sources would move throughout the Development Site over the construction period, which would reduce the air quality effects of construction to any one location. Moreover, construction of the Proposed Project would move from one area (construction phase) to another such that no portion of the adjacent sensitive receptors would be subject to the full effects of construction for the entire construction period. The construction areas would be fenced off with solid fencing, which would serve as a buffer between the emission sources, which would mostly operate at or near ground level, and nearby ground-level sensitive receptor locations. Therefore, potential concentration increments from on-site construction sources at nearby sensitive receptor locations would be substantially reduced. Due to these reasons, the Proposed Project would not result in any significant adverse construction air quality impacts from on-site construction sources.

Noise

Potential impacts on community noise levels during construction could result from the operation of construction equipment and from construction and delivery vehicles traveling to and from construction sites. Noise levels at a given location are dependent on the type and quantity of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time the equipment is operating at full power), the distance from the construction site, and any shielding effects (e.g., from structures such as walls or barriers). Because the location of the construction activities relative to noise sensitive receptor locations would vary over the course of the construction period, as would the amount and type of construction equipment, the level of noise experienced at each noise sensitive receptor would also vary during this period. The most noise intensive construction activities would not occur every day or every hour on those days that they would occur. During hours when the loudest pieces

of construction equipment are not in use, noise sensitive receptors would experience lower construction noise levels. Construction noise levels would fluctuate during the construction period at each noise sensitive receptor, with the greatest levels of construction noise occurring for limited periods.

Noise Reduction Measures

Construction noise is regulated by the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and NYCDEP's Notice of Adoption of Rules for Citywide Construction Noise Mitigation (also known as Chapter 28). These requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. For weekend and after hour work, permits would be required, as specified in the New York City Noise Control Code. As required under the New York City Noise Control Code, a site-specific noise mitigation plan for construction under the Proposed Actions would be developed and implemented that may include source and path controls. This noise control plan is expected to include such measures as avoiding unnecessary evening construction and truck idling. A copy of the noise mitigation plan would also be kept at the construction site for compliance review by NYCDOB and NYCDEP.

Noise control measures would typically include a variety of source and path controls. In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be implemented in accordance with NY regulations:

- Equipment that meets the sound level standards specified in Subchapter 5 of the New York City Noise Control Code would be used from the start of construction.
- As early in the construction period as logistics would allow, diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as pumps, compressors, and hoists (i.e., early electrification) to the extent feasible and practicable.
- Where feasible and practical, construction sites would be configured to minimize back-up alarm noise. In addition, all trucks would not be allowed to idle more than three (3) minutes at the construction site based upon New York City Local Law.
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

In terms of path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and noise sensitive receptors), the following measures for construction would be implemented in accordance with NY regulations:

- Where logistics allow, noisy equipment, such as cranes, concrete mixing trucks, concrete pumps, and delivery trucks, would be located away from and shielded from noise sensitive receptor locations.
- Noise barriers would be utilized to provide shielding (i.e., the construction sites would have perimeter barriers of at least eight (8) feet in height).
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents, where feasible) would be required for certain dominant noise equipment (i.e., generators, jack hammers, pile drivers, and pumps) to the extent feasible and practical, where this analysis indicates there may be a potential for a significant adverse impact. The details to construct portable noise

barriers, enclosures, tents, etc., are provided in NYCDEP's Rules for Citywide Construction Noise Mitigation.

Potential Noise Effects during Construction

The Development Site is located on portions of three different blocks in a mixed-use neighborhood. The platform structures would commence construction first, followed by Phases 1, 2, and 3. Construction of the platform structures would occur over approximately 15 months, and work performed would comprise excavation and construction of the foundations for the platform structures. Phase 1, which entails construction of Buildings 1 – 7 on Block 5727, would occur over approximately 26 months, including approximately 12 months for superstructure- and exterior-related work, and approximately 14 months for interior fit-out. Phase 2, which entails construction of Buildings 8 – 12 on Block 5516, would occur over approximately 26 months, including approximately 12 months for superstructure- and exterior-related work, and approximately 14 months for interior fit-out. Phase 3, which entails construction of Buildings 13 and 14 on Block 5509, would occur over approximately 19 months, including approximately four months for the demolition of an existing one-story building located on Block 5509, Lot 57, approximately seven months for superstructure- and exterior-related work, and approximately eight months for interior fit-out.

As described in **Attachment J, "Noise,"** existing noise levels at Receptor Locations 3, 4, 5, 6, 7, 8, and 9 surrounding the Development Site are in the "Acceptable" or "Marginally Acceptable" categories in terms of *CEQR Technical Manual* noise exposure guidance. Noise levels at Receptor Location 1, located at the westernmost boundary of the Development Site, are in the "Clearly Unacceptable" category in terms of *CEQR Technical Manual* noise exposure guidance.

MOBILE CONSTRUCTION NOISE SOURCES

Throughout the construction period, vehicles, including construction-related trucks and vehicles driven by workers at the site, would travel to and from the Development Site. Most of these vehicles would be expected to use 60th Street and 61st Street to access the site. Considering the construction vehicle trip projections shown above and the existing traffic volumes at these thoroughfares, construction traffic would not likely substantially increase the ambient noise levels to cause significant adverse construction noise impacts. Farther away from the Development Site, construction-related trucks and vehicles would be distributed throughout the surrounding street network, and the amount of construction-related traffic would be low in comparison to existing traffic levels along these roadways. Consequently, construction-related traffic would not have the potential to result in significant adverse impacts at noise sensitive receptors further away from the Development Site.

ON-SITE CONSTRUCTION NOISE SOURCES

Although the overall construction duration on the Development Site is anticipated to be approximately seven years, the most noise intensive construction activities (demolition, excavation, and infrastructure improvement activities) are anticipated to occur over a total period of approximately 19 months. The initial period of construction requiring demolition, excavation, and infrastructure improvement activities would occur during construction of the platform structures, which would occur over a period of approximately 15 months between 2024 and 2025. The demolition, excavation, and infrastructure improvement activities required in Phase 3 (i.e., demolition of the existing one-story building on Block 5509, Lot 57) would occur for approximately four months between 2028 and 2029.

There are existing noise sensitive receptor locations adjacent to the Development Site; as such, the distance between adjacent noise sensitive receptors and the nearest construction work area would be maximized, where feasible, to reduce the potential for construction-related noise impacts. In addition, to the extent practicable, best efforts would be made to stage construction activities within the Development Site, and perimeter fencing would be erected to shield noise emitted from construction activities.

Due to the Development Site's unique configuration spread across three different blocks, the Development Site may be further distinguished into three separate construction sites. Therefore, it is unlikely that the Proposed Project's initial (Phase 1) completed and occupied noise sensitive receptors would have the potential to experience significant adverse construction noise impacts from the subsequent phased construction at the remaining segment(s) of Development Site.

Although overall construction induced by the Proposed Actions would take approximately seven years, it is important to note that the seven-year construction schedule is to develop 14 projected buildings, which would develop separately with three phase groups, across a relatively wide geographic area and each building is of relatively small scale. Therefore, construction noise impact from each building would be limited and partial to the overall construction schedules and impacts would be considered spread out rather than locally concentrated. Taking these specific contexts into account and as construction would comply with NY regulations, the Proposed Actions would not likely cause significant adverse construction noise impacts and would not require further analysis.

Vibration

Construction activities have the potential to result in vibration levels that may in turn result in structural or architectural damage, and/or annoyance or interference with vibration-sensitive activities. In general, vibratory levels at a receiver are a function of the source strength (which in turn is dependent upon the construction equipment and methods utilized), distance between the equipment and the receiver, characteristics of the transmitting medium, and receiver building construction. Construction equipment operation causes ground vibrations, which spread through the ground and decrease in strength with distance. Vehicular traffic, even in locations close to major roadways, typically does not result in perceptible vibration levels unless there are discontinuities in the roadway surface. With the exception of the case of fragile and possibly historically significant structures or buildings, generally construction activities do not reach the levels that can cause architectural or structural damage, but can rise to levels that may be perceptible and annoying in buildings or structures (i.e., elevated subway structures) close to a construction site. Localized increases in vibration associated with construction facilitated by the Proposed Actions would be temporary.

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

approximately 150-feet from the Development Site at its closest point. This is well beyond the 90 linear feet maximum distance at which an adverse physical impact may be significant, as defined by NYCDOB. For these reasons, the Proposed Actions would not result in any potential significant adverse vibration impacts during construction.

Other Technical Areas

Land Use and Neighborhood Character

According to the *CEQR Technical Manual*, a construction impact analysis for land use and neighborhood character is typically needed if construction would require continuous use of property for an extended duration, thereby having the potential to affect the nature of the land use and character of the neighborhood. A land use and neighborhood character assessment for construction impacts examines construction activities that would occur on the site (or portions of the site) and their duration. The analysis determines whether the type and duration of the activities would affect neighborhood land use patterns or neighborhood character. For example, a single property might be used for staging for several years, resulting in a "land use" that would be industrial in nature. Depending upon the nature of existing land uses in the surrounding area, the use of a single piece of property for an extended duration and its compatibility with neighboring properties may be assessed to determine whether it would have a significant adverse impact on the surrounding area.

Construction activities associated with the Proposed Actions would affect land uses within the Development Site temporarily, but would not alter surrounding land uses. As is typical with construction projects, during periods of peak construction activity there would be some disruption to the nearby area. There would be construction trucks and construction workers coming to and from the Development Site. There would also be noise, sometimes intrusive, from demolition, excavation, and foundation activities, as well as trucks and other vehicles backing up, loading, and unloading. These disruptions would be temporary in nature and would have limited effects on land uses within the surrounding area, particularly as most construction activities would take place within the Development Site. In addition, throughout the construction period, measures would be implemented to control noise and dust on the Development Site, including the erection of construction fencing and barriers. The fencing and barriers would reduce potentially undesirable views of the site and buffer noise emitted from construction activities. Since none of these impacts would be continuous or ultimately permanent, they would not create significant adverse impacts on land use patterns or neighborhood character in the surrounding area. Therefore, it is expected that such impacts would be temporary and would not impact neighborhood character. Therefore, no significant construction impacts to land use and neighborhood character are expected as a result of the Proposed Actions and further assessment is not warranted.

Socioeconomic Conditions

According to the *CEQR Technical Manual*, construction impacts to socioeconomic conditions are possible if a project would entail construction of a long duration that could affect access to and thereby viability of a number of businesses and if the failure of those businesses has the potential to affect neighborhood character. Construction activities associated with the Proposed Actions would not result in any significant adverse impacts to socioeconomic conditions. As noted above, most construction activities and staging would take place within the Development Site. Construction of the proposed buildings would be of limited duration. In some instances, construction would temporarily affect pedestrian and vehicular access on street frontages immediately adjacent to the Development Site; however, any lane and/or sidewalk

closures are expected to be of very limited duration, lasting only a few months and are not expected to occur in front of entrances to any existing businesses. In addition, construction activities are not expected to expand beyond the boundaries of the Development Site and would not obstruct major thoroughfares used by customers or businesses. Businesses would not be significantly affected by any temporary reductions in the amount of pedestrian foot traffic or vehicular delays that could occur as a result of project-related construction activities. As such, no significant construction impacts to socioeconomic conditions are expected as a result of the Proposed Actions and further assessment is not warranted.

Community Facilities and Services

According to *CEQR Technical Manual* guidance, construction impacts to community facilities and services are possible if a community facility or service would be directly affected by construction (e.g., if construction would disrupt services provided at a facility or close a facility temporarily, etc.). No community facilities and services would be directly affected by construction of the Proposed Project on the Development Site. The site would be surrounded by construction fencing and barriers that would limit the effects of construction on nearby community facilities and services. Construction workers would not place any burden on public or publicly funded schools and would have minimal, if any, demand on libraries, early childhood centers, and health care facilities. Construction of the proposed buildings would not block or restrict access to any community facilities and services in the area, and are not expected to materially affect emergency response times. NYPD and FDNY emergency services and response times would not be materially affected as a result of the geographic distribution of the police and fire facilities and their respective coverage areas. Therefore, no significant construction impacts to community facilities and services are expected a result of the Proposed Actions and further assessment is not warranted.

Open Space

According to *CEQR Technical Manual* guidance, construction impacts to open space are possible if open space resources are taken out of service for a period of time during the construction process. No publicly accessible open space resources would be disrupted during the proposed construction work, nor would access to any publicly accessible open space be impeded during construction. Furthermore, construction activities would be implemented in accordance with NY regulations, which regulates construction noise to reduce the effects on noise sensitive receptors including public open space. As such, no construction impacts related to open space are expected as a result of the Proposed Actions and further assessment is not warranted.

Historic and Cultural Resources

According to *CEQR Technical Manual* guidance, construction impacts may occur on historic and cultural resources if in-ground disturbances or vibrations associated with project construction could undermine the foundation or structural integrity of nearby resources. As detailed above, the Development Site is not located within 90 linear feet of any NYCL-designated or S/NR-listed resources. As such, the Proposed Actions would have no significant adverse construction-related impacts on historic resources and further assessment is not warranted.

Hazardous Materials

According to *CEQR Technical Manual* guidance, a construction assessment is not needed for hazardous materials unless the construction activities would disturb a site or be located adjacent to a site containing

hazardous materials. As discussed in **Attachment B, "Supplemental Screening,"** with adherence to the requirements of the (E) Designation for hazardous materials, no significant adverse impacts related to hazardous materials are expected. As all investigations and any remediation would be undertaken prior to any construction on the Development Site, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the Proposed Actions and no further assessment is warranted.

Furthermore, as discussed above, to minimize dust emissions from construction activities, a dust control plan, including a robust watering program, would be required as part of contract specifications. For example, all trucks hauling loose material would be equipped with tight-fitting tailgates and their loads securely covered prior to leaving the Development Site; and water sprays would be used for all demolition, excavation, and transfer of soils to ensure that materials would be dampened as necessary to avoid the suspension of dust into the air. All measures required by the portion of the NYCDEP Construction Dust Rules regulating construction-related dust emissions would be implemented.

Appendix 1:

Current Public Access Area (PAA) Plan



1 LANDSCAPE ZONING LOT SITE PLAN
1"=40'-0"

LEGEND

- NYC DOT STANDARD CONCRETE PAVING
- CONCRETE UNIT PAVER COLOR A (PLAZA / ENTRY AREA)
- CONCRETE UNIT PAVER COLOR B (LANDSCAPE CORRIDOR)
- PLANTED AREA
- SYNTHETIC TURF PLAY SAFETY SURFACE
- CLIMBING FEATURES
- PAA — PUBLIC ACCESS AREA (PAA)
- PERFORATED PARAPET WALL
- FENCE & GATE, 6' HT. MAX
- CANOPY STREET TREE
- FASTIGIATE / ORNAMENTAL TREE
- SCULPTURAL VINE SCREEN
- FIXED BENCH WITH BACK
- MOVABLE CAFE TABLE AND CHAIRS
- FIXED SEAT WALL
- SWING SEATING
- TRASH RECEPTACLE
- BICYCLE PARKING
- PAA ENTRY/ INFORMATION SIGN
- COMMERCIAL ACCESS POINT
- RESIDENTIAL ACCESS POINT
- BUILDING ENTRANCE POINTS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY
- R6-1/C2-3 — ZONING DISTRICT
- 6 — # STORIES
- 60' — BUILDING HEIGHT
- ROAD DIRECTION
- ZONING DISTRICT BOUNDARY
- ZONING LOT LINE
- TAX LOT LINE
- PROPOSED MAXIMUM BUILDING ENVELOPE
- ILLUSTRATIVE BUILDING LINE
- LARGE SCALE GENERAL DEVELOPMENT
- EXISTING BUILDING FOOTPRINT
- PROPOSED BUILDING FOOTPRINT

BROOKLYN YARDS

BROOKLYN YARDS - PUBLIC ACCESS AREA	
	AREA (SF))
PAA 1	2,037.68
PAA 2	511.57
PAA 3	1,134.61
TOTAL AREA	3,683.86
PLAY AREA	804.48

GENERAL NOTES

1. BUILDINGS WITHIN THE PROPOSED ZONING ENVELOPE ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SUBJECT TO CHANGE
2. BUILDING ENTRANCES ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
3. STREET TREES ADJACENT TO THE PROJECT AREA WILL BE PROVIDED IN ACCORDANCE WITH THE ZONING RESOLUTION ZR 26-41. THE LOCATION AND NUMBER OF WHICH WILL BE SUBJECT TO DEPARTMENT OF PARKS AND RECREATION DETERMINATION OF FEASIBILITY.
4. INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT BUILDING LINE INFORMATION ON SURROUNDING PROPERTIES.
5. REFER TO ARCHITECTURE DRAWINGS FOR ARCHITECTURAL DETAILS .
6. INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE EXACT.
7. POTENTIAL REMOVAL AND/OR RELOCATION OF EXISTING FIRE HYDRANT AT PROPOSED CURB CUT LOCATION TO BE COORDINATED WITH NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION.

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STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL — No. 15002
BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 2288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595

COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900

RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York-NY 10005
T +1 212 896 3000

COST ESTIMATOR/ AECOM TISHMAN
100 Park Avenue I New York, NY 10017
T +12129732999

FINANCIAL MODELING/ JAMES LIMA PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637

ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656

LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

REVISIONS

01	01.04.23	DRAFT ULURP
02	06.08.22	ULURP REVISIONS
03	01.04.23	ULURP REVISIONS
04	06.05.23	ULURP REVISIONS
05	12.22.23	ULURP REVISIONS

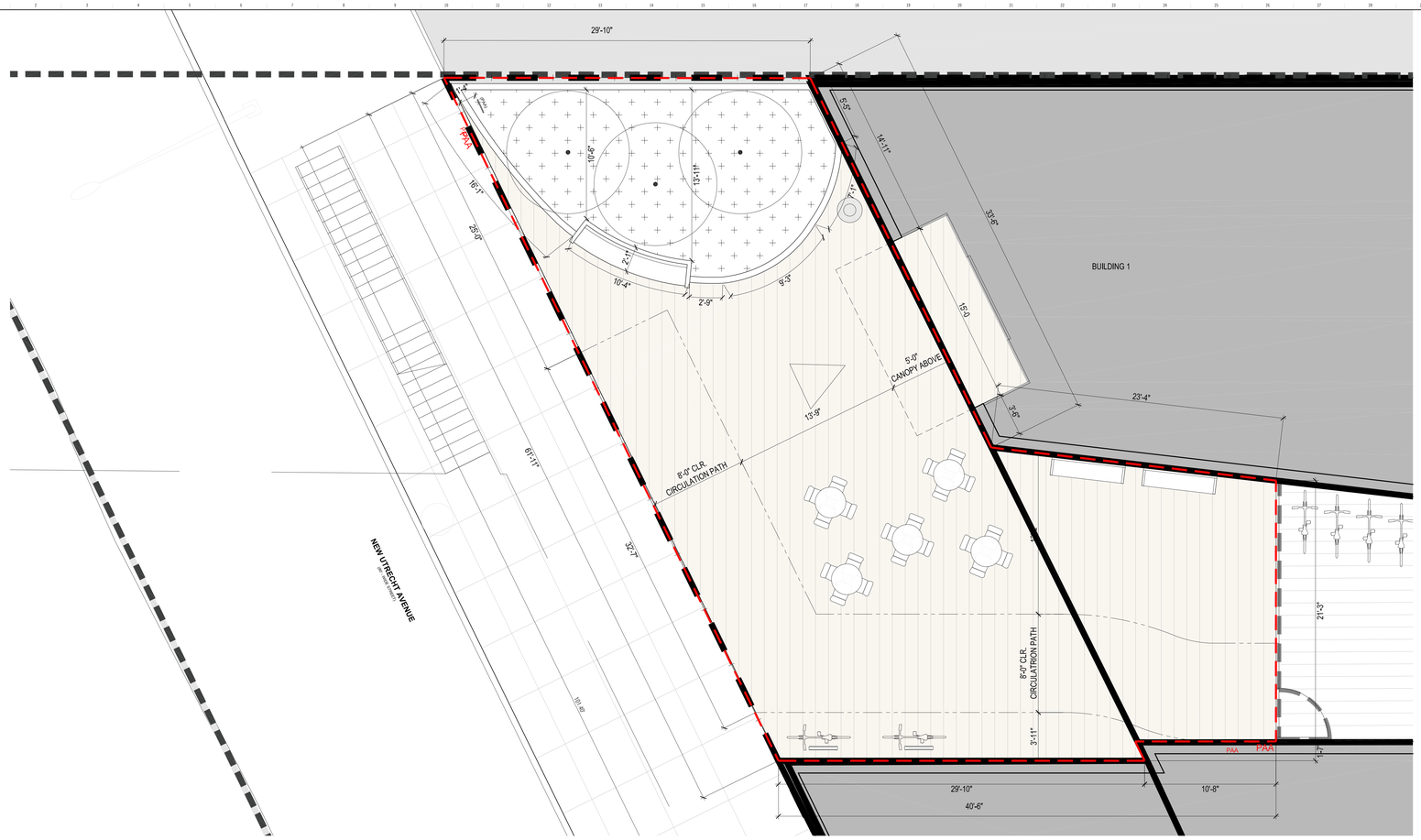
DATE — DRAWN BY — CHECKED BY
BR

DRAFT

SHEET TITLE
LANDSCAPE ZONING LOT SITE PLAN

SCALE
1"=40'-0"

SHEET NO.
L-100.00
1 of



1 PAA 1
1/4"= 1'-0"



2 PAA 2
1/4"= 1'-0"

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- FIXED SEAT WALL
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- 60' — BUILDING HEIGHT
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- ILLUSTRATIVE BUILDING LINE
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- EXISTING BUILDING FOOTPRINT
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BROOKLYN, NY

OWNER/CLIENT

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T +1 718 686 1616

ARCHITECT

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New York NY 10016
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CONSULTANTS

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02	06.08.22	ULURP REVISIONS
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05	12.22.23	ULURP REVISIONS

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KENNETH WAI TAT SMITH — LICENSED LANDSCAPE ARCHITECT — 001355 — STATE OF NEW YORK

DRAFT

SHEET TITLE

LAYOUT PLANS -
PAA 1 & 2

SCALE

1/4"= 1'-0"

SHEET NO.

L-110.00

1 of

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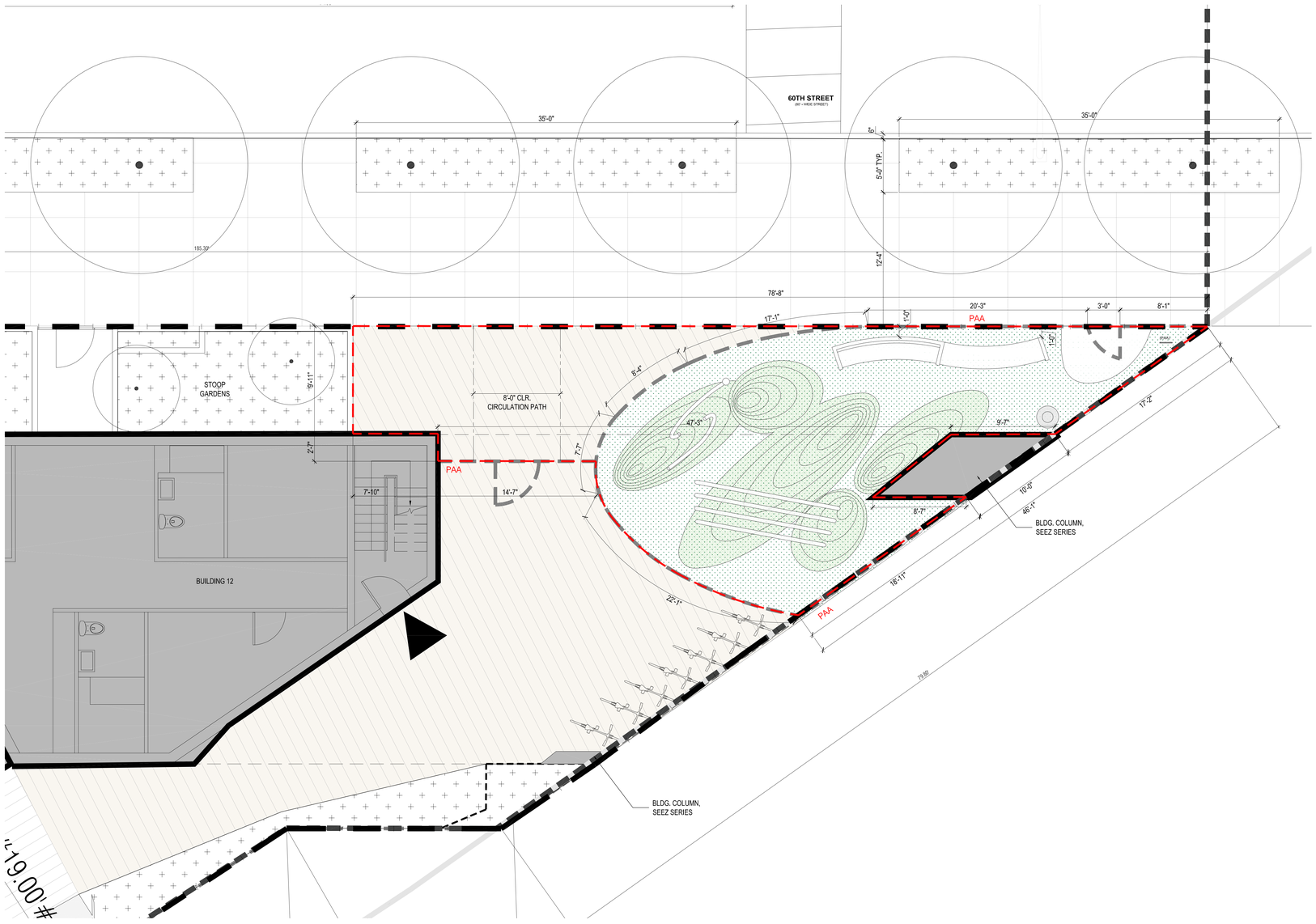

1 PAA 3
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DATE	DRAWN BY	CHECKED BY
	BR	

KENNETH SMITH LANDSCAPE ARCHITECT 001355 STATE OF NEW YORK

DRAFT

SHEET TITLE

LAYOUT PLAN -
PAA 3

SCALE

1/4"=1'-0"

SHEET NO.

L-111.00
1 of



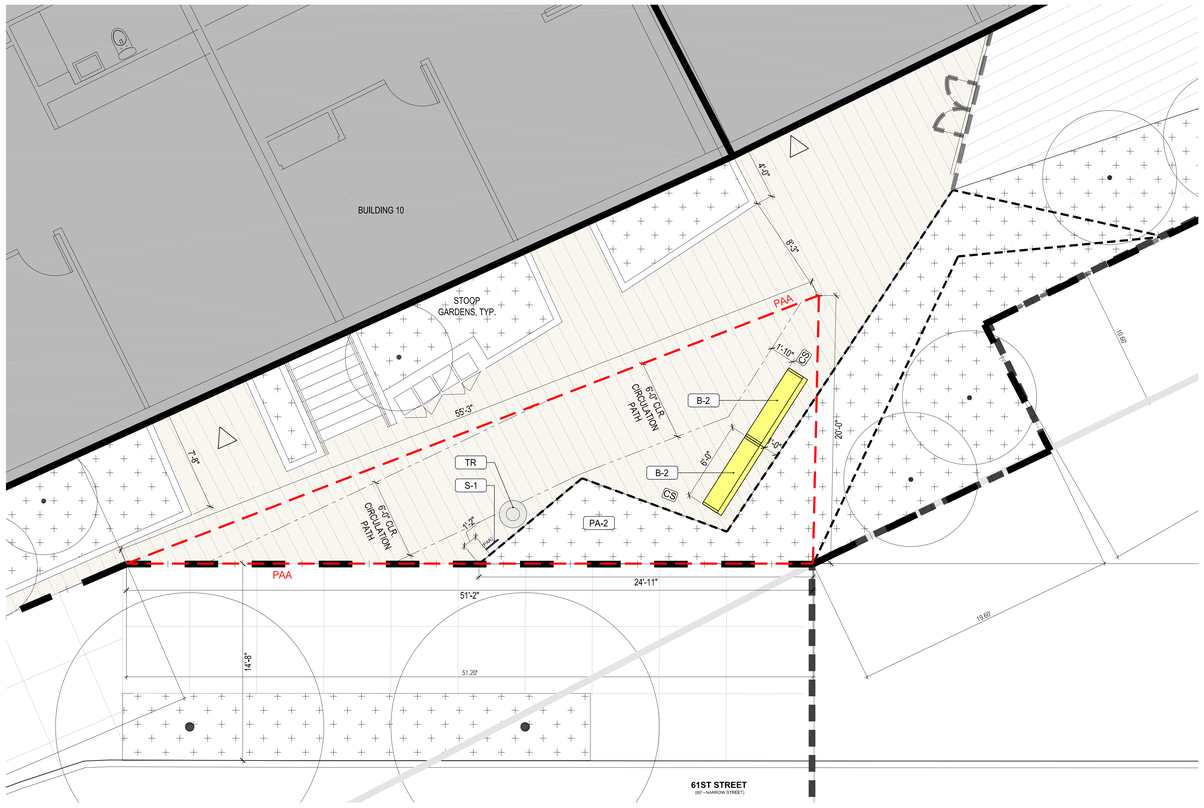
1 PAA 1
1/4"=1'-0"

PAA-1 (2037.68 sf)				
SEATING				
KEY	TYPE	LENTH (LF)	QUANTITY	TOTAL LENGTH (LF)
B-1	FIXED PLANTER WALL BENCH - WITH BACK	9.92	1	10.33
B-2	FIXED BENCH - WITH BACK	6	2	12.00
M	MOVABLE CHAIR	2.00	20	40.00
TOTAL PROPOSED SEATING				62.33

PLANTING AREA			
KEY	TYPE	QUANTITY	TOTAL AREA (SF)
PA-1	OUTDOOR PLANTED AREA	1	327.00
TOTAL PROPOSED PLANTED AREA			327.00

TREES		
KEY	TYPE	TOTAL QTY.
	ORNAMENTAL TREES	3
	* PAA 1 sits on the on the rail platform, so trees are planted in raised planter in order to provide required soil depth.	

ADDITIONAL AMENITIES		
KEY	TYPE	TOTAL QTY.
T	MOVABLE TABLE	5.00
S-1	POPS INFORMATION/ENTRY SIGN	1.00
BP	BICYCLE PARKING	2.00
TR	TRASH RECEPTACLE	1.00



2 PAA 2
1/4"=1'-0"

PAA-2 (511.57 SF)				
SEATING				
KEY	TYPE	LENTH (LF)	QUANTITY	TOTAL LENGTH (LF)
B-2	FIXED SEATING - BENCH WITH BACK	6	2	12.00
TOTAL PROPOSED SEATING				12.00

PLANTING AREA			
KEY	TYPE	QUANTITY	TOTAL AREA (SF)
PA-2	OUTDOOR PLANTED AREA	1	120.12
TOTAL PROPOSED PLANTED AREA			120.12

ADDITIONAL AMENITIES		
KEY	TYPE	TOTAL QTY.
S-1	POPS INFORMATION/ENTRY SIGN	1.00
TR	TRASH RECEPTACLE	1.00

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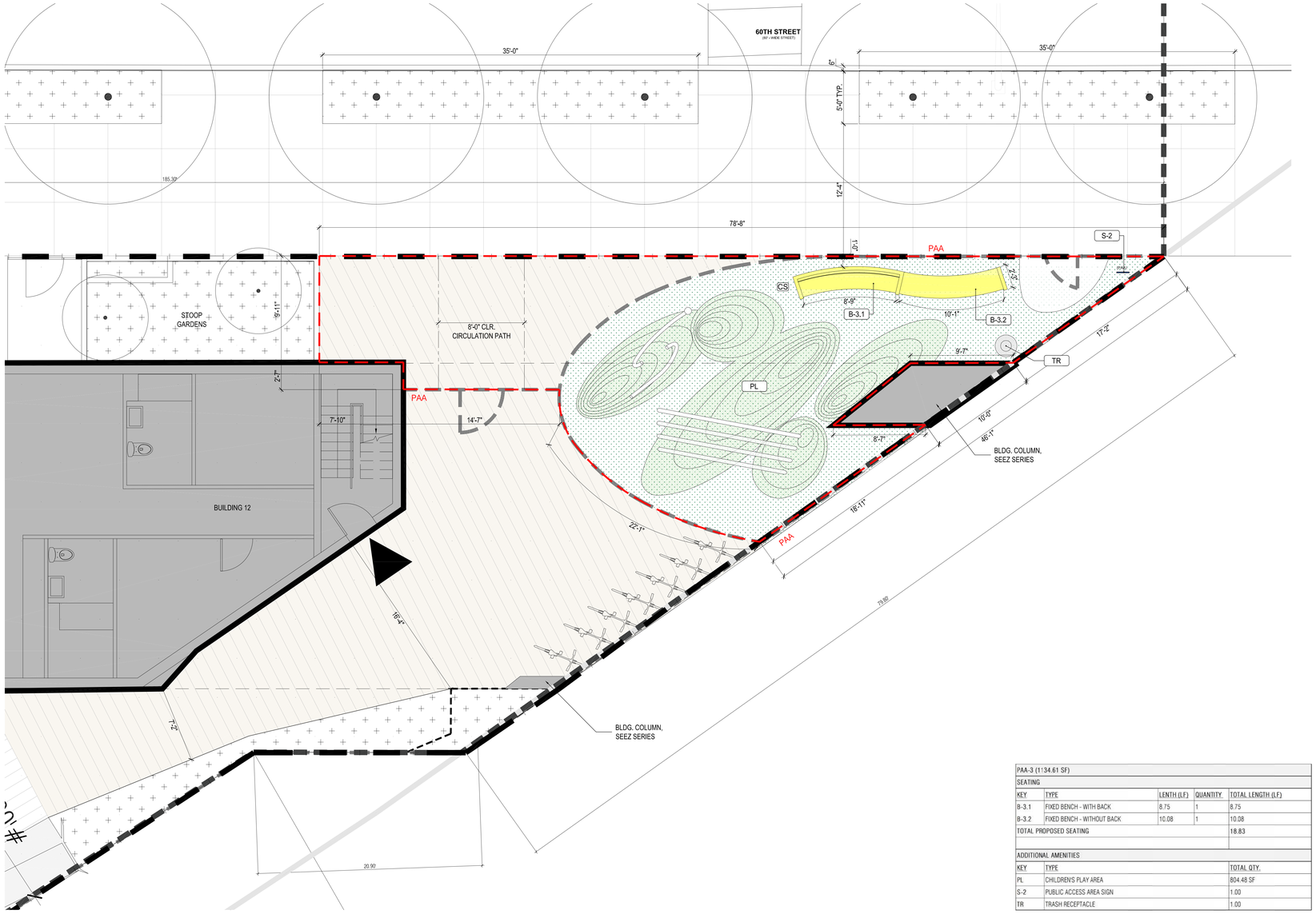
DRAFT

SHEET TITLE
FURNITURE & AMENITIES
PLANS - PAA 1 & 2

SCALE
1/4"=1'-0"

SHEET NO.
L-120.00
1 of



1 PAA 3
1/4" = 1'-0"

PAA-3 (1134.61 SF)				
SEATING				
KEY	TYPE	LENTH (LF)	QUANTITY	TOTAL LENGTH (LF)
B-3.1	FIXED BENCH - WITH BACK	8.75	1	8.75
B-3.2	FIXED BENCH - WITHOUT BACK	10.08	1	10.08
TOTAL PROPOSED SEATING				18.83
ADDITIONAL AMENITIES				
KEY	TYPE			TOTAL QTY.
PL	CHILDREN'S PLAY AREA			804.48 SF
S-2	PUBLIC ACCESS AREA SIGN			1.00
TR	TRASH RECEPTACLE			1.00

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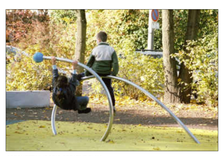
PLAY EQUIPMENT REFERENCE IMAGES


PLAYA VISTA , CA PLAYGROUND




SPEGHETTINI (GORIC CREATIVE PLAY)


SPEGHETTINI (GORIC CREATIVE PLAY)


RAINBOW (GORIC CREATIVE PLAY)

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DRAFT

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FURNITURE & AMENITIES
PLAN - PAA 3

SCALE
1/4" = 1'-0"

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L-121.00
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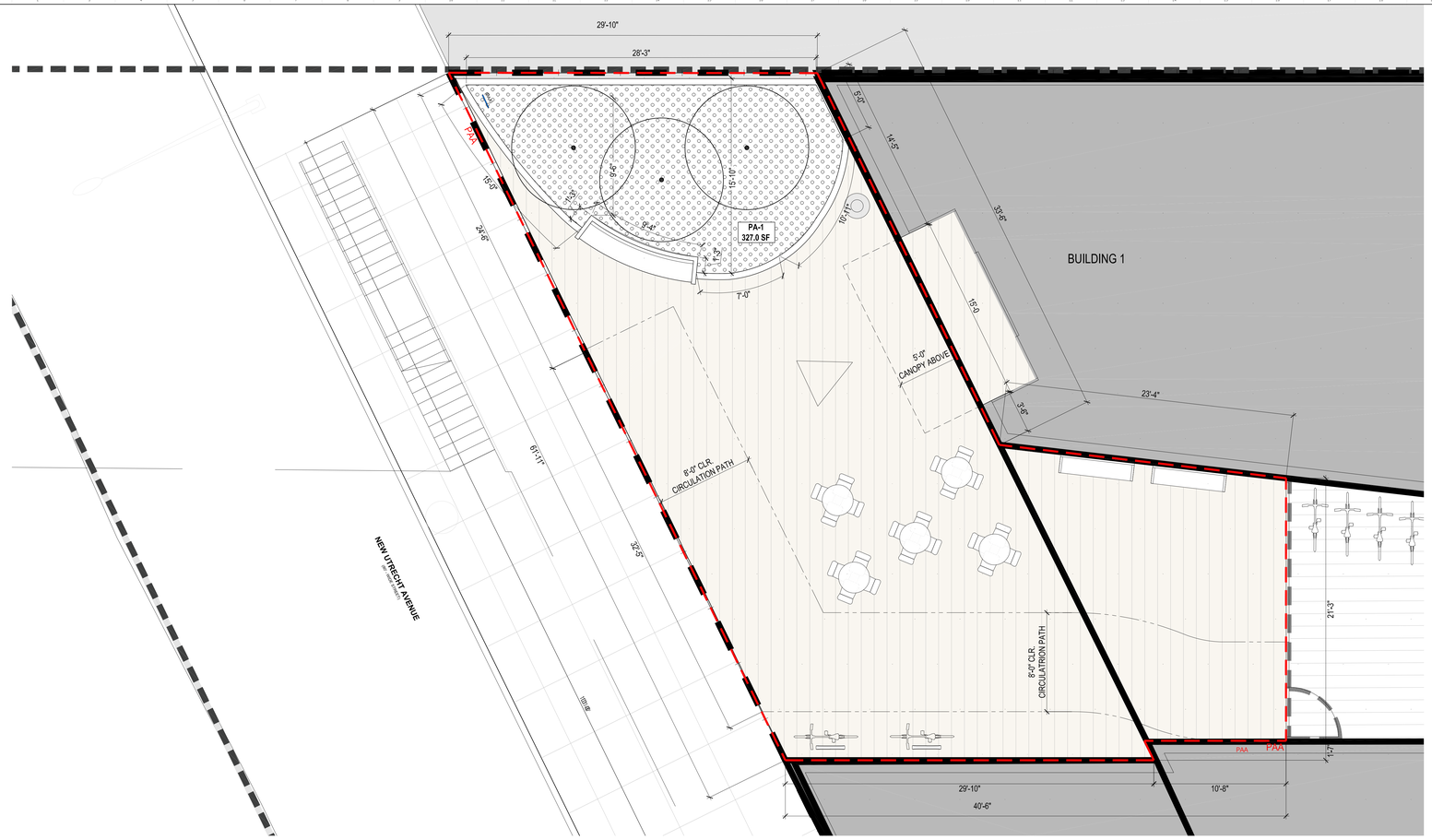

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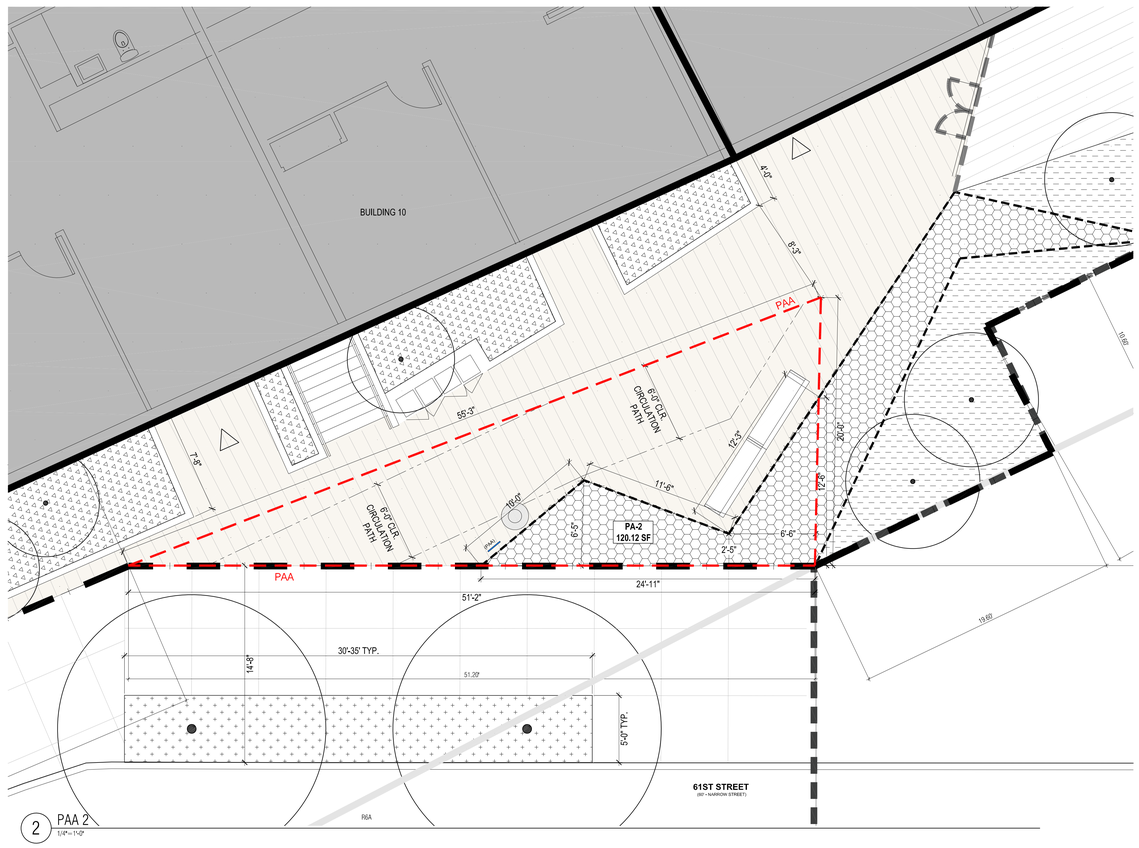

2 PAA 2
1/4"=1'-0"

PLANTING AREA			
KEY	LOCATION	TOTAL AREA (SF)	% OF PAA
PA-1	PAA1	327.00	16.23%
PA-2	PAA2	120.12	26.32%
TOTAL PROPOSED PLANTED AREA		447.12	

PLAZA PLANTING		
KEY	COMMON NAME	BOTANICAL NAME
TREES & SHRUBS		
	Redbuc	*Cercis canadensis*
	Amelanchier	*Serviceberry*
	Inkberry	*Ilex glabra*
ORNAMENTAL GRASSES AND WILDFLOWER MIX		
	Astilbe	*Astilbe*
	Blue Grama	*Boutelous gracilis*
	Coral Bells	*Heuchera*
	Black Eyed Susan	*Rudbeckia*
	Autumn moor Grass	*Sesleria autumnalis*
	Ferns	*Ferns - type TBD*
	Sedum	*Sedums - type TBD*

LINEAR LANDSCAPE BUFFER PLANTING MIX		
KEY	COMMON NAME	BOTANICAL NAME
	Arborvitae	*Thuja occidentalis*
	Fastigiate Oak	*Quercus robur 'Fastigiata'*
	Inkberry	*Ilex glabra*
	Astilbe	*Astilbe*
	Blue Grama	*Boutelous gracilis*
	Coral Bells	*Heuchera*
	Black Eyed Susan	*Rudbeckia*
	Autumn moor Grass	*Sesleria autumnalis*
	Ferns	*Ferns - type TBD*
	Sedum	*Sedums - type TBD*

SCULPTURAL VINE SCREEN PLANTING MIX		
KEY	COMMON NAME	BOTANICAL NAME
	Boston Ivy	*Parthenocissus tricuspidata 'Veitchii'*
	English Ivy	*Hedera helix*
	Trumpet Vine	*Lonicera*
	Virginia Creeper	*Parthenocissus quinquefolia*

STREET TREE RAIN GARDEN MIX		
KEY	COMMON NAME	BOTANICAL NAME
	Linden	*Tilia*
	Swamp White Oak	*Quercus bicolor*
	Sweetgum	*Liquidambar*
	Tupelo	*Nyssa sylvatica*
	ORNAMENTAL GRASSES AND WILDFLOWERS	

STOOP GARDEN MIX		
KEY	COMMON NAME	BOTANICAL NAME
TREES & SHRUBS		
	Redbud	*Cercis canadensis*
	Amelanchier	*Serviceberry*
	Inkberry	*Ilex glabra*
	Azalea	*Azalea*
	ORNAMENTAL GRASSES AND WILDFLOWERS	

GENERAL NOTES

1. BUILDINGS WITHIN THE PROPOSED ZONING ENVELOPE ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SUBJECT TO CHANGE
2. BUILDING ENTRANCES ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
3. STREET TREES ADJACENT TO THE PROJECT AREA WILL BE PROVIDED IN ACCORDANCE WITH THE ZONING RESOLUTION ZR 26-41 THE LOCATION AND NUMBER OF WHICH WILL BE SUBJECT TO DEPARTMENT OF PARKS AND RECREATION DETERMINATION OF FEASIBILITY.
4. INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT BUILDING LINE INFORMATION ON SURROUNDING PROPERTIES.
5. REFER TO ARCHITECTURE DRAWINGS FOR ARCHITECTURAL DETAILS .
6. INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE EXACT.

LEGEND

- NYC DOT STANDARD CONCRETE PAVING
- CONCRETE UNIT PAVER COLOR A (PLAZA / ENTRY AREA)
- CONCRETE UNIT PAVER COLOR B (LANDSCAPE CORRIDOR)
- PAA — PUBLIC ACCESS AREA (PAA)
- BUILDING CANOPY ABOVE
- PERFORATED PARAPET WALL
- FENCE & GATE, 6' HT. MAX
- CANOPY STREET TREE
- FASTIGIATE / ORNAMENTAL TREE
- SCULPTURAL VINE SCREEN
- FIXED BENCH WITH BACK
- MOVABLE CAFE TABLE AND CHAIRS
- FIXED SEAT WALL
- SWING SEATING
- TRASH RECEPTACLE
- BICYCLE PARKING
- PAA ENTRY/ INFORMATION SIGN
- COMMERCIAL ACCESS POINT
- RESIDENTIAL ACCESS POINT
- BUILDING ENTRANCE POINTS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY
- R6-1/C2-3 — ZONING DISTRICT
- 6 — # STORIES
- 60' — BUILDING HEIGHT
- ROAD DIRECTION
- ZONING DISTRICT BOUNDARY
- ZONING LOT LINE
- TAX LOT LINE
- PROPOSED MAXIMUM BUILDING ENVELOPE
- ILLUSTRATIVE BUILDING LINE
- LARGE SCALE GENERAL DEVELOPMENT
- EXISTING BUILDING FOOTPRINT
- PROPOSED BUILDING FOOTPRINT

STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL
BOROUGH PARK
BROOKLYN, NY

No. 15002

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 2288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595

COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900

RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
T +1 212 896 3000

COST ESTIMATOR/ AECOM TISHMAN
100 Park Avenue I New York, NY 10017
T +12129732999

FINANCIAL MODELING/ JAMES LIMA PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637

ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656

LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

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LANDSCAPE ARCHITECT KENNETH SMITH 001352 STATE OF NEW YORK

DRAFT

SHEET TITLE
PLANTING PLANS
PAA 1 & 2

SCALE
1/4"=1'-0"

SHEET NO.
L-130.00
1 of

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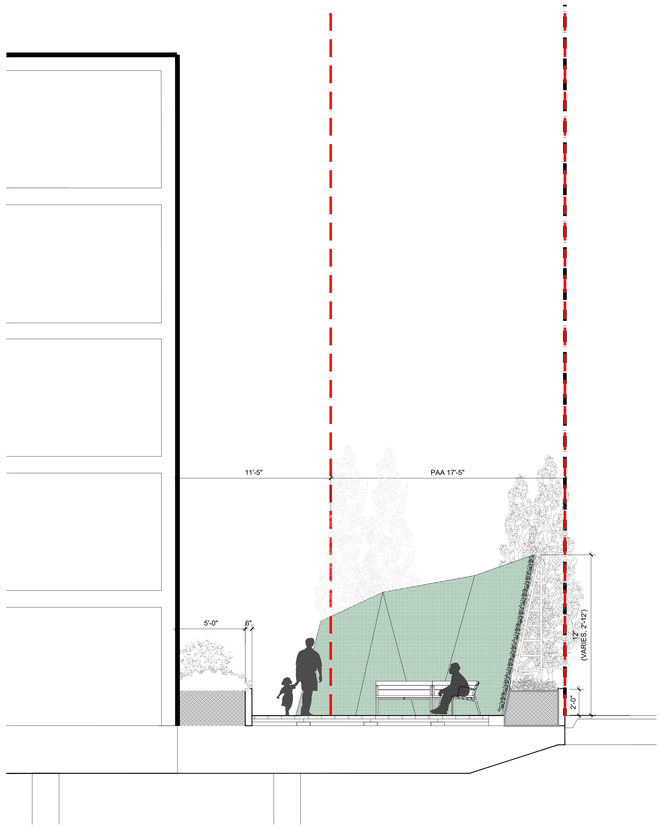
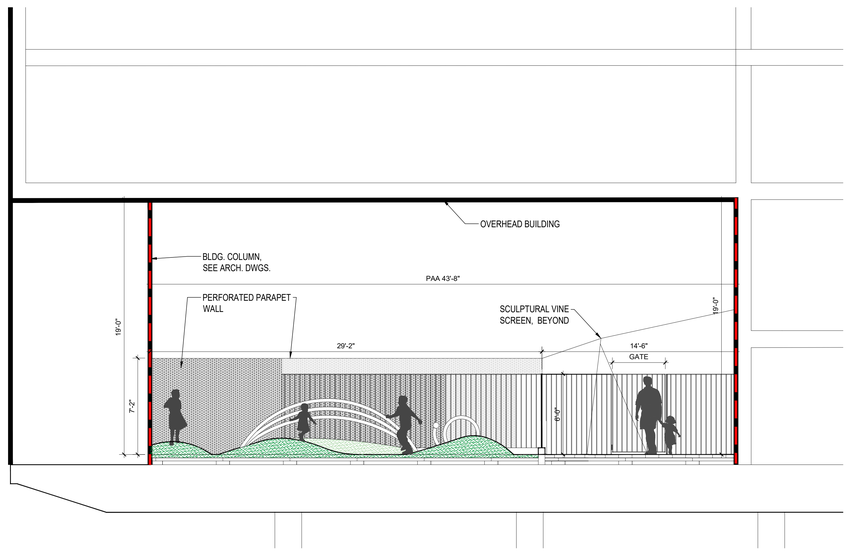
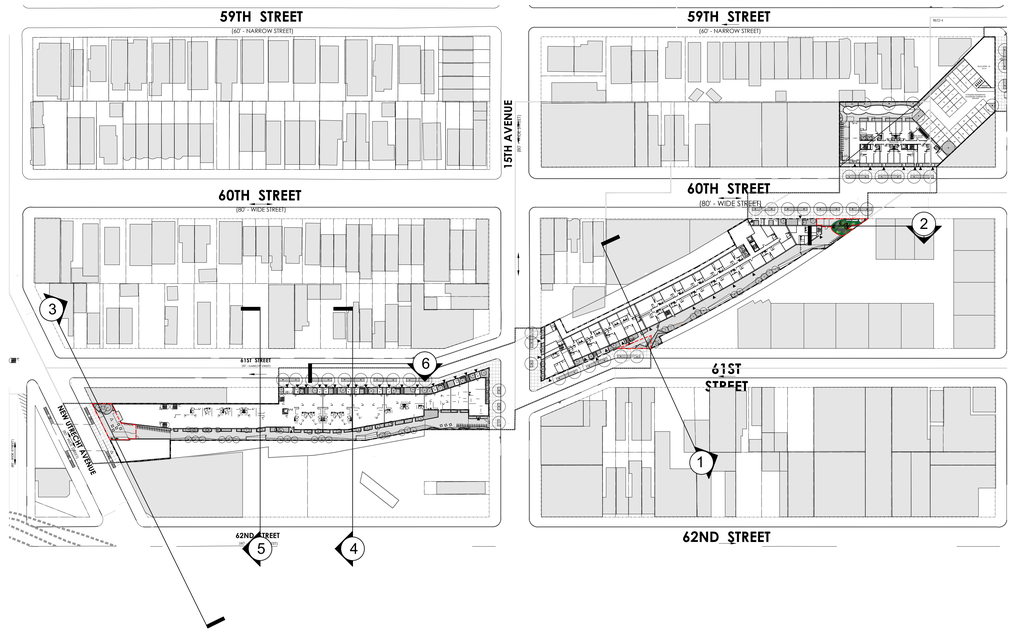
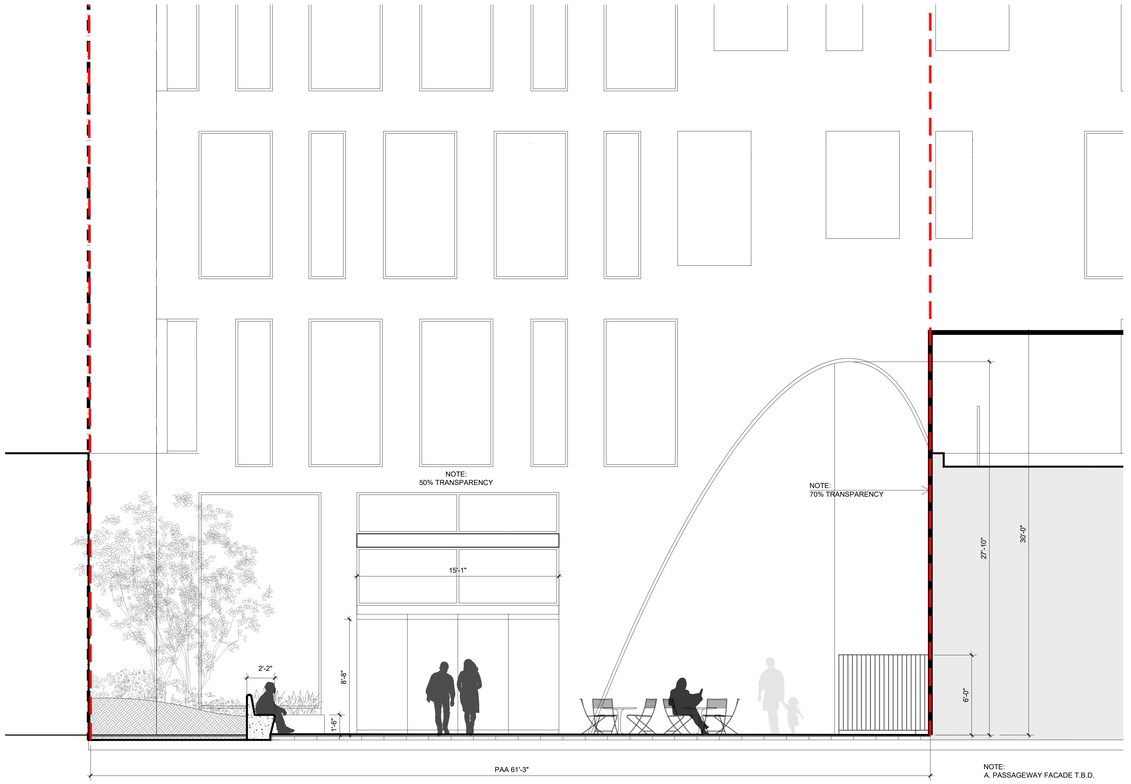


1 SECTION - PAA 2
1/4" = 1'-0"



2 SECTION - PAA 3
1/4" = 1'-0"





3 SECTION - NEW UTRECHT PLAZA - PAA 1
1/4" = 1'-0"

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WERNER CAPITAL BROOKLYN RAIL NO. 15002
BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 2288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595
COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900
RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
T +1 212 896 3000
COST ESTIMATOR/ AECOM TISHMAN
100 Park Avenue I New York, NY 10017
T +12129732999
FINANCIAL MODELING/ JAMES LIMA
PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637
ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656
LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

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LANDSCAPE ARCHITECT KENNETH M. SMITH 001355 STATE OF NEW YORK

DRAFT

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SECTIONS AND ELEVATIONS

SCALE
AS SHOWN

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L-200.00
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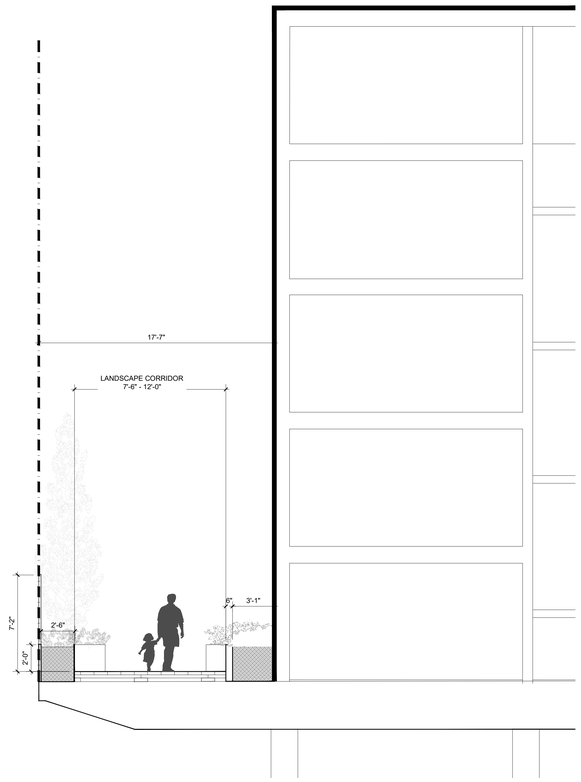
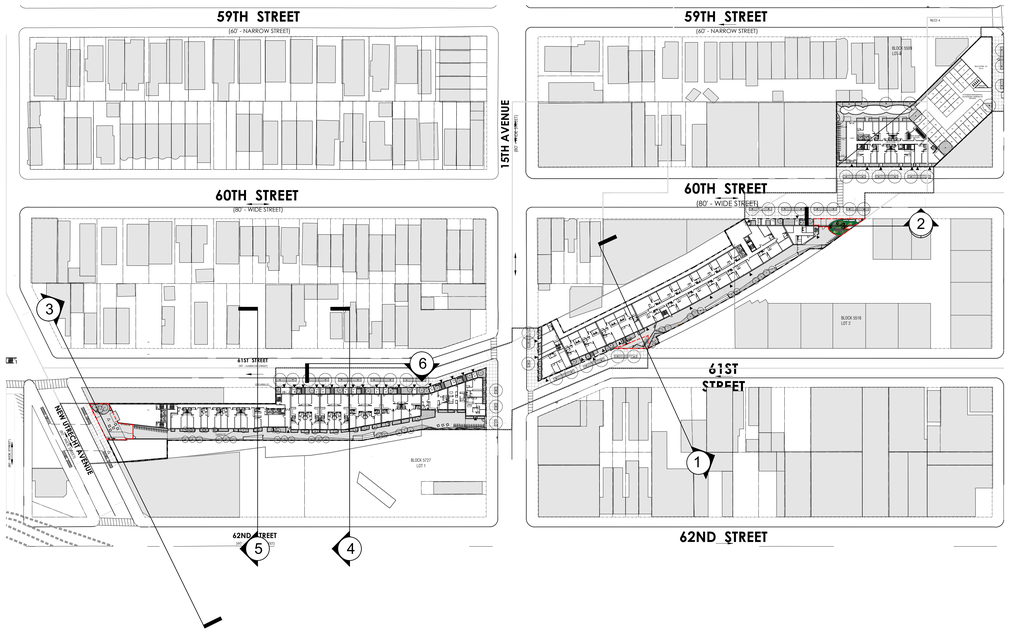
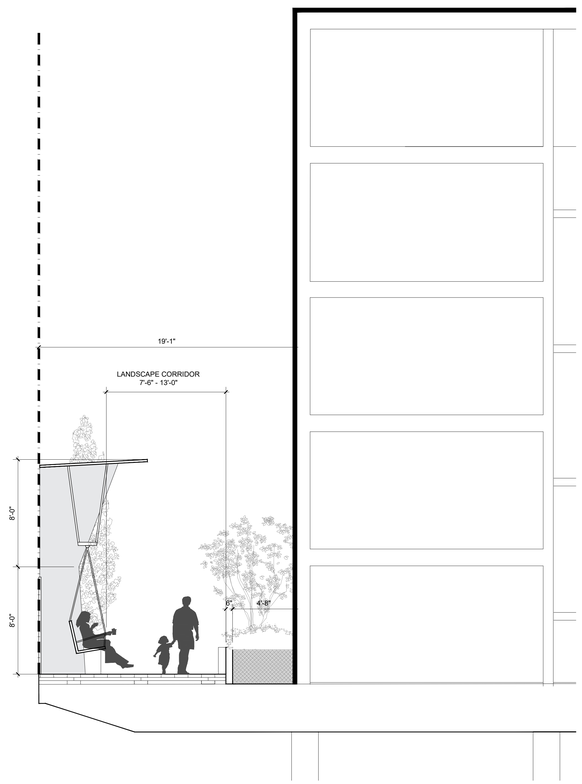


4 SECTION - LANDSCAPE CORRIDOR
1/4" = 1'-0"





5 SECTION - LANDSCAPE CORRIDOR AND SWING SEATING
1/4" = 1'-0"



6 ELEVATION - STREETSCAPE
1/4" = 1'-0"

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BOROUGH PARK
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OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 7288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
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KENNETH M. SMITH
LANDSCAPE ARCHITECT
001355
STATE OF NEW YORK

DRAFT

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SECTIONS AND ELEVATIONS

SCALE
AS SHOWN

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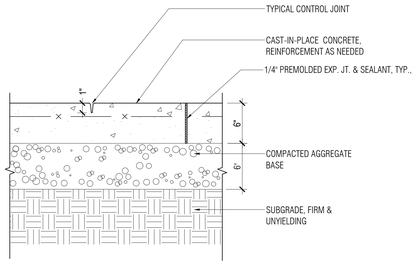
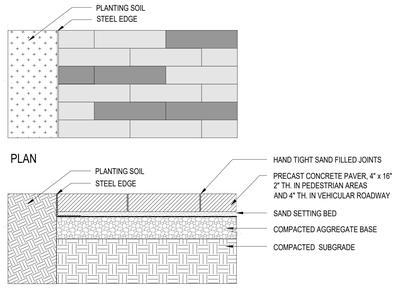
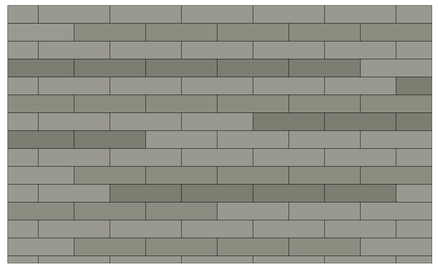
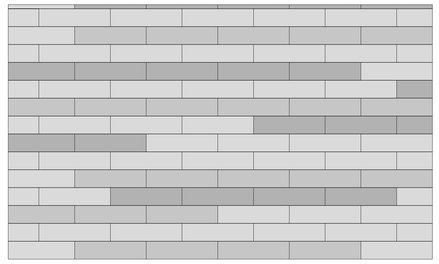





COLOR A


COLOR B

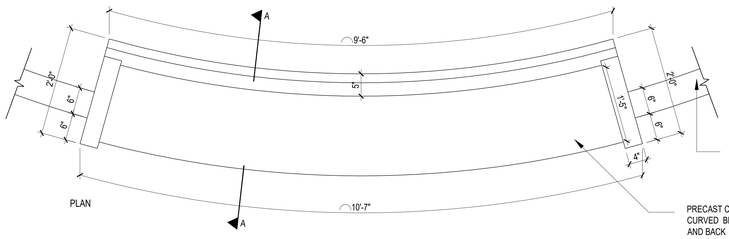
1 PIGMENTED CONCRETE PAVING

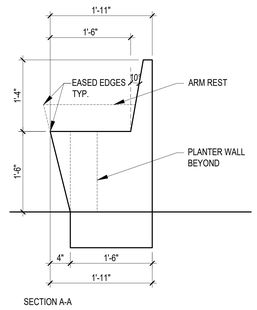
Scale: 1-1/2" = 1'-0"

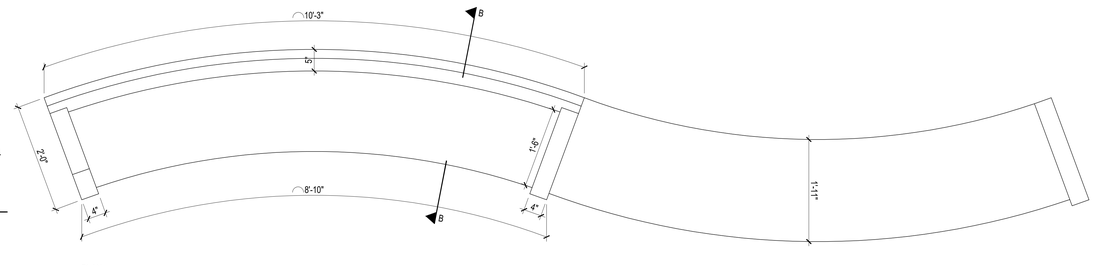
DISTINCTIVE PAVING

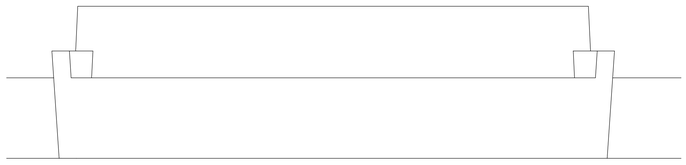
2 PRECAST CONCRETE PAVER

Scale: 1" = 1'-0"



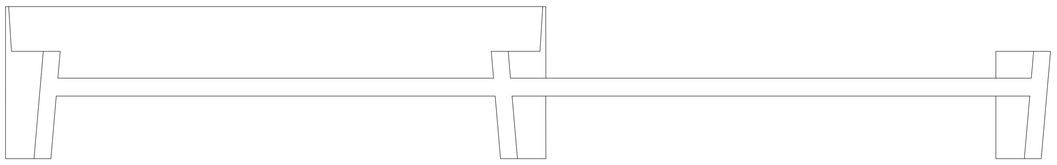






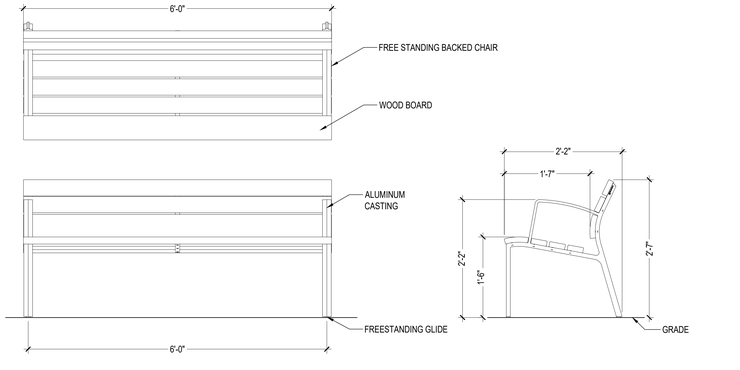
3A FIXED CONCRETE SEATWALL (B-1) - PAA 1

Scale: 1"=1'-0"



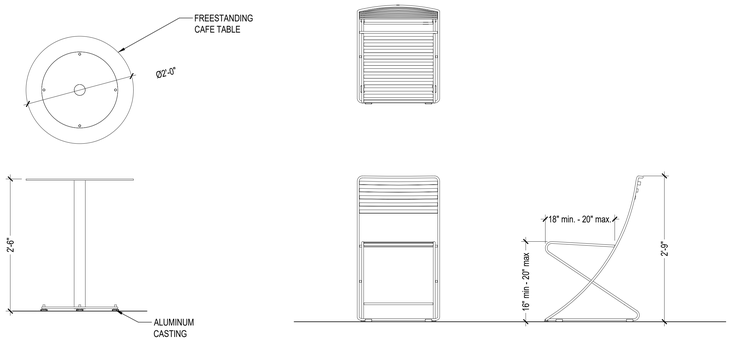
3B FIXED BENCH WITH AND WITHOUT BACK (B-3.1, b-3.2) - PAA 3

Scale: 1"=1'-0"



4 BENCH WITH BACK (B-2)

Scale: 1"=1'-0"



6 MOVABLE TABLE AND CHAIRS

Scale: 1"=1'-0"

STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL NO. 15002
BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 7288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595
COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900
RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
T +1 212 896 3000
COST ESTIMATOR/ AECOM TISHMAN
100 Park Avenue I New York, NY 10017
T +12129732999
FINANCIAL MODELING/ JAMES LIMA
PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637
ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656
LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

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SHEET TITLE
PAA PAVING AND FURNISHING DETAILS

SCALE
AS SHOWN

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L-300.00
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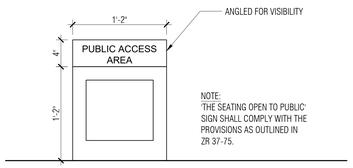
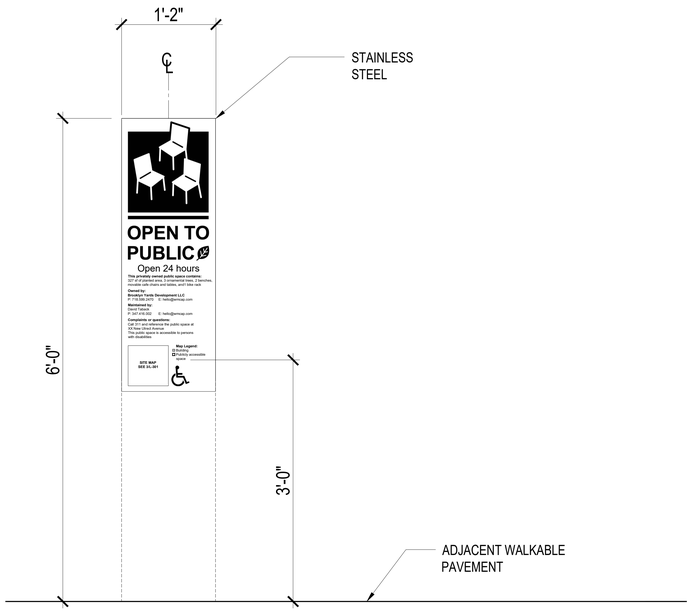


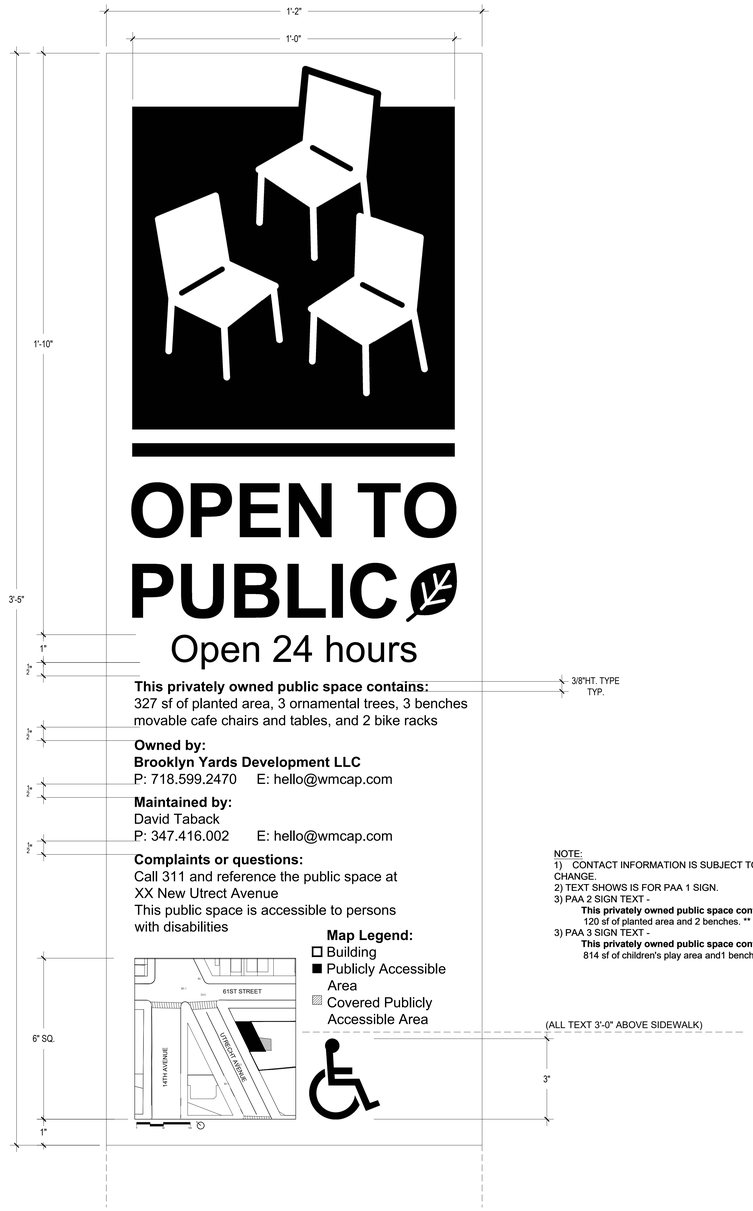
1 PAA SIGN

Scale: 1 1/2"=1'-0"



2 POPS ENTRANCE / INFORMATIN SIGN

1 1/2" = 1'-0"

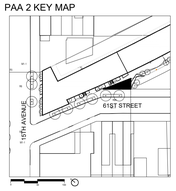


3 LETTERING DETAIL - ENTRY / INFORMATION PLAQUE (SN-1)

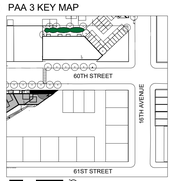
6" = 1'-0"

NOTE:
1) CONTACT INFORMATION IS SUBJECT TO CHANGE.
2) TEXT SHOWS IS FOR PAA 1 SIGN.
3) PAA 2 SIGN TEXT -
This privately owned public space contains:
120 sf of planted area and 2 benches. **
3) PAA 3 SIGN TEXT -
This privately owned public space contains:
814 sf of children's play area and1 bench. **

(4) PAA 2 KEY MAP



(5) PAA 3 KEY MAP



STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL NO. 15002

BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT

ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT

STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 7288

CONSULTANTS

LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595

COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900

RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
T +1 212 896 3000

COST ESTIMATOR/ AECOM TISHMAN
100 Park Avenue I New York, NY 10017
T +1212972999

FINANCIAL MODELING/ JAMES LIMA
PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637

ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656

LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

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	BR	

DRAFT

SHEET TITLE

PAA SIGNAGE DETAILS

SCALE

AS NOTED

SHEET NO.

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9 of 9

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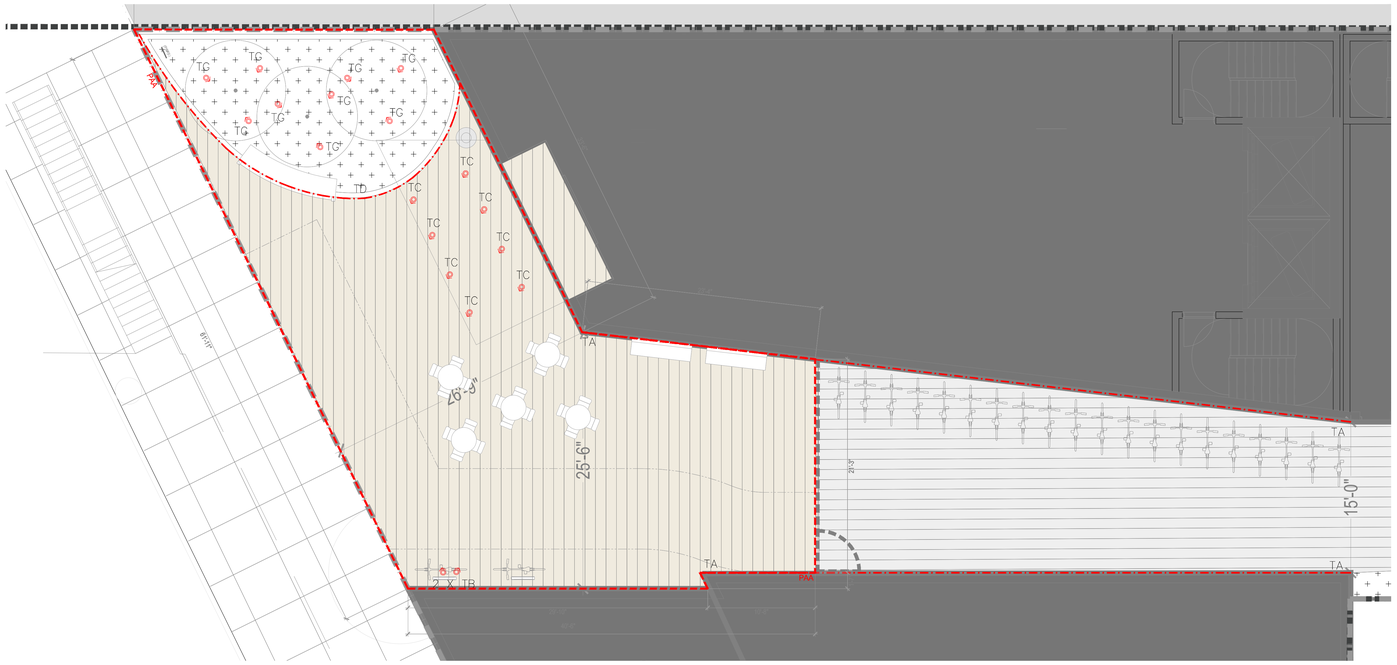
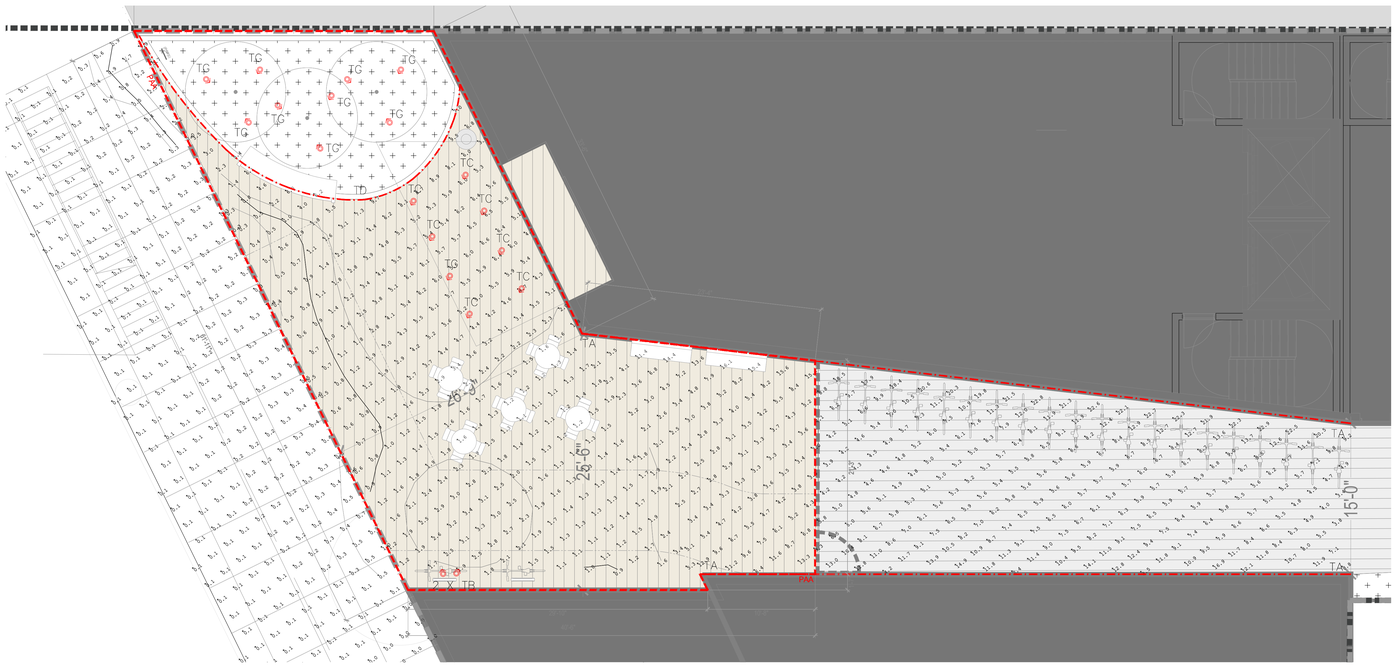


LIGHTING PLAN



LIGHTING CALCULATION PHOTOMETRIC PLAN (FOOTCANDLES)
CALCULATION POINTS ARE AT GROUND LEVEL

Luminaire Schedule					
Symbol	Type	Description	lamp lumens	wattage	Manufacturer and Ordering Code
	TA	Linear wall grazer in architectural floor trough	504 /lf	8.5 /lf	Lumenpulse: LOGRO-120/277-per plans -30K-30x30-UMAS-BK-DIM
	TB	Surface mounted exterior flood light	1650	12	Erco: 34074.023
	TC	Recessed adjustable accent light	683	10	Lucifer: F3R-M-2-A-CF-CF-90C10A-30-60-X-SG-04
	TD	Flexible linear LED strip light	60 /lf	1.8 /lf	LED Linear: VarioLED FLex VENUS-W827-per plans-SV-IP67 + remote drivers
	TE	small adjustable flood light in architectural slot	543	6	Stoane Lighting: MSL-Frog M-Oslon Type M-95CRI-3000K-543lm-flood + remote drivers
	TF	wall mounted adjustable cylinder over door	676	10	Lucifer: CY1-9D-1-CF-BK-90C10A-30-60-CA2-4-JBMP
	TG	ground mounted adjustable landscape flood light	406	7	BK Lighting: AR-LED-RM-e65-MFL-A9-BZP-12-11-A + remote drivers

Calculation Summary							
Area	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
City Sidewalk - outside scope	Illuminance	Fc	0.16	5.7	0.0	N.A.	N.A.
Walking Surface	Illuminance	Fc	2.76	9.7	0.3	9.20	32.33
Tunnel Walking Surface	Illuminance	Fc	9.14	22.9	1.8	5.08	12.72

STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL
BOROUGH PARK
BROOKLYN, NY
NO. 15002

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 7288

CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595

COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900

RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
T +1 212 896 3000

COST ESTIMATOR/ AECOM TEHMAN
100 Park Avenue I New York, NY 10017
T +1(212)7372999

FINANCIAL MODELING/ JAMES LIMA
PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +1347(675)8637

ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656

LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

REVISIONS

01	01.04.23	DRAFT ULURP
02	06.08.22	ULURP REVISIONS
03	01.04.23	ULURP REVISIONS
04	06.05.23	ULURP REVISIONS
05	12.22.23	ULURP REVISIONS

DATE DRAWN BY CHECKED BY

LANDSCAPE ARCHITECT KENNETH M. SMITH 001356 STATE OF NEW YORK

DRAFT

SHEET TITLE
ARCH 1 LIGHTING PLAN

SCALE
3/16" = 1'-0"

SHEET NO.
LC-100

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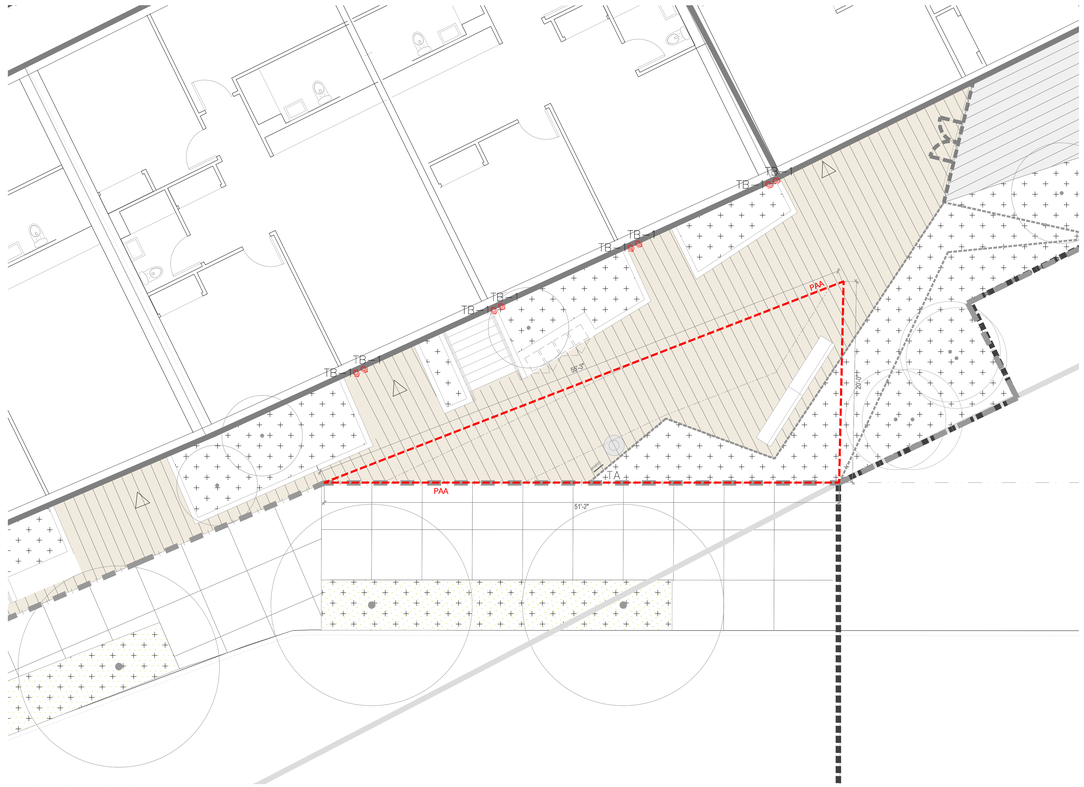
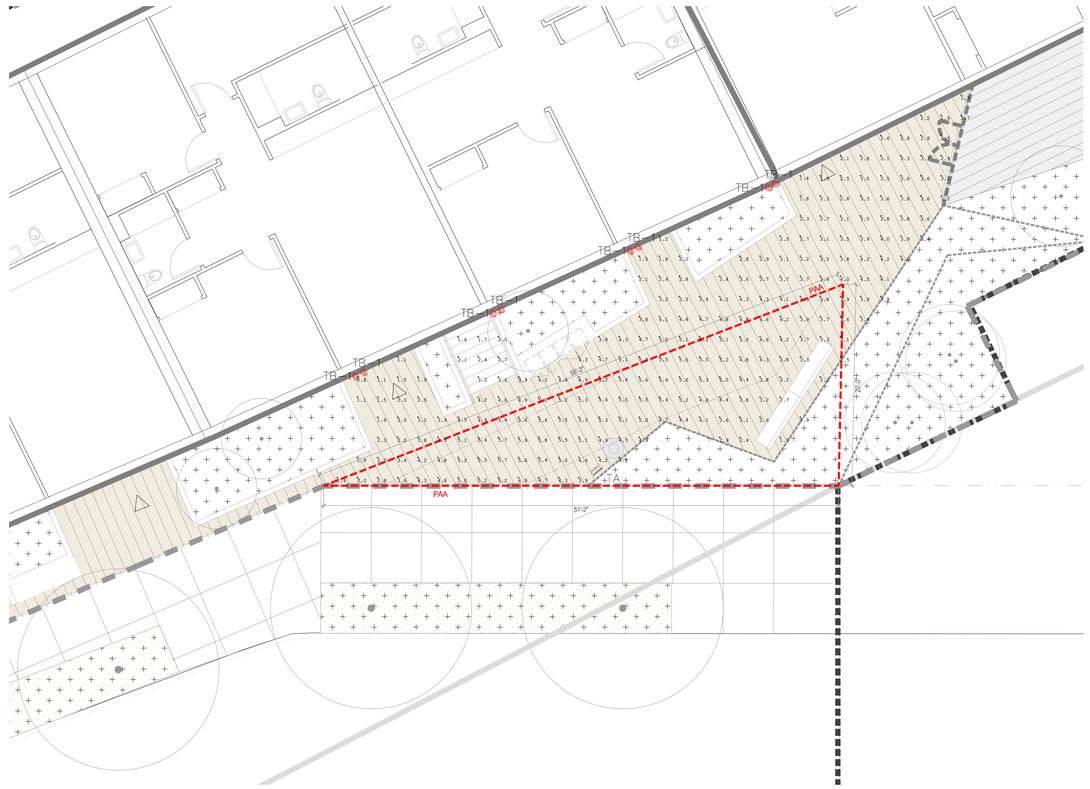


LIGHTING PLAN



LIGHTING CALCULATION PHOTOMETRIC PLAN (FOOTCANDLES)
CALCULATION POINTS ARE AT GROUND LEVEL

Luminaire Schedule					
Symbol	Type	Description	lamp lumens	wattage	Manufacturer and Ordering Code
	TB-1	Surface mounted exterior spot light	1650	12	Erco: 34013.023

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Walking Surface_Top	Illuminance	Fc	3.77	5.9	0.8	4.71	7.38

STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL — NO. 15002

BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT

ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
T +1 718 686 1616

ARCHITECT

STUDIO V DESIGN + PLANNING LLC.
44 E 32nd Street
New York NY 10016
T +1 212 779 7288

CONSULTANTS

LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
450 W 31st St, New York, NY 10001
T +1 212 791 3595

COUNSEL/ COZEN O'CONNOR
277 Park Avenue, New York NY 10172
T +1 212 883 4900

RAIL STRUCTURAL ENGINEER/ ARUP
77 Water St, New York NY 10005
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COST ESTIMATOR/ ACCOM TISHMAN
100 Park Avenue I New York, NY 10017
T +12129732999

FINANCIAL MODELING/ JAMES LIMA
PLANNING+DEVELOPMENT
120 Fifth Avenue I New York, NY 10011
T +13476758637

ENVIRONMENTAL ENGINEER/ PHILIP HABIB & ASSOCIATES
102 Madison Avenue I New York, NY 10016
T +1212 929 5656

LIGHTING DESIGN/ TILLOTSON DESIGN ASSOCIATES
40 Worth Street I New York, NY 10013
T +1212 675 7760

REVISIONS

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03	01.04.23	ULURP REVISIONS
04	06.05.23	ULURP REVISIONS
05	12.22.23	ULURP REVISIONS

DATE | DRAWN BY | CHECKED BY

KENNETH SMITH — LANDSCAPE ARCHITECT — 001394 — STATE OF NEW YORK

DRAFT

SHEET TITLE

ARCH 2 LIGHTING PLAN

SCALE

3/16" = 1'-0"

SHEET NO.

LC-101

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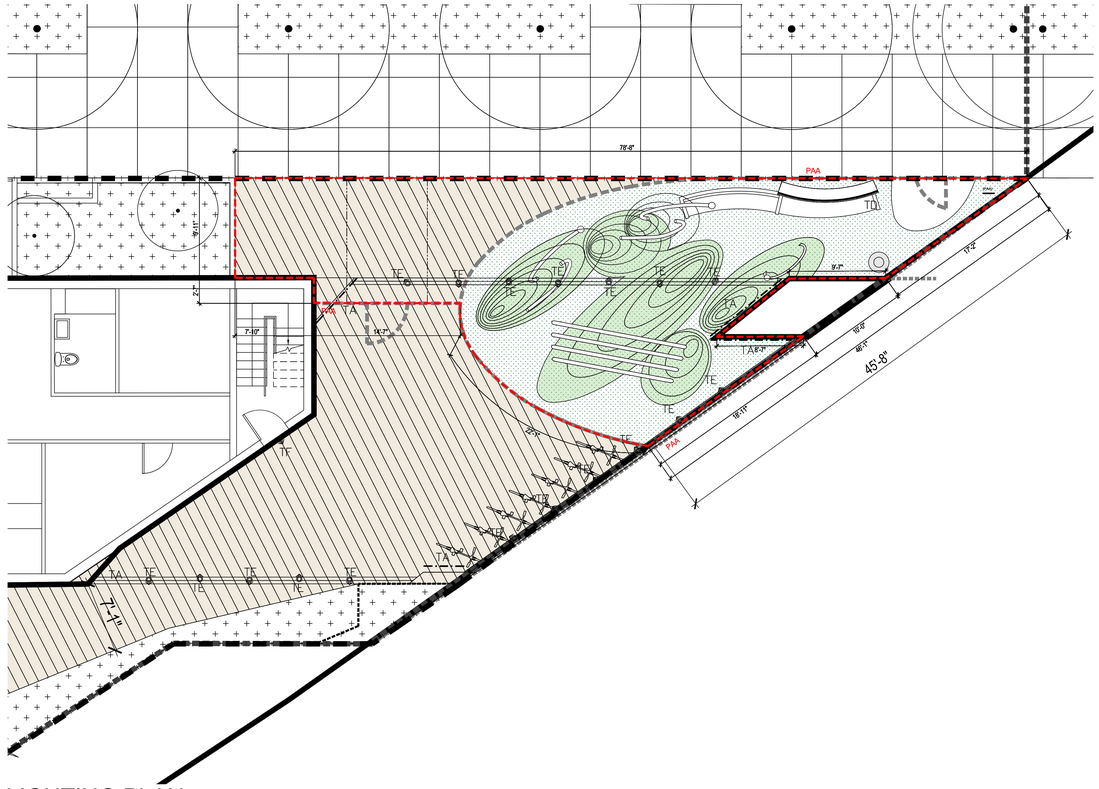
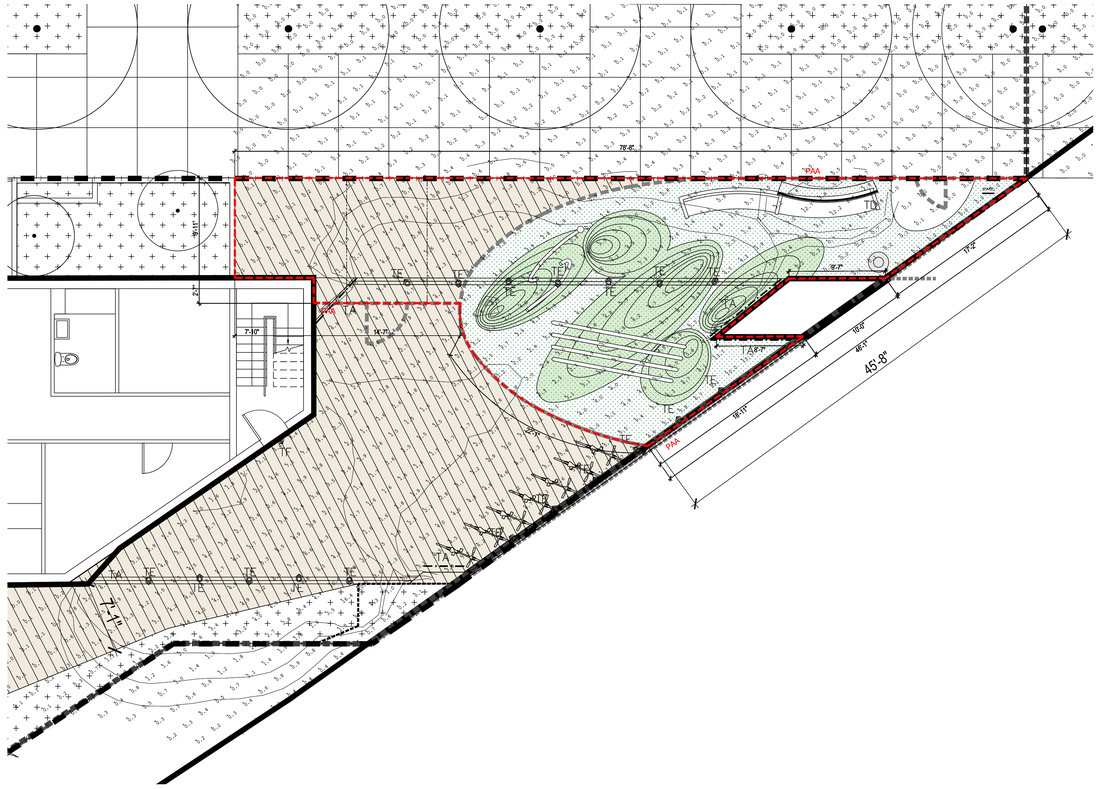


LIGHTING PLAN



LIGHTING CALCULATION PHOTOMETRIC PLAN (FOOTCANDLES)
CALCULATION POINTS ARE AT GROUND LEVEL

Luminaire Schedule					
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Calculation Summary							
Area	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
City Sidewalk - outside scope	Illuminance	Fc	0.10	0.9	0.0	N.A.	N.A.
Walking Surface	Illuminance	Fc	2.89	13.7	0.0	N.A.	N.A.

STUDIO V
DESIGN + PLANNING

WERNER CAPITAL BROOKLYN RAIL NO. 15002
BOROUGH PARK
BROOKLYN, NY

OWNER/CLIENT
ML ESTATE HOLDINGS LLC
1271 45th Street, Brooklyn NY 11219
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ARCHITECT
STUDIO V DESIGN + PLANNING LLC.
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CONSULTANTS
LANDSCAPE ARCHITECT/ KEN SMITH WORKSHOP
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04	06.05.23	ULURP REVISIONS
05	12.22.23	ULURP REVISIONS

DATE DRAWN BY CHECKED BY

KENNETH R. SMITH
LANDSCAPE ARCHITECT
001356
STATE OF NEW YORK

DRAFT

SHEET TITLE
ARCH 3 LIGHTING PLAN

SCALE
$\frac{3}{16}$" = 1'-0"

SHEET NO.
LC-102

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Appendix 2:

New York City Landmarks Preservation Commission Consultation

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 23DCP039K
Project: BROOKLYN YARDS
Date Received: 10/12/2022

Properties with no Architectural or Archaeological significance:

1) 16 AVENUE, BBL: 3055090041
2) 1557 60 STREET, BBL: 3055090057
3) 15 AVENUE, BBL: 3055160001
4) 60 STREET, BBL: 3055160033
5) NEW UTRECHT AVENUE, BBL: 3057270014
6) 1410 61 STREET, BBL: 3057270019

S/NR LISTED NEW UTRECHT AVENUE SUBWAY STATION, 14TH AVENUE WITHIN RADIUS

Gina Santucci

10/14/2022

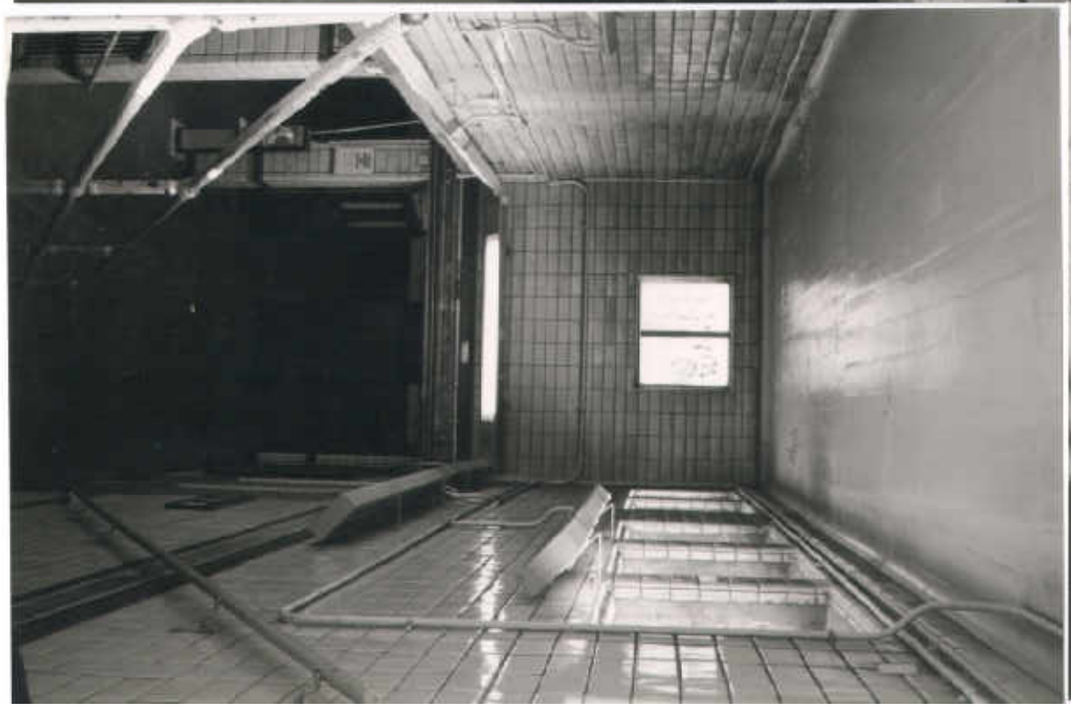
~~SIGNATURE~~ ~~DATE~~

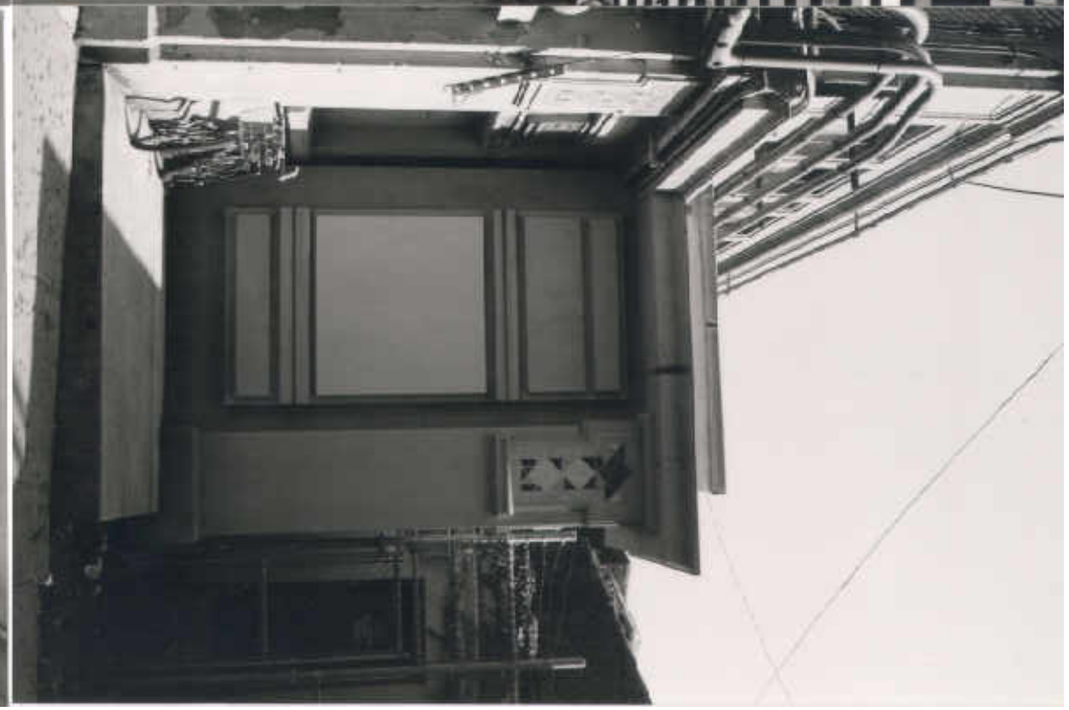
Gina Santucci, Environmental Review Coordinator

File Name: 35560_FSO_ALS_10142022.docx


Waiting area







NEW YORK CITY TRANSIT AUTHORITY
370 Jay Street
Brooklyn, New York

NRE

NYSOPRHP
Unique Site
No. •04701.013857

HISTORICAL PROPERTIES SURVEY: PHASE II

archival entry date • RM 8-15-94
field inspection date • 8-30-94
survey team • SU

(NR-listed)

IDENTIFICATION

1. • New Utrecht Ave. Subway Station (Sea Beach) | • Station | • 106030
   Name | **TA property type** | **TA identification #**
2. • | • New York & Sea Beach Railroad; Dual System BRT
   Other Names (formerly known as) | **Historical System**
3. **At grade** • | **Below grade** • X | **Above grade** •
4. **County/Borough** • Kings/Brooklyn
5. **Street Location** • 14th Avenue & 62nd Street
6. **Nearest Cross Street** • New Utrecht Avenue
7. **Block #** • **Lot #** •
8. **Route/Section** • Sea Row **Site Locator #** •
9. **Current Line** • BMT Sea Beach Line (N)
   Date of Initial Construction: beginning • **completed** • 1915
   Contract No./Name • Contract 4
   Responsible Organization • Public Service Commission
   Contractor •
   Architect • Squire J. Vickers
   Engineer • Alfred Craven, Chief Engineer
10. **Use: Original** • Station **Current** • Same
11. **Accessibility to Public**
    Exterior visible: Yes • X **No** •
    Interior accessible: Yes • X **No** •

DESCRIPTION

12. Number of Resources within Property

contributing • 3 **noncontributing** • 1

(see attached pages)

13. Current Photo (see following pages) **14. Current Location Map (see following pages)**

15. Overall Stylistic Theme: • Neo-classical with Arts & Crafts details

16. Foundation Type and Material: •

17. Plan Shape: • Linear

18. Main Orientation: • North-south

19. Stories/Levels: • Two (cut below grade)

20. Structural System

• Concrete frame, deck, and retaining walls.

21. Mechanical Electrical Systems

ventilation	• Windows.
electric lighting	• Incandescent and fluorescent.
natural lighting	• Windows.
elevator(s)	•
escalator(s)	•
equipment (explain)	•

New Utrecht Avenue Station



South Control House, View from Northeast.



Looking Northeast from Platform at Train Portal.

New Utrecht Avenue Station

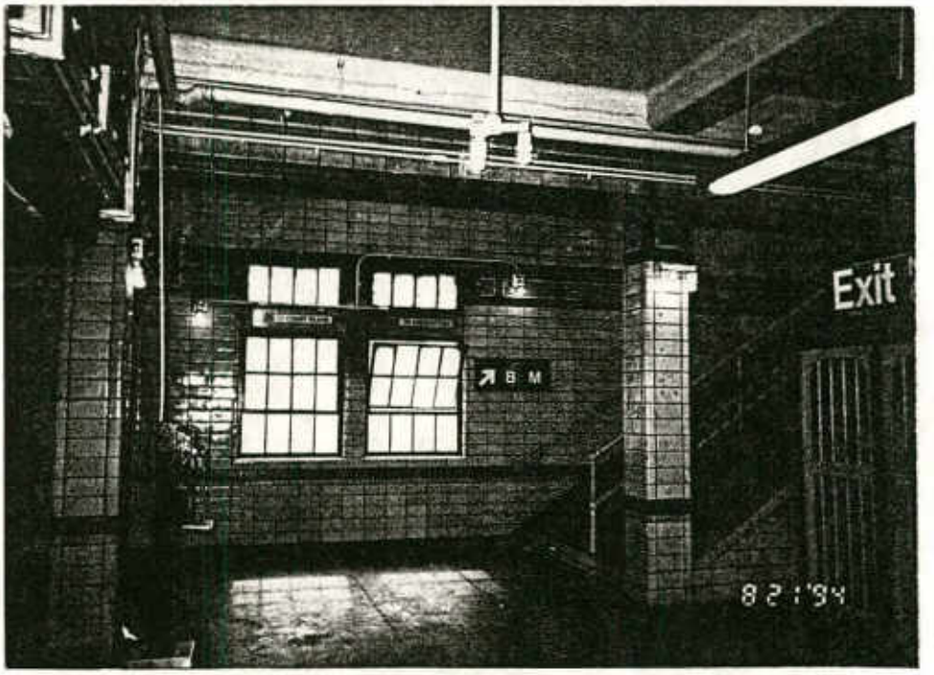


West Platform, Looking South.

New Utrecht Avenue Station



North Head House, Showing Stair Bulkhead on East Facade.



North Head House, Looking East at Stairs to 62nd Street Station.

New Utrecht Avenue Substation



View from Northwest.

PHOTOGRAPHS

62nd Street Station



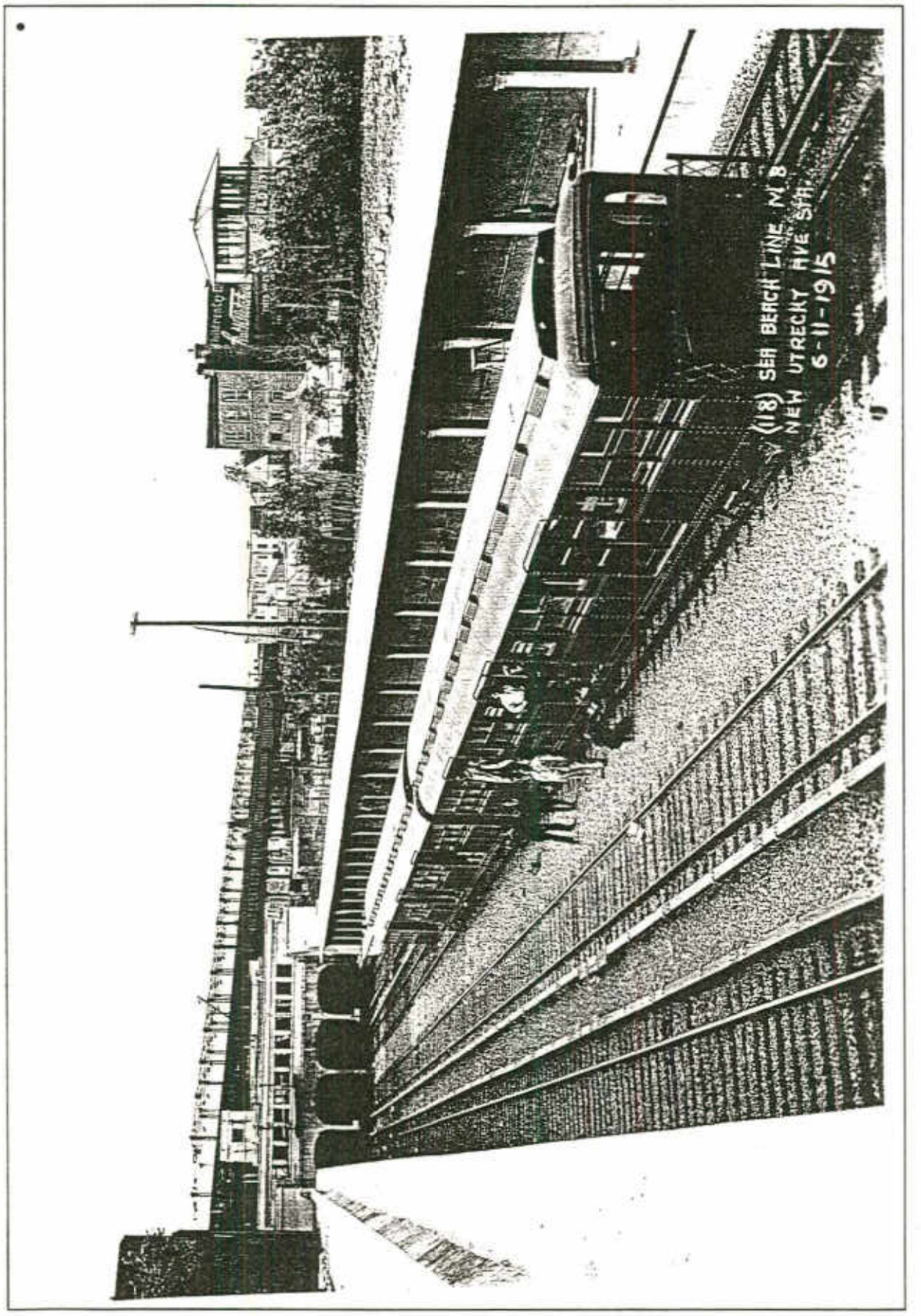
Looking South from East Platform (New Utrecht Avenue Station Seen in Background).

62nd Street Signal Tower

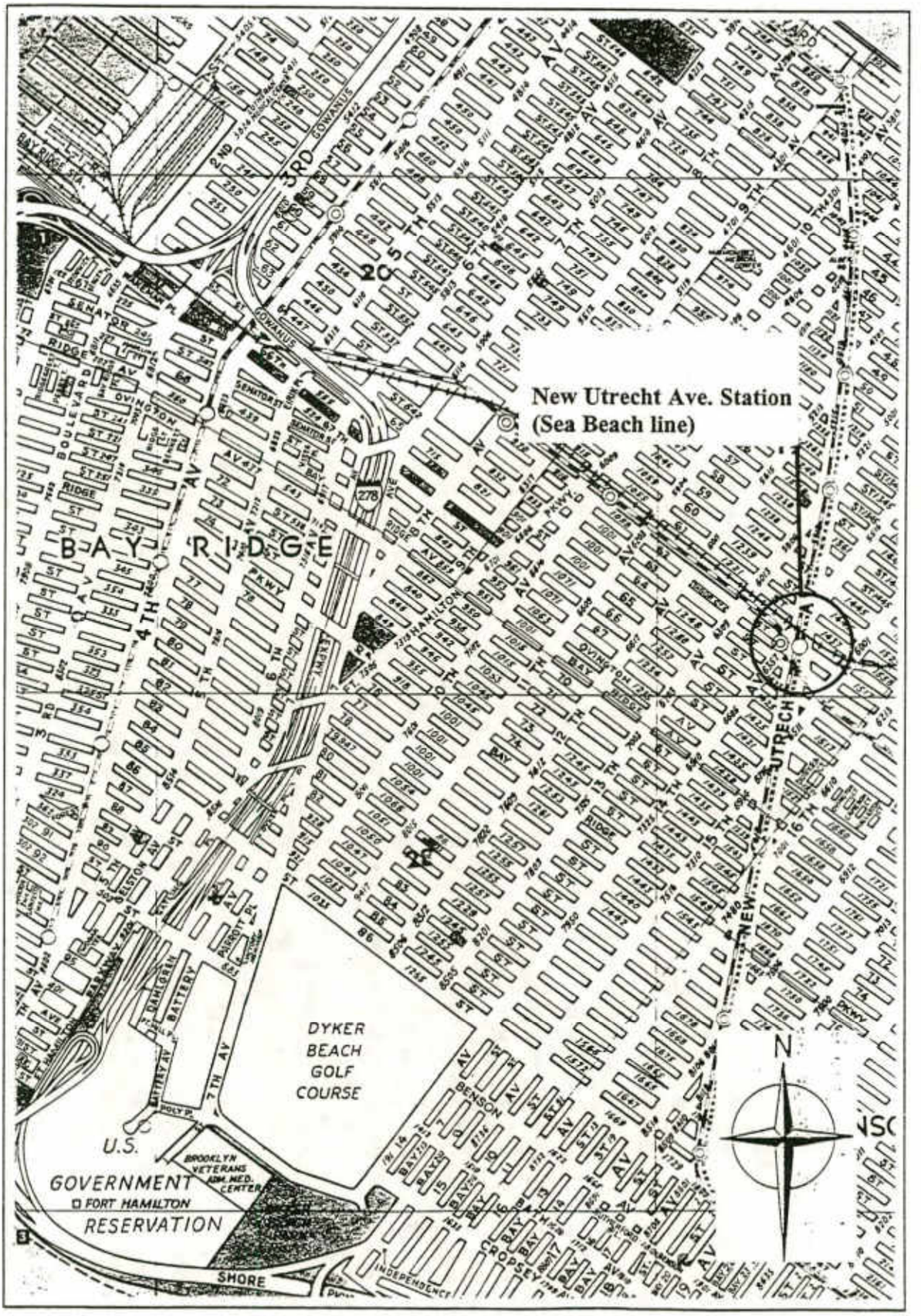


View From Northeast.

MAPS



MAPS


New Utrecht Ave. Station
(Sea Beach line)
BAY RIDGE
DYKER
BEACH
GOLF
COURSE
U.S.
GOVERNMENT
FORT HAMILTON
RESERVATION
BROOKLYN
VETERANS
ADM. MED.
CENTER
SHORE
N

22. Interior/Exterior Description:

- New Utrecht Avenue is on the Sea Beach Line in Brooklyn, located between New Utrecht and 15th Avenues. Typically, the four-track bed (only three tracks are in place) is situated in an open cut, one level below grade. There are two arcaded side platforms and a headhouse at each end of the 620-foot-long platform. The original structure was built entirely of concrete, which includes a vehicular overpass along 15th Avenue just north of the smaller headhouse at the south end. A steel pedestrian bridge provides access to a free transfer to the adjacent 62nd Street Station on the elevated West End Line (see contributing resources). A former BMT substation, now used as a kosher butcher house, lies just to the south on New Utrecht Avenue (also a contributing resource). There is a bus - and former electric trolley bus - turnaround on the paved triangular area in front of the north headhouse.

  Typically, the Sea Beach Line headhouse exterior has a flat roof and a cast-in-place ornamental concrete facade which features recessed panels, a 12-inch plinth, projecting sills, and a prominent projecting cornice, surmounted by a 2-foot-high parapet. Polychrome friezes of inlayed tile in geometric motifs decorate the front facade and corners. There are decorated steel canopies over the doorways, supported by paired metal brackets in a quarter-circular motif; these sit on concrete haunches which form part of the wall. Fenestration occurs typically on the front and side facades. There were openings (now blocked) over the track-side corridor, which spans the train tunnel portals and leads to the platform stairs located at each end. The concrete arcaded platforms extend a full city block, between headhouses. They have flattened arches spanning in two directions, and chamfered square columns -- with articulated base and capital -- on the track-side. Concrete haunches are formed from the retaining-wall and receive the ceiling arches on the outboard side. Above the flat canopy roof slab abuts a 4-foot-high concrete parapet wall with articulated piers, which separates the sunken cut from the grade-level building lots that which border each side. (The city block is bisected by the station.)

  The typical headhouse interior is equipped with a modern token booth near the entry, with turnstiles and gates roughly dividing the space in half with a waiting area with wooden benches on the paid side. Along the south wall are toilets and a newsstand (currently not accessible to the public). Also along this wall are a pair of doors which open into a corridor leading to the stairs down to the platforms. The headhouse ceilings are painted exposed concrete structure; the floors are bare concrete. The walls and columns are finished in a pale yellow ceramic tile with rounded corners. There is a polychrome frieze of ceramic tile, set in geometric pattern, that intersects with the clerestory windows, and a colored wainscot tile band that continues around the lower wall. The columns have a splayed-out capital over a decorative tile frieze. Incandescent 2- and 3-bulb fixtures with square stem pyramidal bases are suspended from the ceiling. On the east, one-third of the space is currently under construction for new offices. The newsstand window, which faces north, has original metal-clad paneling.

  The New Utrecht Avenue Station has a large headhouse at the north end, which was designed to incorporate a stair bulkhead into its 2-story west facade, where a wide flight of concrete stairs lead to a double-height space with clerestory windows. These connect to a steel bridge which leads to the mezzanine of the adjacent elevated station. The tile frieze on the north facade has been partially obscured by a modern metal sign. Missing sections of the ornamental friezes have been plastered over. The metal roof of the canopy is in deteriorated condition. Portions of the canopy brackets have been removed at the corners to allow for the placement of plastic globes. There are modern hollow-metal doors on the north and two sealed-up doors on the east; several windows have also been closed off with sheet metal. The concrete facade is showing wear, with spalling and cracks evident.

  The south control house is more modest in size; on the interior, the control area is completely enclosed in metal gates, with a pair of high exit-turnstiles leading to north openings which no longer have doors, but swinging gates -- metal deck blocks-off the side entries. The south control house exterior also has spalling and other water infiltration problems. The front canopy has been recently dismantled and portions of the tile work have been covered over with signage. The side canopies are in deteriorated condition.

23. Intentionally Blank

24. List Notable Features:

- Headhouse facades and arcaded platforms.
- Polychrome tile bands and geometric style lighting fixtures on headhouse interiors.

CONDITION AND STATUS

25. Exterior Overall Condition

a. good	b. fair	c. deteriorated
•	•	• X

26. Interior Overall Condition

a. good	b. fair	c. deteriorated
• X	•	•

27. Future Considerations

- Office additions underway in east portion of north headhouse.

28. Relation to Other Properties in the System

a. yard
b. shop
c. signal tower
d. station
e. substations
f. bridges/tunnels
g. surface locations
h. other (explain):
i. associations with landmark-designated TA holdings

- A former BMT substation -- recently decommissioned - building intact but equipment removed -- is south of the station.
- 62nd Street Station on elevated West End Line connects to north headhouse via bridge.
- Signal tower on elevated structure overlooks north headhouse.
- North headhouse fronts bus (former trolley car) turnaround.

29. Relationship of property to neighborhood and streetscape:

- Track-cut bisects city block, with residences and other buildings backing up against a parapet wall.
- Overpass for 15th Avenue is the southern part of station.

30. Is property located in an historic district or landmark structure?

Yes [•] **No** [• X]

If yes, identify district/landmark below:

•

SIGNIFICANCE

31. Architect/Engineer notable? (Refer to Number 9)

•

32. Discussion of historical, social, architectural, technological importance

- The present New Utrecht Avenue Station opened in 1915 on the Sea Beach Line, part of the Dual Systems Contract 4 lines of the BRT. Before its inclusion into the BRT Dual System lines, however, the Sea Beach right-of-way was part of the New York & Sea Beach Railroad, a late 19th century surface railroad connecting central Brooklyn to the Coney Island seashore. Opened in 1879, the New York & Sea Beach linked a ferry landing in Bay Ridge, Brooklyn, with the Sea Beach Palace Hotel in Coney Island. At the end of the 19th century, as the City's population grew, seaside retreats -- affordable to the masses -- sprang up within an hour's travel from the City. Altogether, six New York subway line routes began as steam railroads built to originally exclusive seashore resorts in the 19th century. The entire Sea Beach Line was electrified in 1898.

  The Sea Beach Line was completely reconstructed between 1913 and 1915 under Contract 4, creating a four-track railroad below grade in an open cut. Concrete headhouses marked the station entrances. This line connected with the BRT Fourth Avenue subway line for access to downtown Brooklyn and Manhattan. The Dual System was the greatest period of rapid transit expansion in the city's history and one of the largest public works programs ever. Contract 4 served several goals, including: new loop-lines connecting downtown Manhattan to Brooklyn and Queens; rebuilding existing elevated lines and extending new lines reaching out to newly developed northern Brooklyn and Queens; and rebuilding former surface lines in southern Brooklyn. New Utrecht Avenue Station was part of this last effort.

  The station is one of approximately 250 stations built during the Dual Contracts era and fourteen of these were built in a cut. Four of these stations are found in Brooklyn, on former seashore-bound steam railroad routes.

  The New Utrecht Avenue Station is architecturally significant in its use of ornamental concrete in a transitional Neo-Classical style (with Arts and Crafts detail). Also of note is the urban design of station which complements the local urban fabric.

  Offices are being added to the north headhouse, but the partitions do not appear to go the full height of the space and, therefore, would not affect the overall integrity. Although the exterior facades of both headhouses are in poor condition due to weathering, the original elements are still substantially intact and can be rehabilitated.

33. Statement of Significance by Contextual Themes: Urban and Social Change; Technological Developments; Architectural Design Features.

- Architectural Design Features: Unusual and well preserved example of Transitional Neo-Classical headhouse with some Arts & Crafts tile detailing..
- Technological Developments: Early use of ornamental/structural concrete.

34. Major Alterations and Dates:

- 1980: platforms extended; stairways added.

35. Overall Integrity:

Exterior Integrity		Interior Integrity
•	a. Original conditions substantially intact	• X
•	b. Alterations and/or additions beneficial	•
•	c. Minor detrimental alterations/additions not affecting overall integrity	•
• X	d. Detrimental alterations and/or additions, reversible	•
•	e. Detrimental alterations and/or additions, not reversible	•

SOURCES OF INFORMATION

36. Engineering drawings:

(Reel # / Drawing # / Description)

- TA Maintenance of Way Department: one drawing, last updated 1992.

37. Archival photos:

- TA Museum archives: five photos circa 1915; one 1953 photo.

38. Sources/Archives:

39. Interviews:

- Robert Olmsted, P.E., Transit Historian

40. Existing Surveys:

- Phase I: Reconnaissance Level Historical Survey of Transit Authority Properties, 1991.

- **The 62nd Street Station of the West End Line.** This three track elevated station has two island platforms which are reached from an open mezzanine deck below, located on the south end, which connects by bridge to the north headhouse of the Sea-Beach Line. To the north is a semi-enclosed mezzanine, with tongue-and-groove deteriorated wood cladding on the interior, and a pair of laterals stairs leading to the street. There is no token booth in the space, and it is used for exit only. All metal gates and rails are simple square sections.

  The steel platform canopy has open-web columns and beams. The cantilevered roof-truss has a hollowed-out web, and wood rafters have circular cut projecting ends. There is a deteriorated wood deck clad in a standing seam painted metal. Although substantially intact and as-built, this station is one of the more austere of the Dual Contract stations and has little architectural significance.

  Signal Tower at 62nd St. Station. The two-story signal tower at the south end of the west platform of the 62nd Street Station is typical of the Dual Contracts era, with metal-clad paneled wood facades. It also contains double-hung windows with colonial type lights and new metal doors. The roof is standing seam metal-clad hip-type, with deep overhangs, bracketed roof plate and exposed scrolled rafter-feet-characteristics of contemporary railroad Victorian design.

  Although the interior of the structure could not be entered at the time of the survey (it is manned mainly during rush-hour service), the upper floors typically contain the switching machine with relay equipment placed either on the first or second floors, depending if there are compressors, which would occupy the whole of the first floor.

  The exterior is intact and reflects the as-built condition.

  New Utrecht Ave. Substation. The former BRT Substation building is located on the west side of New Utrecht Avenue, just south of the north headhouse and the 62nd Street elevated station. This building was included in the Phase I survey and its rotary converters were being dismantled in 1991; it is no longer under the jurisdiction of the NYCTA.

  The two-story masonry structure has one decorated Beaux-Arts style facade which fronts on the elevated track structure of the West End Line. This facade features a central, arched monumental portal, the arch opening is articulated in a brick-arch band. This is flanked by a man-door with transom lights on one side, and a vertical strip window to the other. Above there is a corbelled brick course and a row of attic windows by a projecting limestone cornice and a parapet wall. The rear facade overlooks the recessed cut of the New Utrecht Avenue Station.

NONCONTRIBUTING RESOURCES

- A turnaround for the B-23 (Cortelyou Road) Bus is located on the asphalt paved triangular site directly to the north of the north headhouse. This line was one of the few electric trolley-bus routes which ran through Brooklyn prior to 1960 - when they were all replaced by diesel powered buses.

NPS Form 10-900
(Oct 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "X" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

historic name: New Utrecht Avenue Station (Dual System BRT)

other name/site number:

2. Location

street & number: Beneath the intersection of New Utrecht Avenue with 15th Avenue and 62nd Street [ ] not for publication

city or town: Brooklyn [ ] vicinity

state: New York code: NY county: Kings code: 047 zip code: 11219

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements as set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally. ([ ] See continuation sheet for additional comments.)

Signature of certifying official/Title — Date

State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] See continuation sheet for additional comments.)

Signature of certifying official/Title — Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[ ] entered in the National Register
[ ] see continuation sheet
[ ] determined eligible for the National Register
[ ] see continuation sheet
[ ] determined not eligible for the National Register
[ ] removed from the National Register
[ ] other (explain) _____

Signature of the Keeper — Date of Action

New Utrecht Avenue Station (Dual System BRT) | Kings County, New York
Name of Property | County and State

5. Classification

Ownership of Property (check as many boxes as apply)
[ ] private
[ ] public-local
[X] public-State
[ ] public-Federal

Category of Property (check only one box)
[ ] building (s)
[ ] district
[ ] site
[X] structure
[ ] object

Number of Resources within Property (Do not include previously listed resources in the count)

Contributing	Noncontributing	
		Buildings
		Sites
1	0	Structures
		Objects
1	0	TOTAL

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing)
Historic Resources of the New York City Subway System

Number of contributing resources previously listed in the National Register
0

6. Function or Use

Historic Functions (Enter categories from instructions)
Transportation/rail-related
Government/public works

Current Functions (Enter categories from instructions)
Transportation/rail-related
Government/public works

7. Description

Architectural Classification (Enter categories from instructions)
Late 19th & 20th Century Revivals/
Classical Revival
Other: Arts & Crafts

Materials (Enter categories from instructions)
Foundation: Concrete
Walls: Brick, concrete, ceramic tile
Roof: Steel, concrete
Other: Decorative finishes: ceramic tile

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets)
See continuation sheet

7. Narrative Description

The New Utrecht Avenue Station, Sea Beach Line/N train, is located in the Bensonhurst neighborhood of Brooklyn. The station was opened in 1915 as part of the Dual System BRT. It is aligned in a north-south direction bisecting a block of buildings bounded by 62nd Street on the north, 15th Avenue on the east, 64th Street on the south and New Utrecht Avenue on the west. The station measures approximately 630 feet in length and approximately 80 feet in width. This narrative description was taken largely from the *NYCT Historical Properties Survey: Phase II – New Utrecht Avenue Station Inventory Form* that was completed in 1994 and was supplemented with observations from field inspections undertaken in August of 2004.

General Characteristics and Construction Methods

The four-track bed is situated in an open cut, one level below grade and bordered by concrete retaining walls. There are two arcaded side platforms and a pair of headhouses located at each end (north and south) of the 620-foot platform. The entire original portion of the structure was built of reinforced concrete.

A steel trestle supports the crossing of 15th Avenue above the southern end of the station, and New Utrecht Avenue at the northern end. At the north and south ends of the tracks are two similar, flat-roofed Neo-Classical-style control houses supported by elevated platforms that span the tracks (Photo 1). The concrete arcaded platforms have chamfered square columns with articulated bases and capitals on the track side (Photo 2). Concrete impost blocks are formed from the retaining wall and receive the ceiling arches on the outboard side (Photo 3). Above, the flat canopy roof slab abuts a four-foot high concrete parapet wall with articulated piers. This wall separates the sunken cut from the grade-level building lots that border each side of the station (Photo 4). Modern fluorescent box lighting is used to illuminate the platforms.

Of note nearby is a former BMT substation (not included within the boundaries of this nomination), now used as a kosher butcher house, located just south of the northern headhouse on New Utrecht Avenue. A former electric trolley bus turnaround – now used as a bus turnaround by MTA is located on the paved triangular area in front of the north headhouse. Finally, a crossover bridge located at the northwest corner of the northern mezzanine connects to the elevated 62nd Street Station (West End Line).

Station Circulation

Street access is from two control houses located at the north and south ends of the station. At the north control house, a stairwell located on the north wall provides a connection, via a canopied walkway, to the 62nd Street Station (West End Line) (Photo 5). Stairways located on the east and west walls of the house, lead down to a set of canopied stairways that, in turn provide access to the platform level. The southern control house is used as an exit only. One stairwell leads from each platform to the street level control house.

Northern Headhouse

The northern headhouse exterior has a flat roof and a cast-in-place ornamental concrete façade. The walls appear to rest upon a 12-inch high base. The façade is articulated near the roofline by a prominent, projecting cornice surmounted by a two-foot-high parapet. This elevation is dominated by the steel crossover connection to the 62nd Street Station. Apart from this major alteration, the façade has also been modified in more subtle ways from its original symmetrical design. The easternmost doors are now boarded up, but it is likely that these were originally windows identical to those found on the westernmost opening. Continuing westward, a three-part entrance includes two doorways flanking a central window. A second pair of doorways is located adjacent to this entry. These openings are all topped by recessed panels that are decorated with polychrome geometric tiles, portions of which have been partially obscured by a modern metal sign and pargeted concrete. Below the crossover is a pair of square openings topped by rectangular transoms (all boarded shut). Cruciform shaped, polychrome friezes of inlaid tile set in geometric motifs decorate the elevations at each corner (Photo 6). Beneath each of these tile areas, square metal plinths support green globe lights. A decorated metal canopy lines the façade east of the walkway. It is supported by paired metal brackets that rest on concrete haunches and is decorated with a repeating bezant pattern. The metal roof of the canopy is in a deteriorated condition. Portions of the canopy brackets have been removed at the corners to allow for the placement of the plastic globe lights. The concrete façade is showing wear, with areas of spalling and cracks evident. On the western façade, a wide flight of concrete stairs leads to a double-height space with clerestory windows. This connects to the elevated connection to the West End station.

Two single bay projections extend from the east and west sides of each headhouse. These additions are slightly lower in height than the main station house block and are recessed. They feature the same pattern of fenestration and decorative tile detail. There were once openings (now blocked) over the track-side corridor, which spans the train tunnel portals and leads to the platform stairs located at each end.

The northern headhouse interior is equipped with a modern token booth near the entry. Turnstiles and security gates divide the space in half with a waiting area on the paid side. Along the south wall are toilets and a newsstand (currently not accessible to the public). Also along this wall is a pair of doors which open into a corridor leading to the platform stairways. The walls and piers are finished in a pale yellow, rectangular, ceramic tile with rounded corners at all openings and wall junctions (Photo 7). There is a polychrome geometric frieze of ceramic tile located high on the wall and a colored wainscot tile band that continues around the lower portion of the wall. This decorative scheme is carried to the piers. Unadorned fields of modern, rectangular-shaped, yellow tiles line the stairwells and portions of the station walls (Photo 8). Incandescent two and three-bulb fixtures with square stems and pyramidal bases are suspended from the ceiling. The flat headhouse ceilings are plastered and painted concrete and the floors are bare concrete.

Southern Headhouse

The south control house is more modest in size, but features the same basic decorative scheme seen on the northern one. The exterior also shows some spalling and cracking of the concrete and other water infiltration problems. The front canopy has been recently dismantled and portions of the tile work have been covered over with signage. The side canopies are in deteriorated condition. On the interior, the control area is completely enclosed in metal gates; with a pair of high exit-turnstiles leading to north openings which no longer have doors, but swinging gates and metal deck block off the side entries. Unlike, the northern house, some of the inboard windows located on the track side have remained open and intact.

Platform Level

The platforms extend a full city block between the headhouses. Above the flat roof slab of the platform, the canopy abuts a four-foot high concrete parapet wall with articulated piers. This separates the sunken cut from the grade-level building lots that line each side of the station. The arcaded canopies are supported by a series squared concrete piers. The piers are articulated at the base and top and have chamfered edges. They support a series of transverse arches that spring from impost blocks set into the platform walls. The piers also support the arches of the arcade lining the track edge.

The side walls are solid concrete and are lined with a series of recessed panels. A line of single-bulb incandescent light fixtures line the center of the platform ceiling and a single line of fluorescent bulbs line the track edge. The platform decks are concrete incised into

large squares. Enclosed stairwells lead to the houses at each end of the station. Some of the stairwells retain their original railings and tile work, while others have been refitted with modern handrails and dark green frost proof tile.

New Utrecht Avenue Station (Dual System BRT) — Name of Property

Kings County, New York — County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] **B** Property is associated with the lives of persons significant in our past.

[X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all boxes that apply.)

Property is:

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location.

[ ] **C** a birthplace or grave.

[ ] **D** a cemetery.

[ ] **E** a reconstructed building, object, or structure.

[ ] **F** a commemorative property.

[ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

Transportation
Architecture
Engineering
Community Planning and Development
Social History

Period of Significance

1915

Significant Dates

1915

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Craven, Alfred (engineer)
Vickers, Squire J. (architect)

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

[ ] preliminary determination of individual listing (36 CFR 67) has been requested
[ ] previously listed in the National Register
[ ] previously determined eligible by the National Register
[ ] designated a National Historic Landmark
[ ] recorded by Historic American Buildings Survey
_____
[X] recorded by Historic American Engineering Record
NY-122

Primary location of additional data:

[ ] State Historic Preservation Office
[X] Other State agency
[ ] Federal Agency
[X] Local Government
[ ] University
[X] Repository name:
NYC Transit Archives
NYC Landmarks Preservation Commission

8. Narrative Statement of Significance

As part of the Multiple Property Submission of the Historic Resources of the New York City Subway System, the New Utrecht Subway Station (Dual System BRT), Sea Beach Line, is significant under Criterion A in the areas of transportation, community planning and development, and social history. The station also meets Criterion C in the areas of engineering and architectural design. It retains a relatively high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. Many of the Dual Contracts stations, including New Utrecht, are significant at the local level.

The present New Utrecht station, opened in 1915 on the Sea Beach Line, is part of the Dual System Contract 4 lines of the BRT. Before its inclusion into the BRT system, the Sea Beach Line was part of the New York & Sea Beach Railroad, a late 19th century surface railroad route connecting central Brooklyn to the Coney Island seashore. Opened in 1879, the New York & Sea Beach linked a ferry landing in Bay Ridge, Brooklyn, with the Sea Beach Palace Hotel in Coney Island. At the end of the 19th century, as the city's population grew, seaside retreats affordable to the masses sprang up within an hour's travel time, making day trips feasible. Altogether, six New York subway lines began as a steam railroad routes built to seashore resorts in the 19th century. The entire Sea Beach Line was electrified in 1898.

The Sea Beach Line was completely reconstructed between 1913 and 1915 by the BRT under Contract 4, creating a four-track below-grade railroad in an open cut. At-grade concrete headhouses, marked the station entrances. This line connected with the BRT Fourth Avenue subway in 1915 for access into downtown Brooklyn and Manhattan. In 1923, the BRT was reorganized as the Brooklyn-Manhattan Transit Company (BMT). The Dual System was the greatest period of rapid transit expansion in the city's history, and one of the largest public works programs ever. Contract 4 met several goals, including: new loop-lines connecting downown Manhattan to Brooklyn and Queens; rebuilding existing elevated lines and extending new lines reaching out to newly developed northern Brooklyn and Queens; and rebuilding former surface lines in southern Brooklyn. New Utrecht Station was part of this latter effort. The station is one of approximately 250 stations built during the Dual Contracts era (1909-1931), 14 of which were built in a cut. Four of these stations are found in Brooklyn on former seashore-bound steam railroad routes.

The design of the New Utrecht Avenue Station was the work of Dual System chief architect Squire J. Vickers. Vickers, known as "The Dean of underground architecture," served as Design Architect of the New York City Subway System from 1906 to 1942. Educated at Cornell University's College of Architecture, he was responsible for the design of most of the Dual System and later IND stations. His approach differed dramatically from that of the original subway architects Heins & LaFarge in that he created utilitarian spaces that often featured simple but colorful, whimsical, tile work. In his spare time, Vickers was a painter of fantastical urban scenes that featured strong graphical images and bold colors. Many of these paintings were translated into the mosaic plaques seen throughout the system. Regarding his use of colorful tiles in his designs, Vickers was quoted in *The Municipal Engineer's Journal* in 1917 as saying, "This bit of color set in the hard unyielding surface gives a joyous note like a banner flying from the barrel window of a frowning Medieval Castle."

Alfred Craven, Chief Engineer of the Dual Contracts expansion, was born in 1846 and received his formal education in engineering from the Naval Academy. Craven came from a long line of prominent Naval Engineers, including his uncle, Alfred W. Craven, Chief Engineer of the Old Croton Aqueduct, Central Park Reservoir and numerous other significant works in New York City. He began work as Division Engineer with the Rapid Transit Commission in 1900 and was promoted to Chief Engineer of the Commission by 1910.

Although the exterior facades of both headhouses are in poor condition due to weathering, the original elements are still substantially intact and can be restored. This station remains architecturally significant as one of only two Neo-Classical headhouses on this line (the other being at Avenue U Station on the same line).

The Dual System BRT lines extended transit into undeveloped land in the outer boroughs and greatly facilitated the building of new residential communities there. Today the station is located along the commercial spine of New Utrecht Avenue in Bensonhurst, an area filled with mainly residential high-rises. The railroad lines of the late nineteenth century brought about a slow and steady pattern of growth, but with the arrival of the subway in 1915, an influx of immigrants from the Lower East Side of Manhattan built their homes in Bensonhurst.

9. Bibliography

Cudahy, Brian. *A Century of Subways: Celebrating 100 Years of the New York City's Underground Railways.* New York: Fordham University Press, 2003.

Hood, Clifton. *722 Miles: The Building of the Subways and How they Transformed New York.* Baltimore: Johns Hopkins University Press, 1993.

Interborough Rapid Transit Company. *The New York Subway: Its Construction and Equipment.* 1904. Reprinted on website managed by David Pirmann (2004). Retrieved 03/14/04 from source: http://www.nycsubway.org/irt/irtbook/.

National Park Service, Department of the Interior Historic American Engineering Record NY-122, "Interborough Rapid Transit Subway (Original Line): The NY Rapid Transit Decision of 1900: Economy, Society, Politics" prepared by Walter B. Katz, 1979.

New York City Landmarks Preservation Commission. *IRT Subway System Underground Interior Designation Report.* New York: NYC LPC, October, 1979.

Orlando, Barbara. "Recapturing the Past: Station Architecture," *At Your Service: MTA New York City Transit Employee Newsletter*, March, 2004.

Parsons, Brinckerhoff, Quade & Douglas, Inc., Historical Perspectives, Inc. and Robert E Olmstead, P.E. "Phase I: Reconnaissance Level Historical Survey of Transit Authority Properties," June, 1991.

New Utrecht Avenue Station
((Dual System BRT) | Kings County, New York
Name of Property | County and State

10. Geographical Data

Acreage of Property Less than 1 acre

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	18	584850	4497370	3			
2				4			

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By (*See Continuation Sheet for authors*)

name/title Contact: Kathleen A. Howe, Historic Preservation Specialist

organization NYS Office of Parks, Recreation & Historic Preservation Date September 20, 2004

street & number Peebles Island, PO Box 189 Telephone 518-237-8643 ext. 3266

city or town Waterford state NY zip code 12188

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with SHPO or FPO for any additional items)

Property Owner (Complete this item at the request of the SHPO or FPO)

name MTA New York City Transit Contact: Hollie Wells, Project Administrator

street & number 2 Broadway, 6th Floor, D6.125 Telephone 646-252-4268

city or town New York state NY zip code 10004

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate 88properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act. As amended (16 U.S.C. 470 *et seq.*)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 20503.

10. Geographical Data

The boundary of the New Utrecht Station – Sea Beach Line is shown as the bold line on the accompanying site plan entitled, "New Utrecht Avenue Station, Station Plan, Sea Beach Line - BMT Division, 1996." The above-ground station boundaries are also shown on the accompanying location map entitled, "Borough of Brooklyn, Hagstrom Map Company, 2003." The designation for the New Utrecht Avenue Station includes all portions of the station at track level that fall within the boundaries of the current platforms, as well as the two headhouses.

Boundary Justification

The boundaries for the New Utrecht Avenue Station encompass the entire station.

11. Form Prepared By:

Steven Bedford, Principal Architectural Historian
Stacey Vairo, Architectural Historian
Fitzgerald & Halliday, Inc.
72 Cedar Street
Hartford, CT 06106
860-247-7200

Additional Documentation

List of Black and White Photos
New Utrecht Station (Dual System BRT)
Kings County, NY
Photographer: Stacey Vairo
Date: August, 2004
Negatives on file: Fitzgerald & Halliday, Inc.
72 Cedar Street
Hartford, CT 06106

1. Façade of north control house. View south.
2. Arcaded platform. View south.
3. Piers supporting platform. View north.
4. Platform level and retaining wall. View southeast.
5. Crossover to the 62nd Street Station. View south.
6. Western elevation of north control house. View east.
7. Northern control house interior. View east.
8. Stairwell leading to platform level. View south.

New Utrecht Avenue Station (Dual System BRT)

Brooklyn, Kings Co, NY

Zone: 18

Easting 584850

Northing: 4497370

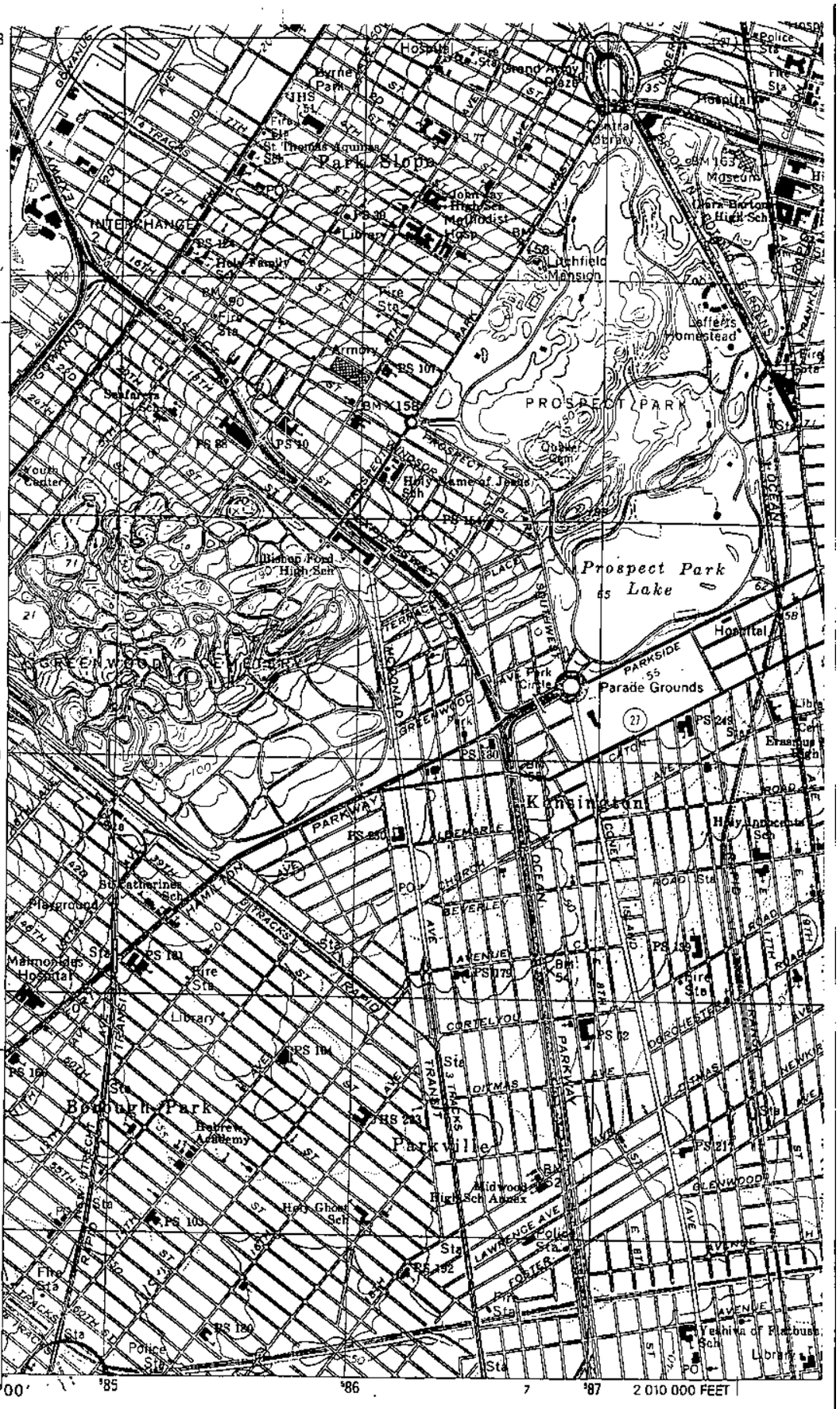
Brooklyn Quad

" Sand

Coney Island Quad

USGS

1:24 000

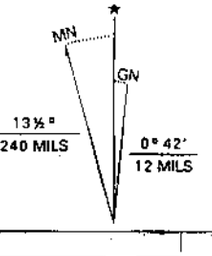


Produced by the United States Geological Survey

Topography compiled 1966. Planimetry derived from imagery taken 1977 and other sources. Photoinspected using imagery dated 1995; no major culture or drainage changes observed. Survey control current as of 1967. Boundaries, other than corporate, revised 1999

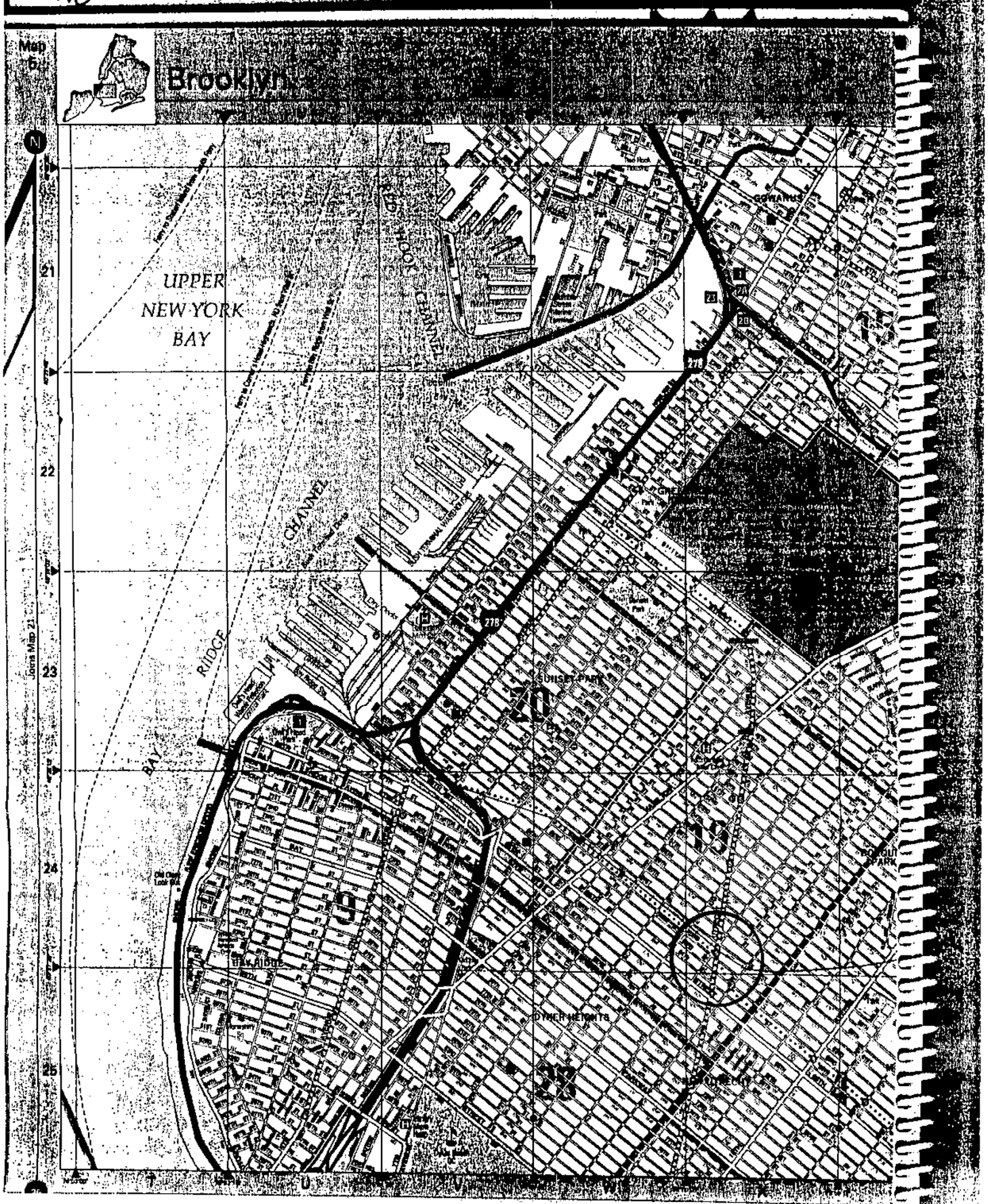
Selected hydrographic data compiled from NOS charts 275 (1964), 542 (1967), and 745 (1966). This information is not intended for navigational purposes

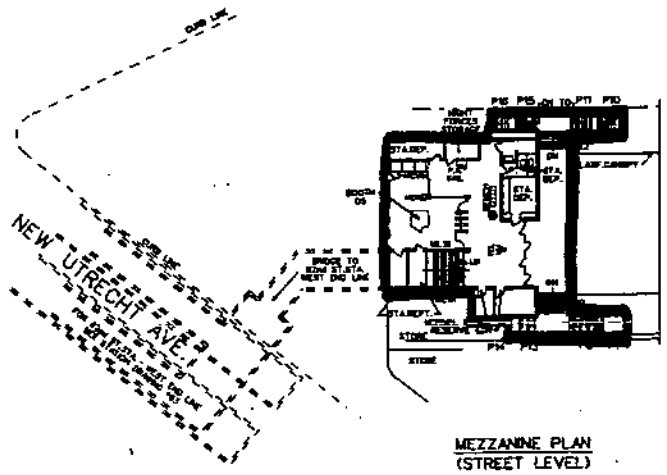
North American Datum of 1927 (NAD 27). Projection and 10 000-foot ticks: New York coordinate system, Long Island zone (transverse Mercator)



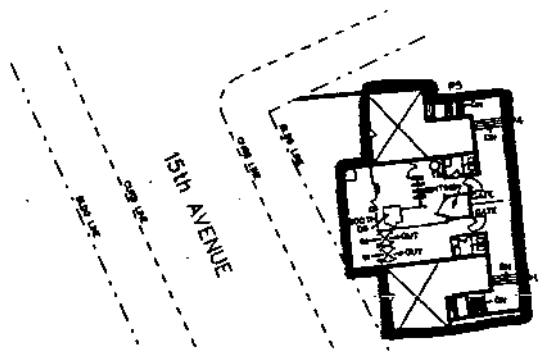
New Utrecht Avenue Station
(Dual System BRT)
Kings County, N.Y.

Hagstrom Map, 1" = 1,750'
1998

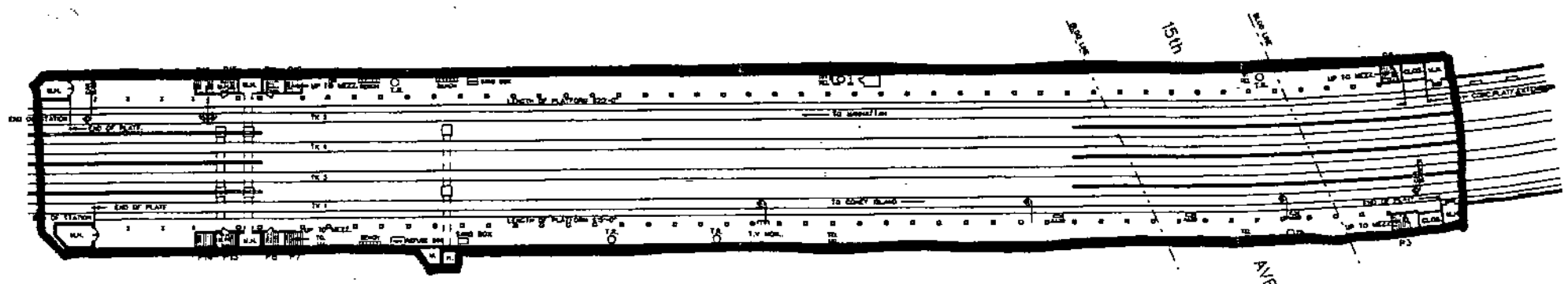




MEZZANINE PLAN
(STREET LEVEL)



MEZZANINE PLAN
(STREET LEVEL)



PLAN AT TRACK LEVEL

DATE	REVISIONS	BY
4-02-98	SURVEYED - NO STRUCTURAL CHANGES	M.H.
04-03-99	ALTERATION TO FARE CONTROL.	F.J.
01-11-02	ALTERATION TO FARE CONTROL AT NORTHEND OF PLATFORM. ADDED CCTV CAMERA AND METROCARD VENDING MACHINE.	L.C.S.

NOTE: THIS DRAWING SUPERSEDES DRAWING
MS-5777-B DATED 06-06-62.

SCALE
0 25 50 100 FT

NEW YORK CITY TRANSIT
DEPARTMENT OF SUBWAYS
MAINTENANCE OF WAY DIVISION
ENGINEERING SUBDIVISION
CONSTRUCTION SECTION

MTA

NEW UTRECHT AVENUE
STATION PLAN
SEA BEACH LINE - BMT DIVISION
STATION NUMBER: 73 DATE: 02-29-98

18" x 36" - 4.5 s.f.