1501 – 1555 60th Street

Environmental Assessment Statement

CEQR #: 18DCP038K

Prepared for: 1529- 33 60th Street LLC

Prepared by: Environmental Studies Corporation

Jan 2nd, 2020

1501-1555 60th Street Rezoning
ENVIRONMENTAL ASSESSMENT STATEMENT

CEQR No.: 18DCP038X

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SECTION I – EAS 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* 1501-1555 60th Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency) 18DCP038K	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) 200086ZMK, N200087ZRK	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC City Planning Commission			NAME OF APPLICANT 1529-33 60th Street LLC		
NAME OF LEAD AGENCY CONTACT PERSON Olga Abinader, Acting Director			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Hiram Rothkrug, ESC, Inc.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3493	EMAIL oabinad@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL hrothkrug@epdsco.com	

5. *Project Description*

The Applicant, Designs by FMC Inc., seeks a series of discretionary actions that would facilitate the development of three mixed-use developments along 60th Street in the Borough Park section of Brooklyn Community District #12. The discretionary actions (hereafter, the "Proposed Actions") include a zoning map amendment from M1-1 to R7A/C2-4 and a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to establish the affected area as a Mandatory Inclusionary Housing (MIH) area under Options 1 and 2 of the program.

The Proposed Action would facilitate the development of two seven-story and a single eight-story building on Block 5509, Lot 58 (Building A); Block 5509, Lots 64, 65, 68 and 70 (Building B), and Block 5516, Lots 14, 17, 20 and 21 (Building C) (collectively the "Development Sites"). Two of the three buildings (Buildings A and B) would rise to 7-stories (75 feet) and the third building (Building C) would rise to 8-stories (85 feet). In total, the proposed buildings would contain 201,180 gross square feet (gsf) of floor area (4.60 FAR) and 102 dwelling units (32 affordable) with 32,219 gsf of commercial space. This Proposed Development intends to comply with Option 2 of the MIH program.

The Proposed Actions would also affect Block 5509 Lots 1, 62, 71, 72, and 73, and Block 5516, Lots 4, 9, 10, 11, 12 and 13, which are not under the Applicant's control.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 12	STREET ADDRESS 1501-1555 60th Street Rezoning
TAX BLOCK(S) AND LOT(S) Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72, 73; Block 5516, Lots 4, 9, 10, 11, 12, 13 14, 17, 20 and 21		ZIP CODE 11219
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS 60th Street between 15th Avenue and 16th Avenue		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1		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 CERTIFICATION ☐ CONCESSION
☒ ZONING MAP AMENDMENT ☐ ZONING AUTHORIZATION ☐ UDAAP
☒ ZONING TEXT AMENDMENT ☐ ACQUISITION—REAL PROPERTY ☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☐ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Appendix F

***Board of Standards and Appeals*:** ☐ YES ☒ NO
☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

Other City Approvals Not Subject to CEQR (check all that apply)
☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☐ OTHER, explain:

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

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.): 80,836 Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.): Other, describe (sq. ft.):

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 201,180
NUMBER OF BUILDINGS: 3 HEIGHT OF EACH BUILDING (ft.): Projected Development Sites A, B, and 1 assumed to be 75' after required setback. Projected Development Site C assumed to be 85' after required setback
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 46,524; 77,094; 77,562
NUMBER OF STORIES OF EACH BUILDING: 7-Stories (Building A); 7-Stories (Building B); 8-Stories '(Building C); 7-Stories (Site #1)

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 35,061
The total square feet not owned or controlled by the applicant: 45,776

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: n/a sq. ft. (width x length) VOLUME OF DISTURBANCE: 428,109 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 38,919 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.)	168,961	32,219		

Type (*e.g.,* retail, office, school)	+102 units	Retail		

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 438 NUMBER OF ADDITIONAL WORKERS: 10ϕ

- Provide a brief explanation of how these numbers were determined: Per analysis framework described below: Increment of 112 dwelling units and 36,226 gsf of commercial retail. Assuming 3.91 Residents per dwelling units (Average HH Size for Borough Park Neighborhood Tabulation Area in 2013-2017) / 1 worker per 333 square feet of general retail. *Not equivalent to the Proposed Development is shown above.*

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

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

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

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2023

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 40

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Based on an estimated 7-month approval process and construction schedule for the Proposed Development (Proposed Development Sites A, B and C). Construction on Site A would commence in July 2020 and conclude in July 2021. Construction on Site B would commence in August 2021 and conclude in August 2022. Construction on Site C would commence in September 2023 and conclude in September 2023. The remaining Project Development site is not controlled by the Applicant and there are no known development plans. The site is anticipated to redevelop within the next market cycle. The analysis framework uses a build year of 2023 based on the planned completion of the Applicant's proposed project.

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

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

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		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **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 proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		

	YES	NO
(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		
(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 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) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☒	☐
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: 1) The potential for site contamination from former gasoline filling station and auto repair/body operations, including leaks from underground petroleum storage tank systems. 2) The potential presence of underground infrastructure typically associated with gasoline filling stations and auto repair garages such as gasoline tanks and associated piping, fuel oil tanks, waste oil tanks, hydraulic lift units, oil/water separators, drainage structures, and others. 3) The possible presence of asbestos-containing building materials and/or lead-based paints in the existing subject buildings.	☐	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		

	YES	NO
(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?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 11,915[1]		
○ 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): 31,184,974[2]		
(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 or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☒	☐
(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?	☐	☒

Notes:

1. (438 Residents X 17lbs per Resident) + (109 Retail Workers X 41lbs per Retail Worker)
2. (184,288 sf Residential X 126.7 Million BTUs) + (36,226 X 216.3 Million BTUs)

16. NOISE: CEQR Technical Manual Chapter 19	YES	NO
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. No significant air quality, construction, natural resource or hazmat impacts are anticipated. See Section III		
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 Actions do not have the potential to affect the defining features of the neighborhood. As discussed in Section III, the Proposed Actions would facilitate the development of a mixed use residential and commercial building in an area that is increasingly characterized by mixed use buildings. The potential for significant adverse impacts in the analysis sections above has not been identified. Moderate effects in the above analysis sections were not found to have the potential to alter the defining features of the neighborhood . Further analysis is not warrented		

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.

When considering the time necessary for the re-staging of construction materials, there is no construction period that is longer than 12 months. Significant adverse construction impacts do not typically consider the short term effects of construction. Development of the three proposed sites is not anticipated to result in significant adverse construction impacts. The Analysis Framework considers that an additional site (Lot 62) will be developed as a result of the Proposed Actions. However, construction of this site is not anticipated to occur in the current market cycle. No reasonable timeframe for constuction can be estimated for this site. It is not included in the analysis of construction impacts.

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
Hiram Rothkrug	12/10/19

SIGNATURE

Hiram Rothkrug

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRE 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 Deputy 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	DATE January 3, 2020
SIGNATURE	

NEGATIVE DECLARATION (Use of this form is optional)

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 project. Based on a review of information about the project contained in this environmental assessment statement 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 that the proposed actions sought before the City Planning Commission would have no significant effect on the quality of the environment. Reasons supporting this determination are noted below. The proposed actions are classified as an Unlisted Action.

Land Use, Zoning, and Public Policy

The proposed actions include a Zoning Map Amendment to rezone the project area from M1-1 to R7A/C2-4 and a Zoning Text Amendment to establish an Mandatory Inclusionary Housing area coterminous with the rezoning area to facilitate the development of three new residential buildings with ground floor retail. The project area consists of 20 lots fronting on 60th Street between 15th Avenue and 16th Avenue and one lot fronting on 15th Avenue in the Borough Park neighborhood of Brooklyn Community District 12. The project area is predominantly developed with industrial, commercial, and residential uses. The proposed actions would bring the existing residential uses into conformance with zoning and result in the redevelopment of parts of the project area with new residential uses. The project area is not within an industrial business zone and the displacement of existing industrial uses would not adversely affect surrounding land uses. While the proposed actions would result in changes to land use and zoning those changes would not result in a significant adverse impact.

Open Space

The proposed actions would introduce approximately 428 residents in an area currently underserved by open space. The additional residents introduced as a result of the proposed actions would be expected to result in a 0.49% decrease in the open space ratio, from 0.201 acres per 1,000 residents to 0.200 acres per 1,000 residents, as compared to No-Action conditions. While the study area open space ratio would be substantially below the CEQR guideline of 2.5 acres per 1,000 residents and the city-wide community district average of 1.5 acres per 1,000 residents, the magnitude of additional population introduced by the proposed actions would not be substantial enough to result in a significant adverse impact on the ability of open space resources to serve area residents.

Transportation

The proposed actions would not generate vehicular, bus, or subway trips exceeding the threshold for detailed analysis. A detailed analysis was performed for pedestrian trips at sidewalks along 60th Street as trips generated by the proposed actions exceed screening thresholds. The detailed analysis concluded that trips generated by the proposed actions would not result in a change in the level of service (LOS) at the analyzed sidewalk and that those sidewalks would operate at LOS B or better during all peak hours. Therefore, the proposed actions would not result in significant adverse transportation impacts.

Hazardous Materials, Air Quality, and Noise

To ensure that the proposed actions would not result in significant adverse hazardous materials, air quality, and noise impacts an (E) designation (E-556) 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 concluded that with the (E) designation requirements in place, the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and 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 please contact Matthew Katz at 212-720-3507

TITLE Deputy 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	DATE January 3, 2020
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE January 6, 2020
SIGNATURE	

Project Name: 1501-1555 60th Street Rezoning
CEQR #: 18DCP038K
SEQRA Classification: Unlisted

Determination of Significance Appendix: (E) Designation

To ensure that the proposed actions would not result in significant adverse hazardous materials, air quality, and noise impacts an (E) designation **(E-556)** would be established as described below:

Hazardous Materials

The (E) designation requirements for hazardous materials would apply to **Projected Development Site A (Block 5509, Lot 58); Projected Development Site B (Block 5509, Lots 64, 65,68, 70); Projected Development Site C (Block 5516, Lots 14, 17, 20, and 21); and Projected Development Site 1 (Block 5509, Lot 62)** 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 are as follows:

Proposed Development Site A (Block 5509, Lot 58) and Proposed Development Site B (Block 5509, Lots: 64, 65, 68 and 70): *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment stack(s) is located at the building's highest level and at least 78 feet above grade to avoid any potential significant adverse air quality impacts.*

Projected Development Site 1 (Block 5509, Lot 62): *Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment stack(s) and ensure the stack(s) is located at the building's highest level and at least 78 feet above grade to avoid any potential significant adverse air quality impacts.*

Proposed Development Site C (Block 5516, Lots: 14, 17, 20, and 21): *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment stack(s) is located at the building's highest level and at least 88 feet above grade to avoid any potential significant adverse air quality impacts.*

Noise

The (E) designation requirements for noise would apply to **Projected Development Site A (Block 5509, Lot 58); Projected Development Site B (Block 5509, Lots 64, 65,68, 70); Projected Development Site C (Block 5516, Lots 14, 17, 20, and 21); and Projected Development Site 1 (Block 5509, Lot 62)** as follows:

In order to ensure an acceptable interior noise environment, future residential/community facility/commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

SECTION II – PROJECT DESCRIPTION

PROJECT DESCRIPTION

1529-33 60th Street LLC, (the "Applicant") seeks a zoning map amendment and zoning text amendment to facilitate the redevelopment of three separate parcels in the Borough Park neighborhood of Brooklyn, Community District 12. The block is currently zoned M1-1. The Applicant seeks the following two actions to facilitate the development of three new mixed-use buildings:

1) A zoning map amendment to modify a portion of a M1-1 district to a R7A/C2-4 district (Block 5509, Lots 1, 73, 72, 71, 70, 68, 65, 64, 62, 58; Block 5516, Lots 4, 9, 10, 11, 12, 13, 14, 17, 20 and 21; hereafter, the "Rezoning Area") and
2) A zoning text amendment to establish a Mandatory Inclusionary Housing ("MIH") area coterminous with the Rezoning Area under Option 1 and Option 2.

The Proposed Actions would facilitate the development of three separate mixed-use buildings on Block 5509, Lot 58 (Building A), 64, 65, 68 and 70 (Building B), and Block
5516 Lots 14, 17, 20 and 21 (Building C) (collectively the "Development Sites" and the "Proposed Development"). Two of the three buildings (Buildings A and B) would rise to 7-stories (75 feet) while the third building (Building C) would rise to 8-stories (85 feet). Together, the buildings would contain 201,180 gross square feet (gsf) comprising of 4.6 FAR with 102 dwelling units and 32,219 gsf of commercial space. It is proposed that 32 of the 102 proposed dwelling units would be affordable pursuant to Option 2 of MIH, which requires that 30% of the proposed new residential floor area be affordable to incomes averaging 80% AMI or less. However, the final compliance with MIH would be determined through the ULURP process. The Proposed Development would consist of the following:

- The first building ("Building A") would be constructed on Block 5509, Lot 58 and would consist of a seven-story (and cellar) mixed use (residential-commercial) building to contain 46,524 gsf of floor area (4.6 FAR) of which 8,014 gsf would contain ground floor commercial retail space with residential space on the remaining floors. The building would contain 23 dwelling units, 7 of which would be affordable. The building would rise to a maximum height of 75 feet. The building would waive out of accessory parking regulations, pursuant to ZR 25- 261. The building would contain 8,014 square feet of cellar space.

- The second building ("Building B") would be constructed on Block 5509, Lots 64, 65, 68 and 70 and would consist of a seven-story (and cellar) mixed use (residential-commercial) building to contain 77,094 square feet of floor area (4.6 FAR) of which 10,619 gsf would contain ground floor commercial retail space with residential space on the remaining seven floors. The building would contain 39 dwelling units, 13 of which would be affordable. The building would rise to a maximum height of 75 feet and provide 15 accessory parking spaces at the cellar level. The building would contain 13,498 square feet of cellar space.

- The third building ("Building C") would be constructed on Block 5516, Lots 14, 17, 20 and 21 and would consist of an eight-story (and cellar) mixed use (residential- commercial) building to contain 77,562 gsf (4.6 FAR) of which 13,586 gsf would contain ground floor commercial retail space with residential space on the remaining floors. The building would contain 40 dwelling units, 12 of which would be affordable. The building would rise to a maximum height of 85 feet and provide 16 accessory parking spaces at the cellar level. The cellar level would contain 13,586 square feet.

The Proposed Actions would also affect Block 5509, Lots 1, 62, 71, 72, and 73, and Block 5516, Lots 4, 9, 10, 11, 12 and 13, which are not under the Applicant's control.

In 2018, the Applicant constructed a three-story building on Block 5509, Lot 68 that contains two floors of medical office space and ground floor accessory parking at 1.27 FAR. This building will be demolished as part of the construction of Building B of the Proposed Development.

Purpose and Need

The Proposed Actions would serve to facilitate the development of three medium-density mixed-use buildings to contain new ground floor retail and residential units above. The proposed new commercial retail space would serve to add much needed vibrancy to this segment of 60th Street and 15th Avenue, which are wide streets and are currently developed with a mix of residential, retail, warehouse and automotive uses.

The underlying M1-1 District allows for the development of single-story manufacturing or light industrial space. There is little demand for additional spaces of this use as evidenced by the high number of partially used and vacant properties in the Study Area. The proposed R7A/ C2-4 District provides the necessary diversity of uses, FAR and bulk to ensure development of the sites. The current zoning does not allow of the diversity of uses nor for the density of these uses that is needed to attract investment and ensure redevelopment of these sites.

The proposed new R7A/C2-4 district is appropriate for this area, which is located along two wide streets in a predominantly mixed-use area and is located in close proximity to transit. The permitted bulk of the district would complement recently mapped medium-density contextual district to the south (the Maple Lanes Rezoning) and require contextual quality housing regulations along 60th Street and 15th Avenue. The Proposed Actions would allow for higher density that that provided in the Maple Lanes Rezoning. Additional density is appropriate for these site as they are located along a wider two-way road than the Maple Lanes Rezoning Area.

The Proposed Actions and resulting development would provide much needed new housing for various income levels and the proposed text amendment to make the area applicable as an MIH area would result in the creation of new permanently affordable dwelling units, a demonstrated need for Borough Park and all areas of the city.

Proposed Actions

The Proposed Actions include a zoning map amendment and zoning text amendment. The proposed zoning map amendment would change an M1-1 to a R7A/C2-4 district. In addition, a zoning text amendment to make the Rezoning Area an MIH area would also be required.

The maximum allowable residential FAR is 4.6 in R7A districts within MIH areas. The maximum allowable community facility FAR is 4.0 in the R7A districts. For Affordable Independent Residences for Seniors (AIRS) a maximum FAR of 5.01 is permitted, however the Applicant does not intend to pursue an AIRS use. The maximum allowable commercial FAR is 2.0 in C2-4 districts within R7A districts. In R7A districts, when providing affordable housing pursuant to the Inclusionary Housing Program set forth in ZR Section 23-90, maximum base height is 75 feet, maximum building height is 90 or 95 feet (without or with a qualifying ground floor, respectively), maximum number of stories is 9 and a 10-foot setback is required above the base height.

R7A districts requires one accessory parking space for 50% of dwelling units. However, parking requirements for income-restricted dwelling units are reduced to 15% outside the Transit Zone or are waived entirely within the Transit Zone. The Proposed Development is located within the Transit Zone. Commercial and community facility parking requirements vary by use with one parking space required per 1,000 square feet for retail use in C2-4 districts.

The zoning text amendment to Appendix F of the ZR would also establish a Mandatory Inclusionary Housing (MIH) area coterminous with the Rezoning Area. At this time, the Applicant intends to comply with the program by mapping Options 1 and 2 in this area. However, compliance with this program and the ultimate option mapped in this area would be determined through the ULURP process.

Analysis year

Based on a 7-month approval process (Universal Land Use Review Procedure) it is assumed that a construction schedule for the Proposed Development (Proposed Development Sites A, B and C) would begin in July of 2020 (Site A). Construction of each development is expected to last 12 months. To allow for restaging of construction equipment it is anticipated that development ton Site B would commence 1 month after the completion of Site A and development of Site C would commence 1 month after the completion of Site B. In total the construction period for the Proposed Development is anticipated to last for 38 months. The remaining Projected Development Site (Site 1, Lot 62) is not controlled by the applicant. As there are no current development plans for this site it is assumed that the site would be developed in the next market cycle. Estimating a construction timeframe for the non-applicant owned site is feasible as it is not known how far in the future the site might be developed. Therefore, the Build Year (Analysis Year) for the EAS only considers the applicant owned site and is assumed as 2023.

Reasonable Worst-Case Development Scenario (RWCDS)

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

Development Sites

The Applicant seeks to redevelop their property with a mixed-use development. In addition to the Applicant's property, one additional (non-Applicant owned) property is anticipated for redevelopment (Projected Development Site 1) as a result of the proposed rezoning. The remaining parcels are not anticipated to be affected by the proposed actions for the following reasons:

First, some of the sites are too small to be redeveloped without consolidation with adjacent parcels; consolidating sites with multiple owners is generally difficult and expensive making redevelopment unlikely.

Second, some sites already contain residential and commercial uses. These uses will continue to be compatible with uses being introduced by the Proposed Actions. It is unlikely that buildings with only residential use in particular would be redeveloped as the increase in available density does not justify the costs associated with relocation of these uses.

Projected Development Site No.	**Block**	**Lot(s)**
Proposed Development Site A	5509	58
Proposed Development Site B	5509	64, 65, 68 & 70
Proposed Development Site C	5516	14, 17, 20 & 21
Projected Development Site 1	5509	62

Existing Conditions

The proposed project area (the "Rezoning Area") is located in the Borough Park area of Brooklyn Community District #12. It includes 20 tax lots on two tax blocks (Blocks 5509 and 5516) located along 60th Street between 15th Avenue and 16th Avenue. The entire Rezoning Area is zoned M1-1

The Rezoning Area (Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72 & 73; Block 5516, Lots 4, 9, 10, 11, 12, 13, 14, 17, 20 and 21) contains a mix of commercial and light industrial/manufacturing uses, as well as six residential uses and two mixed-use buildings with ground floor commercial retail and residences above. Light industrial /manufacturing properties consist of warehouses, automotive uses and

some light industrial uses. Block 5509, Lots 64, 65 and 68 were the subject of a variance approval (375-04-BZ) by the Board of Standards and Appeals in 2005 to permit an expansion of an existing jewelry manufacturer and wholesaler establishment on Lots 64 and 65 to include Lot 68. However, this expansion never occurred, and the use remained on Lots 64 and 65. Lot 68 was recently redeveloped as a medical office use in 2018.

The Long Island Railroad's ("LIRR") Bay Ridge right-of-way runs through the eastern portion of the block on Lot 41; connecting the 65th Street Terminal (approximately a mile west of the Rezoning Area at New York Harbor) with the Hell Gate Bridge to the north, in Queens. This right-of-way is used exclusively for rail freight and sees one to two daily roundtrips. These tracks are actively being studies as part of the Cross Harbor Freight Movement Project, as a potential site for increased activity. To the east of the Rezoning Area on 60th Street is a bridge that crosses the LIRR tracks.

60th Street is a local east-west arterial street and is classified as a 'wide' street with 80 feet in width. 15th Avenue is local north-south arterial street and is also classified as a 'wide' street with 80 feet in width. **Table 1** summarizes the Applicant-owned properties and **Table 2** summarizes the non-Applicant owned properties in the Rezoning Area.

Table 1 – Applicant owned properties (Existing Conditions)

Block	Lot	Proposed Development Site	Lot Area (sf) *	Address	Land Use	# of Floors	Gross FA (sf)	Res. Floor Area	Manu - Indust. Floor Area	CF Floor Area	Res. Units	FAR
5509	58	A	8,000	1547 60th Street	Automotive	1	8,000		8,000			1.00
5509	64	B	3,167	1533 60th Street	Light Industrial/Manuf.	2	11,864		11,864			3.74
5509	65	B	4,846	1529 60th Street	Light Industrial/Manuf.	3	8,220		8,200			1.74
5509	68	B	3,264	1527 60th Street	Community Facility	3	7,909			7,909		1.27
5509	70	B	2,220	1525 60th Street	Residential	2	3,080	3,080			4	1.38
5516	14	C	6,236	1514 60th Street	Light Industrial/Manuf.	1	5,862		5,862			0.94
5516	17	C	3,800	1522 60th Street	Light Industrial/Manuf.	1	3,600		3,600			0.94
5516	20	C	1,137	1528 60th Street	Automotive	1	1,128		1,128			1
5516	21	C	2,377	1530 60th Street	Parking	0	-					0

Table 2 – Non-Applicant owned properties (Existing Conditions)

Block	Lot	Projected Development Site	Lot Area (sf) *	Address	Land Use	# of Floors	Gross FA (sf)	Res. Floor Area	Comm Floor Area	Manu-Indust. Floor Area	Res. Unit	FAR
5509	1	N/A	14,525	1501 60th Street	Commercial	2	21,000		21,000			1.45
5509	73	N/A	2,003	1519 60th Street	Light Industrial/Manufacturing	2	3,000			3,000		1.50
5509	62	1	4,000	1547 60th Street	Vacant	1	4,000					0.00
5509	71	N/A	2,003	1523 60th Street	Residential	2	3,080	3,080			4	1.54
5509	72	N/A	2,028	1521 60th Street	Residential	2	3,080	3,080			4	1.52
5516	4	N/A	4,660	6013 15th Avenue	Light Industrial/Manufacturing	1	1,776			1,776		0.59
5516	9	N/A	2,000	1502 60th Street	Mixed-Use (Commercial-Residential)	3	4,200	2,200	2,000		2	2.10
5516	10	N/A	2,000	1504 60th Street	Mixed-Use (Commercial-Residential)	3	3,120	2,080	1,040		2	1.56
5516	11	N/A	2,000	1506 60th Street	Residential	2	1,220	1,220			1	0.61
5516	12	N/A	2,000	1510 60th Street	Residential	2	1,564	1,564			2	0.78
5516	13	N/A	2,000	1512 60th Street	Residential	2	1,564	1,564			2	0.78

*Lot size data are estimates utilized from PLUTO data.

Future No-Action Scenario

In the future No-Action scenario these lots are expected to remain in their existing condition. Development is considered unlikely as the underlying M1-1 District allows for the development of single-story manufacturing or light industrial space and there is little demand for additional spaces of this use as evidenced by the high number of partially used and vacant properties in the Study Area. Presenting a No-Action Scenario where no development occurs creates the largest possible increment for analysis when compared to the With-Action condition. For this reason, a "no-build" No-Action scenario is most conservative.

Future With-Action Scenario

In order to present a conservative analysis, the With-Action scenario includes development on a lot not controlled by the applicant. Lot 62, Projected Development Site 1, is expected to be redeveloped within the build year, as this rezoning would allow an increase in FAR (4.6 FAR vs. 1.0 FAR) and increase in permitted uses under the proposed R7A/C2-4. Lot 62 is also included in the development scenario as the one story building on the site is currently vacant (facilitating development) and located between two applicant owned sites. The With-Action scenario also assumes the applicant's Proposed Development will be constructed as presented above in the RWCDS.

While the action would introduce significant new density with the map amendment from M1 to R7 the analysis framework reflects neighborhood trends in redevelopment, the existing density and uses within the project area, and the expected amount of absorption in the foreseeable future within the project area. No other Lots are anticipated to be redeveloped in the future with the Proposed Actions. The total number of dwelling units included in this analysis corresponds to the number of units included in the Proposed Project plus 14 additional units on Lot 62. While this total does not represent the maximum number of dwelling units allowed per zoning, this total is used as it reflects local market trends within the Project Area.

This analysis considers that the development of the Proposed Development Sites and the Projected Development Site may introduce enough commercial and residential space to saturate the market within the Study Area. Additional development in the Study Area may occur however, it is not likely to occur within the same market cycle as the Proposed Development.

As discussed above Lot 1 contains a long-established commercial use. Although the square footage of Lot 1 is large, it is considered unlikely that this use will be displaced as it will continue to be compatible with the surrounding study area.

Lots 71, 72, 23, 9, 10, 11, 12, 13, 14, and 4 are all smaller than 5,000 square feet. The lack of common ownership of these lots makes it unlikely that these lots will be redeveloped as assemblage of these lots for redevelopment. The incremental FAR the Proposed Actions would introduce on these lots individually, is not great enough to warrant the displacement of existing uses for redevelopment. The Rezoning Area created by the Proposed Actions includes these sites to bring existing residential and commercial uses into conformance rather than to encourage redevelopment on Non-Applicant Owned sites.

Projected Development Sites (Applicant Owned)

Projected Development Site A (Block 5509, Lot 58) would consist of a seven-story (and cellar) mixed use (residential-commercial) building to contain 46,524 gsf of floor area (4.6 FAR) of which 8,014 gsf would contain ground floor commercial retail space 30,496 gsf of residential space on the remaining floors. The building would contain 23 dwelling of which 5 are assumed to be affordable for incomes at or below 80% AMI for the purposes of presenting a conservative analysis. The building would rise to a height of 75 feet and waive out of accessory parking requirements pursuant to ZR 25-261. The building would also contain 8,014 square feet of cellar space.

Projected Development Site B (Block 5509, Lots 64, 65, 68 and 70) would consist of a seven-story mixed use (residential-commercial) building to contain 77,094 gsf (4.6 FAR) with 10,619 gsf of ground floor commercial retail space and residential space on the remaining seven floors. The building would contain 39 dwelling units of which 8 are assumed to be affordable for incomes at or below 80% AMI for the purposes of presenting a conservative analysis. The building would rise to a height of 75 feet and would provide 15 accessory parking spaces below grade. The building would also contain 13,498 sq. ft. of cellar space provide 15 accessory parking spaces below grade. The building would also contain 13,498 square feet of cellar space.

Projected Development Site C (Block 5516, Lots 14, 17, 20 and 21) would consist of an eight-story mixed use (residential-commercial) building to contain 77,562 gsf of floor area (4.6 FAR) with 13,586 gsf ground floor commercial retail space and residential space on the remaining floors. The building would contain 40 dwelling units, of which 8 are assumed to be affordable for incomes at or below 80% AMI for the purposes of presenting a conservative analysis. The building would rise to a maximum height of 85 feet[3] and would provide 16 accessory parking spaces below grade. The cellar level would contain 13,586 square feet.

Projected Development Site 1 (Non-Applicant Owned

Lot 62 would be developed with a seven-story (and cellar) mixed use (residential-commercial) building to contain 22,893 gsf of floor area (4.6 FAR) with 4,007 square feet of ground floor commercial retail and 14,859 square feet of residential space on the remaining six floors. The building would contain 14 dwelling units, assuming a dwelling unit factor of 1,000 gsf per unit. This dwelling unit factor resembles the the effective dwelling unit factors of the two neighboring developments (Projected Developments A and B). For the purposes of presenting a conservative analysis 20% of all units (3 units) are assumed to be affordable for incomes at or below 80% AMI. The building would rise to a maximum height of 75 feet and waive out of accessory parking requirements. The cellar would contain 4,007 square feet of space. This site would not be required to provide accessory parking (pursuant to ZR 36-231)

Building Heights

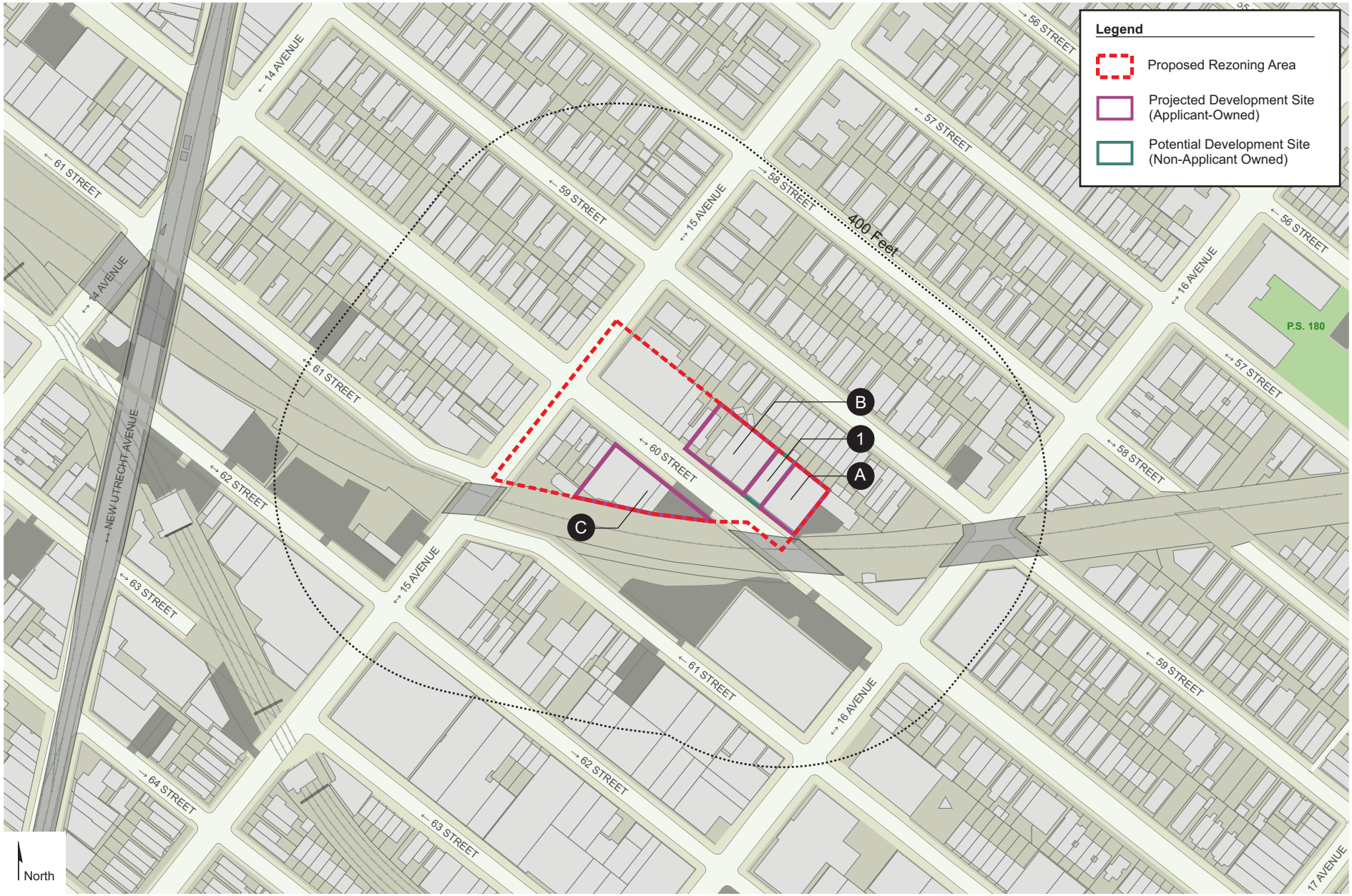
For assessments that consider building heights, the most conservative heights are assumed for their relevant sections with the maximum building envelope considered for assessments of Shadows and Urban Design. The Proposed heights are analyzed for Air Quality (Stationary Source). The building heights used for the relevant technical analyses are summarized in Table 3 below.

Table 3 – Building Heights and Analysis Framework

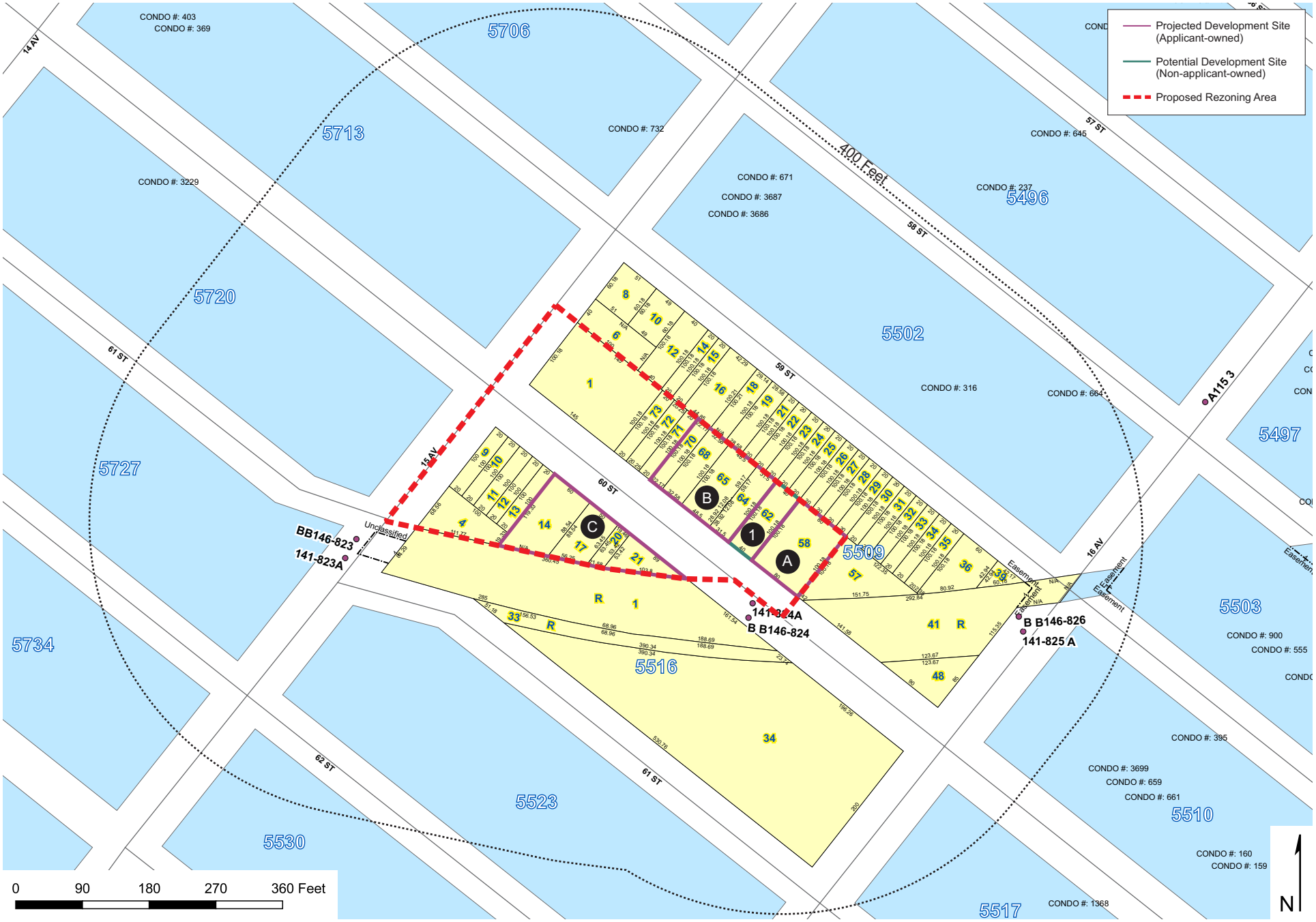
	Building Height		
Development Site	**Air Quality**	**Shadows***	**Urban Design**
Site A	75′ (+3′ Stack)	95' (+10′ bulkhead)	95'
Site B	75′ (+3′ Stack)	95' (+10′ bulkhead)	95'
Site C	85' (+ 3′ Stack)	95' (+10′ bulkhead)	95'
Site 1	75′ (+3′ Stack)	95' (+10′ bulkhead)	95'

Table 4- Analysis Framework

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES NO	☒ YES NO	☒ YES NO	
If "yes," specify the following:				
Describe type of residential structures	Multi-family Buildings	Multi-family Buildings	Multi-family Buildings	
No. of dwelling units	21	21	133	+112
No. of low- to moderate-income units			49	+23
Gross floor area (sq. ft.)	17,868	17,868	197,724	+184,288
Commercial	☒ YES NO	☒ YES NO	☒ YES NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Retail & Office (UG – 6)	Retail & Office (UG – 6)	Retail & Office (UG – 6)	
Gross floor area (sq. ft.)	24,040 – Retail	24,040 – Retail	60,266 – Retail	+36,226 (Retail)
Manufacturing/Industrial	☒ YES NO	☒ YES NO	☒ YES NO	
If "yes," specify the following:				
Type of use	Automotive Industrial/Warehouse	Automotive Industrial/ Warehouse	Automotive Industrial/ Warehouse	
Gross floor area (sq. ft.)	47,450: 10,904 (Automotive) 32,546 (Industrial/Manu.) 4,000 (Warehouse)	47,450: 10,904 (Automotive) 32,546 (Industrial/Manu.) 4,000 (Warehouse)	4,776: 1,776 (Automotive) 3,000 (Industrial/Manu.)	-42,674: -9,128 (Automotive) -29,546(Indst./Manu.) -4,000 (Warehouse)
Community Facility	☒ YES NO	☒ YES NO	YES ☒ NO	
If "yes," specify the following:				
Type	Medical Office	Medical Office		-Medical Office
Gross floor area (sq. ft.)	7,909	7,909	0	-7,909
Vacant Land	YES ☒ NO	YES ☒ NO	YES ☒ NO	
If "yes," describe:				
Other Land Uses	☒ YES NO	☒ YES NO	YES ☒ NO	
If "yes," describe:	Parking	Parking		-Parking
Garages	YES ☒ NO	YES NO	YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Lots	☒ YES NO	☒ YES ☒ NO	YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	8	8	63	+55
ZONING				
Zoning classification	M1-1	M1-1	R7A/C2-4 (MIH)	
Maximum amount of floor area that can be developed	1.0 Commercial 1.0 Industrial/Manu. 2.4 Community Facility	1.0 Commercial 1.0 Industrial/Manu. 2.4 Community Facility	2.0 Commercial 4.6 Residential 4.8 Community Facility	+4.6 FAR Residential +1.0 Commercial +4.8 Community Facility -1.0 Industrial
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential Commercial Industrial/Manufact.	Residential Commercial Industrial/Manufact .	Residential Commercial	+ Residential - Warehouse -Automotive -Industrial/Manu.



Note: Massing of medical office building on Site B not illustrated


Projected Development Site (Applicant-owned)
Potential Development Site (Non-applicant-owned)
Proposed Rezoning Area
400 Feet
0
90
180
270
360 Feet
N
5706
5713
5720
5727
5734
5502
5496
5509
5516
5523
5530
5497
5503
5510
5517
CONDO #: 403
CONDO #: 369
CONDO #: 732
CONDO #: 3229
CONDO #: 671
CONDO #: 3687
CONDO #: 3686
CONDO #: 645
CONDO #: 237
CONDO #: 316
CONDO #: 664
CONDO #: 900
CONDO #: 555
CONDO #: 395
CONDO #: 3699
CONDO #: 659
CONDO #: 661
CONDO #: 160
CONDO #: 159
CONDO #: 1368
14 AV
15 AV
16 AV
57 ST
58 ST
59 ST
60 ST
61 ST
62 ST
Unclassified
BB146-823
141-823A
141-824A
B B146-824
B B146-826
141-825 A
A115 3
Easement



Note: Medical Office Building on Site B not shown



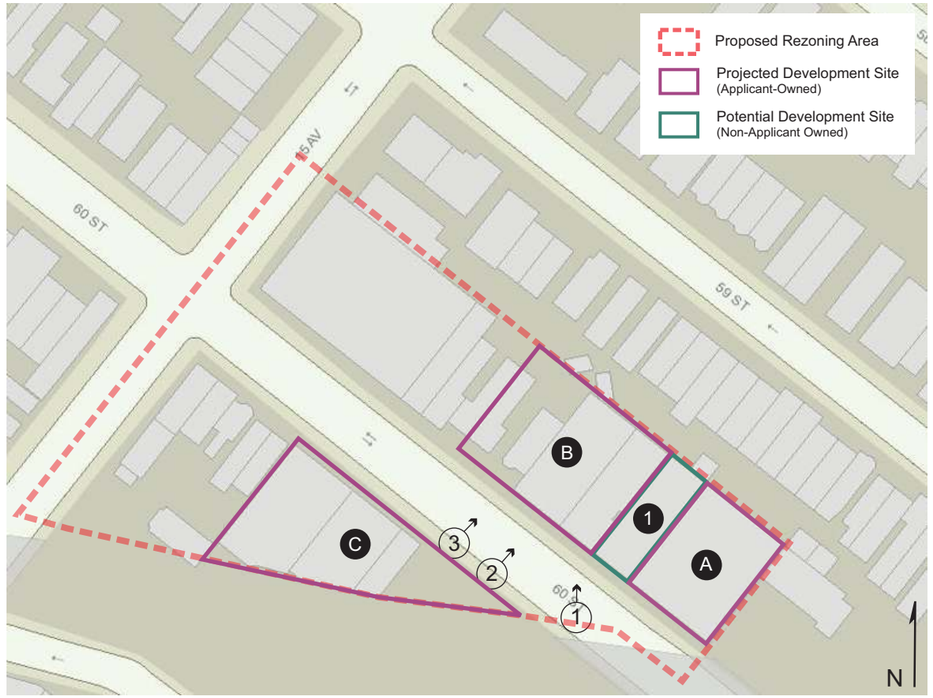
1. View of Projected Development Site B facing north from 60th Street.



2. View of Projected Development Site B facing northeast from 60th Street.



3. View of Projected Development Site B facing northeast from 60th Street.



Note: Massing of medical office building on Site B not illustrated



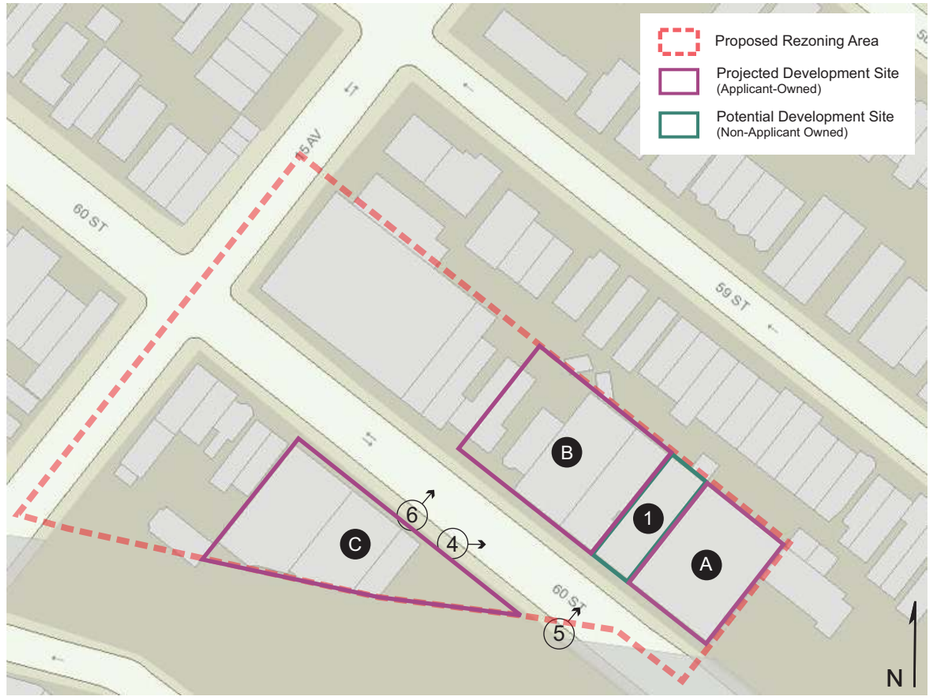
4. View of Projected Development Site B facing east from 60th Street.



5. View of Potential Development Site 1
facing northeast from 60th Street.



6. View of the Projected Development Site B facing northeast
from 60th Street.



Note: Massing of medical office building on Site B not illustrated



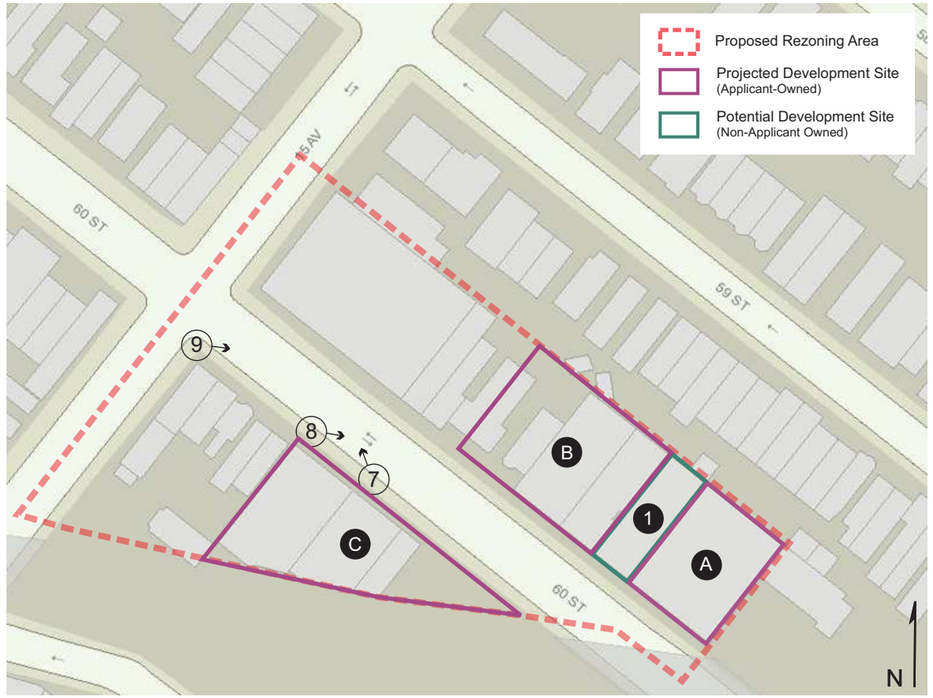
7. View of the north side of 60th Street facing northwest.



8. View of the north side of 60th Street facing northeast (Projected Development Site B at right).



9. View of the north side of 60th Street facing northeast (Projected Development Site B at far right).



Note: Massing of medical office building on Site B not illustrated



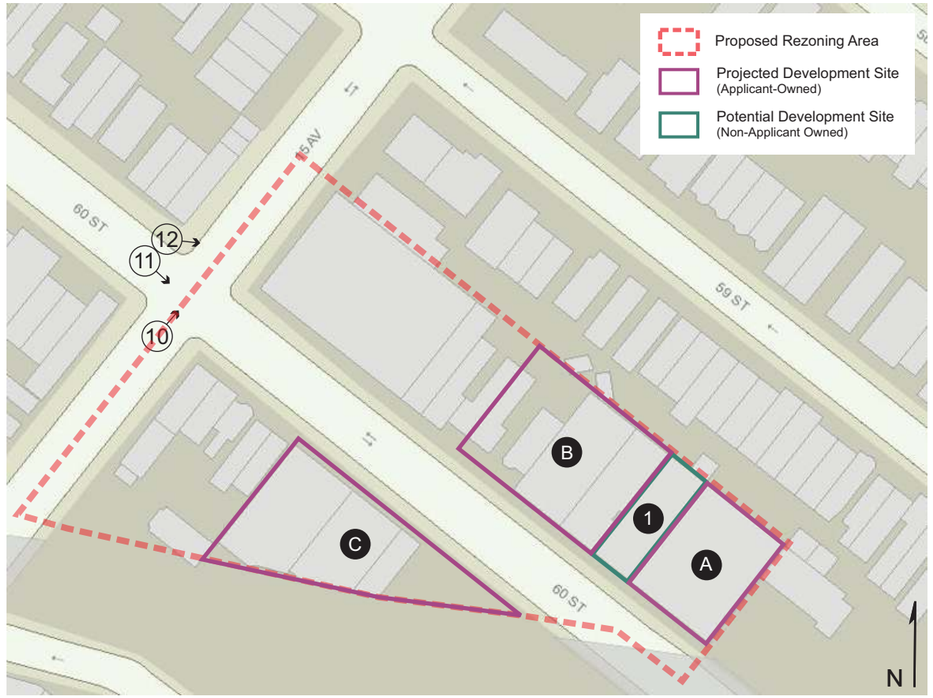
10. View of 15th Avenue facing northeast from 60th Street.



11. View of 60th Street facing southeast from 15th Avenue.



12. View of the east side of 15th Avenue facing east from the intersection of 15th Avenue & 60th Street.



Note: Massing of medical office building on Site B not illustrated



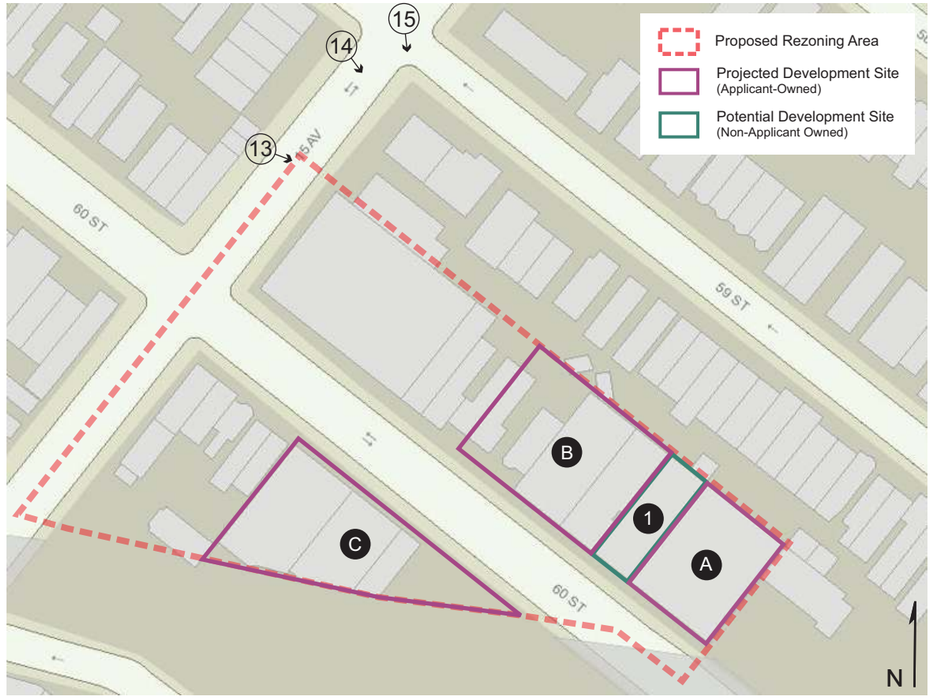
13. View of the east side of 15th Avenue facing southeast.



14. View of the east side of 15th Avenue facing southeast.



15. View of the intersection of 15th Avenue and 59th Street facing south.



Note: Massing of medical office building on Site B not illustrated



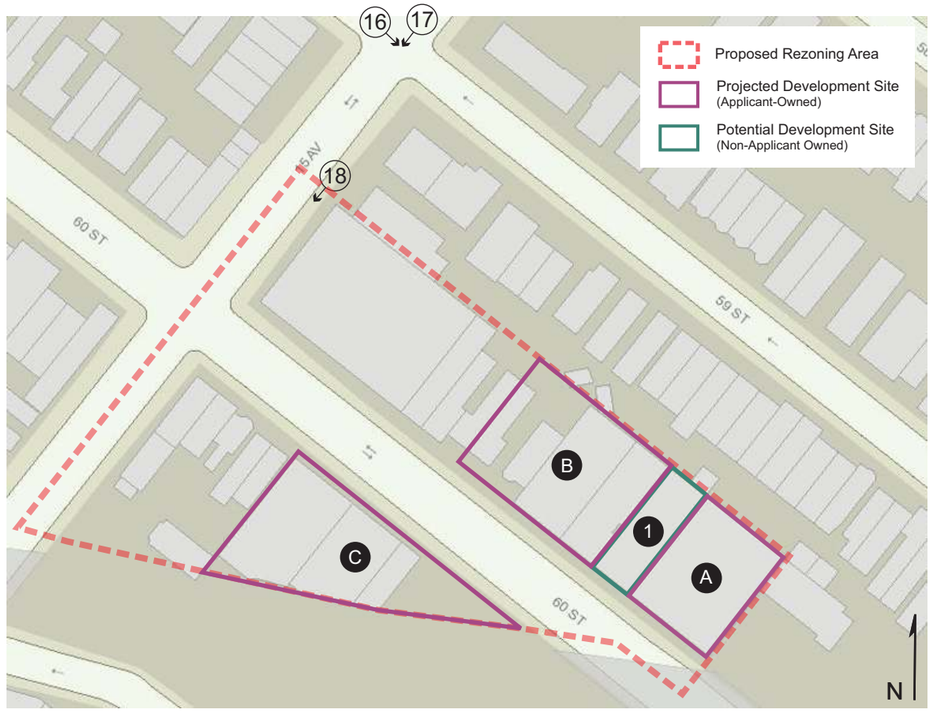
16. View of 59th Street facing southeast from 15th Avenue.



17. View of 15th Avenue facing southwest from 59th Street.



18. View of the sidewalk along the east side of 15th Avenue facing southwest.



Note: Massing of medical office building on Site B not illustrated



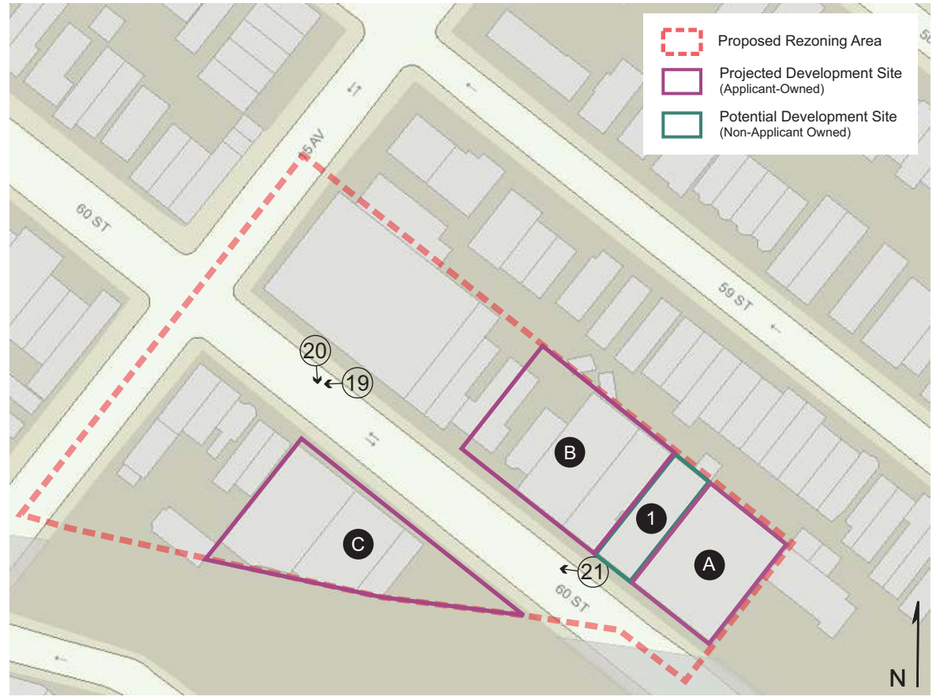
19. View of the south side of 60th Street facing west.



20. View of the south side of 60th Street facing south.



21. View of Projected Development Site C facing west from 60th Street.



Note: Massing of medical office building on Site B not illustrated



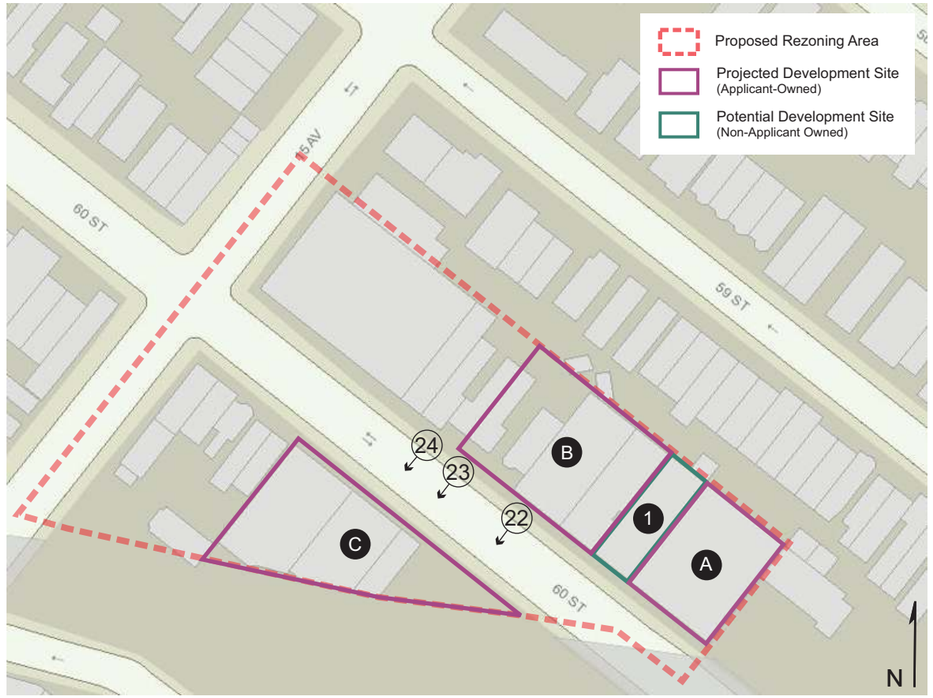
22. View of Projected Development Site C facing southwest from 60th Street.



23. View of Projected Development Site C facing southwest from 60th Street.



24. View of Projected Development Site C facing southwest from 60th Street.



Note: Massing of medical office building on Site B not illustrated



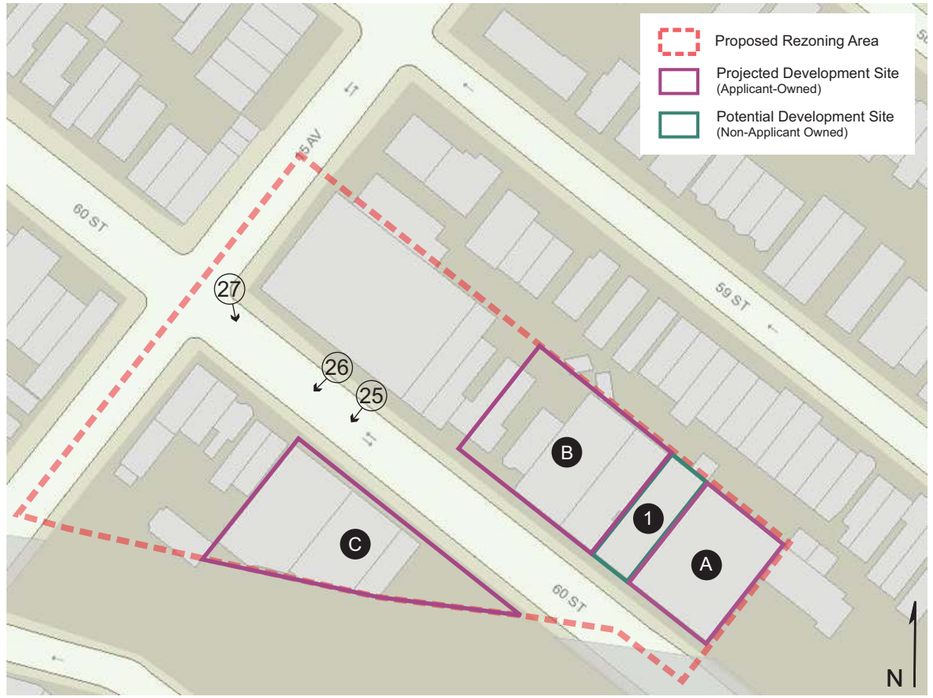
25. View of Projected Development Site C facing southwest from 60th Street.



26. View of the south side of 60th Street facing southwest.



27. View of the south side of 60th Street facing south.



Note: Massing of medical office building on Site B not illustrated



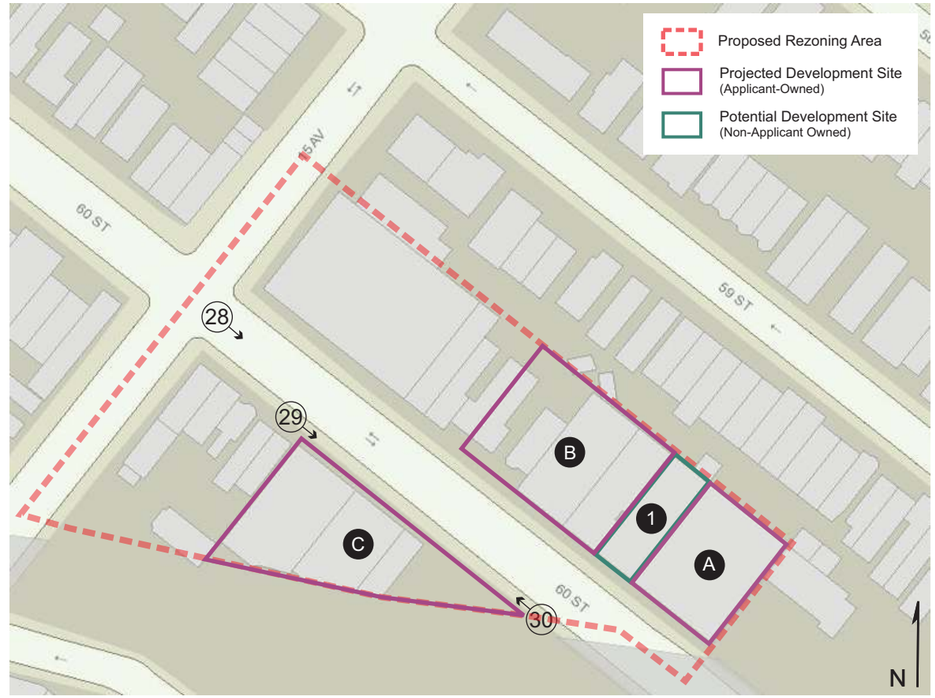
28. View of 60th Street facing southeast from 15th Avenue (Projected Development Sites ahead at left and right).



29. View of the sidewalk along the south side of 60th Street facing southeast (Projected Development Site C at right).



30. View of the sidewalk along the south side of 60th Street facing northwest (Projected Development Site C at left).



Note: Massing of medical office building on Site B not illustrated



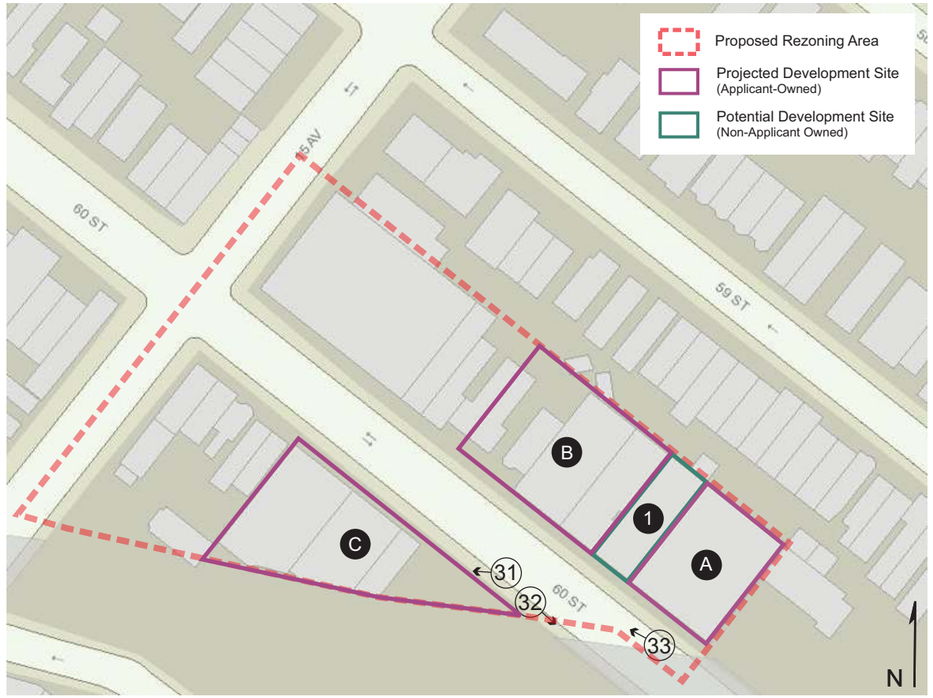
31. View of Projected Development Site C facing west from 60th Street.



32. View of the sidewalk along the south side of 60th Street facing southeast from Projected Development Site C.



33. View of 60th Street facing northwest (Projected Development Site A at right, Projected Development Site C at left).



Note: Massing of medical office building on Site B not illustrated



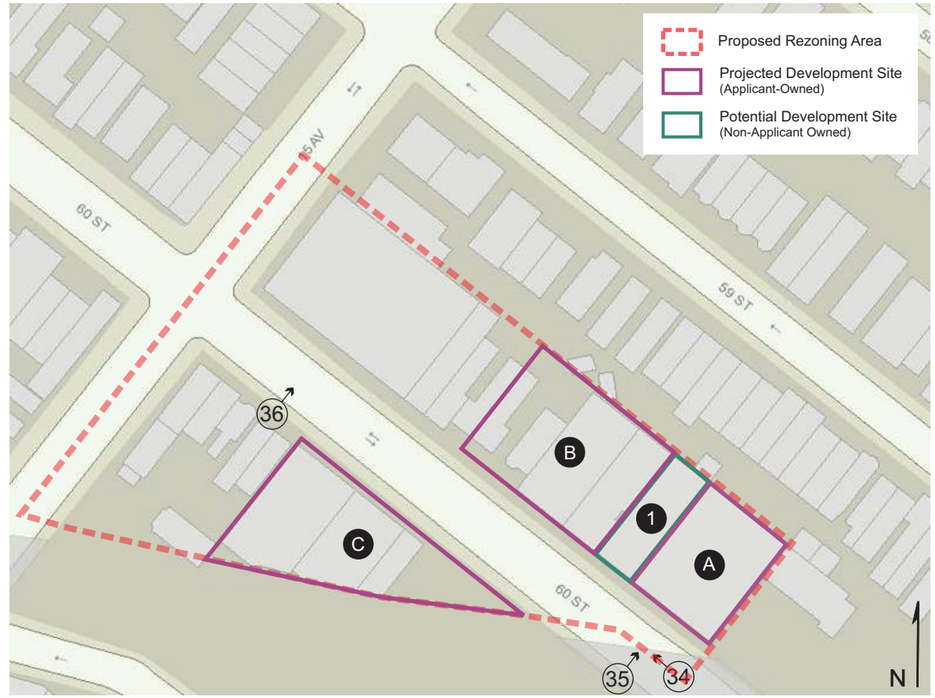
34. View of 60th Street facing northwest from 16th Avenue.



35. View of Projected Development Site A facing northeast from 60th Street.



36. View of the north side of 60th Street facing northeast.



Note: Massing of medical office building on Site B not illustrated



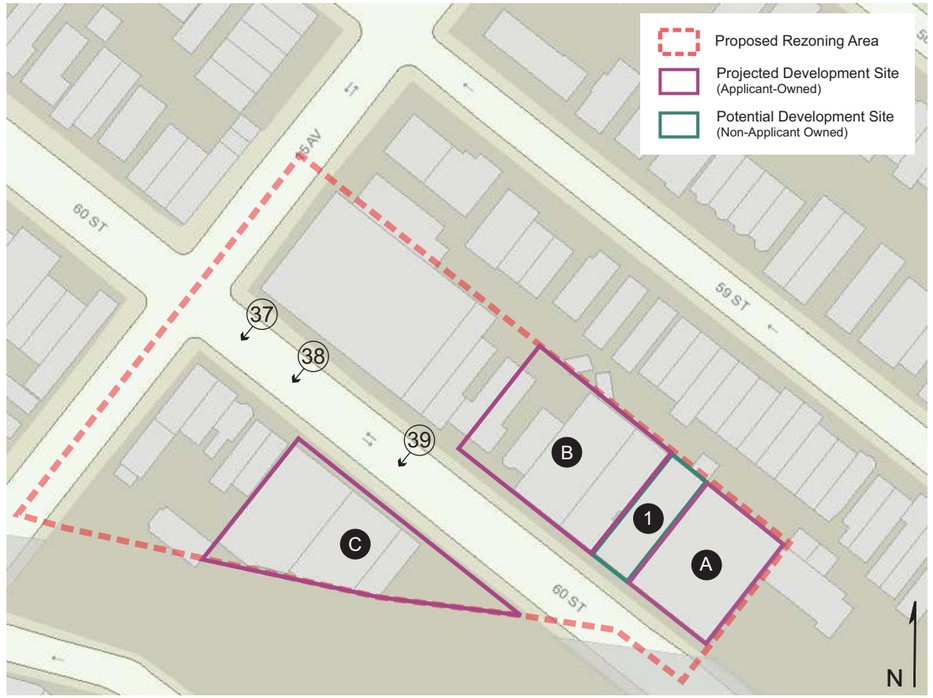
37. View of the south side of 60th Street facing southwest.



38. View of the south side of 60th Street facing southwest.



39. View of Projected Development Site C facing southwest from 60th Street.



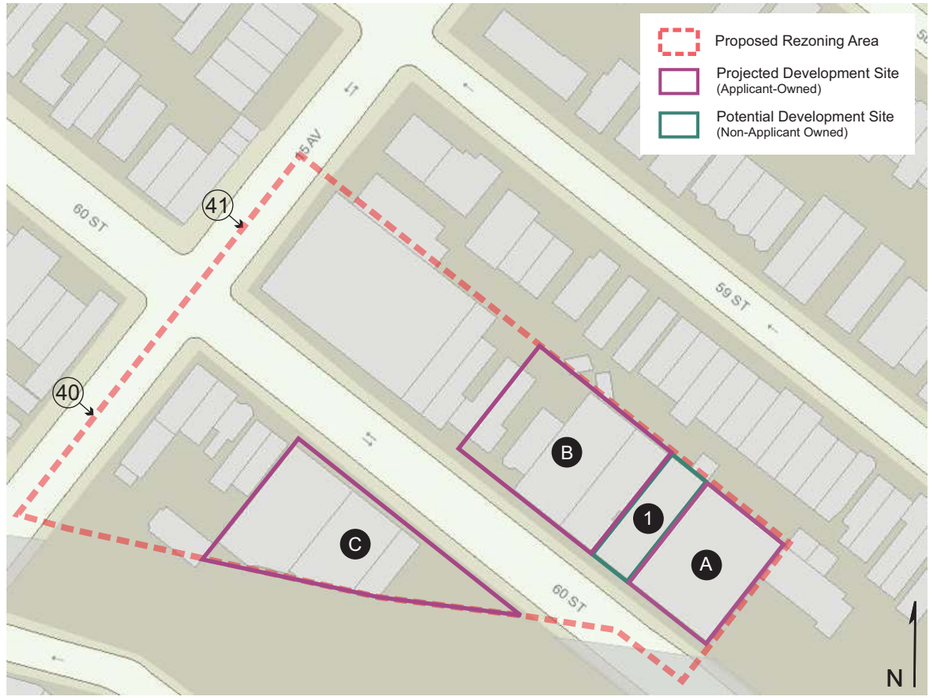
Note: Massing of medical office building on Site B not illustrated



40. View of the east side of 15th Avenue facing southeast.



41. View of the east side of 15th Avenue facing southeast.



Note: Massing of medical office building on Site B not illustrated



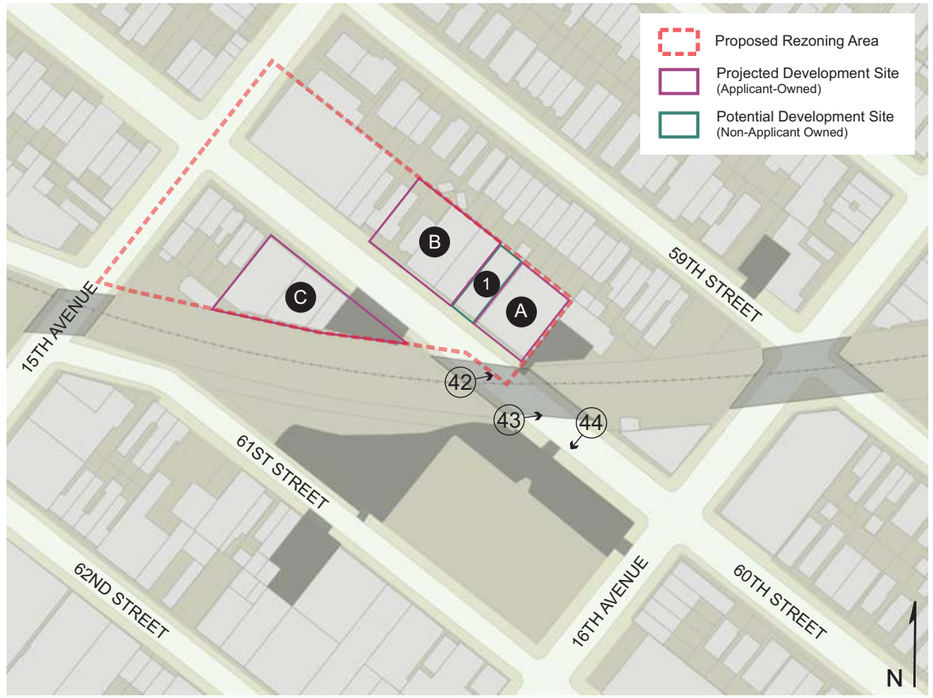
42. View of the northeast side of 60th Street facing east (Projected Development Site A to left).



43. View of the northeast side of 60th Street facing east.



44. View of the southwest side of 60th Street facing southwest. Construction of Maple Lanes Rezoning Development is shown.



Note: Massing of medical office building on Site B not illustrated



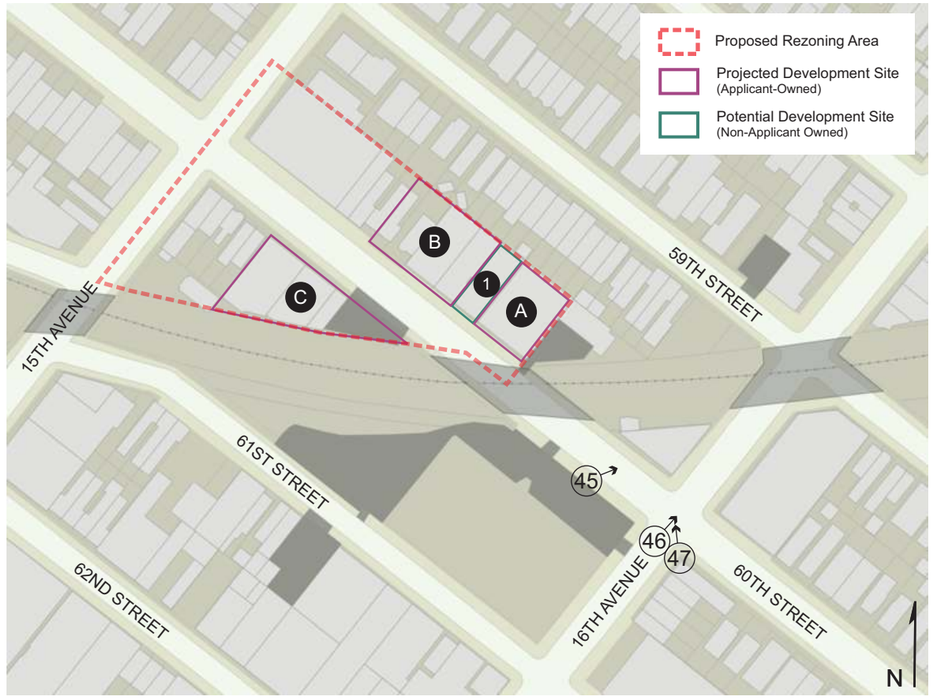
45. View of the northeast side of 60th Street facing northeast.



46. View of 16th Avenue facing northeast from 60th Street.



47. View of the intersection of 16th Avenue and 60th Street facing north.



Note: Massing of medical office building on Site B not illustrated



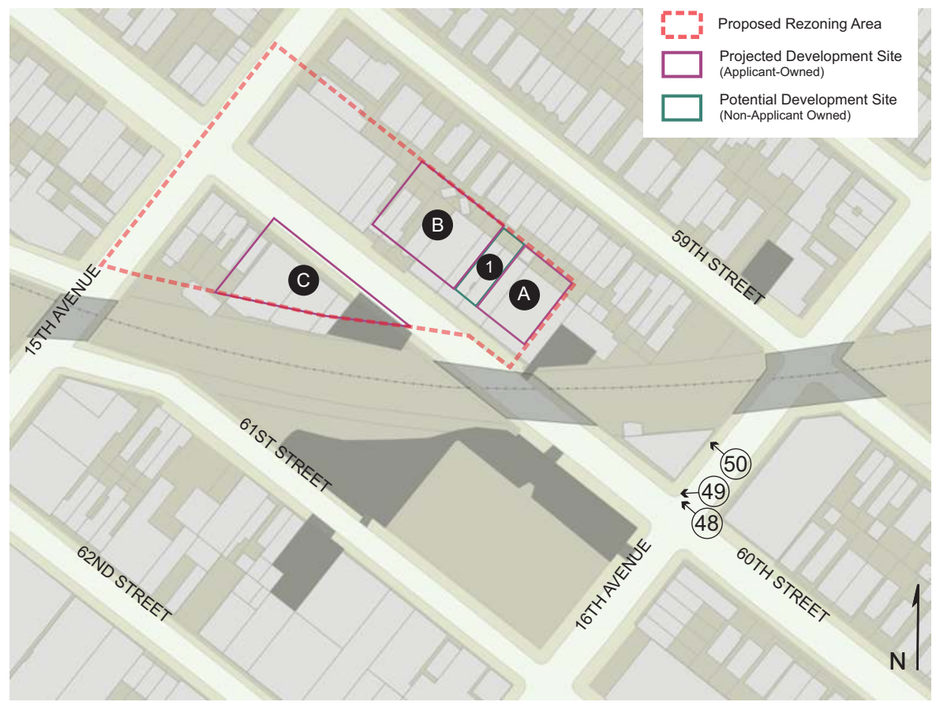
48. View of 60th Street facing northwest from 16th Avenue (Project Area far ahead at left and right). Construction of Maple Lanes Rezoning Development is shown.



49. View of the intersection of 16th Avenue and 60th Street facing west. Construction of Maple Lanes Rezoning Development is shown.



50. View of the northwest side of 16th Avenue facing northwest.



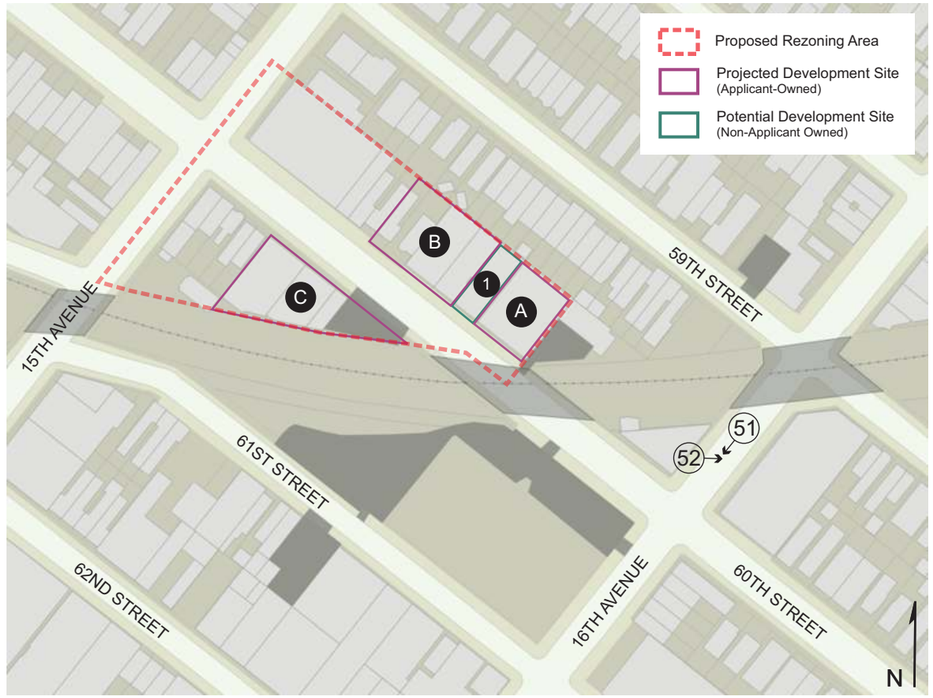
Note: Massing of medical office building on Site B not illustrated



51. View of 16th Avenue facing southwest between 59th Street and 60th Street.



52. View of the southeast side of 16th Avenue facing east.



Note: Massing of medical office building on Site B not illustrated

SECTION III – TECHNICAL ANALYSES

- **Land Use, Zoning and Public Policy (*Chapter 4*)**
- **Socioeconomic Conditions (*Chapter 5*)**
- **Community Facilities (*Chapter 6*)**
- **Open Space (*Chapter 7*)**
- **Shadows (*Chapter 8*)**
- **Historic and Cultural Resources (*Chapter 9*)**
- **Urban Design and Visual Resources (*Chapter 10*)**
- **Hazardous Materials (*Chapter 12*)**
- **Transportation (*Chapter 16*)**
- **Air Quality (*Chapter 17*)**
- **Noise (*Chapter 19*)**
- **Construction (*Chapter 22*)**

The analysis areas noted above correspond to the chapter number of the *CEQR Technical Manual.*

4. LAND USE, ZONING AND PUBLIC POLICY

I. INTRODUCTION

The analysis of land use, zoning and public policy characterizes the existing conditions of the Rezoning Area and the surrounding study area; anticipates and evaluates those changes in land use, zoning and public policy that are expected to occur independently of the proposed project; and identifies and addresses any potential impacts related to land use, zoning and public policy resulting from the project. Various sources have been used to prepare a comprehensive analysis of land use, zoning and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

Land Use Study Area

In order to assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the site, which is an area within which the proposed project has the potential to affect land use or land use trends. The 400-foot radius study area is generally bounded by an area with 58th Street to the north; mid-block between 14th Avenue and 15th Avenue to the west; 62nd Street to the south; and 16th Avenue to the east (See **Figure 4-1**–Land Use Map).

Table 4-1: Existing Conditions

Development Sites	Block	Lot	Land Use	# of Floors	GSF
Site A	5509	58	Automotive	1	8,000
Site B	5509	64	Light Industrial/Manufacturing	2	11,864
	5509	65	Light Industrial/Manufacturing	1	8,200
	5509	68	Community Facility	3	7,909
	5509	70	Residential	2	3,080
Site C	5516	14	Light Industrial/Manufacturing	1	5,862
	5516	17	Light Industrial/Manufacturing	1	3,600
	5516	20	Automotive	1	1,128
	5516	21	Parking	0	-
N/A	5509	1	Commercial	2	21,000
	5509	73	Light Industrial/Manufacturing	2	3,000
Site #1	5509	62	Light Industrial/Manufacturing	1	4,000
N/A	5509	71	Residential	2	3,080
	5509	72	Residential	2	3,080
N/A	5516	4	Automotive	1	1,776
	5516	9	Mixed-Use (Commercial-Residential)	3	4,200
	5516	10	Mixed-Use (Commercial-Residential)	3	3,120
N/A	5516	11	Residential	2	1,220
	5516	12	Residential	2	1,564
	5516	13	Residential	2	1,564

I. Land Use

Site Description

The Rezoning Area contains a mix of commercial and light industrial/manufacturing uses, as well as six residential uses and two mixed-use buildings with ground floor commercial retail and residences above. Light industrial/manufacturing properties consist of warehouses, automotive uses and some light industrial uses. Block 5509, Lot 68 was recently developed in 2018 with an ambulatory medical building containing 1.27 FAR and three floors. Block 5516, Lot 21 is currently utilized as accessory parking for an active adjacent light industrial use (Lot 21). Nonconforming residential uses include Block 5509, lots 70, 71, and 72 and Block 5516, Lots 9, 10, 11, 12, and 13. **Table 4-1** (above) provides more details about the specific affected properties of the Rezoning Area.

Study Area and Surrounding Area

The Study Area (defined as a 400 ft buffer around the Rezoning Area described above) is situated within a cluster of industrial/manufacturing, warehouse and automotive uses, as well as some nonconforming residential/mixed-use buildings. The LIRR Bay Ridge right-of-way runs through the eastern portion of the Block 5516 and a bridge on 60th Street crosses the LIRR tracks. The LIRR right-of-way is a major feature in the study area that has influenced land use patterns with industrial use dominant along and south of the right-of-way and residential use in the areas north and northeast of it.

The Maple Lanes Rezoning introduced medium-density residential use south of the LIRR right-of-way in this industrial area. Institutional uses are also common throughout the study area. 60th Street and 61st street between 15th and 16th Avenue are mixed use corridors with automotive, light industrial, and warehouse uses developed adjacent to residential, mixed residential and commercial, and commercial retail and office buildings. The Maple Lanes Rezoning introduced

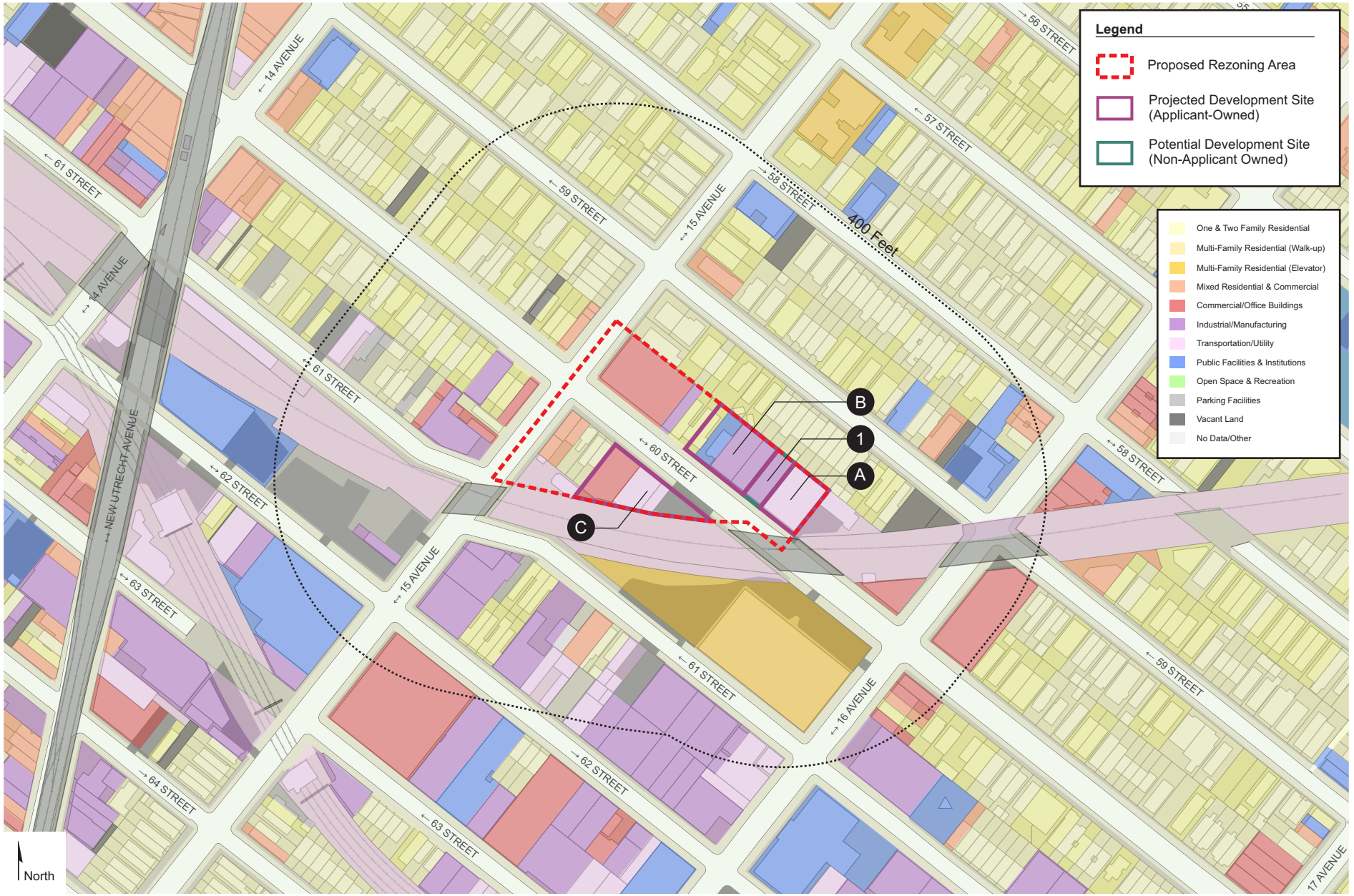
medium-density residential uses on both streets.

The remaining parts of the study area south of the LIRR are generally developed with industrial uses and accessory office uses. Some nonconforming residential buildings are also developed within this area. A large manufacturing building was recently converted to a school at 1462 62nd Street and community facility uses including schools and synagogues are developed throughout this industrial area.

With the exception of the industrial areas described above the remainder of the study area is developed with low-density residential use. Northwest-southeast cross streets are generally developed with low-density residential uses and some community facility institutional uses. 15th Avenue is largely developed with residential use whereas 16th Avenue is more mixed use in character.

The predominant building type varies within the surrounding area and reflects the underlying zoning districts. Buildings range in height from one-story manufacturing/warehouse buildings to three-story community facilities (religious institutions and houses of worship). The surrounding area to the north is zoned R5. Immediately south of the affected area on Block 5516 across the LIRR right-of-way is an R6A district, which was recently mapped in 2013 the Maple Lanes Rezoning (C090154 ZMK; 11DCP022K) which rezoned an M1-1 district to R6A to facilitate 24 attached and semi-detached four-story residential buildings, 21 of which would be townhouse-style buildings containing four dwelling units each. Lot 57 on Block 5509 is just outside of the Rezoning Area and is likely to remain as an light industrial or manufacturing use.

The Rezoning Area is in close proximity to two elevated New York City Transit (NYCT) subway lines. Approximately two blocks southeast of the Site is a D Train station located at 62nd Street and New Utrecht Avenue. Approximately three blocks south is an N Train station located at 63rd Street and New Utrecht Avenue. Both of these train lines offer service from South Brooklyn to points north. In terms of NYCT bus service, the B9 makes stops along 60th Street with service from Bay Ridge to Kings Plaza.


Legend
Proposed Rezoning Area
Projected Development Site (Applicant-Owned)
Potential Development Site (Non-Applicant Owned)
One & Two Family Residential
Multi-Family Residential (Walk-up)
Multi-Family Residential (Elevator)
Mixed Residential & Commercial
Commercial/Office Buildings
Industrial/Manufacturing
Transportation/Utility
Public Facilities & Institutions
Open Space & Recreation
Parking Facilities
Vacant Land
No Data/Other
400 Feet
B
1
A
C
14 AVENUE
61 STREET
59 STREET
15 AVENUE
58 STREET
57 STREET
56 STREET
NEW UTRECHT AVENUE
62 STREET
60 STREET
63 STREET
16 AVENUE
64 STREET
17 AVENUE
North
0
100
200
300
400 Feet

Future No-Action Scenario

Absent the proposed action, the properties within the Rezoning Area would remain in their current condition. Prior to the Analysis Year of 2023, the development associated with the Maple Lanes Rezoning would be finalized at 1560 60th Street (Block 5516, Lot 34), which is immediately to the east of the Rezoning Area and within the land use study area. The construction of a three-family residential building on 1578 59th Street is expected to be complete before the build year also.

Aside from this development, no additional large-scale land use changes would be made to the Development Sites and the remainder of Rezoning Area would continue to remain in their existing condition as commercial and manufacturing uses, such as warehouses, automotive repair shops, and medical uses.

Future With-Action Scenario

In the future with the Proposed Actions, the Rezoning Area would contain four medium- density mixed-use buildings with a total of 223,594 gsf. This would result in 112 new dwelling units and 36,226 gsf of local commercial retail use (concentrated on the ground floor of the four buildings). Of the 112 dwelling units, 23 (20% of the new residential floor area) are assumed to be permanently affordable at 80% of the Average Median income for the purposes of presenting a conservative analysis.

The four new mixed-use buildings would create 31 new accessory parking spaces in three new buildings. The buildings are anticipated to rise 75 to 85 feet following a mandatory setback of 10-feet.

In the R7A/C2-4 (MIH) zoning district, Use Groups 1-9 and 14 would be permitted, which consist of residential, community and general commercial retail/office. The maximum allowable residential FAR is 4.6 in R7A districts with MIH. The maximum allowable commercial FAR is 2.0 in C2-4 districts within R7A districts. The maximum allowable community facility FAR is 4.8. The Proposed Action would permit new medium-density residential uses and disallow industrial use. While 60th Street is developed with industrial uses under existing conditions, the applicant intends

to redevelop many of the existing industrial uses in the area with new mixed residential use buildings with ground floor retail. The uses introduced by the proposed actions would be consistent with those permitted by the Maple Lanes Rezoning to the south and would be consistent with land use patterns in the along 60th Street north of 15th Avenue and south of 16th Avenue.

The proposed actions would also bring into conformance existing non-complying residential, commercial, and mixed-use buildings. The Proposed Actions would also bring into compliance several buildings built above the permitted FAR.

Conclusion

The Proposed Actions are not anticipated to result in land uses that are significantly different from surrounding uses. The Proposed Actions would, however, permit denser residential uses than the surrounding Study Area. The Proposed Actions would also generate new ground floor commercial retail space. These changes are consistent with the ongoing trend of new residential construction in the Study Area (see Maple Lanes Rezoning).

Currently, the Rezoning Area is in an M1-1 district that permits light manufacturing/industrial and commercial use at a maximum FAR of 1.0 and community facility uses at a maximum FAR of 2.4. The proposed residential use is not permitted as- of-right within the current M1-1 zoning district. However, the Rezoning Area contains a history of residential use with 21 dwelling units currently present and a high concentration of residential use in the surrounding area.

No potentially significant adverse impacts related to land use are expected to occur as a result of the Proposed Actions. Therefore, further analysis of land use is not warranted.

II. Zoning

Existing Conditions

The Proposed Actions affect portions of two blocks (Block 5509 and 5516), which are both within a large M1-1 zoning district (see Figures 4-2 and 4-2a). Also within the 400-foot radius are R6A, R5, R5/C2-2 and C8-1 districts. The R5 district is present to the north and east above 61st Street with a C2-2 overlay present on 16th Avenue. The C8-1 district is located to the north at 59th Street and 16th Avenue. The R6A district is immediately to the east across the LIRR right-of-way.

Block 5509, Lots 64, 65 and 68 were the subject of a variance approval (375-04-BZ) by the Board of Standards and Appeals in 2005 to permit an expansion of an existing jewelry manufacturer and wholesaler establishment on Lots 64 and 65 to include Lot 68. However, this expansion never occurred, and the provisions of the underlying district remain.

The underlying M1-1 district is mapped along the LIRR right of way running northwest to southeast. The district permits commercial or light-to-medium manufacturing/industrial uses (Use Group 4-14, 16-17). Commercial and industrial/manufacturing uses are permitted up to 1.0 FAR, while community facility uses are permitted up to 2.4 FAR. The maximum base height of M1-1 districts is 30 feet, with the sky-exposure plane governing maximum building height.

The R5 district is present to the north and east, as well as below the M1-1 district and encompasses a large area of residential South Brooklyn. The R5 district is a medium-density general residence district that permits residential buildings up to 1.25 FAR and community facility buildings up to 2.0 FAR. The maximum height of buildings within R5 districts is 40 feet, with a maximum street wall height of 30 feet, as well as a 15-foot

setback above the street wall. R5 districts require side yards of at least 8 feet and a 10-foot front yard. Parking is required for 85% of dwelling units.

The C2-2 commercial overlay portion of the R5 district is commonly mapped in R5 distict nearby but within the immediate area is only mapped along the west side of 16th Avenue between 58th and 59th Street. The C2-2 districts allow for a wide variety of commercial uses (Use Groups 5-9 and 14) such as local retail, funeral homes and repair services. Within medium- density residential zoning districts (R5/C2-2) a maximum FAR of 1.0 is permitted for commercial uses. Parking requirements vary by use, with general retail typically requiring one space per 300 square feet of floor area.

The R6A zoning district is mapped to the east of the LIRR tracks and was recently created as a result of the Maple Lanes Rezoning. The R6A district is a contextual district with a maximum residential FAR of 3.0. Quality Housing regulations are mandatory in this district. Above a maximum base height of 60 feet, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 70 feet. Off-street parking is required for 50% of a building's dwelling units or can be waived if five or fewer spaces are required.

There is a single C8-1 district at 16th Avenue which contains a portion of the LIRR right-of-way. The C8-1 district is a general commercial district that permits a wide range of commercial uses (Use Groups 4-14 & 16). The C8-1 district permits a commercial FAR of 1.0. Parking requirements vary by use, but automotive service facilities require one space per 600 square feet.

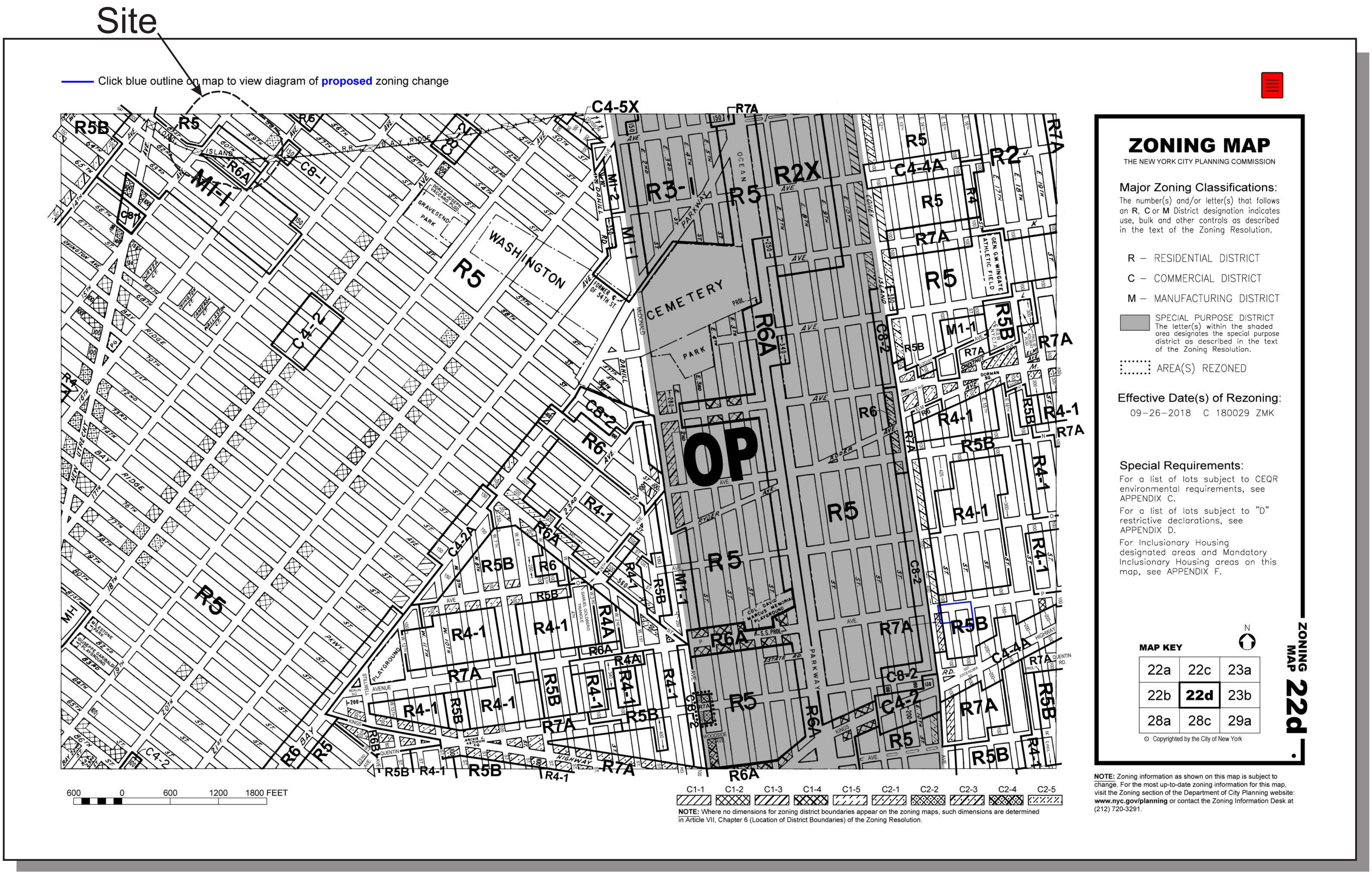
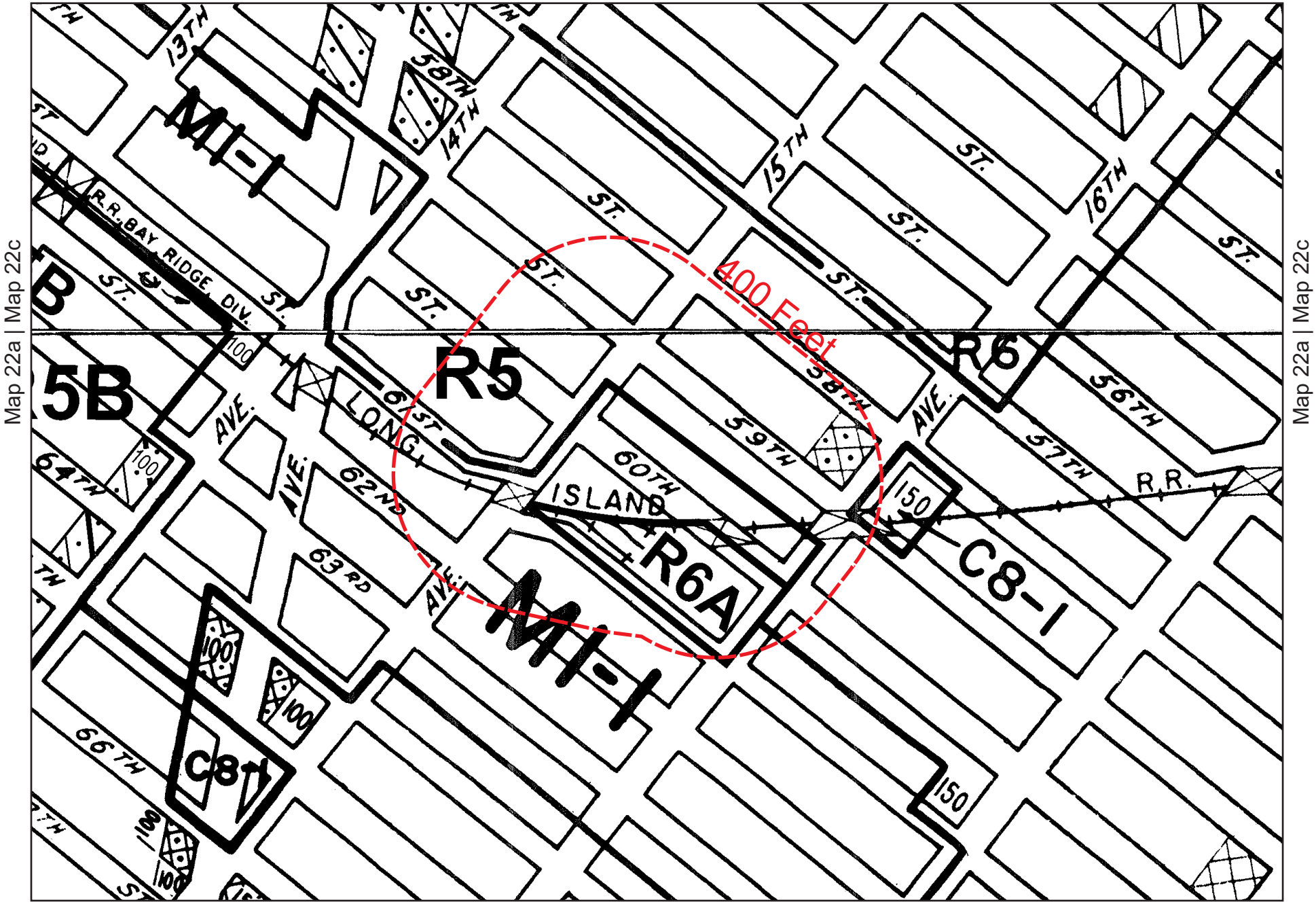

Site
Click blue outline on map to view diagram of proposed zoning change
ZONING MAP
THE NEW YORK CITY PLANNING COMMISSION
Major Zoning Classifications:
The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.
R – RESIDENTIAL DISTRICT
C – COMMERCIAL DISTRICT
M – MANUFACTURING DISTRICT
SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.
AREA(S) REZONED
Effective Date(s) of Rezoning:
09–26–2018 C 180029 ZMK
Special Requirements:
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.
For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.
MAP KEY
22a 22c 23a
22b 22d 23b
28a 28c 29a
© Copyrighted by the City of New York
ZONING MAP 22d
600 0 600 1200 1800 FEET
C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5
NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.
NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: www.nyc.gov/planning or contact the Zoning Information Desk at (212) 720-3291.

Figure 4b - Zoning Map (spliced & zoomed in)



Future No-Action Scenario

In the future and absent the action, the Rezoning Area would continue to be governed by the provisions of the existing M1-1, R6A, R5, R5/C2-2 and C8-1 zoning districts. Additionally, the proposed developments and uses are anticipated to remain in their existing condition in the Rezoning Area. No changes are anticipated in the Rezoning Area or the surrounding study area by the project Analysis Year of 2023.

Future With-Action Scenario

The Proposed Actions include a Zoning Text Amendment and a Zoning Map Amendment to rezone the Project Area from M1-1 zoning to an R7A residential district with a C2-4 commercial overlay. The Proposed Actions also include a Zoning Text Amendment to map Mandatory Inclusionary Housing Program Options 1 and 2 over the Project Area. As described above the Rezoning Area consist of Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72 & 73; Block 5516, Lots 4, 9, 10, 11, 12, 13, 14, 17, 20 and 21.

In the R7A/C2-4 (MIH) zoning district, Use Groups 1-9 and 14 would be permitted, which consist of residential, community and general commercial retail/office. The maximum allowable residential FAR is 4.6 in R7A districts with MIH. The maximum allowable commercial FAR is 2.0 in C2-4 districts within R7A districts. The maximum allowable community facility FAR is 4.8.

Further, in R7A districts, when providing affordable housing pursuant to the Inclusionary Housing Program set forth in ZR Section 23-90, maximum base height is 75 feet, maximum building height is 90 or 95 feet (without or with a qualifying ground floor, respectively), maximum number of stories is 9 and a 10-foot setback is required above the base height.

R7A districts requires one accessory parking space for 50% of dwelling units. However, parking requirements for income-restricted dwelling units are reduced to 15% outside the Transit Zone or are waived entirely within the Transit Zone. The Proposed Development is located within the Transit Zone. Commercial and community facility parking requirements vary by use with one parking space required per 1,000 square feet for retail use in C2-4 districts.

The Proposed Actions would permit new medium-density residential uses and disallow industrial use. While 60th Street is developed with industrial uses under existing conditions, the applicant intends to redevelop many of the existing industrial uses in the area with new mixed residential use buildings with ground floor retail. The uses introduced by the proposed actions would be consistent with those permitted by the Maple Lanes Rezoning to the south and would be consistent with land use patterns in the along 60th Street north of 15th Avenue and south of 16th Avenue. The proposed actions would also bring into conformance existing non-complying residential, commercial, and mixed-use buildings. The Proposed Actions would also bring into compliance several buildings built above the permitted FAR.

Conclusion

It is the Applicant's opinion that the proposed R7A/C2-4 medium-density mixed-use zoning district under MIH would be appropriate for this area, which is located at the intersection of two wide corridors with 60th Street constituting a heavily trafficked east- west thoroughfare and 15th Avenue consisting of a wide north-south corridor. The Development Sites are located immediately along the B9 bus route and two subway stations are located in close proximity to the west (the 62nd Street D Station) and the south (the New Utrecht Avenue N Train).

The proposed new R7A/C2-4 district would permit residential use and recognize nonconforming residential uses in the Project Area (Block 5509, Lots 70, 71, 72; Block 5516, Lots 9, 10, 11, 12 and 13). Examples include several 6-story apartment buildings along 15th Avenue, as well as a series of mixed-use developments under construction to the east, including numerous medium-density residential buildings

as a result of the Maple Lanes Rezoning, which created a new R6A district immediately to the east that permits 75-foot tall buildings. When compared to the Maple Lanes Rezoning, the maximum 95-foot tall buildings under R7A with MIH are appropriate for the intersection of two wide streets, in closer proximity to transit than the R6A district, which is mapped primarily along 16th Avenue and 61st Street, the latter of which is narrow (60 feet).

Given the wide and heavily trafficked nature of 60th Street, this corridor is able to accommodate additional density with ground-floor local retail and other neighborhood services in line with existing commercial uses, overall serving to increase the pedestrian vibrancy of the corridor. Furthermore, the required zoning text amendment to make the Project Area applicable to MIH would result in at least 23 new affordable dwelling units, a recognized need in all areas of the city.
Lastly, the proposed R7A/C2-4 zoning district would map a contextual zoning district, where quality housing regulations are mandatory, and would result in a more uniform street wall along 60th Street, improving the urban design of this segment of 15th Avenue and 60th Street.

In summary, it is the Applicant's opinion that the proposed medium-density zoning district would serve to permit an appropriate level of increased density along two vibrant wide thoroughfares, would increase the Project Area's conformance with zoning, would provide much needed new dwelling units for various income levels, and would continue to permit commercial retail uses to enhance the vibrancy of the corridors. These changes would be in line with the existing mixed-use character of the area. Although the Proposed Actions would allow significant increase in density compared to the existing conditions, this change would be consistent with neighborhood trends (particularly when compared to increasing density to the east of the Project Area in the recently mapped R6A district to the east).

The proposed zoning text amendment would make the Rezoning Area a Mandatory Inclusionary Housing designated area in which MIH Options 1 and 2 would be applicable. Option 1 requires that a minimum of 25% of the residential floor area be

designated as affordable to households at an average of 60% of AMI. Option 2 requires that a minimum of 30% of the residential floor area be designated as affordable to households at an average of 80% of AMI. The Applicant seeks Option 2 at this time, however the ultimate program option would be determined through the ULURP process.

Therefore, the Proposed Actions will not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties.

Potentially significant adverse impacts related to zoning are not expected to occur as a result of the Proposed Actions, and further assessment of zoning is not warranted.

III. Public Policy

Existing Conditions

The study area is within Borough Park, which is in Brooklyn Community District #12. Existing public policies that could affect the Rezoning Area include:

- Housing New York: A Five-Borough, Ten-Year Plan
- Industrial Action Plan
- One New York: The Plan for a Strong and Just City (OneNYC)

Housing New York: A Five-Borough, Ten-Year Plan is the current plan under Mayor Bill De Blasio to build or preserve 300,000 units of affordable housing in New York City within ten years of the start of his mayoralty.

One New York 2050: Building a Strong and Fair City (OneNYC), is the City's strategic plan for inclusive growth and climate action. A major goal of the program is with the creation of new affordable housing.

Industrial Action Plan, is the City's 10-point plan to strengthen and protect core industrial areas of New York City. The plan, introduced in 2015, provided funds to support existing industries and spur the development of new manufacturing and industrial industries. The plan also included introducing zoning changes to make it more difficult to replace manufacturing ans industrial uses with self storage units and hotels in core "industrial business zones".

The Rezoning Area is not located within the City's Coastal Zone Boundary and is therefore not subject to the New York City Waterfront Revitalization Program (WRP) No other public policies relate to the Rezoning Area or to the surrounding 400-foot radius study area. The Rezoning Area is not located within a Federal Empowerment Zone or covered by any 197-a Community Development Plans, and is not located within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area.

Future No-Action Scenario

No new public policy initiatives or changes to existing initiatives are anticipated to affect the Rezoning Area or to the 400-foot study area by the project Analysis Year of 2032.

Future With-Action Scenario

The Proposed Actions include a zoning text amendment to establish a Mandatory Inclusionary Housing (MIH) Area for the entire Rezoning Area. Out of 112 new dwelling units assumed to be created by the Proposed Action, 23 dwelling units (20% of the new dwelling units) are assumed to be designated as permanently affordable to incomes at or below 80% AMI.

Accordingly, it is the Applicant's opinion that the Rezoning Area is located in an area suitable for new housing development, as residential uses and transit are present in close proximity, with a number of pre-existing residential uses in the Rezoning Area. Furthermore, the proposed new dwelling units would contribute to Mayor Bill De Blasio's goal of building or preserving 300,000 units of affordable housing in New York City within ten years of the start of his mayoralty. Lastly, the Proposed Actions would also be consistent with OneNYC with the creation of permanently affordable dwelling units.

As noted within the land use analysis above, it is the Applicant's opinion that the proposed uses would be compatible with the existing land uses in the surrounding area. With regards to the ***Industrial Action Plan***, a 10-point plan introduced in 2015 with the goal of bolstering the city's industrial employment centers. Among other things, the plan dedicated funds to support new manufacturing operations in the city and establishes *Industrial Business Zones* which are areas where the conversion of Manufacturing and Industrial uses to residential uses is restricted. Although the Proposed Actions would eliminate industrial uses and replace them with residential uses, the Proposed Actions do not affect an area that is within an *Industrial Business Zone.*

The Proposed Actions are required in order to allow the Proposed Development to be developed on the Development Site. The Proposed Development would meet The City's public policy goals as explained above related to the provision of affordable housing.

Conclusion

The Proposed Actions would facilitate what the Applicant feels is an appropriate level of development within the Rezoning Area and would serve to further the goals of the existing public policies for the area as discussed above.

No potentially significant adverse impacts related to public policy are anticipated to occur as a result of the Proposed Actions, and further assessment of public policy is not warranted.

5. SOCIOECONOMIC CONDITIONS

Introduction

According to the *CEQR Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Even when socioeconomic changes would not result in 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. In some cases, these changes may be substantial but not adverse. In other cases, these changes may be good for some groups but bad for others. The objective of the CEQR analysis is to disclose whether any changes created by the project would have a significant impact compared to what would happen in the future without the project.

Direct and Indirect Displacement

Direct displacement (sometimes called primary displacement) is the involuntary displacement of residents or businesses from a site or sites directly affected by a proposed project. Examples include a 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. The occupants and the extent of displacement are usually known, and the disclosure of direct displacement can therefore focus on specific businesses and a known number of residents and workers.

Indirect displacement (also known as secondary displacement) is the involuntary displacement of residents, businesses, or employees that results from a change in socioeconomic conditions created by the proposed project. Examples include lower-income residents forced out due to rising rents caused by a new concentration of

higher- income housing introduced by a proposed project; a similar turnover of industrial to higher-paying commercial tenants spurred by the introduction of a successful office project in the area or the introduction of a new use, such as residential; or increased retail vacancy resulting from business closure when a new large retailer saturates the market for particular categories of goods. The assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees affected. In keeping with general *CEQR* practice, the assessment of indirect displacement assumes that the mechanisms for such displacement are legal.

A socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The Proposed Actions would not trigger assessment in any of the following areas:

- Displacement of over 500 existing residents. For projects exceeding this threshold, assessments of the direct residential displacement, indirect residential displacement, and indirect business displacement are appropriate.

- Direct displacement more than 100 employees. For projects exceeding this threshold, assessments of direct business displacement and indirect business displacement are appropriate.

- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location. If this is considered likely, assessments of direct business displacement and indirect business displacement are appropriate.

- Residential development of 200 or more new residential units or more than 200,000 square feet of commercial development. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.

- An action would add to, or create, a retail concentration that may draw a substantial amount of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in a potential for disinvestment on local retail streets. Projects resulting in less than 200,000 square feet of retail on a single development site would not typically result in socioeconomic impacts

- If the project is expected to affect conditions within a specific industry, an assessment is appropriate.

The Proposed Actions and resulting development would not result in the direct loss of 500 residents and would not directly displace over 100 employees. The Proposed Actions are anticipated to directly displace approximately 58 employees (**see Table 5-1**). This information was based on surveys of the affected area and general assumptions regarding the amount workers found in automotive, commercial, and industrial businesses, in consultation with DCP. These businesses are not considered unusually important, as their products or services are not uniquely dependent on the location in the Rezoning Area.

The Proposed Actions would not be expected to affect real estate market conditions and would not result in potential impacts related to socioeconomic character and further assessment is not warranted.

Table 5-1: Existing Conditions - Businesses & Employees

Block	Lot	Land Use	Business	Square Feet	# Workers	Notes**
5509	58	Automotive	Perfect Collision	8,000	8	Automotive Service
5509	62	Light Industrial/Manufacturing	Warehouse (Vacant)	4,000	-	Vacant
5509	64	Light Industrial/Manufacturing	Silver Speck	11,864	12	Jewelry Manufacturing
5509	65	Light Industrial/Manufacturing	Silver Speck	8,220	8	
5509	68	Community Facility	Medical Office	7,909	19	-
5516	14	Light Industrial/Manufacturing	Lion HVAC Supplies	5,862	6	Assumed as industrial
5516	17	Light Industrial/Manufacturing	Lion HVAC Supplies	3,800	4	
5516	20	Automotive	SOS Auto Repair	1,128	1	Automotive Service
TOTAL					58	

Assumptions:

Office Worker = 1 employee per 250 sf/space

General Retail = 1 employee per 333 sf/space

Warehouse = 1 employee per 15,000sf/space

Industrial/Automotive = 1 employee per 1,000 sf/space
Medical Office = 1 employee per 425 sf/space
**Information obtained via field survey on September 13, 2018 and workers were calculated according to density factors.

6. OPEN SPACE

This chapter assesses the potential impacts of the proposed project on open space resources. Open space is defined by the 2014 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately-owned land that operates or is available for leisure, play, or sport, or serves to protect or enhance the natural environment. The CEQR Technical Manual guidelines indicate that an open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces. The proposed project would introduce a substantial new residential population to the Rezoning Area that would create new demands for open space. Therefore, an open space assessment was conducted to determine if the Proposed Actions would significantly affect open space.

DIRECT EFFECTS

The proposed project would not remove or alter any existing publicly accessible open spaces. In addition, study area open spaces would not experience project-related significant adverse shadows, air quality, or operational noise impacts, as they are not within close distance to the Proposed Development.

INDIRECT EFFECTS

Introduction

On the basis of *CEQR Technical Manual* criteria, the Proposed Actions could potentially result in indirect effects to open space resources within the project study area and must be further assessed to determine whether significant indirect effects would be expected to occur.

An assessment of open space is required if a proposed action would introduce more than 50 residents in neighborhood underserved by open space. The Rezoning Area is located in an underserved neighborhood and the proposed actions would generate more than 50 residents, therefore, an assessment of the projects effect on open space is provided below

The detailed analysis determined that the Proposed Actions would not result in a significant adverse impact to open space in the residential study area as a result of the decrease in the total, active and passive open space ratios. The quantitative assessment of open space is based on ratios of usable open space acreage to the study area populations (the "open space ratios"). As compared to the city's planning goal open space ratios of
2.5 acres of total open space per 1,000 residents, including 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents, the study area is underserved by total and active open space in existing conditions and would continue to be underserved in the future without, and in the future with the proposed project.

METHODOLOGY

DIRECT EFFECTS ANALYSIS

There are no open space resources adjacent to or within the Rezoning Area. Additionally, as noted in the Shadows section, the Proposed Actions are not anticipated to cast an incremental shadow on any open space resources. Therefore, there is no potential for direct impacts associate with the Proposed Actions

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 non- residents, to noticeably diminish the capacity of open space in an area to

serve the future population. Typically, an indirect effects assessment is conducted when a project would introduce 200 or more residents or 500 or more workers to an area. Absent the Proposed Action, the Development Sites would remain in their current condition. In total, the Proposed Actions would generate 112 dwelling units, 438 new residents and 109 new workers[1].

The directly affected area is located in an area underserved by open space, in such areas a reduced threshold of 50 additional residents and 125 new employees applies. For projects that might result in indirect effects on open space, the *CEQR Technical Manual* suggests that a preliminary assessment can be useful in clarifying the degree to which an action would affect open space and the need for further analysis. If the preliminary assessment indicates the need for further analysis, then a detailed analysis of indirect open space effects is performed. For this project, a preliminary assessment of a low open space ratio indicated the need for further analysis and a detailed analysis was performed to assess indirect open space effects from the proposed new residents.

STUDY AREA

This analysis of potential open space impacts was conducted based on the methodology of the CEQR Technical Manual. According to CEQR guidelines, the first step in assessing potential open space impacts is to establish study areas appropriate for the new population(s) to be added as a result of the proposed project. Study areas are generally defined by a reasonable travel distance a person would walk to reach a neighborhood open space. Workers (or non-residents) typically use passive open spaces within an approximately 10-minute walking distance (about ¼-mile). Residents are more likely to travel farther to reach parks and recreational facilities. They are assumed to walk about 20 minutes (about a ½-mile distance) to reach both passive and active neighborhood open spaces.

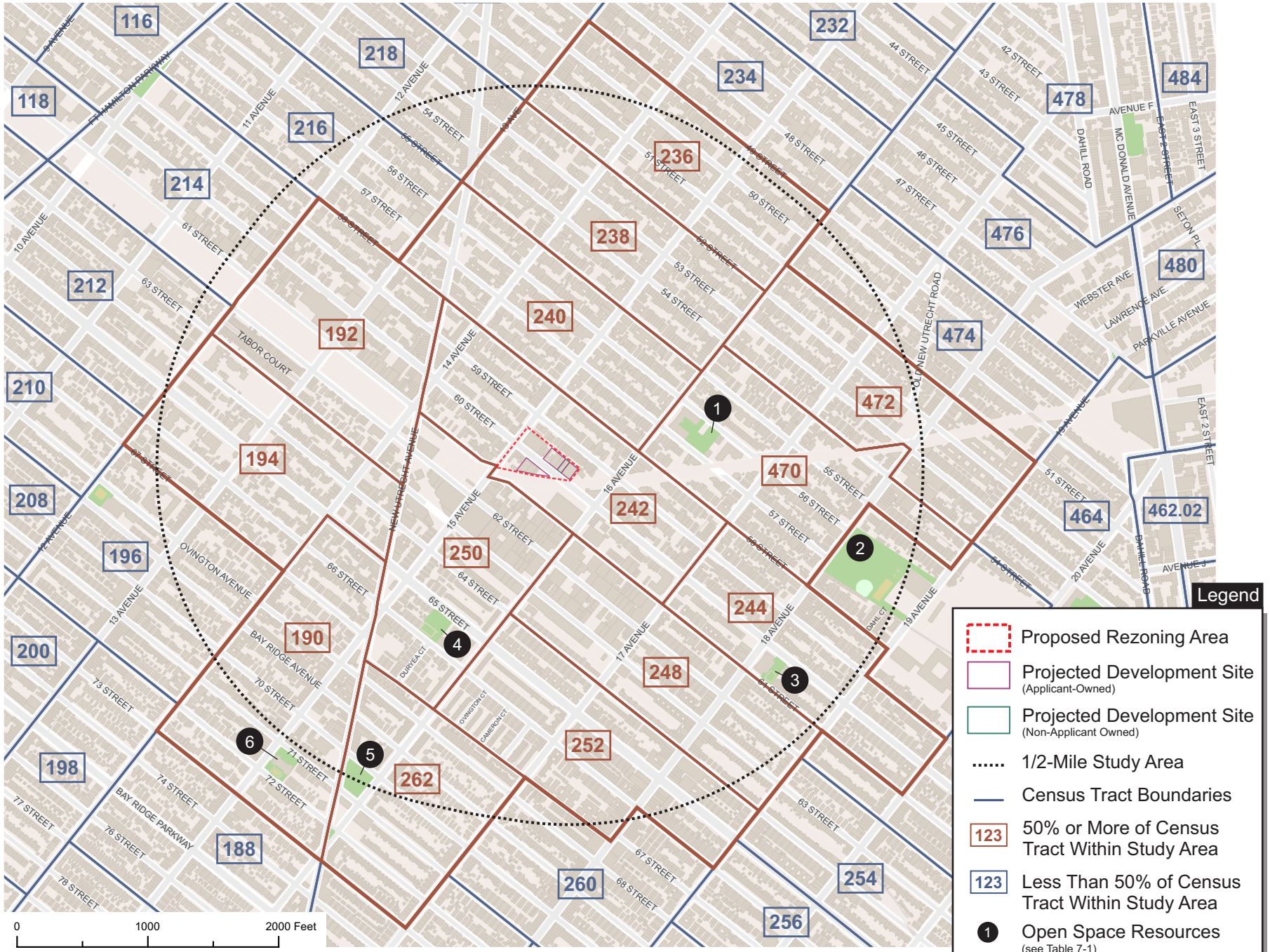
[1] This is based on the average household size of 3.91 residents per dwelling unit for the Borough park Neighborhood Tabulation Area (NTA) in 2013-2017. For workers, one worker is assumed per 333 square feet of general retail and one worker per 425 square feet of medical office space with an increment of 34,847 gsf of commercial space.

As the Proposed Actions would result in a new residential population, a quantitative open space assessment is necessary to examine the change in residential population in the study area relative to total, active, and passive publicly accessible open space in the area and to determine whether the increase in population would significantly impact the adequacy of open space resources in the study area. Since the Proposed Actions are expected to result in new residential development; a study area was established to assess the proposed project's potential open space effects on residential users based on the methodology in the *CEQR Technical Manual*.

The proposed project would introduce new employees associated with the retail uses but it is not anticipated that it would result in a total of 125 or more workers. Therefore, an assessment of the adequacy of open space for the nonresidential (worker) population was not required as the Proposed Actions are anticipated to result in 104 new workers.

As recommended in the *CEQR Technical Manual*, the open space study area comprises all census tracts that have at least 50 percent of their area located within a ½-mile of the Rezoning Area, as shown in Figure 7-1.

Figure 7-1: Open Space Facilities and Census Tracts



INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, utilization, amenities, and condition. Open spaces that are not accessible to the general public or that do not offer usable recreational areas, such as spaces where seating is unavailable, were generally excluded from the survey. The information used for this analysis was gathered through a field survey conducted on November 8, 2017 on a clear day, as well as data from the New York City Department of Parks and Recreation (DPR), as well as from New York City DoITT GIS data. At each open space, active and passive recreational spaces were noted.

Active open space acreage is used for activities such as jogging, field sports, and children's active play. Such open space features include basketball courts, baseball fields, and play equipment. Passive open space usage includes activities such as strolling, reading, sunbathing, and people-watching. Some spaces, such as lawns and public esplanades, can be considered both active and passive recreation areas since they can be used for passive activities such as sitting or strolling and active uses, such as jogging or Frisbee. Based on the methodology in the CEQR Technical Manual, the use level at each facility was determined based on observations of the amount of space or equipment determined to be in use. Open spaces with less than 25 percent of space or equipment in use were categorized as low usage; those with 25 to 75 percent utilization were classified as moderate usage; and those with over 75 percent utilization were considered heavily used. In addition to the open spaces located within the study area, open spaces falling outside the study area were considered qualitatively. These spaces provide additional open space resources and are likely to be visited by the study area's residential user populations and contiguous with study area census tract boundaries.

ADEQUACY OF OPEN SPACE RESOURCES - COMPARISON TO GUIDELINES

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—the open space ratio. The open space ratio provides a measure of open space available per 1,000 residents or workers in the study area.

To assess the adequacy of open space resources, open space ratios are compared with planning goals as stated in the *CEQR Technical Manual*. Although these open space ratios are not meant to determine whether a proposed project might have a significant adverse impact on open space resources, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents.
- For residential populations, a ratio of 2.5 acres per 1,000 residents consist of 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents.

However, as noted above, these goals are often not feasible for many areas of the city and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space. In addition, this analysis compares to the city's median community district open space ratio of 1.5 acres per 1,000 residents.

IMPACT ASSESSMENT

Impact assessment is both quantitative and qualitative. The quantitative assessment considers how a project would change the open space ratios in the study area. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the city. Furthermore, in areas that are well served by open space, a greater change in the open space ratio may be tolerated. The qualitative assessment supplements the quantitative assessment and considers nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, the comparison of projected open space ratios with established city guidelines, and open spaces created by the proposed project not available to the general public.

EXISTING CONDITIONS

Study Area Population

The study area population was estimated using data from the 2017 U.S. Census ACS data for the census tracts located fully or at least 50 percent within the one-half mile study area. As shown in Table 7-1, in 2017 the study area contained a total of 51,639 residents within the 14 relevant census tracts.

Table 6-2 summarizes the age distribution of the study area population and compares it to Brooklyn and New York City as a whole. As shown, the study area has a higher distribution of children and teenagers through age 14 compared to Brooklyn and New York City as a whole. In addition, the study area contains a smaller share of people aged 20 to 64 years, compared to Brooklyn and New York City as a whole.

Table 6-1 – Study Area Population	
Census Tract	**Total Population**
190	**4,682**
192	**3,702**
194	**4,031**
236	**5,669**
238	**3,990**
240	**4,626**
242	**2,994**
244	**4,039**
248	**3,013**
250	**1,539**
252	**5,310**
262	**2,548**
470	**2,719**
472	**2,777**
Study Area Total	**51,639**

Source: Census ACS Demographic and Housing Data, American Community Survey 2013-2017

Table 6-2: Study Area Age Characteristics

SELECTED AGE CATEGORIES	Study Area	Brooklyn	New York City
Ages 4 and younger	11.4%	7%	6.5%
Ages 5 to 9 years	9.1%	6%	5.7%
Ages 10 to 14 years	8%	6%	5.5%
15 to 19 years	6.6%	6%	5.5%
20 to 64 years	52.7%	62%	63.2 %
65 years and over	11.9%	12%	13.6 %

Source: Census ACS Demographic and Housing Data, American Community Survey 2013-2017

Given the range of age groups present in the study area population, the study area has need for various kinds of active and passive recreation facilities, including those with amenities that can be used by children and adults. Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard- surfaced open spaces, which are important for such activities as ball playing, running, and skipping rope. Children ages 10 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 18 and 44 continue to use court game facilities and fields for sports, along with more individualized recreation such as rollerblading, biking, and jogging that require 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 handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

STUDY AREA OPEN SPACES

The study area contains five publicly accessible facilities **(See Figure 6-1 - Open Space Facilities and Census Tracts and Table 6-3, Inventory of Open Space Resources).** The six publicly owned and accessible facilities provide a total of 10.6 acres of open space resources, all of which are located within the ½ mile radius project study area.

In terms of publicly accessible open space, the study area includes four playgrounds and two neighborhood parks that contain playground space, as well as more active areas. All of the properties in the study area are managed by the Department of Parks and Recreation (DPR). The largest of the study area's open space resources is Gravesend Park, which contains over six acres.

P.S. 180 Playground (Map Key 1)

This facility serves primarily as a playground, which is located at 5601 16th Avenue and is classified as a Schoolyards to Playgrounds site, which offers the facility to the public during non-school hours. This facility includes include play equipment, painted sports surfaces, trees, and benches and totals 1.7 acres[6]. A field visit in the late afternoon of November 2017 indicated low utilization with no users.

Gravesend Park (Map Key 2)

This facility is a neighborhood park, which is located between 18th and 19ths Avenues, between 55th and 58th Streets. This facility contains baseball fields, handball

courts, roller hockey areas, basketball courts, fitness equipment and a playground. The facility contains over six acres, with a majority of the facility primarily serving as an active area (approximately 75%) with the remaining area containing seating and passive areas. A field visit in the afternoon of November 2017 indicated moderate utilization with some users utilizing active areas as well as passive seating areas. Although this park is located in a census tract that is less than 50% contained within the Study Area boundary, it was included in this analysis of Open Space resources as it is a large, destination park space within ½ mile-radius to future residents of the Study Area and contiguous with the Study Area census tract boundaries.

P.S. 48 Playground (Map Key 3)

This facility serves primarily as a playground, which is located at 6015 18 Avenue and is classified as a Schoolyards to Playgrounds site, which offers the facility to the public during non-school hours. This facility includes include play equipment, painted sports surfaces, trees, and benches and totals 0.46 acres. A field visit in the late afternoon of November 2017 indicated low utilization with no users.

I.S. 227 Playground (Map Key 4)

This facility serves primarily as a playground, which is located at 6500 16th Avenue, and is classified as a Schoolyards to Playgrounds site, which offers the facility to the public during non-school hours. This facility includes include play equipment, painted sports surfaces, trees, and benches and totals 0.6 acres. A field visit in the late afternoon of November 2017 indicated low utilization with no users.

Lt. Joseph Petrosino Park (Map Key 5)

This facility is a neighborhood park, which is located between 16th and New Utrecht Avenues and between 70th and 71st Streets. The facility contains handball courts, a playground, basketball courts and a recreation building, in addition to sitting areas. The facility contains over 0.87 acres, with a majority of the facility primarily serving as an active area (approximately 75%) with the remaining area containing sitting areas. A field visit in the afternoon of November 2017 indicated low utilization. The park is currently under construction for new basketball courts, a playground, a

spray shower, and adult fitness equipment, as well as new fencing, retaining walls, ramps, drainage, water supply, lighting, plantings, benches, synthetic turf, sidewalk and green infrastructure. The park was opened in January of 2019.

P.S. 112 Playground (Map Key 6)

This facility serves primarily as a playground, located at 7115 15th Avenue, and is classified as a Schoolyards to Playgrounds site, which offers the facility to the public during non-school hours. This facility includes include play equipment, painted sports surfaces, trees, and benches and totals 0.6 acres.

Table 6-3: Inventory of Open Space Resources

Map Key	Open Space Resource Name	Block	Lot(s)	Total Size (Acres)	Features	Passive Acres	Active Acres	Condition	Utilization
1	P.S. 180 Playground	5492	1	1.7	Playground	0	1.7	Good	Low
2	Graves-end Park	5494	8	6.38	Baseball Field, Handball Court, Basketball Courts, Fitness Equipment, Playground	1.595	4.785	Good	Moderate
3	P.S. 48 Playground	5519	1	0.46	Playground	0	0.46	Good	Low
4	I.S. 227 Playground	5551	18	0.6	Playground	0	0.6	Good	Low
5	Lt. Joseph Petrosino Park	6169	50	0.87	Basketball Courts, Playground, Handball Courts	0.2175	0.6525	Fair	Low
6	P.S. 112 Playground	6180	1	0.60	Playground	0	0.60	Good	Low
Total				**10.6**		**1.8125**	**8.7975**		

Source: NYC DPR and PLUTO data (2018)

ADEQUACY OF OPEN SPACE RESOURCES

The analysis of open space resources takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. With a total of 10.6 acres of publicly accessible open space and a residential population of 51,639, the study area has a total open space ratio of 0.205 acres per 1,000 residents (see Table 6-4). This is less than the planning guideline of 2.5 acres of open space per 1,000 residents and is also below the citywide average of 1.5 acres of open space per 1,000 residents.

The area's residential active open space ratio is 0.170 acres per 1,000 residents, which is below the planning guideline of 2.0 acres per 1,000 residents. The study area's current residential passive open space ratio is 0.035 acres of passive open space per 1,000 residents, which is less than CEQR's guidance of 0.5 acres per 1,000 residents.

Table 6-4: Open Space Ratios (Existing Condition)

	Existing Conditions	CEQR TM Guideline
Publicly Accessible Open Space (Acreage)	10.6	-
Study Area Population	51,639	-
Open Space Ratio (Acres/1,000 Residents)	0.205	2.5
Active Open Space Ratio (Acres/1,000 Residents)	0.170	2
Passive Open Space Ratio (Acres/1,000 Residents)	0.035	0.5

THE FUTURE WITHOUT THE PROPOSED PROJECT

The assessment of the future without the proposed project examines conditions that are expected to occur in the study area by the 2023 Analysis Year, absent the proposed project (The No-Action Scenario). The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors.

STUDY AREA POPULATION

Currently, the ½ mile area surrounding the Rezoning Area contains 51,639 residents (See Table 6-1), according to 2017 Census data. In order to account for major development that would occur prior to the Analysis Year, a query of DOB building permits was conducted for the study area (See Figure 6-1), which found seven planned developments considered major developments, which include permitted developments where more than 3 dwelling units are anticipated (see Table 5-3 in the *Socioeconomics* chapter). In addition, the 182 dwelling units associated with the Maple Lanes Rezoning (11DCP022K) are included. Combined, these developments total 259 anticipated new dwelling units to include as part of the No-Action population. Based on estimates from the DCP and the U.S. Census, the Borough Park Neighborhood Tabulation Area (NTA) is assumed to contain an average household size of 3.91 persons per dwelling unit for the most recent data available (2013-2017). Therefore, these 259 new dwelling units would be expected to generate 1,013 new residents in the study area prior to the Analysis Year. Therefore, as projected to 2023, the base population is projected to be 52,625 in the Future No-Action scenario.

No new publicly accessible open space and recreational resources are planned to be added to the study area by 2023 in the future without the Proposed Action. Therefore, in 2023 with the Proposed Action (See Table 6-5: No-Action Condition), the project study area would continue to contain approximately 10.6 acres of open space resources, the same as under the Existing Condition but with a reduced open space ratio of 0.205 acres per 1,000 residents, compared to the radio of 0.209 acres in the study area under the Existing Conditions. The active open space ratio would decrease from 0.170 acres to 0.167 acres, while the passive open space ratio would decrease from 0.035 to 0.034. Like the Existing Condition, the radios would continue to be below the CEQR guidelines of 2.5 acres of open space, as well as the guideline of 2 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

Table 6-5: Open Space Ratios (Future No-Action Condition)

	Existing Conditions	Future No-Action	CEQR TM Guideline
Publicly Accessible Open Space (Acreage)	10.6	10.6	-
Study Area Population	51,639	52,652	-
Open Space Ratio (Acres/1,000 Residents)	0.205	0.201	2.5
Active Open Space Ratio (Acres/1,000 Residents)	0.170	0.167	2
Passive Open Space Ratio (Acres/1,000 Residents)	0.035	0.034	0.5

THE FUTURE WITH THE PROPOSED PROJECT

STUDY AREA POPULATION

The assessment of the future with the proposed project (the With-Action Scenario) examines conditions that are expected to occur in the study area by the 2023 Analysis Year, with the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors. In the future with the Proposed Action, based on the addition of 438 new residents, there would be 0.200 acres per 1,000 residents compared with the ratio of 0.201 acres in the study area under the future No-Action scenario (see Table 6-6: Future With-Action condition). This represents a decrease of approximately 0.001 acres/1,000 residents or 0.49 percent in the open space ratio. Therefore, the study area's open space ratio would continue to be well below the City's planning guideline goal of 2.5 acres per 1,000 residents.

Table 6-6: Open Space Ratios (Future With-Action Condition)

	Future No-Action	Future With-Action	CEQR TM Guideline	Percent Change
Publicly Accessible Open Space (Acreage)	10.6	10.6	-	
Study Area Population	52,652	53,090	-	0.83%
Open Space Ratio (Acres/1,000 Residents)	0.201	0.200	2.5	-0.49%
Active Open Space Ratio (Acres/1,000) Residents	0.167	0.166	2	-0.63%
Passive Open Space Ratio (Acres/1,000 Residents)	0.0344	0.0341	0.5	-0.87%

The active open space ratio would decrease from 0.167 acres to 0.166 acres, while the passive open space ratio would decrease from 0.0344 acres to 0.0341 acres. Like the Future No-Action scenario, the ratios would continue to be below the planning guidelines of 2.5 acres of open space, as well as the guideline of 2 acres of active open space and 0.5 acres of passive open space per 1000 residents. Table 6-7 shows the calculation of open space ratios for the Existing, Future No-Action and Future With-Action conditions.

Table 6-7: Existing, Future No-Action and Future With-Action Open Space Ratios

	Existing Conditions	Future No-Action	Future With-Action
Publicly Accessible Open Space	10.6	10.6	10.6
Study Area Population	51,639	52,652	53,090
Open Space Ratio	0.205	0.201	0.200

IMPACT SIGNIFICANCE

According to the *CEQR Technical Manual,* the significance of a project's effects on open space is assessed using both qualitative and quantitative factors. These effects are compared with those that would occur in the Future No-Action condition to determine the effects attributable to the proposed project. According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change. However, in areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant. Changes in open space ratios should be balanced against how well the greater area is served by open space. If the study area exhibits a low open space ratio, even a small decrease may be quantitatively substantial. Likewise, if the study area exhibits an open space ratio that approaches or exceeds the planning goal of 2.5 acres, a greater percentage of change in the ratio may be acceptable.

INDIRECT EFFECTS

Under the existing and future conditions without or with the proposed project, the total and active and passive open space ratios are below the City's optimal planning goals. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents. In addition (and as noted above) if the affected area is located in an area underserved by open space, such as this area, a reduction in the open space ratio by more than 1 percent can be considered significant.

As noted in Table 6-7, the Proposed Actions would result in a 0.49 percent decrease in the overall open space ratio, a 1.28 percent decrease in the active open space ratio and a 0.87 percent decrease in the passive open space ratio. As noted above, the age distribution of the study area population (see Table 7-2) skews towards a greater distribution of children and teenagers through age 14 when compared to Borough and Citywide levels. In addition, the study area contains a smaller share of people aged 20 to 64 years, compared to Brooklyn and Citywide levels. This indicates a greater need for active space compared to passive open space.

As noted in Section 321 of the *CEQR Technical Manual,* quantitative ratios are often not feasible for many areas of the City, and the City does not consider these ratios as its open space policy for every neighborhood. Consequently, the ratios do not constitute an absolute impact threshold. Projects that may result in significant quantitative impacts on open space resources, or projects that would exacerbate an existing underserved area in relation to open space, are typically further assessed qualitatively to determine overall significance of the impact.

As summarized in Table 6-2 above, the Study Area population has a higher share of young adults and children than both Brooklyn and New York City as a whole. This indicates that there is a slightly greater need for active open space. The open spaces in the study area contain more active open spaces (8.19 acres) versus passive open

spaces (1.81 acres). The open spaces identified in the Study Area also have utilization rates as summarized above in Table 6-3. Although the area should have higher than average demand for active open space, this indicates that the parks are not oversaturated. The increase in population in the With-Action condition is not expected to change this.

CONCLUSION

The Proposed Actions would result in a quantitative decrease in the open space ratios between 0.49 and 0.87 percent for the total, passive and active ratios. As mentioned above, the age distribution of the study area indicates a greater need for active open space. As the Study Area, is in an area of the city that is currently considered "underserved" by open space resources this increase may have the potential to create significant adverse open space impacts.

The existing, No-Action and With Action open space ratios in the Study Area are far below the CEQR guidelines for open space in the city. From a quantitative perspective the population increase created by the Proposed Actions will further decrease these ratios. The decrease in open space ratios in the With-Action scenario is *one thousandth* of an acre per 1,000 residents. The decrease in active open space ratios is *one thousandth* of an acre per 1,000 residents. The active open space ratio is particularly relevant as the Study Area has a higher percentage of young adults and children (active space users) than both the Borough and Citywide averages.

An assessment of Open Space also considers the qualitative aspects of opens space utilization in the Study Area. As discussed above many of the open spaces identified in the Study Area have low utilization rates despite being in good to fair condition. This indicates that despite the area potentially having a greater than average need for active open space, the existing open spaces are not saturated. With multiple open space resources in the area demonstrating an ability to accommodate additional residential population, it is unlikely that the increase in population in the With-Action scenario would result in a significant adverse impact.

When analyzed jointly the quantitative and qualitative effect of the Proposed Actions are not likely to result in a significant adverse impact on open space resources and further analysis is not warranted.

7. SHADOWS

Introduction

Under CEQR, an adverse shadow impact is considered to occur when the shadow from a proposed project falls upon a publicly accessible open space, a historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its uses or threatens the survival of important vegetation. An adverse impact would occur only if the shadow would fall on a location that would otherwise be in sunlight; the assessment therefore distinguishes between existing shadows and new shadows resulting from a proposed project. Finally, the determination of whether the impact of new shadows on an open space or a natural or historic resource would be significant is dependent on their extent and duration. In general, shadows on City streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the 2014 *CEQR Technical Manual,* a shadows assessment is not required unless the project would include a structure at least 50 feet tall or if it would contain shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource. A shadow analysis is required for this project since the RWCDS would result in buildings over 50 feet in height and the Rezoning Area is located a short distance from several open space resources.

The RWCDS assumed the Rezoning Area would be redeveloped with four buildings, each comprising of a development site and each with an incremental height over 50 feet. Under the proposed R7A/C2-4 district with MIH, a maximum height of 95 feet could be achieved for each of the eight buildings, with a 10-foot bulkhead for a total of 105 feet.

Based on *CEQR Technical Manual* criteria, the longest shadow that any building would cast during the year (except within an hour and a half of sunrise or sunset which is not deemed to be of concern) is 4.3 times its height. Applying the 4.3 factor to the proposed maximum building heights outlined above would result in a maximum shadow distance of 451.5 feet.

PRELIMINARY SCREENING ASSESSMENT

Tier 1 Screening Assessment

A tier 1 assessment was performed assuming a maximum study area boundary of approximately 408.5 feet around the Proposed Rezoning Area. The closest sunlight-sensitive open space resource is the playground for P.S. 180, which is located greater than
408.5 feet to the north of the study area (see *Chapter 7, Figure 7-1: Open Space Facilities*) between 56th and 57th Street. Furthermore, there are no sunlight sensitive historic resources located within the maximum shadows radius (see *Chapter 9 –Historic and Cultural Resources*)

Conclusion

Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not result in significant adverse shadow impacts, as the Proposed Actions will not result in any buildings tall enough or located close enough to cast incremental shadows on any sunlight sensitive resources within the surrounding area.

Therefore, the Proposed Actions would not result in significant adverse shadows impacts on any open space resources, historic resources, or important natural resources and further assessment is not required.

9. HISTORIC AND CULTURAL RESOURCES

Introduction

Historic and cultural resources include both architectural and archaeological resources. Architectural resources generally include historically important buildings, structures, objects, sites, and districts. They may include bridges, canals, piers, wharves, and railroad transfer bridges that may be wholly or partially visible above ground. Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. As a general rule, archaeological resources do not include 20th and 21st Century artifacts.

According to the *CEQR Technical Manual*, a historic and cultural resources assessment is required if a project has the potential to affect either archaeological or architectural resources. Since the Proposed Development would result in increased subsurface disturbance in the Rezoning, it is necessary to analyze the potential impacts of the Proposed Development on archaeological resources. In addition, the Proposed Actions would result in the demolition of buildings in the Rezoning Area, so further assessment of architectural resources is warranted and both areas are discussed below.

Architecture

The Rezoning Area (Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72 & 73; Block 5516, Lots 4, 9, 10, 11, 12, 13, 14, 17, 20 and 21) contains a mix of commercial and light industrial/manufacturing uses, as well as six residential uses and two mixed-use buildings with ground floor commercial retail and residences above. According to correspondence with the NYC Landmarks Preservation Commission (LPC) there are no known architectural resources in the Rezoning Area (see letter dated October 27, 2017 in Attachment A). Further, in addition to the Project Site, no adjacent site contains any architectural resources.

Archaeology

While the Proposed Actions have the potential to result in incremental in-ground disturbance, according to correspondence with the NYC LPC there are no known archaeological resources in the Rezoning Area (see letter dated October 27, 2017 in Attachment A).

Conclusion

Based on correspondence with NYC LPC, there is no potential for impacts related to architectural or archaeological resources and further assessment is not required. Therefore, there is no potential for impacts related to Historic and Cultural Resources.

10. URBAN DESIGN AND VISUAL RESOURCES

A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following:

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

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

Currently, the Rezoning Area is within an M1-1 district that permits light manufacturing/industrial and commercial use at a maximum FAR of 1.0 and limited community facility uses at a maximum FAR of 2.4. The maximum height of M1-1 districts is governed by the sky exposure plane, with a maximum street wall height of 30 feet (or two-stories). Per CEQR Technical Manual guidelines this section uses a 400 ft. radius around the Rezoning Area as the Study Area. The Study Area for Urban Design is coterminous with the Study Area used in the Land Use section of this EAS as there are no visual corridors present in the immediate vicinity.

The proposed zoning district would allow residential use and increase the density and height permitted in the affected area. The maximum allowable residential FAR under the proposed R7A/C2-4 district is 4.6 in R7A districts with MIH. The maximum allowable community facility FAR is 4.8 in the R7A districts. The maximum allowable commercial FAR is 2.0 in C2-4 districts within R7A districts. In R7A districts, when providing affordable housing pursuant to the Inclusionary Housing Program set forth in ZR Section 23-90, maximum base height is 75 feet, maximum building height is 90 or 95 feet (without or with a qualifying ground floor, respectively), maximum number of stories is 9 and a 10-foot setback is required between minimum and maximum base heights.

Zoning Comparison Table

	Permitted/Required			
	Existing Zoning (M1-1)		Proposed Zoning R7A/C2-4 (Under MIH Zoning)	
	ZR Section #	M1-1	ZR Section #	R7A/C2-4
USE GROUPS	42-10	4 - 14, 16, 17	22-10/32-10	1, 2, 3, 4, 5, 6, 7, 8, 9, 14
Maximum FAR	43-122	2.40	23-155	5.01
Residential	n/a	n/a	23-154*	4.6
Affordable Independent Residences for Seniors	n/a	n/a	23-155	5.01
Community Facility	43-122	2.4	33-121	4
Commercial	43-12	1	33-121	2
Commercial and Community Facility	43-122	2.4	33-121	4
Manufacturing	43-12	1	n/a	n/a
YARDS				
Minimum Front Yard	n/a	n/a	35-51	n/a
Minimum Side Yard	43-25	None or 8 feet	35-52/23-462	None or 8 feet
Minimum Rear Yard	43-26	20'	23-47/33-26	30', 20' (Commercial)
HEIGHT AND SETBACKS				
Minimum Base Height	43-43	n/a	35-22/35-65/35-652/23-662	40'
Maximum Base Height	43-43	30'/2-Stories	35-22/35-65/35-654/23-664*	75'
Maximum Building Height	43-43	Sky Exposure Plane	35-22/35-65/35-654/23-664*	95'/9-Stories
Maximum Height of Front Wall	43-43	30'/2-Stories	35-22/35-65/35-654/23-664*	75'
Sky Exposure Plane	43-43	1:1 (narrow st.)/ 1:1 (wide corridor)	n/a	n/a
Setbacks from Narrow Streets	43-43	20'	35-22/35-65/35-652/23-662	15'
Setbacks from Wide Streets	43-43	15'	35-22/35-65/35-652/23-662	10'
OPEN SPACE				
Minimum Open Space Ratio	n/a	n/a	n/a	n/a
LOT COVERAGE				
Interior/Through Lot	n/a	n/a	23-153/35-22	65%
Corner Lot	n/a	n/a	23-153	100%
DENSITY				
Affordable Dwelling Units	n/a	n/a	23-22/35-22	680 sf/DU
Affordable Independent Residences for Seniors	n/a	n/a	23-23	325 sf/DU
PARKING				
Residential	n/a	n/a	25-23/36-33	50%
Commercial	44-20	By Use	36-21	By Use
Income-Restricted Housing Units	n/a	n/a	12-10/25-251	None (Transit Zone)
Affordable Independent Residences for Seniors	n/a	n/a	12-10/25-252	None (Transit Zone)
Government Assisted Dwelling Units	n/a	n/a	12-10/25-253	25%
LOADING				
Commercial	44-52	n/a	36-62	By Use
Manufacturing	44-52	By Use	n/a	n/a
Bicycle Parking (Residential)	44-60/36-70	n/a	25-80/36-70	1 per 2 dwelling units
Bicycle Parking (Affordable Independent Residences for Seniors	44-60/36-70	n/a	25-80/36-70	1 per 10,000 sf
Bicycle Parking (Commercial)	44-60/36-70	By Use	36-70	By Use

*When providing affordable housing pursuant to the Inclusionary Housing Program set forth in Section 23-90

Since development assumed in the RWCDS is anticipated to result in a different built- form at the street level, an assessment of urban design and visual resources is warranted. See **Table 10-1 – Zoning Comparison Table**, for a side-by-side comparison of the varying bulk, use and height regulations between the existing and proposed zoning districts.

Urban Design

The Urban design characteristics of a neighborhood are composed of various components that define the character of the area: building bulk, use, type and arrangement, block form and street pattern, streetscape elements, street hierarchy, and natural features. These components are discussed below and can be seen in the figures provided in Section II of this EAS: Project Descritpion. These photographs of the surrounding study area visualise the building bulk , use , type and arrangement discussed below.

Building Bulk, Use, Type, and Arrangement

The Rezoning Area itself along 60th Street is predominantly low-rise with a mix of uses and buildings ranging in height between one and three-stories (see **Figures 10-1, 10-2, 10-3 and 10-4,**). The Street wall of the block is inconsistent with commercial, automotive and warehouse buildings constructed to the street line. The buildings generally contain no side yards. Residences however are generally setback by several feet, reflecting the history of development on the block. All of the buildings in the Rezoning Area are attached without side yards. The underlying M1-1 zoning district permits 30 feet or 2-stories, whichever is less before a setback is required of 15 feet on a wide street. Yards are not required for M1-1 districts and near full lot coverage is permitted with a 20-foot rear yard.

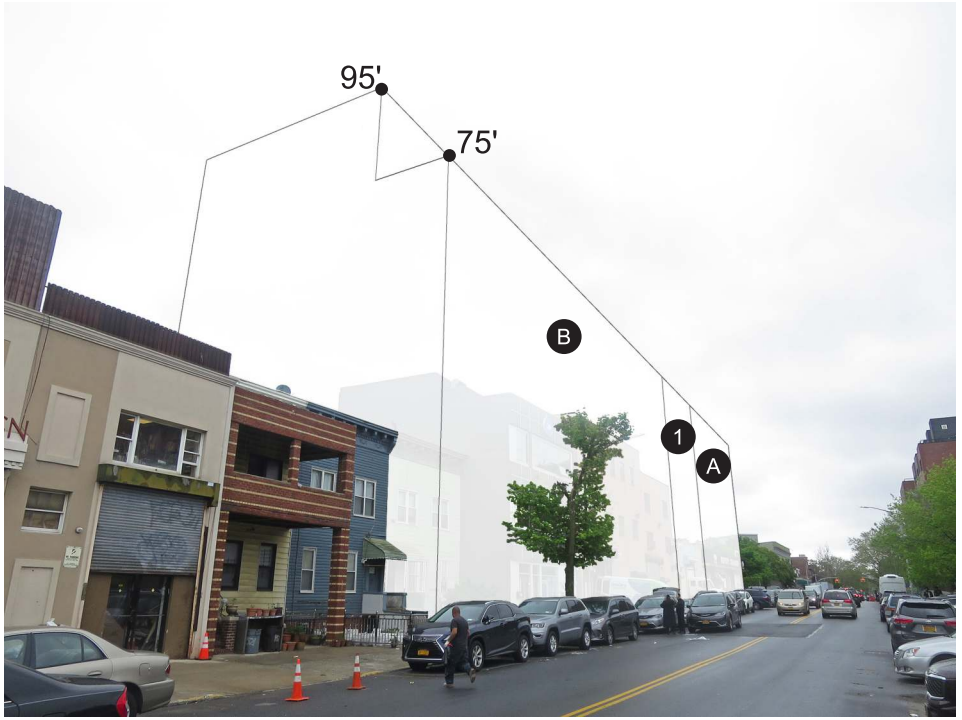
Block 5009 at the northwestern of the Rezoning Area (Lot 1), is developed with two-story commercial warehouse and showroom without a setback. The next several properties moving east (Lots 70 and 71) consist of residences setback from the street line by several feet. The next property (Lot 68) consists of a newly constructed three-story medical building which aligns with the street wall of the next segment of properties, which consist of warehouse, industrial and automotive uses in two- and three-story buildings. This street wall contains no setback. The southwestern end of the Rezoning

60th Street facing east (Sites A, B & 1 at left)



No-Action Scenario

60th Street facing east (Sites A, B & 1 at left)



With-Action Scenario

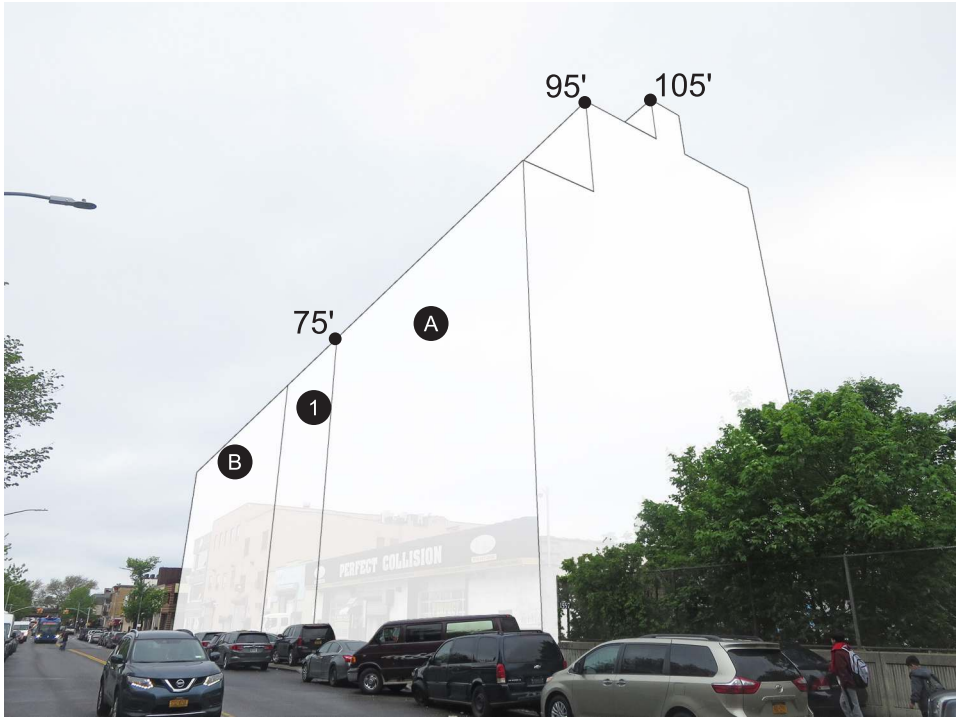
Note: Proposed heights include 3' parapet

60th Street facing northwest (Sites A, B & 1 at right)



No-Action Scenario

60th Street facing northwest (Sites A, B & 1 at right)



With-Action Scenario

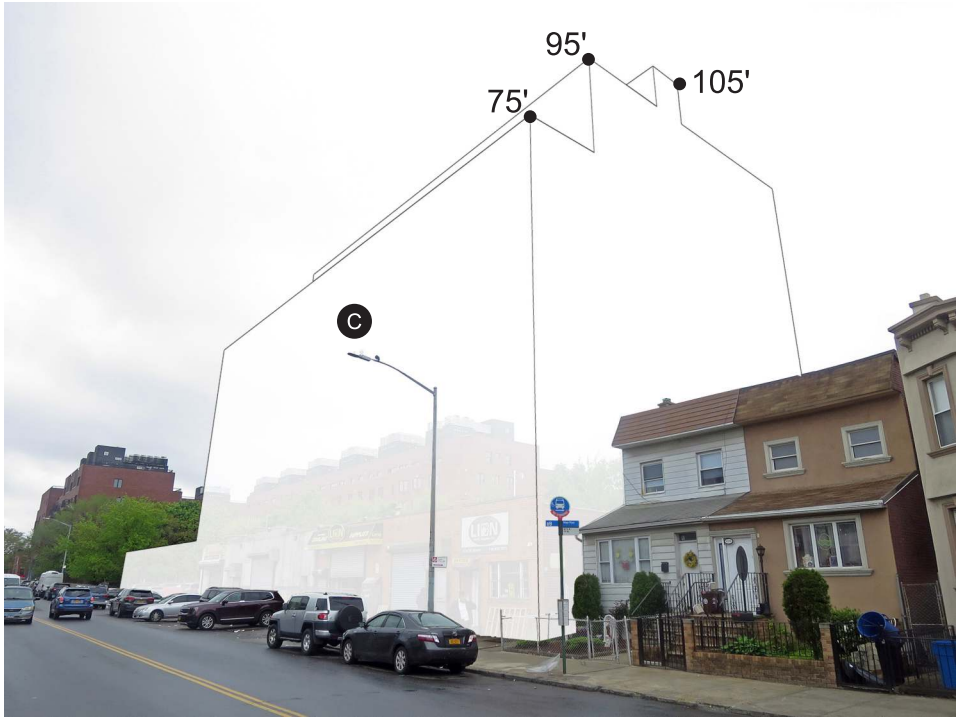
Note: Proposed heights include 3' parapet

60th Street facing southeast (Site C at right)



No-Action Scenario

60th Street facing southeast (Site C at right)



With-Action Scenario

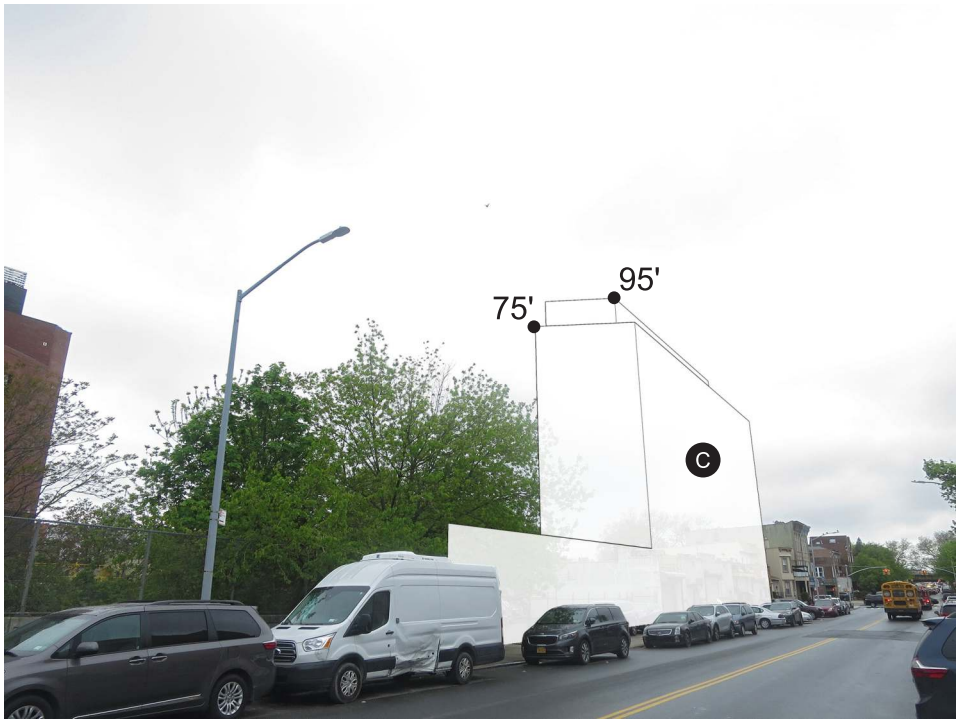
Note: Proposed heights include 3' parapet

60th Street facing west (Site C at left)



No-Action Scenario

60th Street facing west (Site C at left)



With-Action Scenario

Note: Proposed heights include 3' parapet

Area at Block 5516, Lots 9 & 10 consists of two three-story mixed-use buildings with ground floor commercial retail and residences above and traveling east are three additional two-story residences. The street wall of these buildings is set back several feet more than the next segment of buildings, which consist of single-story automotive and industrial uses with open driveways.

As noted above, the pattern of uses in the Rezoning Area consist of commercial and manufacturing uses, such as warehouses, automotive repair shops, and a single medical use, as well as several older two-family residential properties in two- and three-stories, some of which include commercial uses on the first floor. In terms of the 400-foot study area, the area to the north and west of the Rezoning area to 58th Street and beyond 15th Avenue contains a higher concentration of residential and community facility uses, which reflects the underlying R5 zoning district. Mid-blocks in this area contain two and three- story semi-detached and attached residences as well as community facility uses (primarily religious institutions and houses of worship). 15th Avenue contains some older apartment buildings that rise to six-stories, including one located at 15th Avenue and 57th Street, along with some older single-story commercial buildings.

The predominant building type varies within the surrounding area and reflects the underlying zoning districts. Buildings range in height from one-story manufacturing/warehouse buildings to three-story community facilities (religious institutions and houses of worship). The surrounding area to the north is zoned R5. Immediately south of the affected area on Block 5516 across the LIRR right-of-way is an R6A district, which was recently mapped in 2013 the Maple Lanes Rezoning (C090154 ZMK; 11DCP022K) which rezoned an M1-1 district to R6A to facilitate 24 attached and semi-detached four-story residential buildings, 21 of which would be townhouse-style buildings containing four dwelling units each. Lot 57 on Block 5509 is just outside of the Rezoning Area and is likely to remain as an light industrial or manufacturing use.

Future No-Action

In the future without the Proposed Actions, the built form, use, type, and arrangement of the Rezoning Area and surrounding area would largely remain except for the planned completion of the Maple Lanes project on the eastern end of the study area (See

photos included in Section II: Project Description). The EAS for the project (11DCP022K) anticipated the construction of residences rising to 70 feet after a base height of 60 feet along 60th Street, 61st Street and 16th Avenue.

Future With-Action

In the future with the Proposed Actions, the Rezoning Area would be redeveloped with four mixed-use buildings that maximize the R7A/C2-4 zoning district bulk and height regulations under MIH (see **Table 10-1** and **Figures 10-1** through **Figures 10-4**). This includes a max base height of 75 feet and an overall maximum height of 95 feet with a Qualifying Ground Floor and a required setback. Minimum base heights of 40 feet are required with no side yard or front yard requirements. Lot coverage of 65% is required for interior lot properties with full lot coverage permitted on corner lots. In order to preserve the traditional streetscape, the street wall of a new buildings in R7A districts can be no closer to the street line, than any adjacent street wall but need not be farther than 10 feet.

These new developments facilitated by the Proposed Actions would be constructed to the west of the LIRR, along 60th Street and 15th Avenue, from the 70-foot residential developments associated with the Maple Lanes development described above.

Block Form, Street Pattern, and Street Hierarchy

60th Street is a local east-west arterial street and is classified as a 'wide' street with 80 feet in width. 15th Avenue is local north-south arterial street and is also classified as a 'wide' street with 80 feet in width (see **Figure 10-3** and **Figure 10-4**). The LIRR Bay Ridge right- of-way runs through the eastern portion of the study area. This railroad right-of-way is below grade and is generally not visible from the street within the study area.

The immediate area surrounding the Rezoning Area is comprised of a typical New York street grid pattern, which leads to rectangular shaped blocks of similar size. However, as noted above, the LIRR Bay Ridge right-of-way runs below grade through the eastern portion of the Rezoning Area, resulting in areas where no buildings are visible at the street level and bridges run over the right-of-way. Additionally, New Utrecht Avenue, which is further to west and outside the study area (beyond 400 feet), runs irregularly to the southeast, resulting in irregular block forms. 61st street similarly is disjoined as it meets 15th Avenue and crosses the LIRR right of way which creates additional irregular blocks. The remaining street grid of the affected area is comprised of a typical New York street grid pattern, with most east-west streets containing 60 feet in width and running in a single direction. 60th Street however, is a wider principal east-west thoroughfare for the surrounding area and is 80 feet in width and contains a single travel lane in each direction for traffic. North-south avenue streets, such as 15th Avenue, are also 80 feet in width and contain a single travel lane in each direction for traffic. This pattern is mirrored with parallel avenue streets such as 16th Avenue and 14th Avenue to the east and west, respectively.

Future No-Action

In the future without the Proposed Actions, the block form, street pattern and street hierarchy will remain as per existing conditions.

Future With-Action

In the future with the Proposed Actions, the block form, street pattern and street hierarchy will remain as per existing conditions.

Streetscape Elements

The area surrounding the Rezoning Area includes some street trees, however, the 60th Street frontage of the Rezoning Area currently contains no such trees, based on the existing manufacturing, warehouse and automotive uses present. The area otherwise does not contain an abundance of street trees compared to older more established neighborhoods of the city. However, any recent residential or mixed-use development in the surrounding area has provided required new street trees and other plantings, pursuant to the zoning resolution, such as the Maple Lanes development to the southeast of the Rezoning Area along 60th Street near 16th Avenue. 60th Street contains NYCT bus stops but at this time no shelters for the B9 line. There are cross walks at the intersection of 60th Street and 15th Avenue. Sidewalks in the Rezoning Area are generally 10-feet in front of all buildings. Low level fencing is present along the residential uses of Block 5516, Lots 11, 12 and 13, as well as Block 5509, Lots 5509, Lots 70, 71 and 72, which aligns with the street wall of adjacent non-residential buildings.

In terms of curb cuts, the warehouse, automotive and industrial buildings present in the Rezoning Area generally each contain a single curb cut. The curb of the segment of automotive and industrial uses of Block 5516, Lots 14, 17 and 20 is open-ended, reflecting the use present. The development facilitated by the Proposed Action would eliminate some of these curb cuts. The end segment of the Rezoning Area at Lot 21 is fenced and contains accessory parking for the adjacent use. Following that property is the bridge for the LIRR railroad right-of-way, which contains a concrete wall with fencing along both sides of 60th Street.

Future No-Action

In the future without the Proposed Actions, the streetscape elements will remain. The amount of street trees along the intersection of 60th Street, 61st Street and 16th Avenue will contain more street trees as a result of the completion of the Maple Lanes project.

Future With-Action

In the future with the Proposed Actions, the required street tree coverage would be increased along 60th Street from 15th Avenue to 16th Avenue. This is due to the construction of the buildings resulting from the Proposed Actions. The remaining streetscape elements would otherwise remain.

Natural Features

There are no natural features in the Rezoning Area or within the surrounding 400 feet. Therefore, no natural features are visible from the Rezoning Area.

Assessment

Based on the above, the Proposed Actions would result in higher density buildings along 60th Street and 15th Avenue, which are local arterial thoroughfares. These developments would be consistent with the ongoing development of the Maple Lanes project to the southeast of the Rezoning Area, which will result in 70-foot tall residences. For an illustrative display of buildings resulting from the Proposed Actions, as well as the newly permitted maximum permitted building envelopes, see **Figure 10-12** through **Figure 10- 16 (Urban Design Diagrams)**. The Proposed Actions would affect two frontages which are pre-existing mixed-use corridors and can visually accommodate additional density. These buildings would rise between seven to nine-story buildings or a maximum permitted height of 95 feet after 10 or 15-foot setbacks under the proposed R7A/C2-4 zoning districts under MIH. Street wall regulations would require that these new buildings would be aligned, forming a more uniform street wall compared to the existing development.

The R7A/C2-4 district is anticipated to result in near continuous ground-floor commercial retail activity in the Future With-Action scenario, This will serve to further activate segments of 15th Avenue and the length of 60th Street in the Rezoning Area when compared to the existing and No-Action condition, which contains a limited amount of retail use with the remainder of the ground floor uses consisting of residences, automotive, industrial and warehouse uses.

While these new buildings would be taller than adjacent properties, similar-sized developments are occurring in the surrounding area, as noted above, and would be consistent with the increasingly dense mixed-use character of the immediate area.

The street wall regulations of the R7A/C2-4 district would require a uniform street wall. In addition, new street trees would be required in the Future With-Action scenario where few now exist. Together, these elements would improve the streetscape and the overall urban design of the Rezoning Area. Further the reduction in overall curb cuts in the Study Area would serve to improve pedestrian safety and the pedestrian experience as a whole.

The Proposed Actions would not adversely affect the residential and mixed-use character of buildings to the west and north on mid-block portions of 59th Street and would concentrate density along 15th Avenue and 60th Street, both of which are wide arterial corridors for the surrounding area. Lastly, the Proposed Actions would not affect any natural features.

Visual Resources

The Proposed Actions would not block the view of any natural resources, as no natural resources are within vicinity of the study area. Furthermore, there are no notable features or buildings in the immediate vicinity of the study area. Therefore, based on the criteria in the *CEQR Technical Manual*, the Proposed Actions would not result in the obstruction of views of a natural or built visual resource. In this context, the Proposed Actions would not result in the significant alteration of views from streets. Therefore, no significant impacts related to visual resources are expected.

Conclusion

The Proposed Actions would create additional density and allow a greater maximum height in an area along two heavily trafficked mixed-use avenues. The Applicant feels the location and size of the affected area is appropriate, given the ongoing transition from a mix of densities to medium- and higher density mixed-use developments within the surrounding area, and would not impact the mixed-use character. Furthermore, the Proposed Actions would not affect any natural resources or public view corridors to notable features or buildings in the immediate vicinity of the Rezoning Area. Accordingly, no impacts to the urban design and/or visual resources of the area are expected.

12. HAZARDOUS MATERIALS

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

In accordance with the *CEQR Technical Manual* guidelines, an assessment was conducted to determine whether the proposed action could lead to increased exposure of people or the environment to hazardous materials and whether the increased exposure would result in significant adverse public health impacts or environmental damage.

The Rezoning Area (Block 5509, Lots 1, 73, 72, 71, 70, 68, 65, 64, 62, 58; Block 5516, Lots 4, 9, 10, 11, 12, 13 14, 17, 20 and 21) predominantly contains commercial and manufacturing uses, such as warehouses, automotive repair shops, and medical uses ranging in height from one-to three-stories. It also contains several older two-family residential properties, some of which include commercial uses on the first floor. Since the Proposed Actions are anticipated to result in increased ground disturbance in an area with a history of manufacturing and automotive use, an assessment of Hazardous Materials is required.

EPDSCO, Inc. performed three individual Phase I Environmental Site Assessments (ESA) in April, May and June of 2016 for area that reflects the Proposed Development, which consists of Proposed Development Sites A, B and C (Block 5509, Lots 58, 64, 65, 68 and 70; Block 5516, Lots 14, 17, 20 and 21). These ESAs were

prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13). The Phase I ESAs revealed the following recognized environmental conditions (RECS) on Proposed Development Site A, B and C (see Attachment B):

- The potential for site contamination from former auto repair and rug and carpet cleaning operations at Block 5509, Lot 58.
- The possible presence of an underground gasoline tank at Block 5509, Lot 58, which has not been properly closed or removed in accordance with NYSDEC and New York City Fire Department requirements.
- The potential for site contamination from past spills or leaks from the buried gasoline tank at Block 5509, Lot 58.
- The potential for site contamination from former auto wrecking, chemical company and irons works operations on Block 5509, Lot 65.
- The possible presence of asbestos-containing building materials and/or lead-based paints in the 2-story residential dwelling on Block 5509, Lot 70.
- The potential for site contamination on Block 5516, Lots 17, 17 20 and 21 from former gasoline filling station and auto repair/body operations, including leaks from underground petroleum storage tank systems.
- The potential presence of underground infrastructure on Block 5516, Lots 17, 17 20 and 21 typically associated with gasoline filling stations and auto repair garages such as gasoline tanks and associated piping, fuel oil tanks, waste oil tanks, hydraulic lift units, oil/water separators, drainage structures, and others.
- The possible presence of asbestos-containing building materials and/or lead-based paints at Block 5516, Lots 17, 17 20 and 21.

Based on the RECs noted above and due to the close proximity and similar uses contained on Projected Development Site 1, it is assumed that Lot 62 will contain similar RECs and the potential for contamination and potentially hazardous building materials. Therefore, prior to any soil disturbance on these properties, an (E) designation related to hazardous materials will be assigned to Rezoning Area as described below.

To avoid any potential impacts associated with hazardous materials, an (E) designation (E-556) will be established on Projected Development Site A (Block 5509, Lot 58), Projected Development Site B (Block 5509, Lots 64, 65,68, 70), Projected Development Site C (Block 5516, Lots 14, 17, 20, and 21 and Projected Development Site 1 (Block 5509, Lot 62).

The text of the (E) designation (E-556) is as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

With this (E) designation (E-556) in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted. Correspondence with NYC Department of Environmental Protection is available in Attachment B.

16. TRANSPORTATION

Introduction

In order to determine the potential for the Proposed Actions to result in significant adverse transportation impacts, trip generation screening analysis was performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual*. Based on the proposed mixed-use development trip generation (Level-One) screening analysis results, it was determined that the Proposed Actions would not result in significant adverse impacts, as summarized below.

The following trip generation analysis has been prepared for the analysis framework of the RWCDS. The Proposed Actions would result in a net increase of 112 dwelling units with 23 affordable dwelling units, and 36,226 gsf of commercial local retail space, and a decrease of 9,128 gsf of automotive use, 33,546 gsf of Light Industrial space and 7,909 gsf of professional medical office space. As part of the Proposed Actions, a net increase of 55 accessory parking spaces would be provided and would be accessible from several curb cuts proposed along 60th Street.

The Rezoning Area is located within a block bounded by 15th Avenue on the north, 16th Avenue on the south, 59th Street on the east and 60th Street on the west, in Borough Park section of Brooklyn NY.
The study area traffic networks includes: 15th Avenue, a two-way east/ westbound roadway; 16 Avenue a two-way east/westbound roadway; 59th Street a one-way northbound roadway and 60th Street a two-way northbound and southbound roadway.

Based on trip generation analysis (Level-One Screening), the proposed action would generate fewer than the CEQR 50-vehicle trip ends threshold during any peak hour time period. Therefore, in accordance with the CEQR Technical Manual criteria, the project generated vehicular trips would not result in any conditions needed for a detailed assessment of traffic and parking impacts.

Trip Generation Rates

Residential Development Space

2014 CEQR Technical Manual (table 16-2) was utilized for trip generation rates, including truck trips, daily temporal distribution and 2013-2017 American Community Survey (ACS) Journey-to Work (JTW) data for Census Tract #'s 192, 240, 242, 244, 248, 250 and 470 in Brooklyn, NY for modal split information and vehicle occupancy rates, as is summarized in **Exhibit A, B and Table 1 (Attachment C).**

The estimated modal split data for residential use found that approximately 31.1% would travel by car, 0.1 percent would travel by taxi, 8% would travel by bus, 35.1% would travel by subway, 20.8% would travel by foot, and 4.8% would travel by other mode of travel, such as bicycle, as shown in **Exhibits A and B and Table 1 (Attachment C).**

Local Commercial Retail Space

2014 CEQR Technical Manual (table 16-2) is utilized for trip generation rates, including daily temporal distribution and truck trip rates. Modal split information and vehicle occupancy rates are based on the NYCDOT survey results for a similar local retail space, located within a ¼ -mile radius of a subway station (Brooklyn Transit Zone, 62nd Street Subway Station D train and New Utrecht Avenue Subway Station N, Q and W trains), as is summarized in **Table 1 (Attachment C).**

The NYCDOT modal split results for local commercial retail use within Brooklyn transit zone found that approximately 11% would travel by car, 0% would travel by taxi, 2% would travel by bus, 3% would travel by subway and 84% would travel by foot. The above information is summarized in **Table 1 (Attachment C).**

Medical Office Space

Trip generation rates, daily temporal distribution, modal split information, vehicle occupancy rates and truck trip rates are based on the NYCDOT survey results for a similar medical office space, located within a ¼ -mile radius of a subway station

(Brooklyn Transit Zone, 62nd Street Subway Station D train and New Utrecht Avenue Subway Station N, Q and W trains), as is summarized in **Table 1 (Attachment C**).

Below is a description for the recently approved Weekday and Saturday daily person trip rates and Peak Hours Percent Temporal Distribution, as provided by NYCDOT.

Weekday
Weekday daily person trip rate is 76 weekday daily person trips / 1,000 gsf.

Saturday
Saturday daily person trip rate is based on 39 Saturday daily person trip / 1,000gsf.

Peak Hours Percent Temporal Distribution
The recently approved percent temporal distribution are 11%, 13%, 9% and 17% for the AM, Midday, PM and Saturday Midday Peak hours, respectively.

The NYCDOT modal split results for medical office use within Brooklyn transit zone found that approximately 24% would travel by car, 6% would travel by taxi, 9% would travel by bus, 59% would travel by subway and 2% would travel by foot. The above information is summarized in **Table 1 (Attachment C).**

Automotive space

Trip generation rates, daily temporal distribution, modal split information, vehicle occupancy rates and truck trip rates were estimated, utilizing recently approved the East New York FEIS, Feb.2016 (TABLE 13-8) rates as is summarized in **Table 1 (Attachment C).**

The estimated modal split results for auto repair use found that approximately 85% would travel by car, 5% would travel by taxi, 1% would travel by bus, 1% would travel by subway and 8% would travel by foot. The above information is summarized in **Table 1 (Attachment C).**

Light Industrial Space

Trip generation rates, daily temporal distribution and truck trip rates are based on the approved the East New York FEIS, Feb.2016 (TABLE 13-8) rates. 2006-2010 American Community Survey (ACS) Reverse-Journey-to Work (RJTW) data for Census Tract #'s 192, 240, 242, 244, 248, 250 and 470 in Brooklyn, NY is used to estimate modal split information and vehicle occupancy, as is summarized in Table 1 (Attachment C).

The estimated modal split results for Light Industrial use found that approximately 41.4% would travel by car, 1% would travel by taxi, 15.1% would travel by bus, 20.4% would travel by subway, 17.7% would travel by foot and 4.4% would travel by other mode of travel, such as bicycle, as shown in ***Exhibits C and D and Table 1 (Attachment C)***.

Person and Vehicle Trips

Person Trips

The Proposed Actions would generate a total of 101, 951, 507 and 658 person trip ends during the AM, Midday, PM and Saturday Midday peak hour time periods, respectively, as summarized in Table 2 (**Attachment C).**

Vehicle Trip Ends

The Proposed Actions would generate a total of -29, 16, -1 and 29 vehicle trip ends during the AM, Midday, PM and Saturday Midday peak hour time periods, respectively, as summarized in Table 3 (Attachment C).

Based on trip generation analysis (Level-One Screening), the proposed action would generate fewer than the CEQR 50-vehicle trip ends threshold during any peak hour time period. Therefore, in accordance with the CEQR Technical Manual criteria, the project generated vehicular trip ends would not result in any conditions, needed for a detailed assessment of traffic and parking impacts.

Transit and Pedestrians

Bus Trip Ends

The Proposed Actions would generate a total of -5, 9, 3 and 14 bus trip ends during the AM, Midday, PM and Saturday Midday peak hour time periods, respectively, as summarized in **Table 2 (Attachment C).** There are two (2) bus lines, B9 (north and south directions) and B16 (east and west directions) in the study area, therefore no bus line would experience the CEQR 50-bus trip ends threshold per bus line per direction.

The Proposed Actions would generate less than 200 bus trip ends/and 50 bus trip ends per bus per direction during each peak hour time period, and in accordance with the CEQR Technical Manual criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of bus impacts.

Subway Trip Ends

The Proposed Actions would generate a total of -16, -10, 5 and 17 subway trip ends during the AM, Midday, PM and Saturday Midday peak hour time periods, respectively, as summarized in **Table 2 (Attachment C).** There are two (2) subway stations in the study area, 62nd Street (D train) and New Utrecht Avenue (N, Q & W trains), therefore no subway station would experience the CEQR 200-subway trip ends threshold.

The Proposed Actions would generate less than 200 subway trip ends per subway station during each peak hour time period, and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of subway impacts.

Pedestrian Trip Ends

The Proposed Actions would generate a total of 123, 885, 483 and 596 pedestrian (bus, subway, walk and other) trip ends during the AM, Midday, PM and Saturday Midday peak hour time periods, respectively, as summarized in **Table 2 (Attachment C).**

The Proposed Actions would generate more than 200 pedestrian trip ends during Weekday Midday, PM and Saturday peak hour time periods. A Tier 2 pedestrian screening analysis or pedestrian assignment would be required, per the CEQR Technical Manual threshold. A pedestrian assignment for the Weekday Midday (the highest peak hour) is prepared for the study area, as detailed below:

Pedestrians

Pedestrian assignments

The Proposed Action would generate the build increment of approximately 885 pedestrian trip-ends during the Weekday Midday peak hour (the highest peak hour). Pedestrian analysis was conducted for the highest peak hour to examine if the proposed action would result in significant adverse pedestrian impacts in any peak hour.

Pedestrian trip assignments for Weekday Midday peak hour, as shown in **Figure 3** indicates north and south sidewalks would exceed or close to the 200 hourly pedestrian trips *CEQR threshold*, requiring further pedestrian analysis (locations for the highest pedestrian trip-ends, generated by the project is chosen for the analysis)

2019 Existing Conditions

ESC conducted a pedestrian count on Thursday September 19, 2019, during the 11:00 AM to 2:00 PM for north and south sidewalks on 60th Street between 15th and 16th. As a result, the 12:45-1:45 PM peak hour volumes (the highest peak hour) is summarized in **Tables 2 and 3** and analyzed for the proposed rezoning. A total of 101 and 68 pedestrian volumes was recorded for north and south sidewalks, respectively during the 12:45-1:45PM peak hour period.

Pedestrian volumes were recorded for north and south sidewalks in the Weekday Midday peak hour, as summarized in **Tables 2 and 3 (Field Count Sheet is attached, Exhibit A**).

Sidewalks Width

North Sidewalk

The actual width of the existing north sidewalk was measured in the field as 18 feet with 4 feet effective width. Effective width is measured in front of the lot 70 (part of projected Site B), as 4 feet due to extended garden to sidewalk and street tree furniture at that location (in front of lot 70). Lot 70 would be demolished in the build condition, as part of the proposed rezoning and actual sidewalk width would become 18 feet. In the build conditions however, the effective width for north sidewalk is measured as 8, where a bridge on 60th Street crosses the LIRR tracks.

South Sidewalk

The actual width of the existing south sidewalk was measured in the field as 17 feet with 8 feet effective width. Effective width is measured where row houses on 60th Street (on south sidewalk) have the extend garden to the sidewalk. In the build conditions the effective width would remain the same as 8 feet.

Pedestrian Sidewalk Levels of Service (LOS) description with and without platoon is shown in **Table 1**.

As shown in **Table 4**, the analyzed 60th Street (North and South sidewalks) are currently operating at an uncongested **LOS A (w/o platoon) and B (w/ platoon)** for north sidewalk and **LOS A (w/o platoon) and A (w/ platoon)** for south sidewalk in the (12:45-1:45) PM peak hour time period.

2023 No-Build Conditions

To estimate 2023 no-build pedestrian volumes, a ½ percent per year (a total of 2 percent) was added to the existing pedestrian volumes, based upon the *CEQR Technical Manual, Table 16-4, "Annual Background Growth Rates" for Brooklyn (Other)*. In addition, zoning documents were obtained from the Department of Buildings for the development facilitated by the Maple Lanes Rezoning. These documents demonstrate than in the future no-build conditions a total of 128 residential units would be constructed at the site. These units are expected to generate an additional 36 pedestrian trips during the PM peak hour described above. Of these 36 trips, only 5 trips are expected to occur on 60th street (as zoning documents show only 18 units will have entrances facing 60th Street. As shown in **Tables 2 and 3**, the no-build pedestrian volumes would increase to 103 and 74 pedestrian trip ends for north and south sidewalks, respectively.

As shown in **Table 4,** the analyzed 60th Street (North and South sidewalks) would operate at an uncongested **LOS A (w/o platoon) and B (w/ platoon)** for north sidewalk and **LOS A (w/o platoon) and A (w/ platoon)** for south sidewalk in the (12:45-1:45) PM peak hour time period.

2023 Build Conditions

In the future 2023, the proposed project would add approximately 242 and 190 pedestrian trip-ends (near 15th Avenue for both north and south sidewalks, locations for the highest trip-ends, generated by the proposed rezoning), during the 12:45-1:45 PM peak hour time periods on 60th Street, as shown in **Figure 3 for total pedestrian trip- ends.**

As shown in **Tables 2 and 3**, the build pedestrian volumes would increase from 103 to 375 pedestrian trip -ends for north sidewalk and from 74 to 256 pedestrian trip-ends for south sidewalk on 60th Street under the 2023 build conditions

As shown in **Table 4,** the analyzed 60th Street (North and South sidewalks) would operate at an uncongested **LOS A (w/o platoon) and B (w/ platoon)** for north sidewalk and **LOS A (w/o platoon) and B (w/ platoon)** for south sidewalk in the (12:45-1:45) PM peak hour time period.

60th Street north and south sidewalks, between 15th and 16th Avenues would be both operating at **LOS B (w/platoon)** or better during Weekday Midday peak hour and therefore, per *CEQR Technical Manual,* the proposed action is unlikely to result in significant adverse pedestrian impacts in <u>any peak hour</u>.

Conclusion

In accordance with the threshold guidelines as detailed in the 2014 CEQR Technical Manual, the Proposed Actions are not expected to result in significant adverse impacts related to transit or pedestrian conditions. Specifically, the Proposed Actions are unlikely to have a significant effect on traffic flow, parking and operating conditions, transit provision, and pedestrian flow.

Table 1: Pedestrian Sidewalk Levels of Service Descriptions

LOS	Crosswalk/Corner	Non-Platoon Sidewalk Criteria (sf/ped)	Platoon Sidewalk Criteria (sf/ped)
A	(Unrestricted)	> 60	> 530
B	(Slightly Restricted)	> 40 to 60	> 90 to 530
C	(Restricted but fluid)	> 24 to 40	> 40 to 90
D	(Restricted, necessary to continuously alter walking stride and direction)	> 15 to 24	> 23 to 40
E	(Severely restricted)	> 8 to 15	> 11 to 23
F	(Forward progress only by shuffling; no reverse movement possible)	<8	< 11

Notes:
Based on average conditions for 15 minutes sf/ped – square feet of area per pedestrian
Source: *CEQR Technical Manual-Table 16-9.*

17. AIR QUALITY

INTRODUCTION

Analysis Framework

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project. The analysis framework, as mandated by the State Environmental Review Act, followed the *New York City Environmental Quality Review 2014 Technical Manual*.

The Proposed Actions

The Rezoning Area is located in the Borough Park area of Brooklyn Community District #12. It includes 10 tax lots on two tax blocks (Blocks 5509 and 5516) located along 60th Street between 15th Avenue and 16th Avenue. The Applicant, Designs by FMC Inc., controls three distinct Development Sites (Proposed Development Site A, Proposed Development Site B, and Proposed Development Site C) within the Rezoning Area. One additional Projected Development Site was also identified for the Reasonable Worst Case Development Scenario (RWCDS), located on Block 5509, Lot 62. No additional development is anticipated in the Rezoning Area.

Table 17-1: Development Sites

Site ID	Block	Lot
Proposed Development Site A	5509	58
Proposed Development Site B	5509	64, 65, 68 & 70
Proposed Development Site C	5516	14, 17, 20, & 21
Projected Development Site 1	5509	62

Proposed Development Site A (Block 5509, Lot 58)

Proposed Development Site A would consist of a seven-story (including a cellar) mixed- use building to contain 46,524 gsf of floor area (4.6 FAR) with 8,014 square feet of ground floor commercial space and 30,496 gsf of residential space on the remaining floors. The proposed building would rise to a height of 75 feet. No accessory parking space would be provided.

Proposed Development Site B (Block 5509, Lots: 64,65, 68, and 70)

Proposed Development Site B would facilitate a mixed-use, predominantly residential, seven-story (with cellar) building. The proposed building would rise to a height of 75 feet. The building would contain 77,094 gsf of floor area, of which 66,475 gsf are residential floor area and 10,619 gsf are commercial floor area. The building would contain 15 accessory parking spaces in the cellar level.

Proposed Development Site C (Block 5516, Lots: 14, 17, 20, and 21)

Proposed Development Site C would facilitate a mixed-use, predominantly residential, eight-story (with cellar) building. The proposed building would have a street wall height of 75 feet and would rise to a height of 85 feet after a 10-foot setback. The building would contain 77,562 gsf of floor area, of which 63,976 gsf are residential floor area and 13,586 gsf are commercial floor area. The building would contain 16 accessory parking spaces below grade.

Projected Development Site 1 (Block 5509, Lot 62)

Projected Development Site 1 RWCDS would facilitate a mixed-use, predominantly residential, seven-story building. The proposed building would rise to a height of 75 feet and would contain 22,414 gsf of floor area. No accessory parking space would be provided.

In total the increment between the With-action condition and No-Action condition is 223,594 gsf of floor area with 31 incremental accessory parking spaces. The project Analysis Year is 2023.

Air Pollutants and Applicable Standards/Guidelines

Criteria Pollutants

The EPA has identified six pollutants, known as criteria pollutants and established threshold concentrations for these pollutants. As required by the Clean Air Act, the National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by the EPA, and New York State has adopted the NAAQS as the State ambient air quality standards.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ and 8-hour CO averaging time significant impact criteria (based on concentration increments). These criteria, referred to as *de minimis*, are more stringent than the NAAQS and the state standards, as the criteria set maximum increase of pollutants concentrations that are below the national standard (NAAQS). If the predicted impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. $PM_{2.5}$ significant impact concentrations for stationary sources are shown here:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Background concentrations, at the nearest New York State Department of Environmental Conservation (NYSDEC) monitoring station(s), of the criteria pollutants for which detailed analyses were required, were obtained from the NYSDEC's annual report for 2018. Table 17-2 shows the background concentrations and the NAAQS.

Table 17-2: The NAAQS and 2018 Background Concentrations

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2	1-Hour	188 µg/m³	105.7 µg/m³	Queens College
	Annual	100 µg/m³	27.2 µg/m³	
SO_2	1-Hour	196 µg/m³	14.8 µg/m³	Queens College
	Annual(1)	80 µg/m³	1.5 µg/m³	
$PM_{2.5}$	24-Hour	35 µg/m³	17.5 µg/m³	JHS 45
	Annual	12 µg/m³	7.6 µg/m³	

1. 6 CRR-NY 257-2.3 for annual SO_2 standard: "During any 12 consecutive months, the annual average of the 24-hour average concentrations shall not exceed 0.03 ppm.

The concentrations' increments, *de minimis*, for stationary source $PM_{2.5}$ (the pollutant for which detailed analyses were required) are presented below:

- 24-hour $PM_{2.5}$ 8.75 µg/m³
- Annual $PM_{2.5}$ 0.3 µg/m³ (for stationary source)

NO_2 NAAQS

Nitrogen oxide (NOx) emissions from combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions are then gradually converted to NO_2, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source). For determining compliance with the 1-hour standard, the EPA has developed a three-tiered modeling approach: Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NOx estimated concentrations; and Tier 3, which is the most precise

approach employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model. Per the *CEQR Technical Manual*, a Tier 1 approach is initially applied, followed by a Tier 2 application. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO_2 NAAQS were estimated. For the Tier 3 approach, Ozone and NO_2 hourly background concentrations are obtained from the NYSDEC monitoring station.

New York State Standards

As mentioned, New York State has adopted the national standards, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short- term Guideline Concentrations. The most recent DAR-1 guidelines were published on August 10, 2016. NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

MOBILE SOURCE

Introduction

Projects may result in significant mobile source impacts when they create mobile sources of pollutants, change traffic pattern, or add new uses near mobile sources of pollutants. Per CEQR guidelines, a detailed analysis is conducted to predict whether the Proposed Actions could potentially have a significant adverse air quality impact if certain threshold criteria are met or exceeded, while proposed projects that do not meet or exceed the threshold criteria (screen out) are not expected to have a mobile source

impact. Projects that require a detailed analysis, model the ambient air CO and PM concentrations, the mobile source pollutants of concern.

Per the Transportation analysis for this project, the Proposed Actions would generate a total of -27 (-25 cars, -2 trucks), 35 (35 cars, 0 trucks), 8 (8 cars, 0 trucks), and 41 (41 cars, 0 trucks) vehicles during the AM, Midday, PM, and Saturday Midday peak hours, respectively. In addition, the With-Action scenario would result in an additional 31 accessory parking spaces.

Mobile Source Screen

Project-Generated Traffic

Per the *CEQR Technical Manual*, localized increases in CO and $PM_{2.5}$ levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the proposed project. For this area of the City, the threshold volume for a detailed analysis of CO concentration, using MOVES2014 and CAL3QHC or AERMOD, is an increment of 170 vehicles; $PM_{2.5}$ threshold criterion is an increment of 12 to 23 heavy-duty diesel vehicles (HDDVs) or its equivalence depending on the road types.

Per the transportation analysis for this project, the maximum peak hour trip generation increment between the Future With-Action and the Future No-Action would be 41 vehicles during the Saturday Midday peak hour period. This does not exceed the threshold of 170 vehicular trips (condition outlined in Sections 210 of Chapter 17 of *the CEQR Technical Manual*). Therefore, no CO detailed analysis was required.

Of the net vehicle trip increments, the worst-case peak hour traffic is 41 autos and 0 trucks during the Saturday Midday peak hour time period. According to *CEQR Technical Manual*, $PM_{2.5}$ detailed analysis is required if a threshold criterion, determined by project- generate peak hour HDDVs traffic or its equivalent in vehicular emission, is exceeded. The threshold criteria depend on the type of road and the incremental vehicular traffic as follows:

- 12 or more HDDV for paved roads with 5,000 vehicles;
- 19 or more HDDV for collector roads;
- 23 or more HDDV for principal and minor arterials; or
- 23 or more HDDV for expressways and limited access roads.

While both 60th Street and 15th Avenue are both minor arterial roadways, the screening analysis assumed that all the traffic would travel on paved roads with less than 5000 vehicles, which is a more conservative approach.

As the $PM_{2.5}$ screen does not apply to passenger cars, the NYSDEC vehicle population by source type database (part of MOVES2014 database for the county of Brooklyn) was consulted. The database shows that there are 252,548 and 198,208 passenger cars/trucks distribution in Kings County. This translates to 56% and 44% LDGV and LDGT1 distribution, and at most 9 net equivalent truck trip ends (18 LDGT1 and 0 HDDVs) during the worst-case peak hour period. As such, the peak hour vehicle trip ends pass the $PM_{2.5}$ screening analysis.

Therefore, no intersection detailed air quality analysis was required, and no significant mobile source air quality impacts are expected at intersections affected by the Proposed Actions.

Parking Garage

Based on CEQR guidelines, the maximum capacity of a parking garage is evaluated against a threshold criterion to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, per CEQR guidelines, is 85 new off-street parking spaces. If the threshold is met or exceeded, a detailed analysis is warranted.

The Proposed Actions would result in a net increase of 31 new off-street parking

spaces. Therefore, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected from vehicular emission generated at the proposed project's off-street parking space.

Existing Sources

According to the *CEQR Technical Manual*, projects that would result in new sensitive uses within 200 feet of an atypical roadway or near other significant mobile source of pollutant may result in significant adverse mobile source air quality impacts. No Development Site is located near a significant mobile source of pollutant.

HVAC SYSTEMS

Introduction

Per the *CEQR Technical Manual*, the HVAC analysis considers the potential for emissions from the HVAC system of the proposed project to significantly impact existing land uses (project-on-existing), and the potential of the proposed project to significantly impact each other (project-on-project). Based on CEQR guidelines, a preliminary screening analysis is to be conducted as a first step to predict whether the heat and hot water systems boiler emissions would result in a significant impact. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

Screening Analysis

As outlined in the *CEQR Technical Manual,* the potential for stationary source emissions from heat and hot water systems to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used, the building's residential or non- residential use, the square footage of the development that would be served by the system, the height of the building served by the HVAC system, and the distance to the nearest building whose height is at least as great as the building served by the HVAC system. The *CEQR Technical Manual* provides a screening analysis based on these factors, which was utilized to determine the potential for significant impacts from the development's HVAC system(s).

According to 15 RCNY 2-15, no new boiler or burner installations may use No. 6 or No. 4 fuel oils. Therefore, only No. 2 fuel oil or natural gas could be used as the types of fuel in the HVAC systems, where No. 2 fuel oil is the highest-emitting fuel. Therefore, use of No. 2 fuel oil was assumed for the screening analyses.

If the actual distance between a stack and the affected building is greater than the threshold distance for a building size, than that building passes the screening

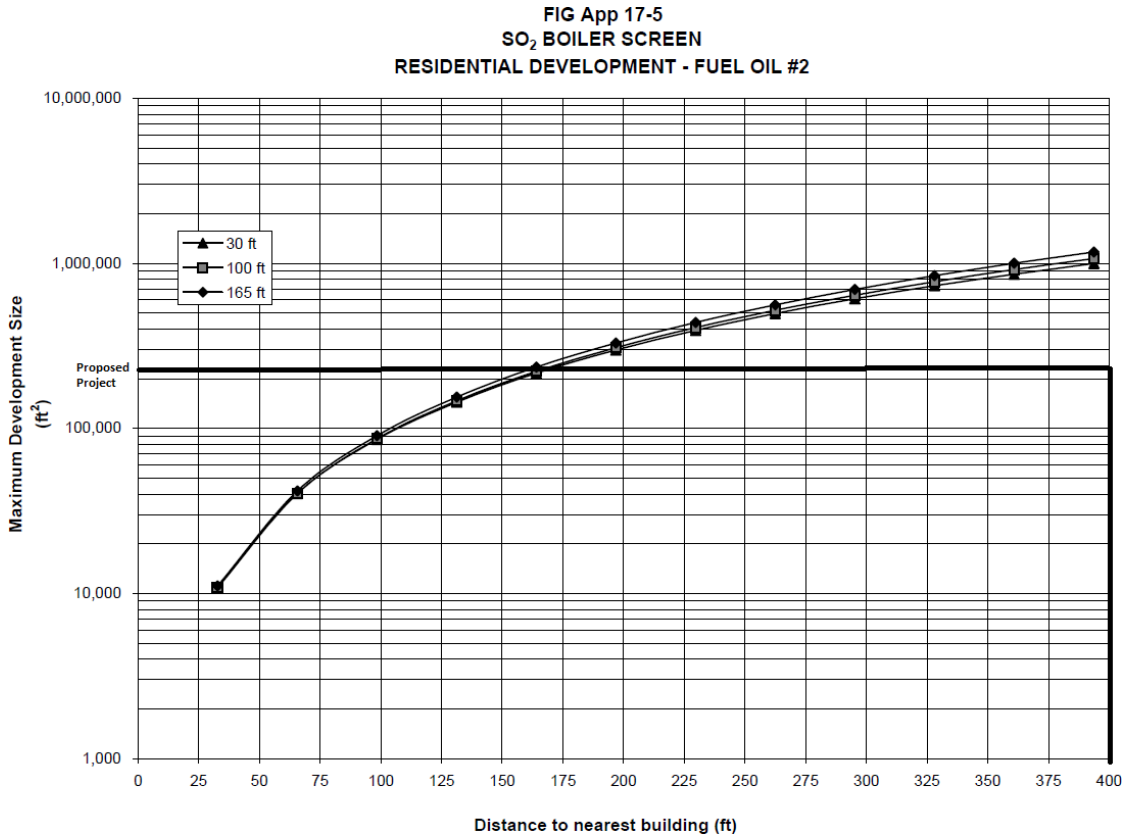
analysis (and no adverse significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, than there is a potential for an adverse significant impact and a detailed analysis would be required. In addition, screening analysis is only applicable to a single smokestack. However, for purpose of a cumulative analysis, emissions from multiple stacks could be combined in a single stack situated as close as possible to the receiving building.

The project-on-project screening analysis failed. Therefore, a detailed analysis was required for the project-on-project scenario.

A project-on-existing screening analysis was performed for a single residential building, 75 feet high, containing 223,594 gsf of floor area. Fuel oil #2 would be the type of fuel used in the building's HVAC system.

Per the *CEQR Technical Manual*, the CEQR nomograph, depicted on Figure 17-5 of the *CEQR Technical Manual Appendices*, for a 30-foot high stack was used. This stationary source screen is a generic screen for a No. 2 fuel oil HVAC system, serving a residential building. The CEQR nomograph depict the size of the development versus distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. A distance of 400 feet between the source and receiving building was considered as there is no building 75 feet of higher within 400 feet of the Development Sites (according to geo metadata, obtained from the NYC Open Data Building Footprints shapefile and satellite imagery). In addition, a review of the NYC Mayor's Office of Environmental Coordination database identified one under construction project in the study area. The building is the Maple Lanes View project, located at 1560 60th Street (Block 5516, Lot 34), and approximately 90 feet from the Rezoning Area. However, the *Maple Lanes View EAS 11DCP022K* describe the under-construction building as a six-story, 70 feet high building. Figures 17-1 (using Figure 17-5 of the *CEQR Technical Manual Appendices)* shows the project-on-existing screening analysis.

Figure 17-1: Project-on-Existing Screening Analysis



As seen in Figure 17-1 (using Figure 17-5 of the *CEQR Technical Manual Appendices)*, the project-on-existing pass the screening analysis (the curve is above the line). Therefore, the Proposed Actions passes the screening analysis regarding its potential impact on existing land uses.

Detailed Analysis

Methodology

Detailed analyses were conducted using the latest version of EPA's AERMOD dispersion model 19191. In accordance with CEQR guidance, these analyses were conducted assuming stack tip downwash, urban dispersion surface roughness, elimination of calms, and with and without downwash effect on plume dispersion. In addition, all analyses specified flat terrain and population of 2,000,000.

All analyses were conducted using five consecutive years of meteorological data (2014- 2018). Surface data was obtained from LaGuardia Airport and upper air data from Brookhaven station, New York. The meteorology data, processed by Lakes Environmental Software, was processed using AERMET version 18081, AERMINUTE version 15272, and AERSURFACE version 13016. No data filling was conducted as the raw data quality was more than sufficient for the modeling purposes (99.47 percent of raw data). These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs, and Anemometer height of 9.4 meters was specified per Lakes Environmental Software.

The diameter of the stack and the exhaust's exit velocity of the Projected Development Site 1's boiler, which has an energy intensity of less than 1-million Btu, was assumed to be 0.0-meter and 0.001 meter per second respectively, based on values obtained from the *CEQR Technical Manual*. The diameters of the stacks and exhaust exit velocities of boilers with energy intensities greater or equal to 1-million Btu were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input of million Btu per hour). All the stacks exit temperatures were assumed to be 300°F (423°K), which is appropriate for boilers. The New York City Building Code (Building Code) requires that a rooftop stack

should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. These parameters were specified in the AERMOD models (stack set back distance initial condition). If impact was predicted, a stack(s) set back distance was specified, until no impact was predicted.

All the Development Site, proposed building dimension or RWCDS, buildings were modeled as buildings that cover all their lot area(s). All buildings were modeled at their maximum height. Buildings in the surrounding area were accounted for the downwash effect on plums dispersions (BPIP).

Receptors on the receiving building were placed all around the receiving building envelope, at 10 feet horizontal increments and on all floor levels. Ground floor receptors were placed at a height of 6 feet above grade. Second floor receptors were placed at a height of 21 feet, assuming a 15 feet high ground floor level. Receptors on the third to the top floors of the receiving building were placed 6 feet above each floor level, assuming 10 feet high floor levels.

The boilers' energy intensities were calculated from the annual fuel usage, the developments' gross floor area, and the assumption that the developments' fuel usage would resemble that of residential buildings. Pertinent values were obtained from the *CEQR Technical Manual Appendices* and the assumption that all fuel would be consumed during the 100-day (or 2,400 hour) heating season, and emission factors were obtained from the EPA's AP-42 manual for external combustion sources. Table 17-3 shows the boilers emission rates.

Table 17-3: Proposed Buildings - Short-term and Annual Emission Rates

Site ID	Development Floor Area (gsf)	Boiler's Energy Intensity (MMBtu)	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Site A	46,524	1.17	NO_2	1.86E-02	5.09E-03
			PM2.5	1.98E-03	5.42E-04
			SO2	1.98E-04	5.42E-05
Site B	77,094	1.94	NO2	3.08E-02	8.43E-03
			PM2.5	3.28E-03	8.98E-04
			SO2	3.28E-04	8.98E-05
Site C	77,562	1.95	NO2	3.09E-02	8.48E-03
			PM2.5	3.30E-03	9.03E-04
			SO2	3.30E-04	9.03E-05
Site 1[1]	22,414	0.56	NO2	6.96E-03	1.91E-03
			PM2.5	5.29E-04	1.45E-04

1. Boiler emissions correspond to natural gas fueled boiler.

Some AERMOD models specified generic emissions of 1 gram per second and maximum predicted concentrations. The impact concentration from each source building was added cumulatively. Other models were run with the calculated emission rates and the required output concentration, such as the 1-hour NO_2 with 8th highest concentration or $PM_{2.5}$. In addition, some 1-hour NO_2 utilized a Tier 3 approach. Models that specified the calculated emission rates were cumulatively assessed within the model.

For the 1-hour NO_2 Tier 3 approach, 2014-2018 ozone hourly background concentrations and 2016-2018 NO_2 hourly background concentrations were obtained from the NYSDEC Queens College monitoring station. The maximum ozone hourly concentration was filled for missing values. The NO_2 3-year of data was compiled according to the EPA's

guidelines. An in-stack NO_2 to NOx ratio of 0.1 was assumed for the boilers' stacks, which is considered representative.

Results of Dispersion Analyses

As previously mentioned, each pollutant averaging time was modeled twice, with building wake effect enabled/disabled. The predicted concentration is the highest concentration of these. The 1-hour and annual NO_2 Tier 1 or 2 modeled concentrations were added to the background concentrations. The 1-hour NO_2 Tier 3 concentration included the background concentration within the model. The SO_2 modeled concentrations were added to the background concentrations. The $PM_{2.5}$ modeled concentrations were compared with the NYC Guidelines threshold criterions. Result of the air dispersion analysis are shown in Table 17-4.

Table 17-4: HVAC Dispersion Analyses Results

Pollutant and Averaging Time	Modeled Conc. ($\mu g/m^3$)	Background Conc. on ($\mu g/m^3$)	Evaluated Conc. ($\mu g/m^3$)	Threshold Conc. ($\mu g/m^3$)	Threshold Standard
Impact-on-Proposed Development Site A					
1-hour NO_2	155.6		156	188	NAAQS
Annual NO_2	2.06	27.25	29.3	100	NAAQS
24-hour $PM_{2.5}$	7.39	N.A.	7.39	8.75	*de minimis*
Annual $PM_{2.5}$	0.192	N.A.	0.19	0.3	*de minimis*
1-hour SO_2	0.56	14.82	15	196	NAAQS
Annual SO_2	0.01	1.52	1.5	80	NAAQS
Impact-on-Proposed Development Site B					
1-hour NO_2	45.5	105.7	151	188	NAAQS
Annual NO_2	0.94	27.25	28.2	100	NAAQS
24-hour $PM_{2.5}$	1.93	N.A.	1.93	8.75	*de minimis*
Annual $PM_{2.5}$	0.085	N.A.	0.09	0.3	*de minimis*
1-hour SO_2	0.27	14.82	15	196	NAAQS
Annual SO_2	0.005	1.52	1.5	80	NAAQS
Impact-on-Proposed Development Site C					
1-hour NO_2	158.6		159	188	NAAQS
Annual NO_2	3.04	27.25	30.3	100	NAAQS
24-hour $PM_{2.5}$	6.20	N.A.	6.20	8.75	*de minimis*
Annual $PM_{2.5}$	0.210	N.A.	0.21	0.3	*de minimis*
1-hour SO_2	1.63	14.82	16	196	NAAQS
Annual SO_2	0.03	1.52	1.5	80	NAAQS
Impact-on-Projected Development Site 1					
1-hour NO_2	59.2	105.7	165	188	NAAQS
Annual NO_2	1.63	27.25	28.9	100	NAAQS
24-hour $PM_{2.5}$	5.67	N.A.	5.67	8.75	*de minimis*
Annual $PM_{2.5}$	0.173	N.A.	0.17	0.3	*de minimis*
1-hour SO_2	0.90	14.82	16	196	NAAQS
Annual SO_2	0.017	1.52	1.5	80	NAAQS

As seen in Table 17-4, the NO_2 and SO_2 predicted concentrations are less than the NAAQS and the $PM_{2.5}$ concentrations do not exceed the *de minimis*. The analysis concluded that the Projected Development Sites 1 boiler would be required to exclusively use natural gas as the type of fuel. In addition, restrictions on all the stacks' heights were required. With these restrictions in place, no impact would be predicted to any other development included in this Proposed Actions.

(E) Designation – RWCDS

The (E) Designation (E-556) language for the developments is as follows:

Block 5509, Lot 58 (Proposed Development Site A): Any new residential or commercial development on the above-referenced property must ensure that the *heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment* ***stack(s) is located at the building's highest level and at least 78 feet above grade to avoid any potential significant adverse air quality impacts.***

Block 5509, Lots: 64, 65, 68 and 70 (Proposed Development Site B): Any new residential or commercial development on the above-referenced property must ensure that the *heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment* ***stack(s) is located at the building's highest level and at least 78 feet above grade to avoid any potential significant adverse air quality impacts.***

Block 5516, Lots: 14, 17, 20, and 21 (Proposed Development Site C): Any new residential or commercial development on the above-referenced property must ensure that the *heating, ventilations, and air conditioning (HVAC) systems and/or the hot water equipment* ***stack(s) is located at the building's highest level and at least 88 feet above grade to avoid any potential significant adverse air quality impacts.***

Block 5509, Lot 62 (Projected Development Site 1): Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water system, ensure that the stack(s) is located at the building's highest level and at least 78 feet above grade to avoid any potential significant adverse air quality impacts.

EXISTING STATIONARY SOURCES

Industrial Source

Per the *CEQR Technical Manual*, projects that would introduce new uses near manufacturing processing emission sources may result in potentially significant adverse air quality impact(s). The study area considers industrial sources within 400 feet of the proposed project. Industrial sources are categorized as the operation of manufacturing or processing facilities, or medical, chemical, or research labs. These facilities are likely to have New York City Department of Environmental Protection (DEP) processing permits. The analysis first determines if there are any existing industrial sources located in the study area. An air dispersion analysis is then performed for any existing industrial source (emission point) that is in the study area. Otherwise no analysis is required.

A search of DEP online Clean Air Tracking System (CATS) database showed that four auto body facilities are located at 6104 16th Avenue (Block 5523, Lot 38). The auto body facilities and the DEP permits associated with these facilities are the Scorpio Auto Inc. (permit application PB002511), Penn Body Works Inc. (permit application PB026312), New Image Collision (permit application PB02411), and the Frankie and Sal Auto Body (permit application PB011211). Of these auto body facilities, only the Penn Body Works Inc. is within 400 feet of the Rezoning Area (Proposed Development Site A). The distance from the Proposed Development Site A to the Penn Body Works facility is 373 feet. The DEP permit application PB026312 situates the spray booth stack in the south side of the building and 411 feet from the Rezoning Area. Figure 17-2 shows the proposed project plotted in Google Earth with the measured distance to the stack of Penn Auto Body Works.

Figure 17-2: The Distance between the Development Sites and the Penn Auto Body Works Stack Measured in Google Earth



As the distance between the Rezoning Area and the Penn Body Works' emission point (the stack) is greater than 400 feet, no analysis is warranted, and no adverse air quality impact is predicted from the Penn Body Works facility.

The record search result also identified Perfect Collision, an auto body shop, located at 1547 60 Street (Block 5509, Lot 58) as an active industrial source. However, the facility is Proposed Development Site A. As such, the facility will cease to exist in its current location, and no adverse air quality impact would be associated with the facility.

In addition to the DEP online CATs database search, no other sites that are likely to emit toxic air were identified in the land survey study. Therefore, no significant toxic air quality impacts are expected as a result of the industrial sources emissions to the proposed project.

Major and Large Sources

As outlined in the *CEQR Technical Manual*, projects that would introduce new uses near major sources, large sources, and odor producing facilities may result in potentially significant adverse air quality impacts. The study area considers major sources, large sources, and odor producing facilities within 1,000 feet of the Rezoning Area. Major emission sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits; large emission sources are identified as sources located at facilities which require a State facility permit. Solid waste or medical waste incinerators, asphalt and concrete plants, power generating plants, large boilers of large public facilities for example, and large industrial facilities are typical type of sources requiring these permits. Odor producing facilities are operations that have the potential to cause discomfort, such as: solid waste management facilities, water pollution control plants (i.e., sewage treatment plants), and incinerators.

The NYSDEC online database was reviewed on May 2019 to identify Title V or Air State facilities in the study area (both issued and draft permits). No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within

1,000 feet of the Rezoning Area was identified. The nearest major source facility is the Maimonides Medical Center, located at 4802 10th Avenue and approximately 5,000 feet north-west of the proposed project. In addition, no odor producing facility was identified within 1,000 feet of the Rezoning Area. As such, no analysis was warranted.

CONCLUSION

Conditions associated with the Proposed Actions would not result in any violations of the ambient air quality standards. Therefore, the action would not result in any potentially significant adverse stationary or mobile source air quality impacts, and further assessment is not warranted.

19. NOISE

Introduction

The Proposed Actions would allow for new residential development in an area where vehicular traffic is the predominant source of noise. Therefore, the proposed action warrants an assessment of the potential for adverse effects on project occupants from ambient noise. The Proposed Actions would not create a significant stationary noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways according to the transportation analysis in Chapter 16, and therefore would not result in a perceptible increase in vehicular noise. This noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

Framework of Noise Analysis

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound. Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. The following Table 19-1 lists some noise levels for typical daily activities.

Table 19-1 Noise Levels of Common Sources	
Sound Source	**SPL (dB(A))**
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A) Is perceived as a doubling or halving in SPL.	
Source: 2014 CEQR Technical Manual	

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

C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C- weighting.

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

- 3-dBA change is the threshold of change detectable by the human ear;

- 5-dBA change is readily noticeable; and

- 10-dBA change is perceived as a doubling or halving of the noise level.

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

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

- Leq(24) is the continuous equivalent sound level over a 24-hour time period.

Table 19-2

Noise Exposure Guidelines 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]		$L_{10} \leq 55$ dBA	$L_{dn} \leq 60$ dBA		$60 < L_{dn} \leq 65$ dBA		(I) $65 < L_{dn} \leq 70$ dBA, (II) $70 \leq L_{dn}$		$L_{dn} \leq 75$ dBA
2. Hospital, nursing home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel, or motel	(7 AM to 10 PM)	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	(10 PM to 7 AM)	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dB(A) or more.

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve as important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

[3] One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

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

The sound level exceeded during a given percentage of a measurement period is the percentile- exceeded sound level (LX). Examples include L10, L50, and L90. L10 is the A-weighted sound level that is exceeded 10% of the measurement period.

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

Table 19-3
Required Attenuation Values To Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise level with proposed project	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation[A]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)$[B] dB(A)

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

[B] Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.

Source: New York City Department of Environmental Protection

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consists of vehicular and train traffic, noise monitoring was conducted during peak vehicular travel periods (AM, Midday, and PM). Pursuant to CEQR Technical Manual Methodology, due to the proximity to a train line, measurement periods of one (1) hour during each peak hour were conducted at Locations One (1) and Two (2) respectively. Measurement periods of twenty (20) minutes during each peak hour were conducted at Locations Three (3) and Four (4). These Locations are identified in **Figures 19-1 through 19-5** below.

Noise monitoring was conducted using two (2) Type 1 Casella CEL-63X sound meters with wind screens. The monitors were placed on a tripod at a height of approximately three feet above the ground, away from any other noise-reflective surfaces. The monitors were calibrated prior to and following each monitoring session. Periods of peak vehicular and train traffic around the subject site constitute a worst-case condition for noise in the Rezoning Area.

Figure 19-1: Noise Locations



Location 1: South side of 60th Street
Approximately 450 feet east of the 15th Avenue and 60th Street Intersection

Figure 19-2: Noise Locations



Location 2: North side of 60th Street
Approximately 450 feet west of the 60th Street and 16th Avenue Intersection

Figure 19-3: Noise Locations



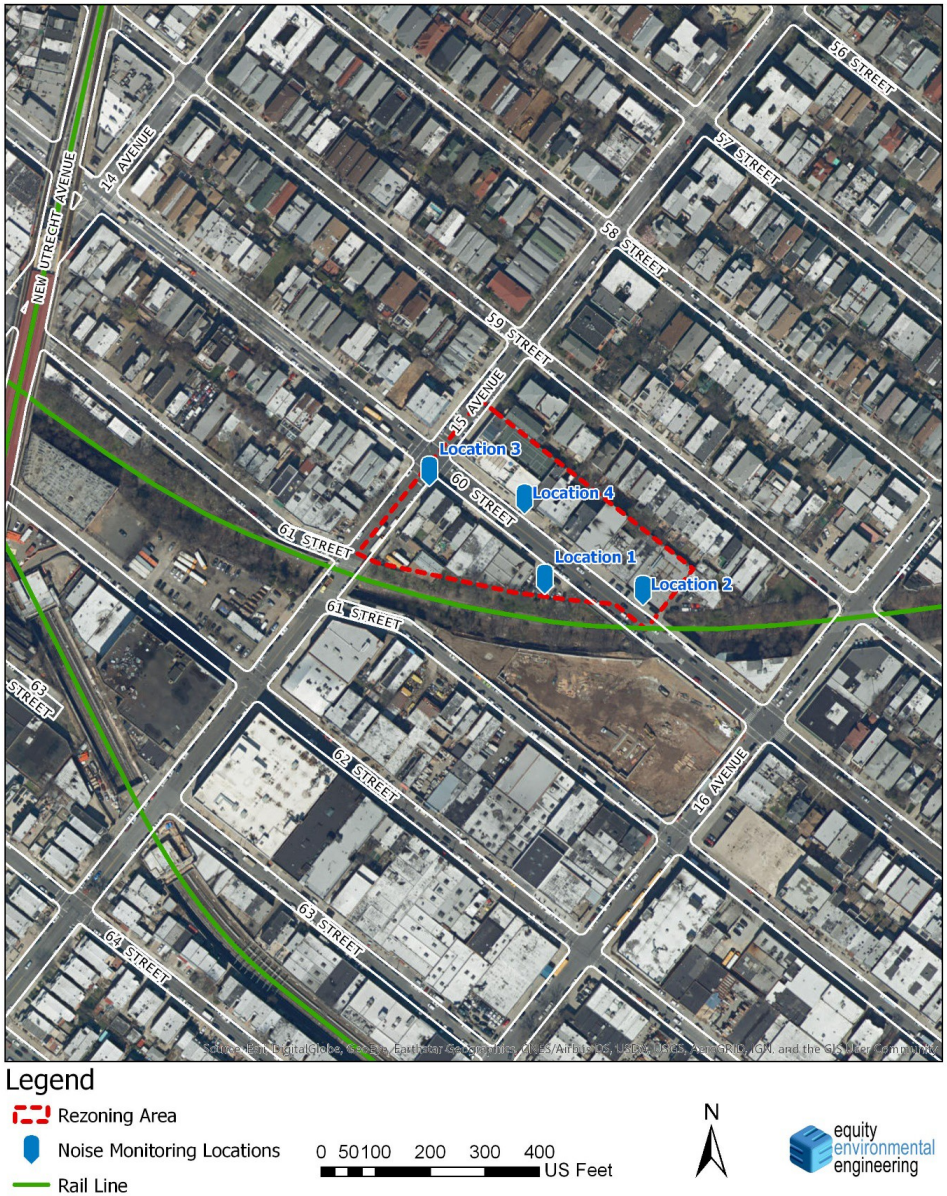
Location 3: Intersection of 60th Street and 15th Avenue

Figure 19-4: Noise Locations



Location 4: North side of 60th Street
Approximately 200 feet east of the 15th Avenue and 60th Street Intersection

Figure 19-5: Noise Location



Measurement Conditions
Monitoring was conducted during typical midweek conditions, on Wednesday, June 21, 2017. The weather was dry and sunny and wind speeds were mild-moderate during all monitoring periods. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meters were calibrated before and after each monitoring session.

Existing Conditions
Based on the noise measurements taken around the Rezoning Area, the predominant source of noise is vehicular traffic. The volume of traffic is moderate at Locations One (1), Two (2) and mild at Locations Three (3) and Four (4). Noise levels were mild at all locations, with the exception of Location Four (4), where a stalling bus (during both morning and afternoon monitoring periods), sirens, and a traffic incident resulted in high levels of ambient noise. **Table 19-4** below contains the results for the measurements taken at the Rezoning Area.

Table 19-4 (1 of 4): Noise Levels (dB)
Location 1: *Noise Levels on the south side of 60th Street:*
Approximately 450 feet east of the 15th Avenue and 60th Street Intersection

Wednesday, June 21, 2017			
Time	07:30 AM – 08:30 AM	12:00 PM – 1:00 PM	16:30 PM – 17:30 PM
L_{max}	90.3	94.9	90.0
L_{10}	67.5	67.0	67.0
L_{eq}	64.8	65.8	64.8
L_{50}	60.0	60.0	61.5
L_{90}	54.0	54.5	56.0
L_{min}	48.5	49.4	49.5

Table 19-4 (2 of 4): Noise Levels (dB)

Location 2: *Noise Levels on the north side of 60th Street*
Approximately 450 feet west of the of the 60th Street and 16th Avenue Intersection

Wednesday, June 21, 2017			
Time	07:30 AM – 08:30 AM	12:00 PM – 13:00 PM	16:31 PM – 17:31 PM
L_{max}	85.5	99.1	86.2
L_{10}	69.0	68.0	66.0
L_{eq}	65.5	69.5	63.5
L_{50}	61.5	61.5	60.5
L_{90}	55.0	56.5	55.0
L_{min}	50.6	50.2	48.9

Table 19-4 (3 of 4): Noise Levels (dB)

Location 3: *Intersection of 60th Street and 16th Avenue*

Wednesday, June 21, 2017			
Time	08:32 AM – 08:52 AM	13:02 PM – 13:22 PM	17:32 PM – 17:52 PM
L_{max}	95.3	102.2	92.0
L_{10}	**75.5**	**75.0**	**74.5**
L_{eq}	72.0	75.3	71.4
L_{50}	67.5	69.0	66.5
L_{90}	60.5	67.0	63.5
L_{min}	55.7	65.4	60.8

Table 19-4 (4 of 4): Noise Levels (dB)

Location 4: *North side of 60th Street*
Approximately 200 feet east of the 60th Street and 15th Avenue Intersection

Wednesday, June 21, 2017			
Time	08:32 AM – 08:52 AM	13:02 PM – 13:22 PM	17:33 PM – 17:53 PM
L_{max}	86.0	93.7	91.9
L_{10}	68.0	67.5	65.5
L_{eq}	65.1	67.8	66.3
L_{50}	61.0	61.5	60.5
L_{90}	55.5	57.5	56.0
L_{min}	49.9	54.7	49.5

*Note: **Bold** denotes L_{10} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual*

***Table 19-5** below contains the traffic volumes (vehicle counts) and vehicle classifications for the morning, noon, and evening monitor sessions:*

Table 19-5 (1 of 3):
Morning Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3	Location 4
Car/ Taxi	160	160	98	71
Van/Light Truck/SUV	290	290	149	132
Motorcycle	3	3	0	0
Heavy Truck	37	37	10	4
Bus	56	56	29	13

Table 19-5 (2 of 3):
Noon Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3	Location 4
Car/ Taxi	284	284	126	81
Van/ Light Truck/SUV	319	319	187	139
Motorcycle	0	0	0	0
Heavy Truck	40	40	9	8
Bus	28	28	11	10

Table 19-5 (3 of 3):
Evening Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3	Location 4
Car/ Taxi	249	249	150	81
Van/ Light Truck/SUV	301	301	209	92
Motorcycle	0	0	0	0
Heavy Truck	39	39	12	9
Bus	32	32	10	5

Conclusions

The 2014 *CEQR Technical Manual, Table 19-2* contains noise exposure guidelines. For a residential use such as would occur under the proposed action, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable.

- The highest recorded L_{10} at Location One (1) of the project area was 67.5 dB during the morning monitoring period.
- The highest recorded L_{10} at Location Two (2) of the project area was 69.0 dB during the morning period.
- The highest recorded L_{10} at Location Three (3) of the project area was 75.5 dB during the morning period.
- The highest recorded L_{10} at Location Four (4) of the project area was 68.0 dB during the morning period.

Based on these results an (E) Designation would be required. The text for the E-Designation (E-556) would be as follows:

Block 5509, Lot 58 (Projected Development Site A): In order to ensure an acceptable interior noise environment, future residential/community facility/commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Block 5509, Lots 64, 65, 68, and 70 (Projected Development Site B): In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Block 5516, Lots 14, 17, 20, and 21 (Projected Development Site C): In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Block 5509, Lot 62 (Projected Development Site 1): In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

With this (E) designation (E-556) in place for noise, no significant adverse noise impacts would occur.

Attachment A

New York City Landmarks Preservation Commission (LPC) Letter

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 / 18DCP038K
Project: 60TH STREET REZONING
Date received: 10/27/2017

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 1501 60th Street, BBL: 3055090001
2) ADDRESS: 6013 15 AVENUE, BBL: 3055160004
3) ADDRESS: 1502 60 STREET, BBL: 3055160009
4) ADDRESS: 1504 60 STREET, BBL: 3055160010
5) ADDRESS: 1506 60 STREET, BBL: 3055160011
6) ADDRESS: 1510 60 STREET, BBL: 3055160012
7) ADDRESS: 1512 60 STREET, BBL: 3055160013
8) ADDRESS: 1547 60 STREET, BBL: 3055090058
9) ADDRESS: 1541 60 STREET, BBL: 3055090062
10) ADDRESS: 1533 60 STREET, BBL: 3055090064
11) ADDRESS: 1529 60 STREET, BBL: 3055090065
12) ADDRESS: 1527 60 STREET, BBL: 3055090068
13) ADDRESS: 1525 60 STREET, BBL: 3055090070
14) ADDRESS: 1523 60 STREET, BBL: 3055090071
15) ADDRESS: 1521 60 STREET, BBL: 3055090072
16) ADDRESS: 1514 60 STREET, BBL: 3055160014
17) ADDRESS: 1522 60 STREET, BBL: 3055160017
18) ADDRESS: 1528 60 STREET, BBL: 3055160020
19) ADDRESS: 1530 60 STREET, BBL: 3055160021
20) ADDRESS: 1519 60 STREET, BBL: 3055090073

Gina Santucci

11/1/2017

SIGNATURE DATE

Gina Santucci, Environmental Review Coordinator

File Name: 32807_FSO_GS_11012017.doc

Attachment B

Department of Environmental Protection Letter Phase I ESAs

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

September 15, 2017

Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 1523-1555 60th Street Rezoning
Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72, and 73;
Block 5516, Lots 4, 9, 10, 11, 12, 13 14, 17, 20, and 21
CEQR # 18DCP038K

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the July 2017 Environmental Assessment Statement (EAS), the April 2016 Phase I Environmental Site Assessment Report (Phase I) for Block 5516, Lots 14, 17, 20, and 21, the May 2016 Phase I Block 5509, Lots 64, 65, 68, and 70, and the June 2016 Phase I for Block 5509, Lot 58, and prepared by Environmental Project Data Statements Company on behalf of Designs by FMC Inc. (applicant) for the above referenced project. It is our understanding that the applicant is seeking a series of discretionary actions from the New York City Department of City Planning (DCP) that would facilitate the development of three mixed-use developments along 60th Street in the Borough Park neighborhood of Brooklyn Community District 12. The discretionary actions ("Proposed Actions") include a zoning map amendment from M1-1 to R7A/C2-4 and a zoning text amendment to Appendix F of the Zoning Resolution to make the affected area part of the Mandatory Inclusionary Housing area. The Proposed Actions would facilitate the development of three separate eight-story (and cellar) mixed-use buildings on Block 5509, Lot 58 (Building A), 64, 65, 68, and 70 (Building B), and Block 5516 Lots 14, 17, 20 and 21 (Building C). Each building would stand at eight (8) stories in height and together would contain 165,237 gross square feet of floor area, 109 dwelling units (34 affordable). The Proposed Actions would also affect Block 5509 Lots 1, 73, 72, 71, and 62, and Block 5516, Lots 4, 9, 10, 11, 12, and 13, which are not under the applicant's control.

Block 5516, Lots 14, 17, 20, and 21

The April 2016 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including a heating and cooling equipment supply company, auto repair garages, auto body shops, a contractor's yard, an oil truck garage, an office supplies company, a jewelry company, gasoline filling stations, car and truck rental companies, a synagogue, residential dwellings, rug cleaning, a milk

depot, a library wine bottling, auto glass works, waste paper baling, used auto sales, radio manufacturing, iron works, marble and tile works, steel products manufacturing, a Long Island Rail Road right-of-way, dry cleaners, etc. Based on the age of the subject buildings, asbestos-containing materials (ACM) and lead-based paints (LBP) could be present in the on-site structures. The New York State Department of Environmental Conservation (NYSDEC) database identified 21 leaking storage tank (LTANKS) sites within 1/2-mile and 6 spills within 1/8-mile of the subject property.

Block 5509, Lots 64, 65, 68, and 70

The May 2016 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including residential buildings, a jewelry warehousing and distribution operation, residential dwellings, retail stores, iron works, a chemical company, auto wrecking, waste paper, rags and metal recycling, a Hebrew Library, professional office uses, an early childhood center, a graphics company, a publishing company, a parking lot, auto repair garages, a heating, ventilation, and air conditioning supply company, a Long Island Rail Road right-of-way, auto body shops, a hospital, a synagogue, auto glass works, car and truck rental companies, dry cleaners, etc. Based on the age of the subject buildings, ACM and LBP could be present in the on-site structures. The NYSDEC database identified 21 LTANKS sites within 1/2-mile and 7 spills within 1/8-mile of the subject property.

Block 5509, Lot 58

The June 2016 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including auto body repair shops, milk products companies, rug and carpet cleaning operations, auto repair garages, office machine companies, residential dwellings, a parking lot, a Long Island Rail Road right-of-way, a hospital, a synagogue, auto glass works, car and truck rental companies, dry cleaners, etc. Based on the age of the subject building, ACM and LBP could be present in the on-site structure. The NYSDEC database identified 20 LTANKS sites within 1/2-mile and 7 spills within 1/8-mile of the subject property.

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

Block 5509, Lots 1, 58, 62, 64, 65, 68, 70, 71, 72, and 73; Block 5516, Lots 4, 9, 10, 11, 12, 13 14, 17, 20 and 21

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an "E" designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject properties. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR number **18DCP038K**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
M. Wimbish
O. Abinader – DCP
A. Howard – DCP
M. Bertini – OER

Attachment C

Transportation Screening Tables

1501-1555 60th Street, Brooklyn NY

Pedestrian Support Information

Response to comments dated November 25, 2019

Exhibit X

1501-1555 60th Street, Brooklyn NY

2019 Existing, 2023 No-Build and 2023 Build Pedestrian Volumes, Avg. Ped. Space and LOS SUMMARY

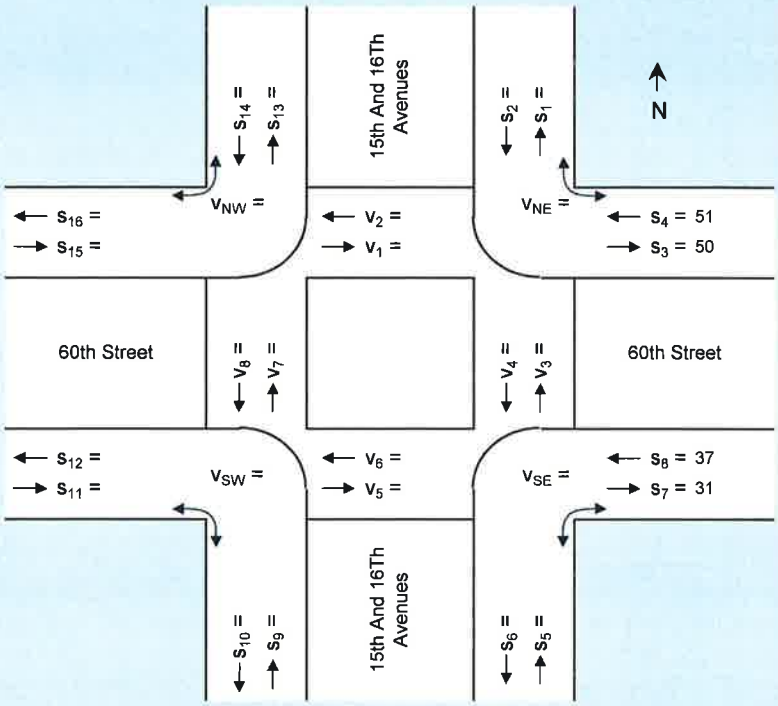
	2019 Existing Conditions				2023 No-Build Conditions				2023 Build Conditions			
	Ped. Vol	Avg Ped Space	LOS	Platon LOS	Ped. Vol	Avg Ped Space	LOS	Platon LOS	Ped. Vol	Avg Ped Space	LOS	Platon LOS
North Sidewalk	101	514	A	B	103	504	A	B	375	277	A	B
South Sidewalk	68	1372	A	A	74	1352	A	A	256	364	A	B

PEDESTRIAN LOS WORKSHEET - INPUT DATA

IDENTIFYING INFORMATION

Project No.:		N-S Street:	15th And 16Th Avenues
Project Name:	1501-1555 60TH Street, Brooklyn NY	E-W Street:	60th Street
Analyst:	HX	Time Period:	Weekday Midday
Date:	Nov.26, 2019	Analysis Year:	Existing 2019

PEDESTRIAN PEAK HOUR VOLUMES

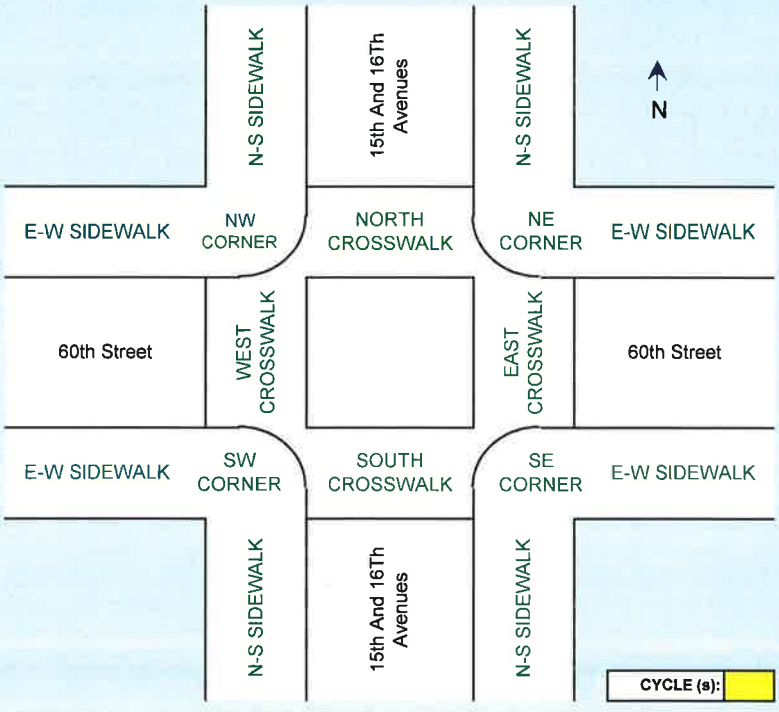


SIDEWALKS				
CORNER	MOVEMENT		VOL (p/hr)	PHF
NE	N-S	s_1		
		s_2		
	E-W	s_3	50	0.90
		s_4	51	
SE	N-S	s_5		
		s_6		
	E-W	s_7	31	0.81
		s_8	37	
SW	N-S	s_9		
		s_{10}		
	E-W	s_{11}		
		s_{12}		
NW	N-S	s_{13}		
		s_{14}		
	E-W	s_{15}		
		s_{16}		

CROSSWALKS			
CROSS-WALK	MOVEMENT	VOL (p/hr)	PHF
N	v_1		
	v_2		
E	v_3		
	v_4		
S	v_5		
	v_6		
W	v_7		
	v_8		

CORNERS			
CORNER	MOVEMENT	VOL (p/hr)	PHF
NE	v_{NE}		
SE	v_{SE}		
SW	v_{SW}		
NW	v_{NW}		

GEOMETRY, SIGNAL TIMING, AND CONFLICTING VEHICLES



CYCLE (s):

SIDEWALKS				
CORNER	SIDEWALK	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS*, W_O (ft)	FREE FLOW WALK SPEED, S_{pf} (ft/s)
NE	N-S			
	E-W	16.0	12.0	4.0
SE	N-S			
	E-W	17.0	9.0	4.0
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Sum of widths and shy distances from obstructions.

CORNERS				
CORNER	SIDEWALK	TOTAL WIDTH*, W (ft)	RADIUS, R (ft)	OBSTRUCTIONS, Ob (ft^2)
NE	N-S			
	E-W			
SE	N-S			
	E-W			
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Override if corner width is different than sidewalk width.

CROSSWALKS									
CROSS-WALK	LENGTH, L (ft)	WIDTH, W (ft)	WALK SPEED, S_p (ft/s)	CROSSING TIME (sec)				CONFL VEH	
				WALK	FDW	DW*	PHASE TOTAL	v_{rt}	$v_{lt,perm}$
N							0		
E							0		
S							0		
W							0		

* DW clearance for phase, not total DW time for entire cycle. Usually 5 sec.

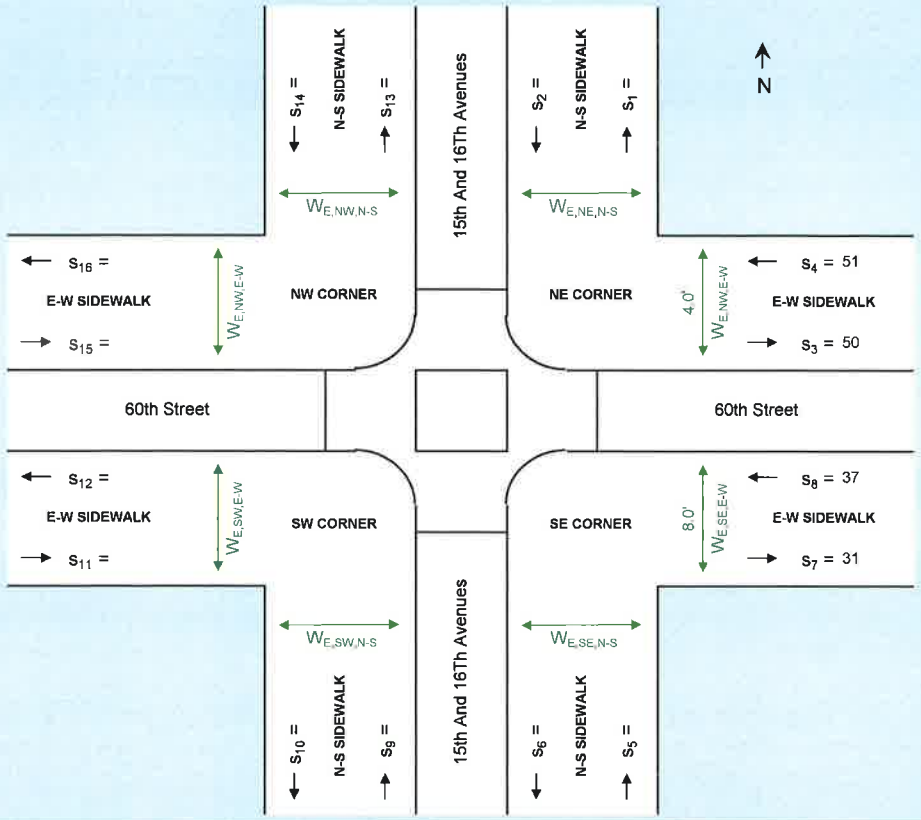
SIDEWALK WORKSHEET

IDENTIFYING INFORMATION

Project No.:	
Project Name:	1501-1555 60TH Street, Brooklyn NY
Analyst:	HX
Date:	Nov.26, 2019

N-S Street:	15th And 16Th Avenues
E-W Street:	60th Street
Time Period:	Weekday Midday
Analysis Year:	Existing 2019

INPUTS



ANALYSIS

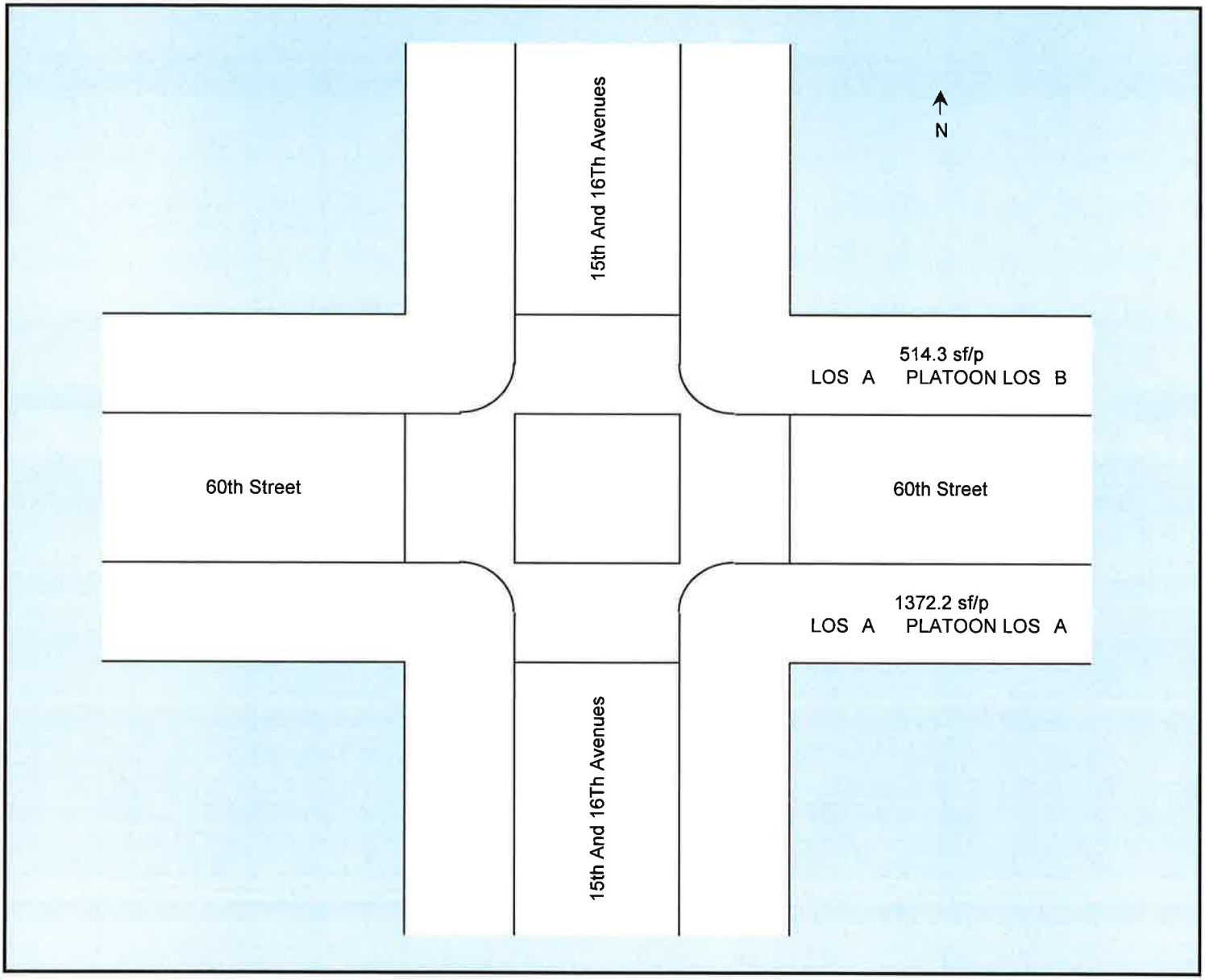
CORNER	MOVEMENT		VOLUME EACH DIR, s (p/hr)	VOLUME BOTH DIR, v_{ped} (p/hr)	PHF	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS, Ob (ft)	EFFECTIVE WIDTH, $W_E = W_T - Ob$ (ft)	FLOW RATE PER UNIT WIDTH, $v_p = \frac{v_{ped}}{60\ W_E\ PHF}$ (p/ft/min)	FREE FLOW WALK SPEED, S_{pf} (ft/s)	ADJUSTED WALK SPEED, $S_p = (1 - 0.0078\ v_p^2)\ S_{pf}$ (ft/s)	AVG PED SPACE, $A_p = 60\ \frac{S_p}{v_p}$ (ft^2/p)	LOS	PLATOON ADJ LOS
NE	N-S	S_1												
		S_2												
	E-W	S_3	50	101	0.90	16.0	12.0	4.0	0.5	4.0	4.0	514.3	A	B
		S_4	51											
SE	N-S	S_5												
		S_6												
	E-W	S_7	31	68	0.81	17.0	9.0	8.0	0.2	4.0	4.0	1372.2	A	A
		S_8	37											
SW	N-S	S_9												
		S_{10}												
	E-W	S_{11}												
		S_{12}												
NW	N-S	S_{13}												
		S_{14}												
	E-W	S_{15}												
		S_{16}												

LOS SUMMARY MAP

IDENTIFYING INFORMATION

Project No.:	
Project Name:	1501-1555 60TH Street, Brooklyn NY
Analyst:	HX
Date:	Nov.26, 2019

N-S Street:	15th And 16Th Avenues
E-W Street:	60th Street
Time Period:	Weekday Midday
Analysis Year:	Existing 2019



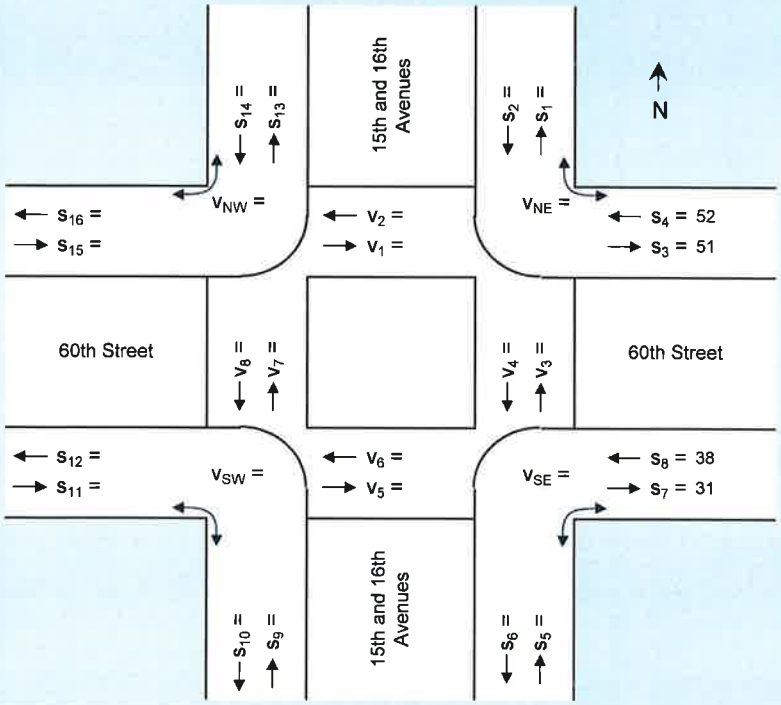
PEDESTRIAN LOS WORKSHEET - INPUT DATA

IDENTIFYING INFORMATION

Project No.:	
Project Name:	1501-1555 60th Street, Brooklyn NY
Analyst:	HX
Date:	Nov.26, 2019

N-S Street:	15th and 16th Avenues
E-W Street:	60th Street
Time Period:	Weekday Midday
Analysis Year:	2023 No-Build Conditions

PEDESTRIAN PEAK HOUR VOLUMES

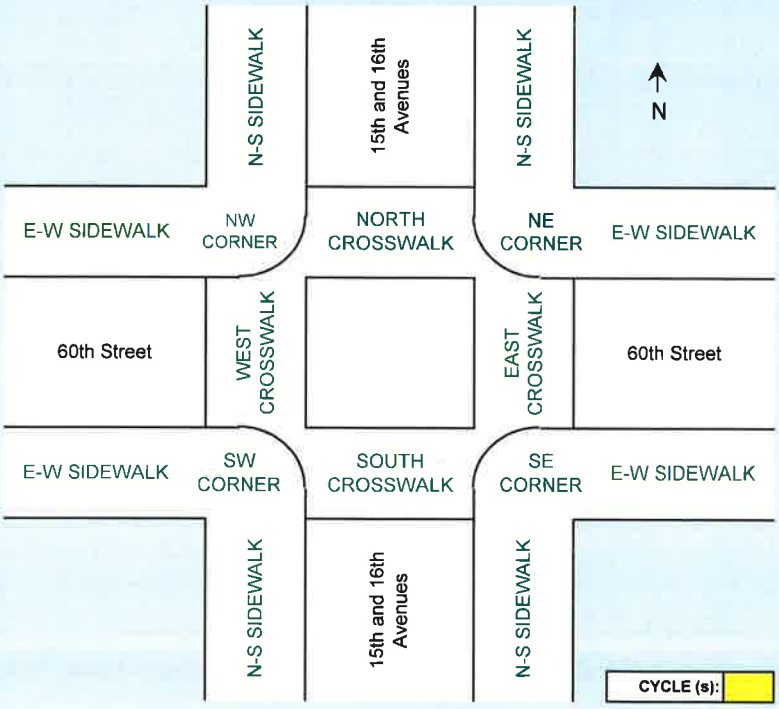


SIDEWALKS				
CORNER	MOVEMENT		VOL (p/hr)	PHF
NE	N-S	s_1		
		s_2		
	E-W	s_3	51	0.90
		s_4	52	
SE	N-S	s_5		
		s_6		
	E-W	s_7	31	0.81
		s_8	38	
SW	N-S	s_9		
		s_{10}		
	E-W	s_{11}		
		s_{12}		
NW	N-S	s_{13}		
		s_{14}		
	E-W	s_{15}		
		s_{16}		

CROSSWALKS			
CROSS-WALK	MOVEMENT	VOL (p/hr)	PHF
N	v_1		
	v_2		
E	v_3		
	v_4		
S	v_5		
	v_6		
W	v_7		
	v_8		

CORNERS			
CORNER	MOVEMENT	VOL (p/hr)	PHF
NE	v_{NE}		
SE	v_{SE}		
SW	v_{SW}		
NW	v_{NW}		

GEOMETRY, SIGNAL TIMING, AND CONFLICTING VEHICLES



SIDEWALKS				
CORNER	SIDEWALK	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS*, W_O (ft)	FREE FLOW WALK SPEED, S_{pf} (ft/s)
NE	N-S			
	E-W	16.0	12.0	4.0
SE	N-S			
	E-W	17.0	9.0	4.0
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Sum of widths and shy distances from obstructions.

CORNERS				
CORNER	SIDEWALK	TOTAL WIDTH*, W (ft)	RADIUS, R (ft)	OBSTRUCTIONS, Ob (ft^2)
NE	N-S			
	E-W			
SE	N-S			
	E-W			
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Override if corner width is different than sidewalk width.

CROSSWALKS									
CROSS-WALK	LENGTH, L (ft)	WIDTH, W (ft)	WALK SPEED, S_p (ft/s)	CROSSING TIME (sec)				CONFL VEH	
				WALK	FDW	DW*	PHASE TOTAL	v_{rt}	$v_{lt,perm}$
N							0		
E							0		
S							0		
W							0		

* DW clearance for phase, not total DW time for entire cycle. Usually 5 sec.

SIDEWALK WORKSHEET

IDENTIFYING INFORMATION

Project No.:	
Project Name:	1501-1555 60th Street, Brooklyn NY
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Date:	Nov.26, 2019

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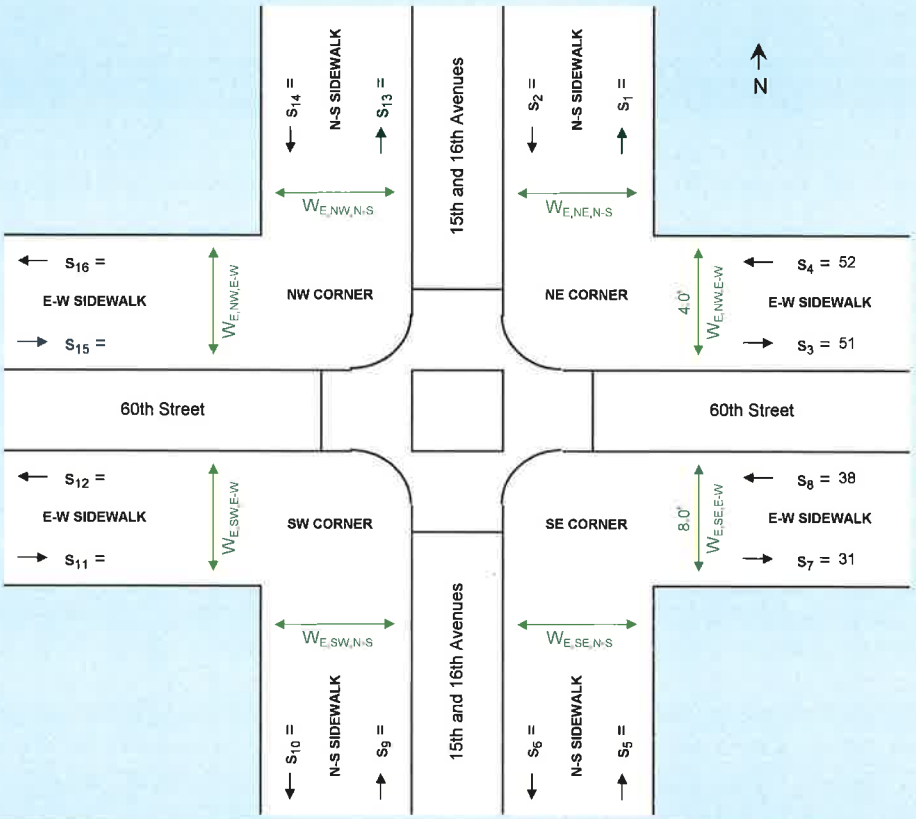
E-W Street:	60th Street
Time Period:	Weekday Midday
Analysis Year:	2023 No-Build Conditions

INPUTS



ANALYSIS

CORNER	MOVEMENT		VOLUME EACH DIR, s (p/hr)	VOLUME BOTH DIR, v_{ped} (p/hr)	PHF	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS, Ob (ft)	EFFECTIVE WIDTH, $W_E = W_T - Ob$ (ft)	FLOW RATE PER UNIT WIDTH, $v_p = \frac{v_{ped}}{60\ W_E\ PHF}$ (p/ft/min)	FREE FLOW WALK SPEED, S_{pf} (ft/s)	ADJUSTED WALK SPEED, $S_p = (1 - 0.0078\ v_p^2)\ S_{pf}$ (ft/s)	AVG PED SPACE, $A_p = 60\ \frac{S_p}{v_p}$ (ft^2/p)	LOS	PLATOON ADJ LOS
NE	N-S	S_1												
		S_2												
	E-W	S_3	51	103	0.90	16.0	12.0	4.0	0.5	4.0	4.0	504.3	A	B
		S_4	52											
SE	N-S	S_5												
		S_6												
	E-W	S_7	31	69	0.81	17.0	9.0	8.0	0.2	4.0	4.0	1352.3	A	A
		S_8	38											
SW	N-S	S_9												
		S_{10}												
	E-W	S_{11}												
		S_{12}												
NW	N-S	S_{13}												
		S_{14}												
	E-W	S_{15}												
		S_{16}												

LOS SUMMARY MAP

IDENTIFYING INFORMATION

Project No.:	
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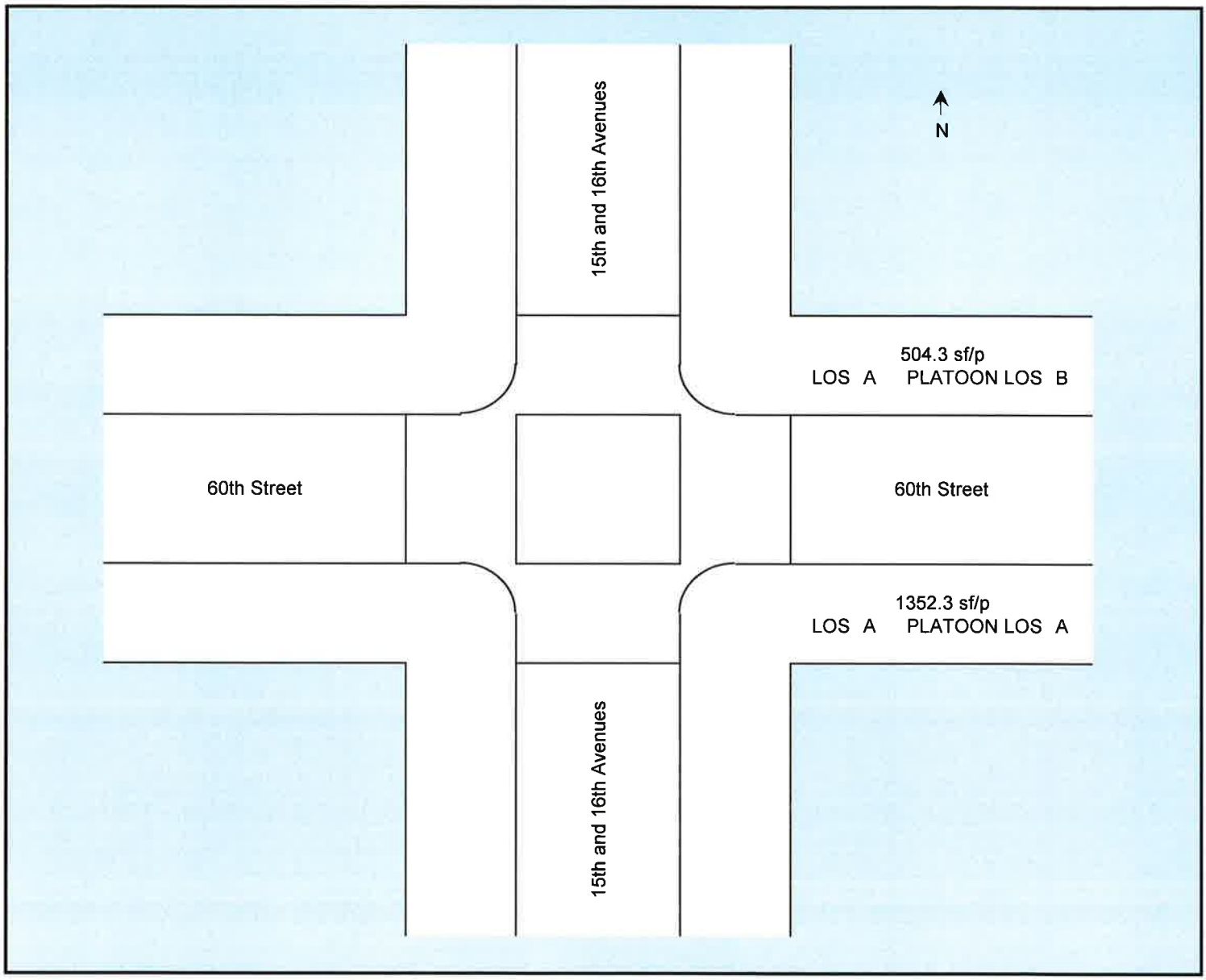
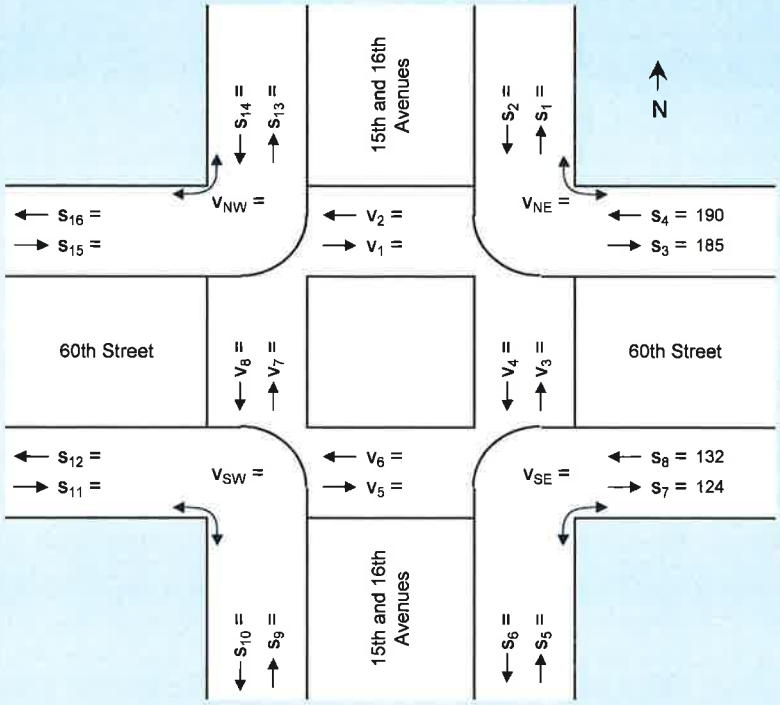


PEDESTRIAN LOS WORKSHEET - INPUT DATA

IDENTIFYING INFORMATION

Project No.:		N-S Street:	15th and 16th Avenues
Project Name:	1501-1555 60th Street, Brooklyn NY	E-W Street:	60th Street
Analyst:	HX	Time Period:	Weekday Midday
Date:	Nov.26, 2019	Analysis Year:	2023 Build Conditions

PEDESTRIAN PEAK HOUR VOLUMES

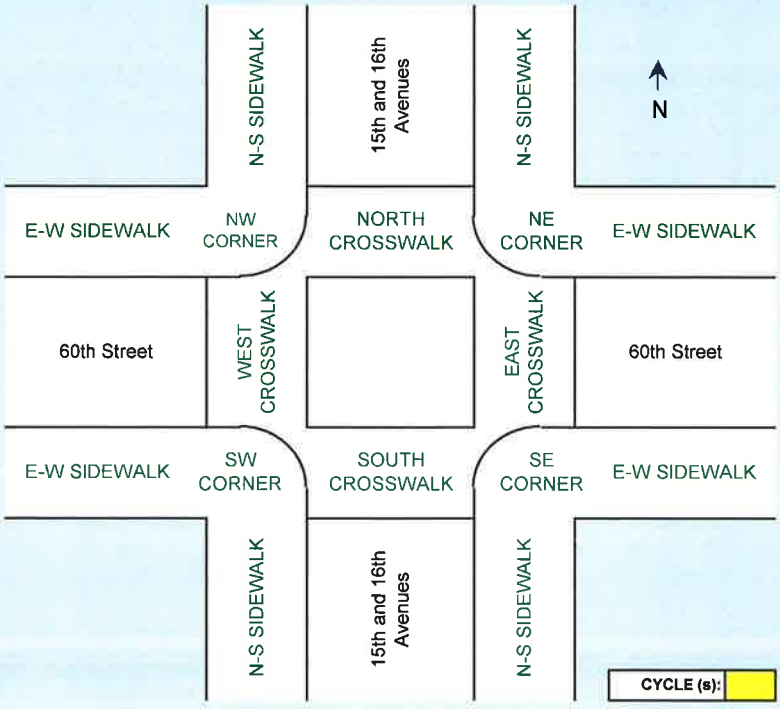


SIDEWALKS				
CORNER	MOVEMENT		VOL (p/hr)	PHF
NE	N-S	s_1		
		s_2		
	E-W	s_3	185	0.90
		s_4	190	
SE	N-S	s_5		
		s_6		
	E-W	s_7	124	0.81
		s_8	132	
SW	N-S	s_9		
		s_{10}		
	E-W	s_{11}		
		s_{12}		
NW	N-S	s_{13}		
		s_{14}		
	E-W	s_{15}		
		s_{16}		

CROSSWALKS			
CROSS-WALK	MOVEMENT	VOL (p/hr)	PHF
N	v_1		
	v_2		
E	v_3		
	v_4		
S	v_5		
	v_6		
W	v_7		
	v_8		

CORNERS			
CORNER	MOVEMENT	VOL (p/hr)	PHF
NE	v_{NE}		
SE	v_{SE}		
SW	v_{SW}		
NW	v_{NW}		

GEOMETRY, SIGNAL TIMING, AND CONFLICTING VEHICLES



SIDEWALKS				
CORNER	SIDEWALK	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS*, W_O (ft)	FREE FLOW WALK SPEED, S_{pf} (ft/s)
NE	N-S			
	E-W	16.0	8.0	4.0
SE	N-S			
	E-W	17.0	9.0	4.0
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Sum of widths and shy distances from obstructions.

CORNERS				
CORNER	SIDEWALK	TOTAL WIDTH*, W (ft)	RADIUS, R (ft)	OBSTRUCTIONS, Ob (ft^2)
NE	N-S			
	E-W			
SE	N-S			
	E-W			
SW	N-S			
	E-W			
NW	N-S			
	E-W			

* Override if corner width is different than sidewalk width.

CROSSWALKS									
CROSS-WALK	LENGTH, L (ft)	WIDTH, W (ft)	WALK SPEED, S_p (ft/s)	CROSSING TIME (sec)				CONFL VEH	
				WALK	FDW	DW*	PHASE TOTAL	v_{rt}	$v_{lt,perm}$
N							0		
E							0		
S							0		
W							0		

* DW clearance for phase, not total DW time for entire cycle. Usually 5 sec.

SIDEWALK WORKSHEET

IDENTIFYING INFORMATION

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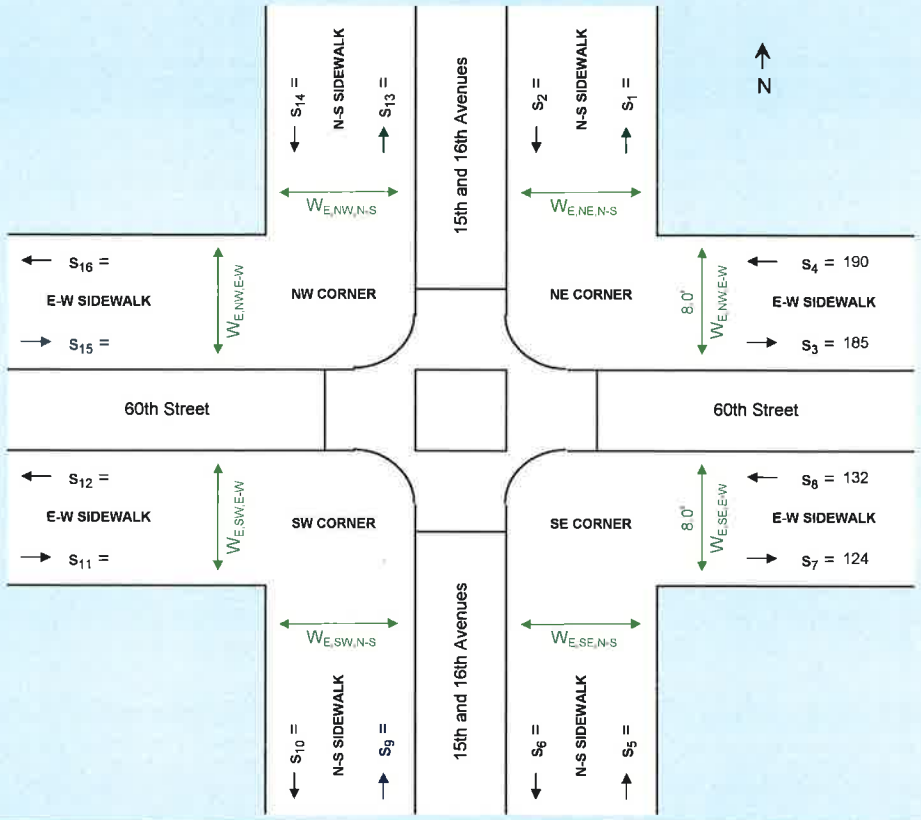

ANALYSIS

CORNER	MOVEMENT		VOLUME EACH DIR, s (p/hr)	VOLUME BOTH DIR, v_{ped} (p/hr)	PHF	TOTAL WIDTH, W_T (ft)	OBSTRUCTIONS, Ob (ft)	EFFECTIVE WIDTH, $W_E = W_T - Ob$ (ft)	FLOW RATE PER UNIT WIDTH, $v_p = \frac{v_{ped}}{60\ W_E\ PHF}$ (p/ft/min)	FREE FLOW WALK SPEED, S_{pf} (ft/s)	ADJUSTED WALK SPEED, $S_p = (1 - 0.0078\ v_p^2)\ S_{pf}$ (ft/s)	AVG PED SPACE, $A_p = 60\ \frac{S_p}{v_p}$ (ft^2/p)	LOS	PLATOON ADJ LOS
NE	N-S	S_1												
		S_2												
	E-W	S_3	185	375	0.90	16.0	8.0	8.0	0.9	4.0	4.0	276.9	A	B
		S_4	190											
SE	N-S	S_5												
		S_6												
	E-W	S_7	124	256	0.81	17.0	9.0	8.0	0.7	4.0	4.0	364.4	A	B
		S_8	132											
SW	N-S	S_9												
		S_{10}												
	E-W	S_{11}												
		S_{12}												
NW	N-S	S_{13}												
		S_{14}												
	E-W	S_{15}												
		S_{16}												

LOS SUMMARY MAP

IDENTIFYING INFORMATION

Project No.:	
Project Name:	1501-1555 60th Street, Brooklyn NY
Analyst:	HX
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Time Period:	Weekday Midday
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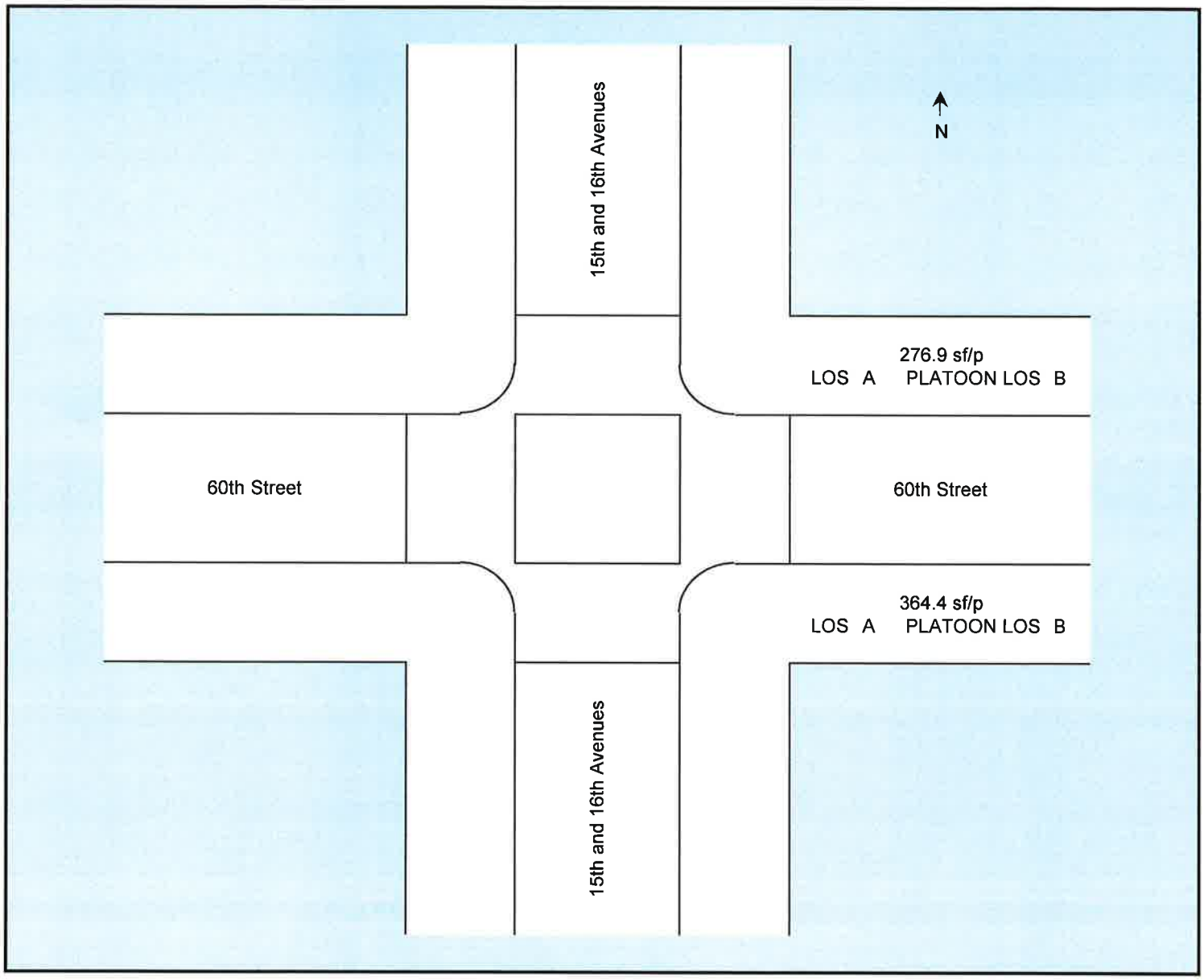



Untitled Map
1501-1555 60th Street, Brooklyn NY
Sidewalk Measurements
North sidewalk and South sidewalk
Legend
1501 60th St
60 St/15 Av
Accentuation By Design Corporation
Feature 1
1501 60th St
18'
17'
4'
16'
15'
8'
N
100 ft
Google Earth
© 2018 Google

Table 1 : Transportation Planning Factors_Revised

1501-1555 60th Street, Brooklyn NY

Land Use:	Residential	Local Retail	Medical Office	Automotive use	Light Industrial
	d.u.	Space-sq.ft.	Space-sq.ft.	Space-sq.ft.	Space-sq.ft.
Size/Units:	112	36,226	-7,909	-9,128	-33,546
	(1)	(1)	(3)	(4)	(4)
Trip Generation:					
Weekday	8.075	205	76	19.42	14.7
Saturday	9.6	240	39	19.42	2.2
	per 1,000 sq-ft	per 1,000 sq.ft.	per 1,000 sq.ft	per 1,000 sq.ft.	per 1,000 sq.ft.
Linked-Trip:	0%	25%	0%	0%	0%
Temporal Distribution:	(1)	(1)	(3)	(4)	(4)
AM Peak Hour	10%	3%	11%	13.2%	13.2%
MD Peak Hour	5%	19%	13%	11.0%	11.0%
PM Peak Hour	11%	10%	9%	14.2%	14.2%
Saturday MD Peak Hour	8%	10%	17%	10.7%	10.7%
	(2)	(3)	(3)	(4)	(5)
Modal Split :	all periods	all periods	all periods	all periods	all periods
Auto	31.1%	11%	24%	85%	41.4%
Taxi	0.1%	0%	6%	5%	1.0%
Subway	35.1%	3%	59%	1%	20.4%
Bus	8.0%	2%	9%	1%	15.1%
Walk	20.8%	84%	2%	8%	17.7%
Other	4.8%	0%	0%	0%	4.4%
Total	100%	100%	100%	100%	100%
	(4)	(4)	(3)	(4)	(4)
In/Out Splits:	In/Out	In/Out	In/Out	In/Out	In/Out
AM Peak Hour	15/85	50/50	62/38	65/35	88/12
MD Peak Hour	50/50	50/50	47/53	50/50	50/50
PM Peak Hour	70/30	50/50	35/65	50/50	12/88
Saturday MD Peak Hour	50/50	55/45	49/51	50/50	47/53
Vehicle Occupancy:	(2&4)	(6)	(4)	(4)	(4 & 5)
Auto	1.18	2.0	1.5	1.3	1.14
Taxi	1.30	2.0	1.5	1.3	1.2
Truck Trip Generation:	(1)	(1)	(4)	(4)	(4)
Weekday	0.06	0.35	0.29	0.89	0.67
Saturday	0.02	0.04	0.29	0.89	0.67
	per 1,000 sqft	per 1,000 s.f.	per 1,000 s.f.	per 1,000 s.f.	per 1,000 s.f.
	(1)	(1)	(4)	(4)	(4)
AM Peak Hour	12%	8%	3%	14%	14%
MD Peak Hour	9%	11%	11%	9%	9%
PM Peak Hour	2%	2%	1%	1%	1%
Saturday MD Peak Hour	9%	11%	0%	0%	0%
AM/MD/PM/Saturday MD	50/50	50/50	50/50	50/50	50/50

Sources:

(1)-2014 CEQR Technical Manual, Table 16-2.

(2)-2013-2017 (ACS)-Journey-to-Work (JTW) for Census Tract #'s 192, 240, 242, 244, 248, 250 and 470 in Brooklyn N.Y.

(3)_All trip generation data provided by NYCDOT.

(4)-East New York FEIS, Table 13-8.

(5)-2006-2010 (ACS) Reverse-Journey-to Work (RJTW) for Census Track #'s 192, 240, 242, 244, 248, 250 and 470 in Brooklyn NY.

(6)-Industry City DEIS.

Table 2 : Estimated Person Trips_Revised

1501-1555 60th Street, Brooklyn NY

Land Use:	Residential d.u.	Local Retail Space-sq.ft.	Medical Office Space-sq.ft.	Automotive use Space-sq.ft.	Light Industrial Space-sq.ft.	Total Net Demand	**Total Pedestrian**
Size/Units:	112	36,226	-7,909	-9,128	-33,546		
Peak hour Trips							
AM Peak Hour	90	167	-66	-23	-65	103	
Midday Peak Hour	45	1058	-78	-19	-54	952	
PM Peak Hour	99	557	-54	-25	-70	507	
Saturday MD Peak Hour	86	652	-52	-19	-8	659	
Person Trips:							
AM Peak Hour							
Auto	28	18	-16	-20	-27	-16	
Taxi	0	0	-4	-1	-1	-6	
Subway	32	5	-39	0	-13	-16	-16
Bus	7	3	-6	0	-10	-5	-5
Walk	19	140	-1	-2	-12	144	144
Other	3	0	0	0	-3	0	0
Total	89	167	-66	-23	-65	101	123
Midday Peak Hour							
Auto	14	116	-19	-17	-22	72	
Taxi	0	0	-5	-1	-1	-6	
Subway	16	32	-46	0	-11	-10	-10
Bus	4	21	-7	0	-8	9	9
Walk	9	889	-2	-2	-10	886	886
Other	2	0	0	0	-2	0	0
Total	45	1058	-79	-19	-54	951	885
PM Peak Hour							
Auto	31	61	-13	-21	-29	29	
Taxi	0	0	-3	-1	-1	-5	
Subway	35	17	-32	0	-14	5	5
Bus	8	11	-5	0	-11	3	3
Walk	21	468	-1	-2	-12	473	473
Other	5	0	0	0	-3	2	2
Total	99	557	-54	-25	-70	507	483
Saturday MD Peak Hour							
Auto	27	72	-13	-16	-3	66	
Taxi	0	0	-3	-1	0	-4	
Subway	30	20	-31	0	-2	17	17
Bus	7	13	-5	0	-1	14	14
Walk	18	548	-1	-2	-1	562	562
Other	4	0	0	0	0	4	4
Total	86	652	-53	-19	-8	658	596

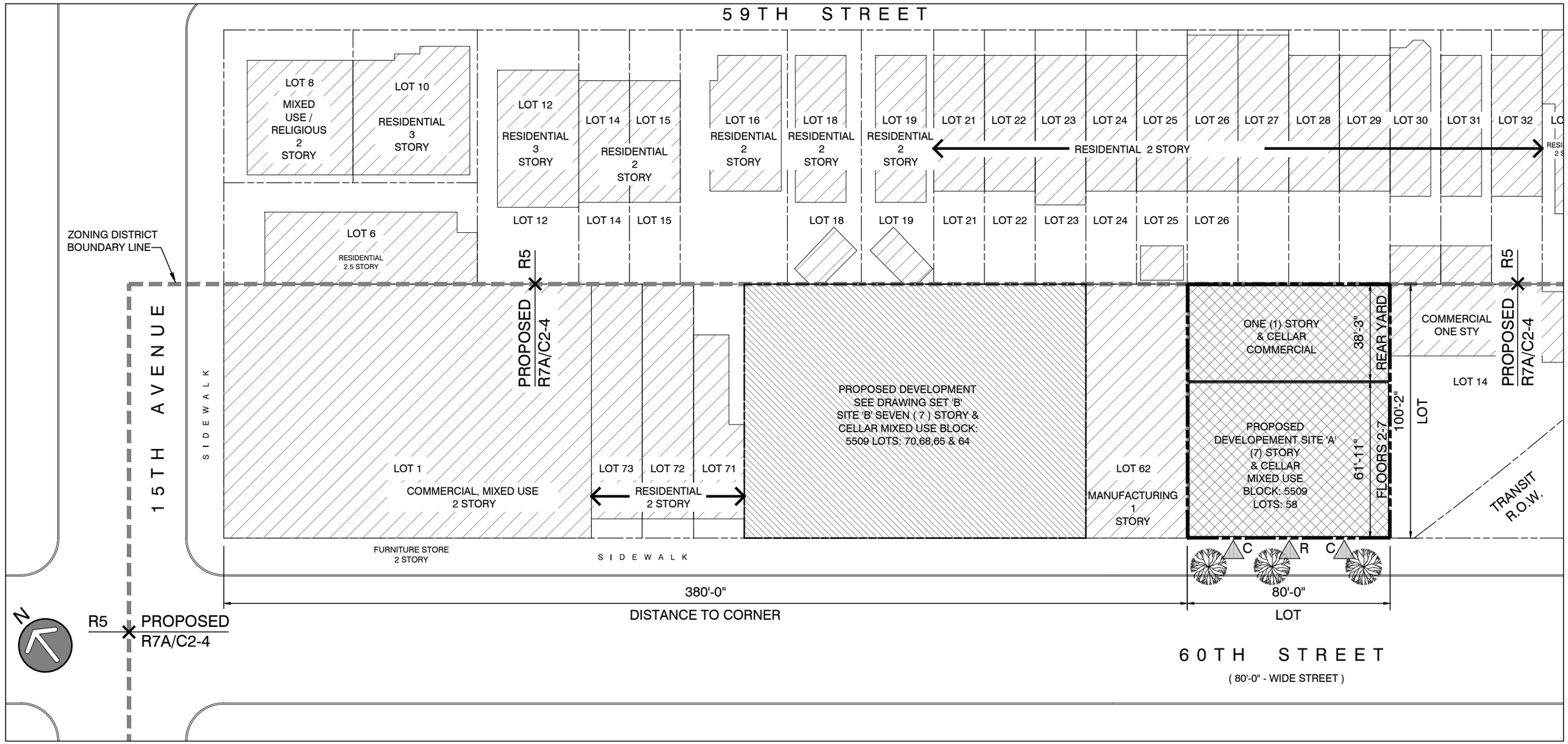
Table 3 : Estimated Vehicular Trips_Revised

1501-1555 60th Street, Brooklyn NY

Land Use:	Residential	Local Retail	Medical Office	Automotive use	Light Industrial	Total Net
	d.u.	Space-sq.ft.	Space-sq.ft.	Space-sq.ft.	Space-sq.ft.	Demand
Size/Units:	112	36,226	-7,909	-9,128	-33,546	
Vehicular Trips						
AM Peak Hour						
Auto (Total)	24	9	-11	-15	-24	-17
Taxi	0	0	-3	-1	-1	-5
Taxi (Balanced)	0	0	-6	-2	-2	-10
Truck	1	1	0	-1	-3	-2
Truck(Balanced)	2	2	0	-2	-4	-2
Total	26	11	-17	-19	-30	-29
Midday Peak Hour						
Auto (Total)	12	58	-13	-13	-20	24
Taxi	0	0	-3	-1	0	-4
Taxi (Balanced)	0	0	-6	-2	0	-8
Truck	1	1	0	-1	-2	-1
Truck(Balanced)	2	2	0	-2	-2	0
Total	14	60	-19	-17	-22	16
PM Peak Hour						
Auto (Total)	26	31	-9	-16	-25	7
Taxi	0	0	-2	-1	-1	-4
Taxi (Balanced)	0	0	-4	-2	-2	-8
Truck	0	0	0	0	0	0
Truck(Balanced)	0	0	0	0	0	0
Total	26	31	-13	-18	-27	-1
Saturday MD Peak Hour						
Auto (Total)	23	36	-9	-12	-3	35
Taxi	0	0	-2	-1	0	-3
Taxi (Balanced)	0	0	-4	-2	0	-6
Truck	0	0	0	0	0	0
Truck(Balanced)	0	0	0	0	0	0
Total	23	36	-13	-14	-3	29

Attachment D

Proposed Site Plans (Illustrative)



SITE PLAN

SCALE 1 : 500

LEGEND

- PROPOSED DEVELOPMENT SITE 'A'
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'
- R — RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
- C — COMMERCIAL PEDESTRIAN ENTRANCE / EXIT
- PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.
- ZONING LOT LINE / LOT BOUNDARY LINE
- ZONING DISTRICT BOUNDARY LINE

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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2 OF 11

BLOCK 5509

LOTS 58

ZONING R7A / C2-4

1547 60th Street, Brooklyn, New York

PROP. DEVELOPMENT SITE 'A'

R7A BUILD OUT SCENARIO

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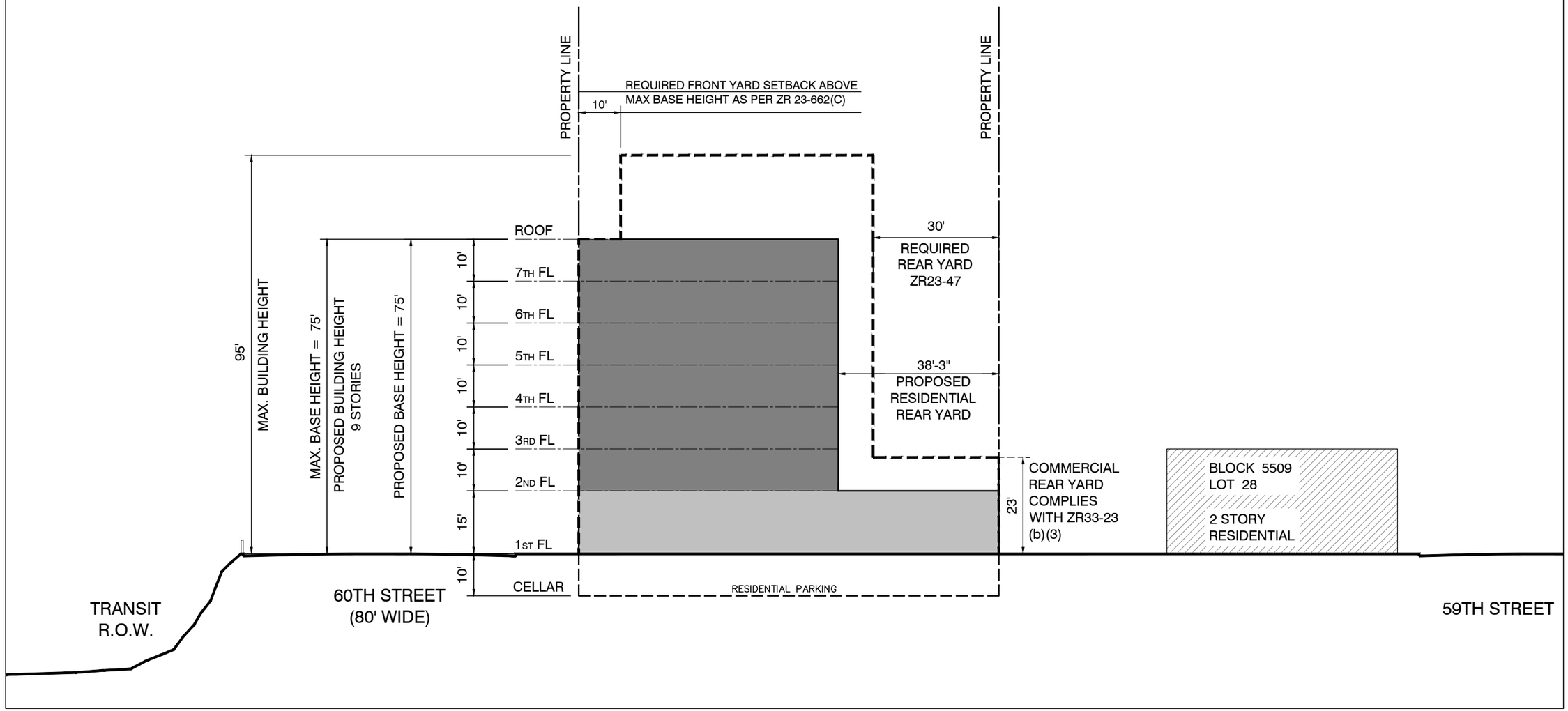

BUILDING HEIGHT DIAGRAM

SCALE 1:300

LEGEND

- COMMERCIAL USES
- RESIDENTIAL USES, FLOORS 2-7
- EXISTING SURROUNDING BUILDINGS
- ZONING LOT LINE / BOUNDARY LINE
- BUILDING ENVELOPE

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509

LOTS 58

ZONING R7A / C2-4

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PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

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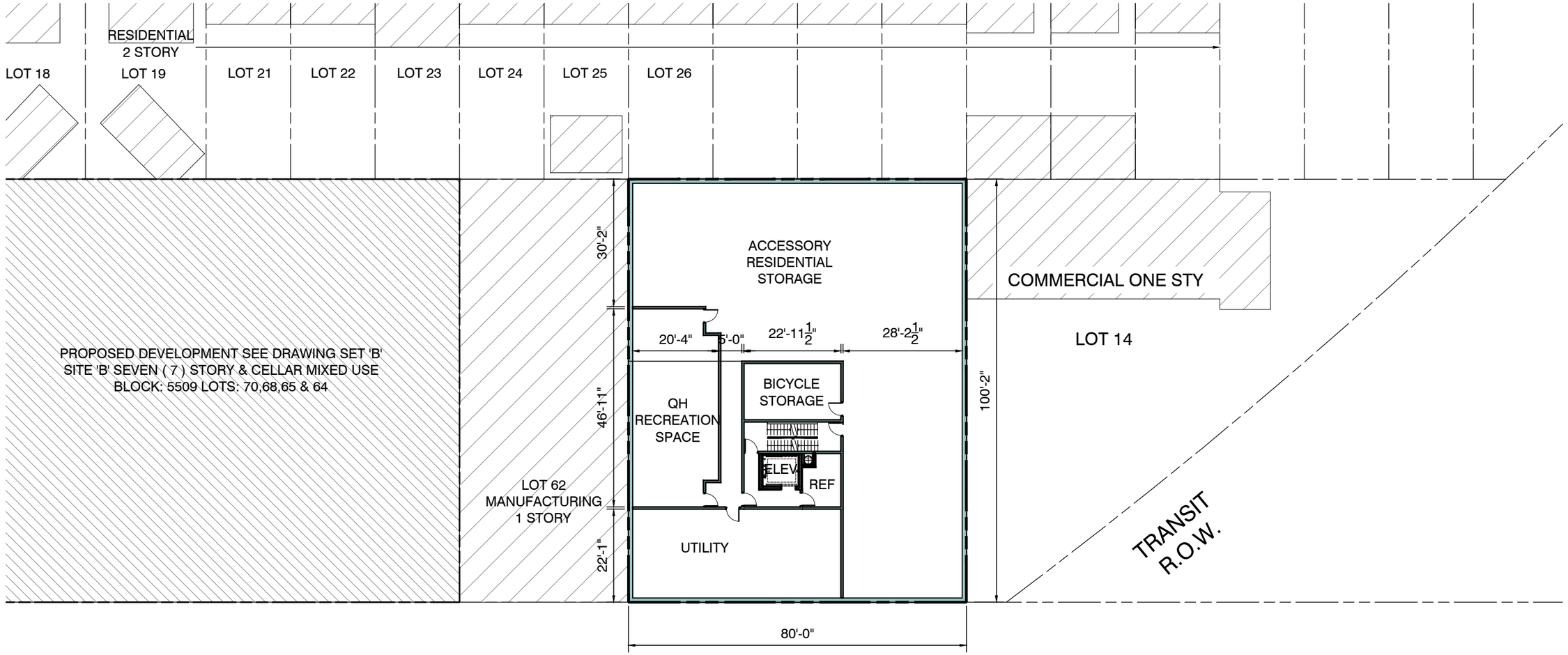

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6 0 T H S T R E E T

(80'-0" - WIDE STREET)

CELLAR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509

LOTS 58

ZONING R7A / C2-4

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PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

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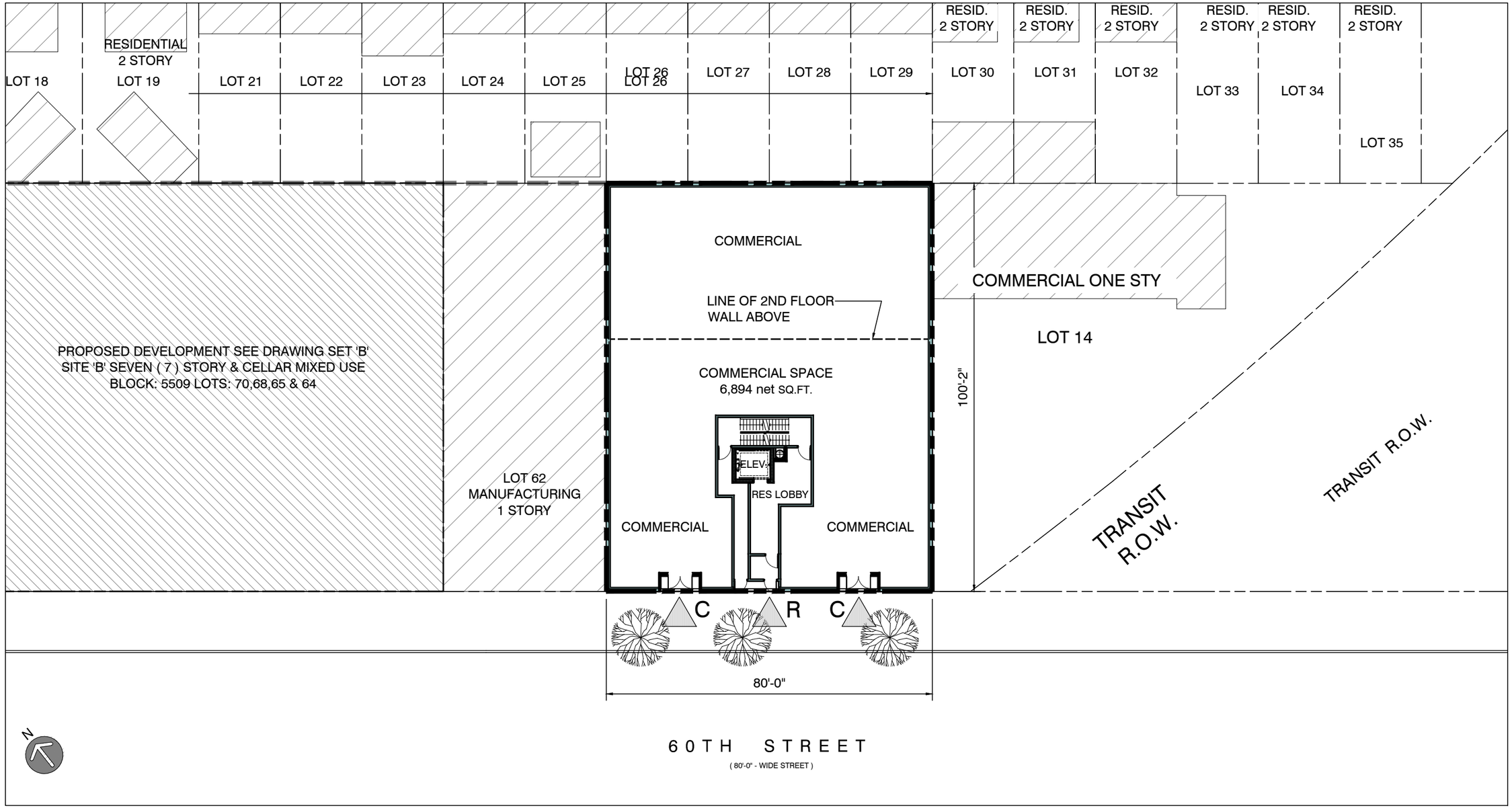

FIRST FLOOR PLAN

SCALE 1:300

LEGEND

- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'
- EXISTING SURROUNDING BUILDINGS
- PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.
- R — RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
- C — COMMERCIAL PEDESTRIAN ENTRANCE / EXIT
- ZONIING LOT LINE / BOUNDARY LINE

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

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PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

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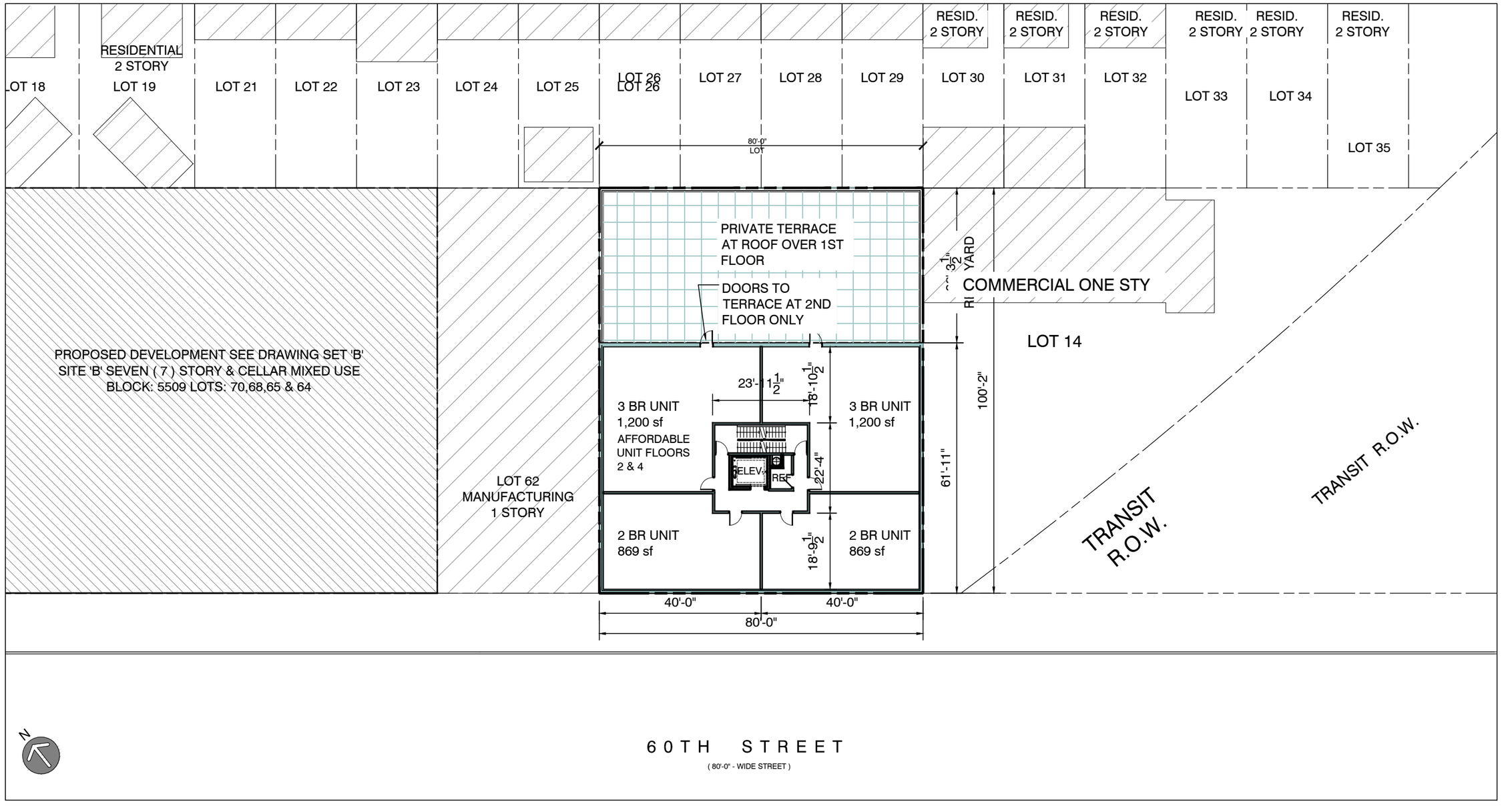

2ND TO 4TH FLOOR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

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Brooklyn, New York
PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

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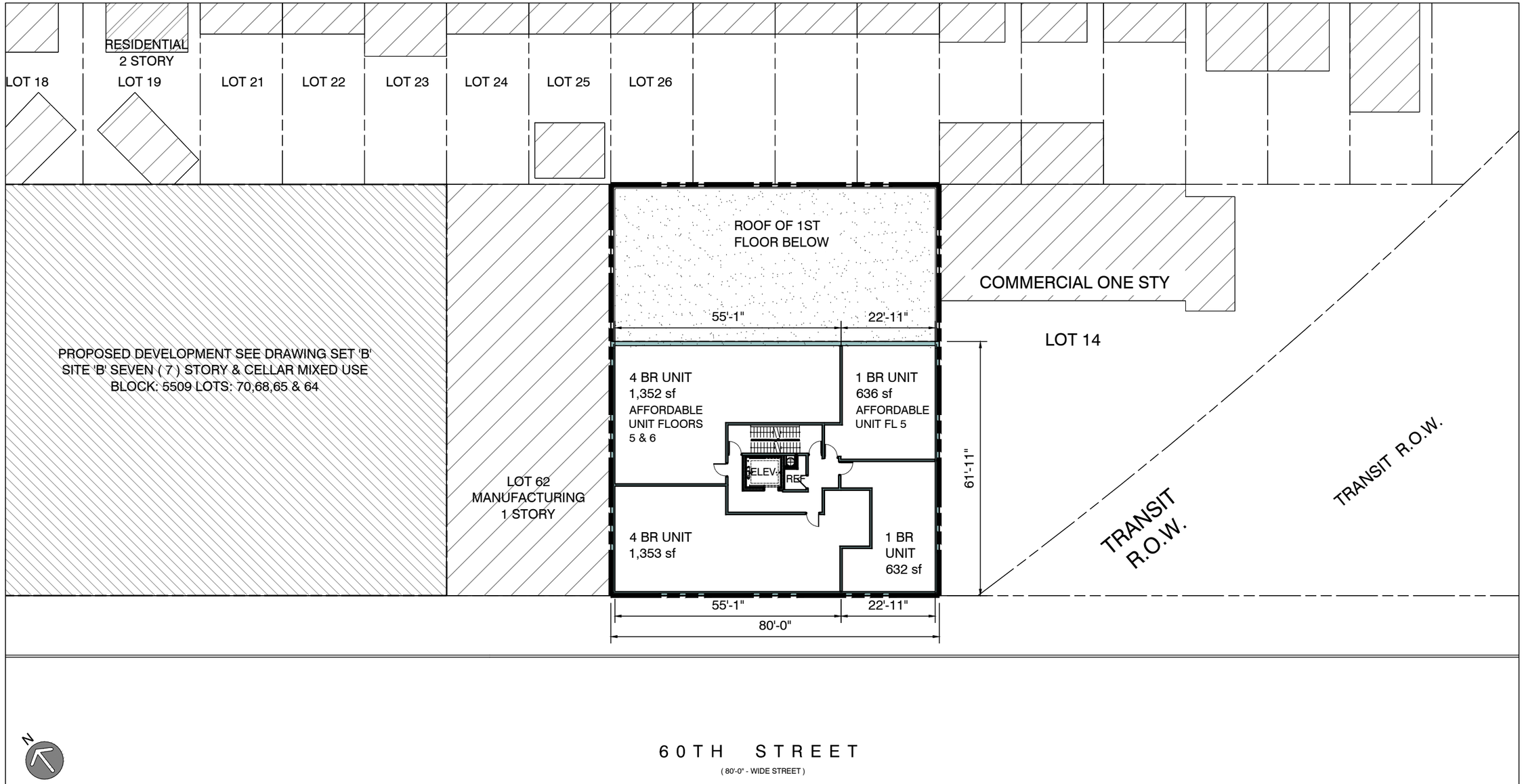

5TH TO 6TH FLOOR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

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Brooklyn, New York
PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO
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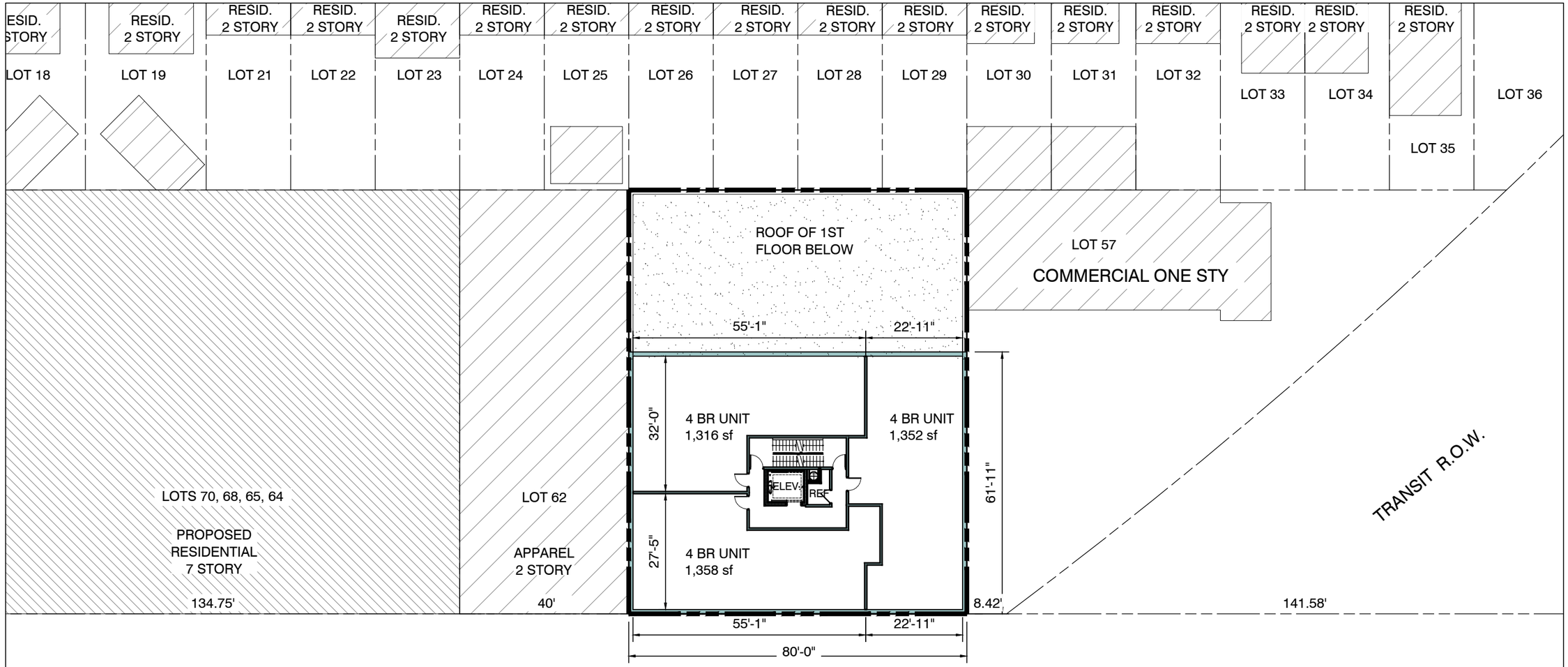

7TH FLOOR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'B' SEE PLAN SET 'B'

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

1547 60th Street,
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PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

rev 12/11/18



AERIAL VIEW LOOKING NORTH-WEST FROM 16th AVENUE

N.T.S.

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

1547 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

rev 12/11/18



PEDESTRIAN VIEW LOOKING EAST TOWARDS BUILDING A

N.T.S.

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

1547 60th Street,
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PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

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AERIAL VIEW LOOKING NORTH TOWARDS BUILDING A

N.T.S.

SITE	A
BLOCK	5509
LOTS	58
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 58
ZONING R7A / C2-4

1547 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'A'
R7A BUILD OUT SCENARIO

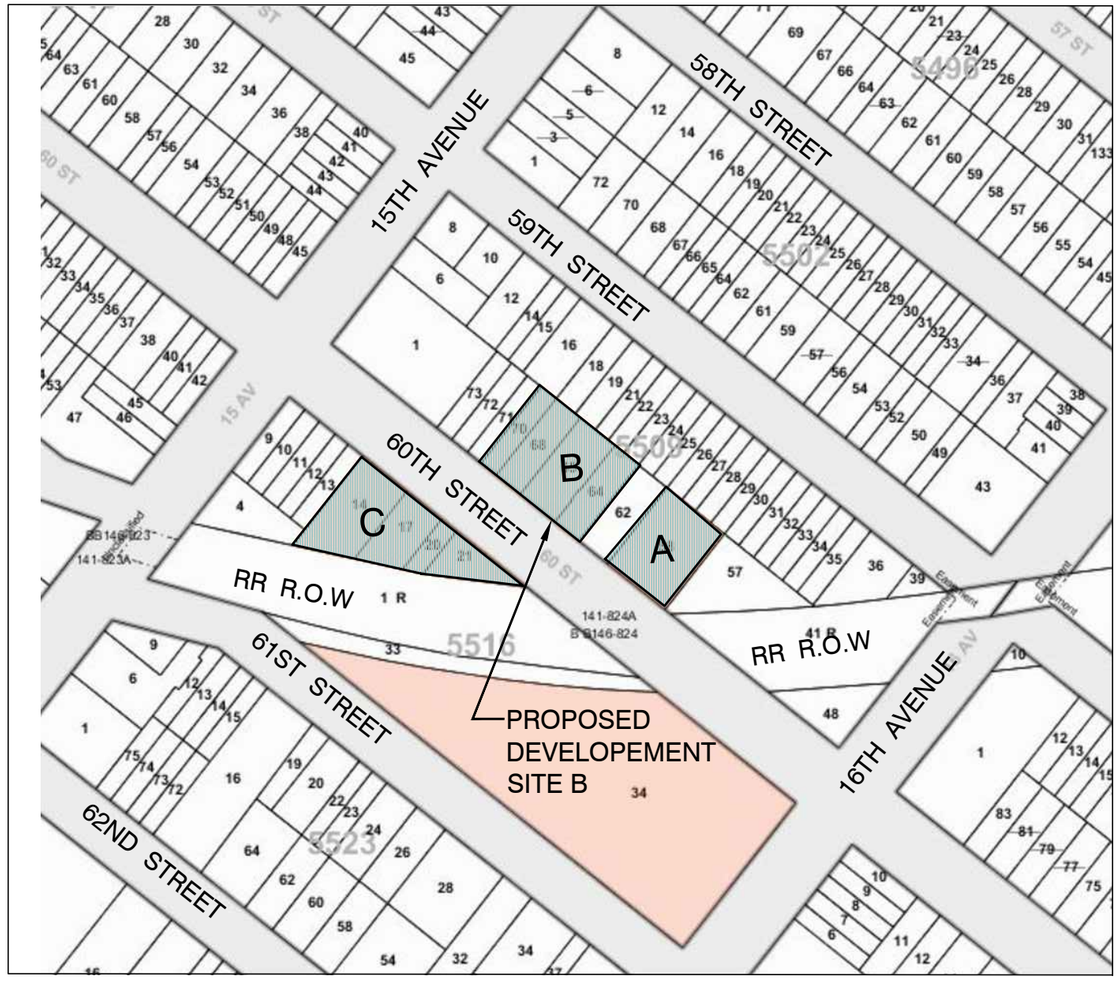
rev 12/11/18

ZONING ANALYSIS

ZONING ANALYSIS - DEVELOPMENT SITE "B"- COMPARATIVE R7A/C2-4

BSA Calendar No.:
Location: **1525,1527,1529,1533 60th Street** Borough: Brooklyn Block: **5509**
Applicant: Lot: **70,68,65,64**
Zoning District: R7A (C2-4 Commercial Overlay) Special District:
Lot Area: **13,498.86** sf Equivalent **R** District: N/A

	ZR Section	Required/Maximum	Proposed	Compliance
Floor Area Ratio (Residential)	**23-154**	**4.60**	**3.81**	Yes
Floor Area (Residential) (Zoning)	**23-154**	**62,094.76**	**51,475.76**	Yes
Gross Floor Area (Residential)	**23-154**	**62,094.76**	**52,977.00**	Yes
Floor Area Ratio (Commercial)	**33-121**	**2.00**	**0.79**	Yes
Floor Area (Commercial)	**33-121**	**26,997.72**	**10,619.00**	Yes
Total Max. FAR (Residential + Commercial)	**35-31**	**4.60**	**4.60**	Yes
Floor Area (Residential + Commercial)	**35-31**	**62,094.76**	**62,094.76**	Yes
Lot Coverage (Residential)	**23-154/23-153**	65%	**64.44%**	Yes
Lot Coverage (Residential)	**23-154/23-153**	8,774.26	**8,698.11**	Yes
Front Yard	**35-51**	None for C2-4/None for R7A	None Required	Yes
Side Yard	**35-52/23-462c**	None for C2-4/None for R7A	None Required	Yes
Rear Yard (Residential)	**23-47**	30'-0" (Interior Lot)	35'-7 1/2" (see plot plan)	Yes
Rear Yard (Commercial)	**33-26**	20'-0" (NR-One Story Proj.)	NR - One Story Proj.	N/A
Max. Base Height	**35-652/23-664 table 1**	75'-0"	75'-0"	Yes
Max. Building Height	**35-652/23-664 table 1**	95'-0" (9 stories)	75'-0" (7 stories)	Yes
Setback	**35-652/23-664(c)**	10'-0" measured from street line	N/A	N/A
Dwelling Units		76	39	Yes
Density	**23-22**	680.0 s.f.	1,319.89	Yes
Market Value Units 70%		50	26	Yes
Affordable Housing Units 30%		21	13	Yes
1 Bedroom Units			6 Total-4 market value-2affordable	Yes
2 Bedroom Units			9 Total-6 market value-3 affordable	Yes
3 Bedroom Units			12 Total- 8 market value-4 affordable	Yes
4 Bedroom Units			12 Total-8 market value-4 affordable	Yes
Street Tree Planting	**23-03/26-41**	1 tree per 25' frontage	5 Trees Required	Yes
Refuse-Enclosed Storage	**28-12**	2.9 Cubic Feet per D.U.	113.1	Yes
Refuse-Disposal Room	**28-12**	12 s.f. per story with entrance	72 s.f.	Yes
Laundry Facilities	**28-13**	If provided: (a,b,c,d)	1 per Dwelling Unit	Yes
Corridor Daylight	**28-14**	If provided: (a,b)	None Required	Yes
Rec. Space: R6, R7 Equiv.	**28-21**	3.3% of Residential F.A.	1698.70	Yes
Recreation Standards	**28-21**	ALL QUALITY HOUSING STANDARDS TO BE COMPLIED WITH		Yes
Planting	**28-23**	Req'd: Street line to street wall	Area planted as per ZR. 28-33	Yes
Density per Corridor	**28-31**		Max # of D.U. per floor 11	Yes
Residential Parking - Market Value	**25-23**	50% of Market Value D.U. = 13 REQ'D	13	Yes
Residential Parking - Affordable Units	**25-251**	15% of Affordable Units (Outside Transit Zone)	2	Yes
	25-261	Total Required Parking	15	Yes
Commercial Parking	**36-21**	U.G. 6: 1 per 1000sf of floor area	11	Yes
Commercial Parking waiver	**36-232**	Parking waived if required < 40	None Requirerd	Yes
Residential Bicycle Parking	**25-23**	1/2 of D.U. = 20 REQ'D	20 Bicycle Parking Spaces provided	Yes
Retail Bicycle Parking	**36-232**	1 Per 10,000sf of Floor Area	2 Bicylce Spaces provided	Yes



ZONING & VICINITY MAP SOURCE: ZOLA NYC

SCALE 1:2000

N

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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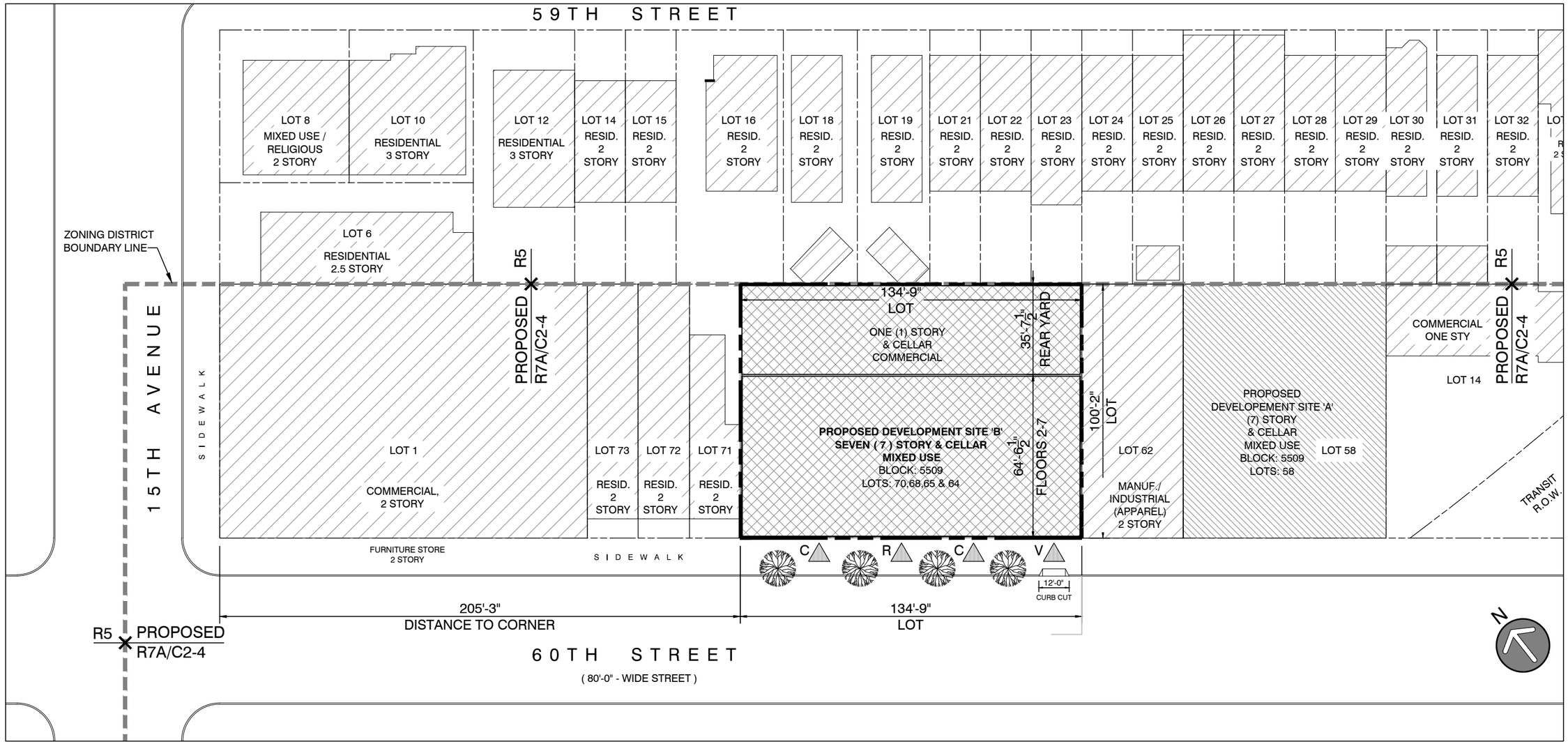
BLOCK 5509
LOTS 70,68,65,64
ZONING R7A / C2-4

1525,1527,1529,1533 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'B'
R7A BUILD OUT SCENARIO

rev 12/11/18



SITE PLAN

SCALE 1/32" = 1'-0"

LEGEND

- PROPOSED DEVELOPMENT SITE 'A'
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'A' SEE PLAN SET 'A'
- R — RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
- C — COMMERCIAL PEDESTRIAN ENTRANCE / EXIT
- V — VEHICULAR ENTRANCE / EXIT
- ZONING LOT LINE / BOUNDARY LINE
- ZONING DISTRICT BOUNDARY LINE
- PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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BLOCK 5509

LOTS 70,68,65,64

ZONING R7A / C2-4

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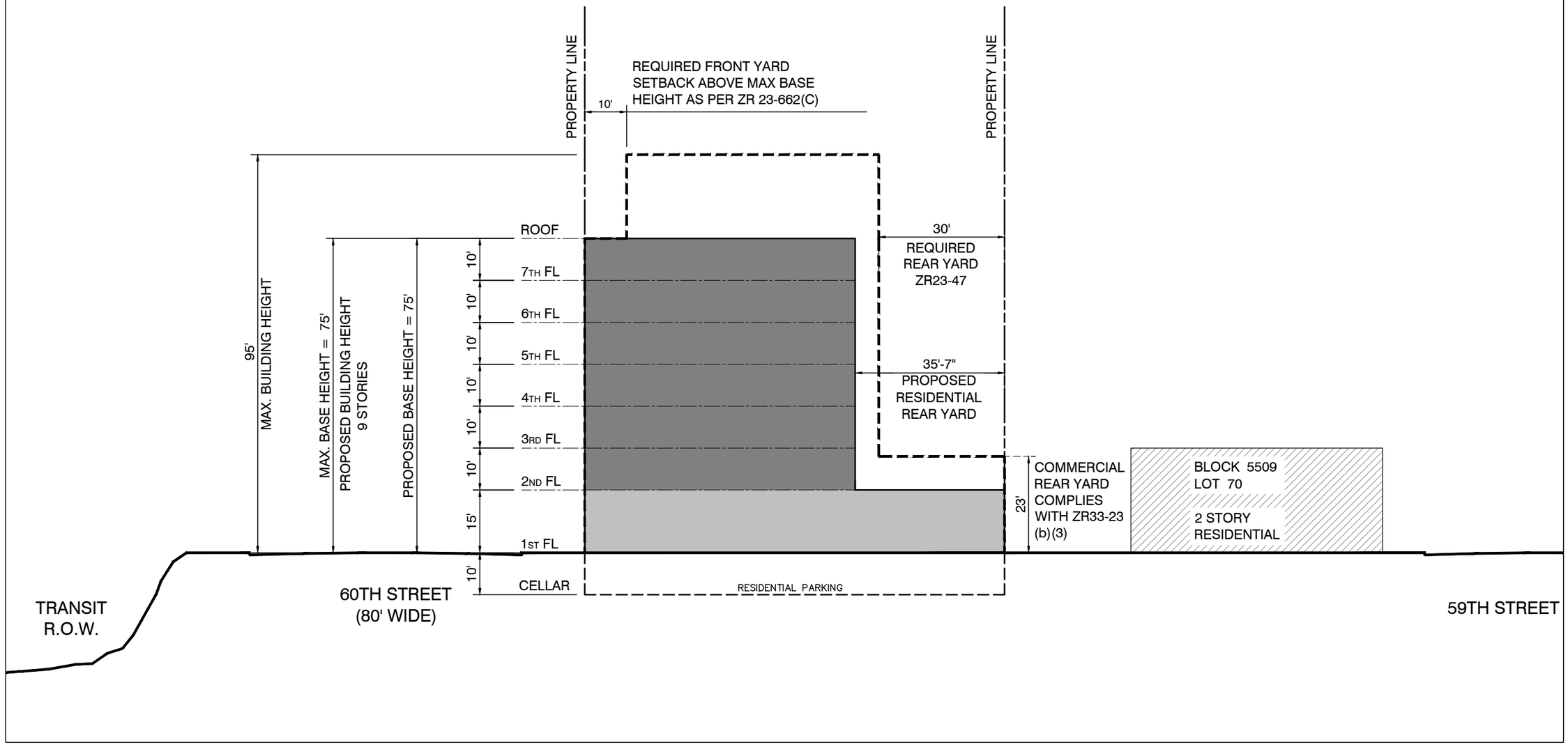

BUILDING HEIGHT DIAGRAM

SCALE 1:300

LEGEND

- COMMERCIAL USES
- RESIDENTIAL USES, FLOORS 2-7
- EXISTING SURROUNDING BUILDINGS
- ZONING LOT LINE / BOUNDARY LINE
- BUILDING ENVELOPE

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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BLOCK 5509

LOTS 70,68,65,64

ZONING R7A / C2-4

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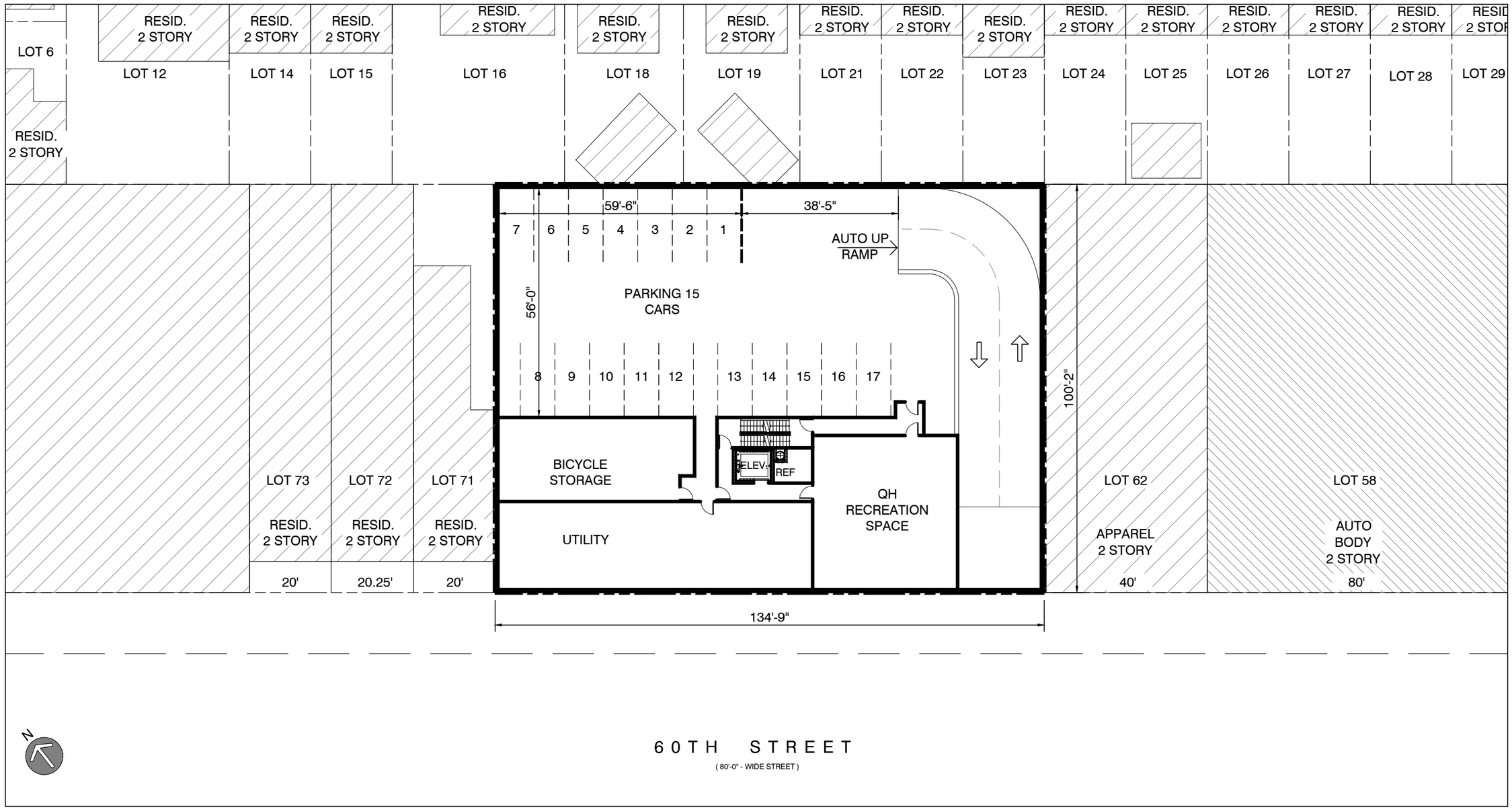

CELLAR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- EXISTING SURROUNDING BUILDINGS
- PROPOSED DEVELOPMENT SITE 'A' SEE PLAN SET 'A'

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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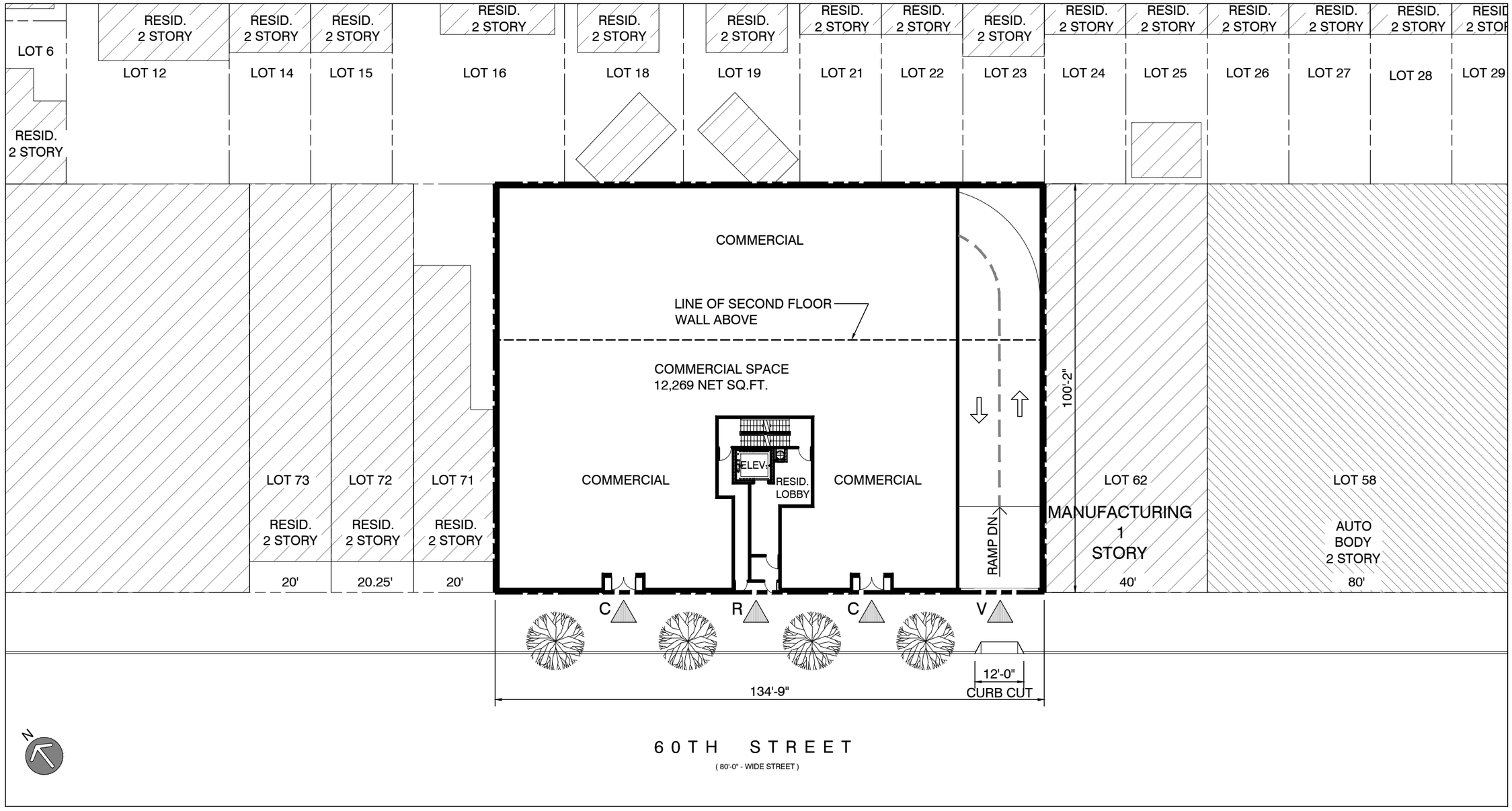

FIRST FLOOR PLAN

SCALE 1:300

LEGEND

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- EXISTING SURROUNDING BUILDINGS
- PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.
- R — RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
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SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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LOTS 70,68,65,64

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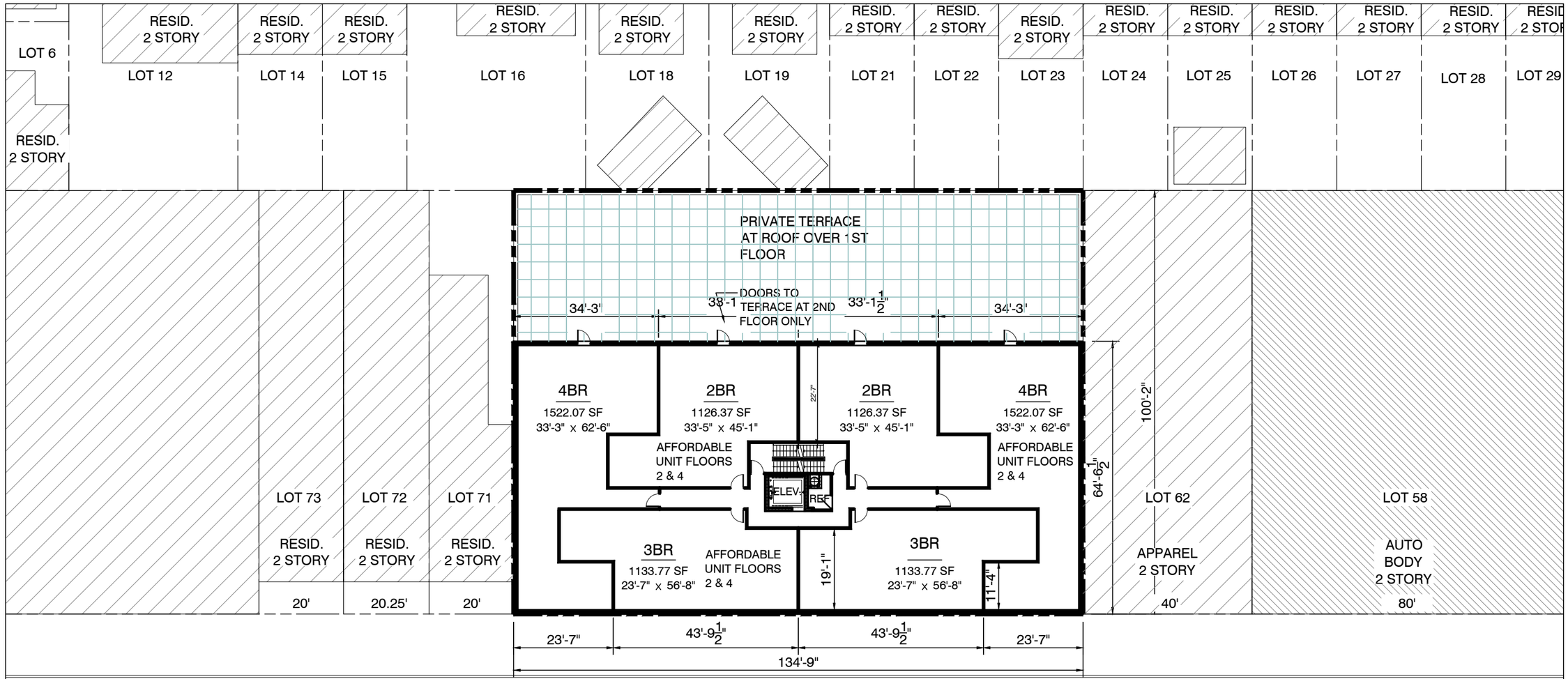

2ND TO 4TH FLOOR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- PROPOSED DEVELOPMENT SITE 'A' SEE PLAN SET 'A'
- EXISTING SURROUNDING BUILDINGS

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 70,68,65,64
ZONING R7A / C2-4

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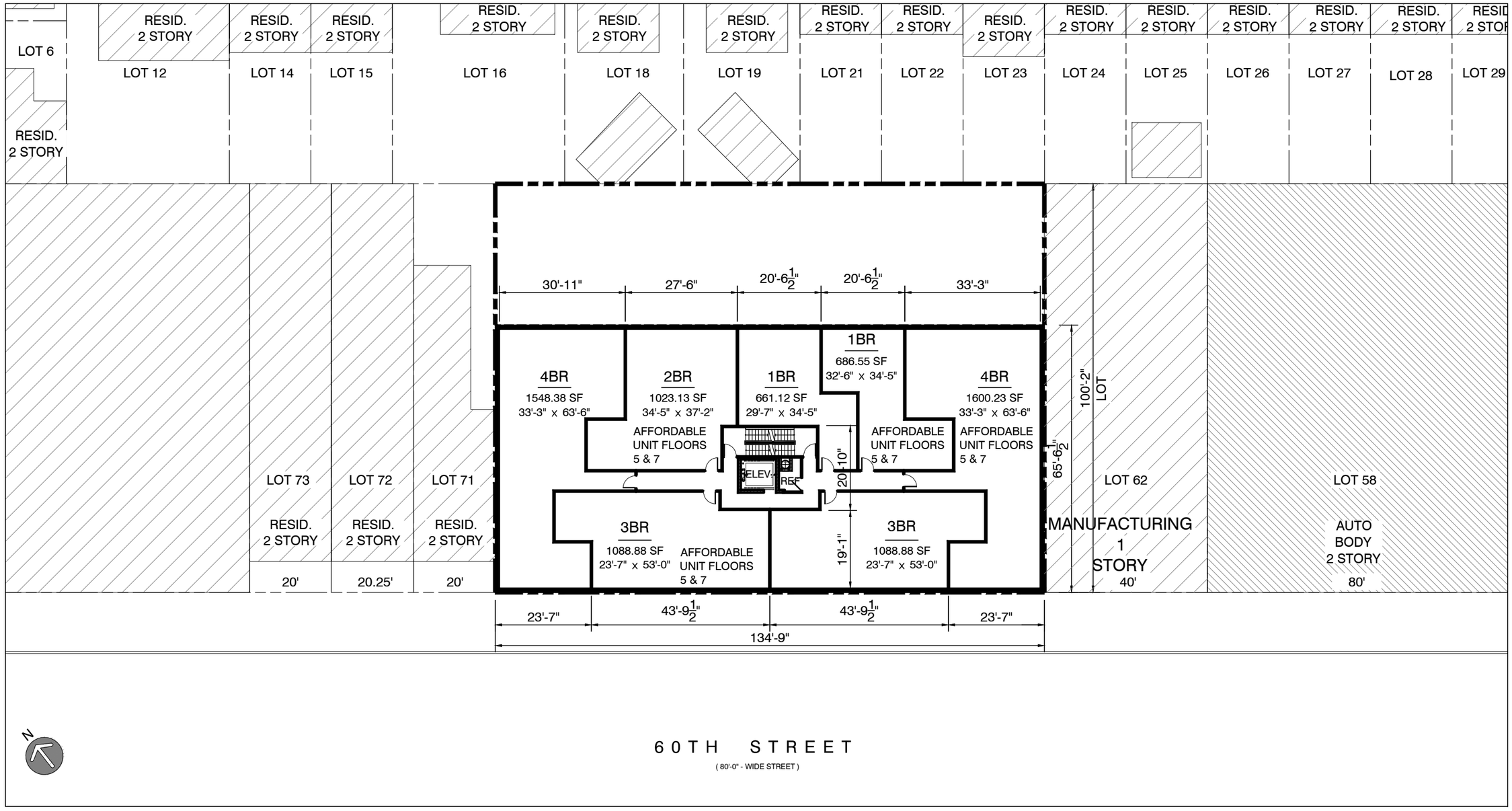

5TH TO 7TH FLOOR PLAN

SCALE 1:300

LEGEND

- ZONING LOT LINE / BOUNDARY LINE
- PROPOSED DEVELOPMENT SITE 'A' SEE PLAN SET 'A'
- EXISTING SURROUNDING BUILDINGS

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 70,68,65,64
ZONING R7A / C2-4

1525,1527,1529,1533 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'B'
R7A BUILD OUT SCENARIO

rev 12/11/18



PEDESTRIAN VIEW LOOKING NORTH TOWARDS BUILDING B

N.T.S.

N

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

REGISTERED ARCHITECT
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B8

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BLOCK 5509

LOTS 70,68,65,64

ZONING R7A / C2-4

1525,1527,1529,1533 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'B'
R7A BUILD OUT SCENARIO

rev 12/11/18

AERIAL VIEW LOOKING NORTH-WEST FROM 16th AVENUE

N.T.S.

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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B9

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BLOCK 5509

LOTS 70,68,65,64

ZONING R7A / C2-4

1525,1527,1529,1533 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'B'
R7A BUILD OUT SCENARIO

rev 12/11/18

AERIAL VIEW LOOKING NORTH TOWARDS 15TH AVENUE

N.T.S.

SITE	B
BLOCK	5509
LOTS	70,68,65,64
ZONING	R7A / C2-4

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BLOCK 5509
LOTS 70,68,65,64
ZONING R7A / C2-4

1525,1527,1529,1533 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'B'
R7A BUILD OUT SCENARIO

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ZONING ANALYSIS - PROPOSED DEVELOPMENT SITE 1 - COMPARATIVE R7A/C2-4

BSA Calendar No.:

Location: **1514,1522,1528,1530 60th Street** Borough: Brooklyn Block: **5516**

Applicant: Lot: **14,17,20,21**

Zoning District: R7A (C2-4 Commercial Overlay) Special District:

Lot Area: **13,586.75** sf Equivalent **R** District: N/A

	ZR Section	Required/Maximum	Proposed	Compliance
Floor Area Ratio (Residential)	**23-154**	**4.60**	**3.60**	Yes
Floor Area (Residential) (Zoning)	**23-154**	**62,499.05**	**48,912.30**	Yes
Gross Floor Area (Residential)	**23-154**	**62,499.05**	**50,379.67**	Yes
Floor Area Ratio (Commercial)	**33-121**	**2.00**	**1.00**	Yes
Floor Area (Commercial)	**33-121**	**27,173.50**	**13,586.75**	Yes
Commercial)	**35-31**	**4.60**	**4.60**	Yes
Commercial)	**35-31**	**62,499.05**	**62,499.05**	Yes
Lot Coverage (Residential)	**23-154/23-153**	65%	**55.09%**	Yes
Lot Coverage (Residential)	**23-154/23-153**	8,831.39	**7,485.31**	Yes
Front Yard	**35-51**	None for C2-4/None for R7A	None Required	Yes
Side Yard	**35-52/23-462c**	None for C2-4/None for R7A	None Required	Yes
Rear Yard (Residential)	**23-47/23-52/23-86**	20'-0" min. (Shallow Interior Lots)	Varies - 20'-0" min. (see plot plan)	Yes
Rear Yard (Commercial)	**33-26**	20'-0" (NR-One Story Proj.)	NR - One Story Proj.	Yes
Max. Base Height	**35-652/23-664 Table 1**	75'-0"	75'-0"	Yes
Max. Building Height	**35-652/23-664 Table 1**	95'-0" (9 stories)	85'-0" (8 stories)	Yes
Setback	**35-652/23-664(c)**	10'-0" measured from street line	N/A	N/A
Dwelling Units		72	40	Yes
Density	**23-22**	680.0 s.f.	1,222.81	Yes
Market Value Units 70%		50	28	Yes
Affordable Housing Units 30%		21	12	Yes
1 Bedroom Units			8 Total-6 market value-2 affordable	Yes
2 Bedroom Units			10 Total-7 market value-3 affordable	Yes
3 Bedroom Units			10 Total- 7 market value-3 affordable	Yes
4 Bedroom Units			12 Total-8 market value-4 affordable	Yes
Street Tree Planting	**23-03/26-41**	1 tree per 25' frontage	9 Trees Required	Yes
Refuse-Enclosed Storage	**28-12**	2.9 Cubic Feet per D.U.	116	Yes
Refuse-Disposal Room	**28-12**	12 s.f. per story with entrance	84 s.f.	Yes
Laundry Facilities	**28-13**	If provided: (a,b,c,d)	1 per Dwelling Unit	Yes
Corridor Daylight	**28-14**	If provided: (a,b)	None Required	Yes
Rec. Space: R6, R7 Equiv.	**28-21**	3.3% of Residential F.A.	1614.11	Yes
Recreation Standards	**28-21**	ALL QUALITY HOUSING STANDARDS TO BE COMPLIED WITH		Yes
Planting	**28-23**	Req'd: Street line to street wall	Area planted as per ZR. 28-33	Yes
Residential Parking - Market Value	**25-23**	50% of Market Value D.U. = 14 REQ'D	14	Yes
Residential Parking - Affordable Units	**25-251**	15% of Affordable Units (Outside Transit Z	2	Yes
Total required parking	**25-261**	Max. number of spaces waived = 15	16 Total	Yes
Commercial Parking	**36-21**	U.G. 6: 1 per 1000sf of floor area	14	Yes
Commercial Parking waiver	**36-232**	parking waived if required < 40	None Requirerd	Yes
Residential Bicycle Parking	**25-23**	1/2 of D.U. = 20 REQ'D	20 Bicycle Parking Spaces provided	Yes
Retail Bicycle Parking	**36-232**	1 Per 10,000sf of Floor Area	2 Bicylce Spaces provided	Yes



ZONING & VICINITY MAP SOURCE: ZOLA NYC

SCALE 1:2000

N

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

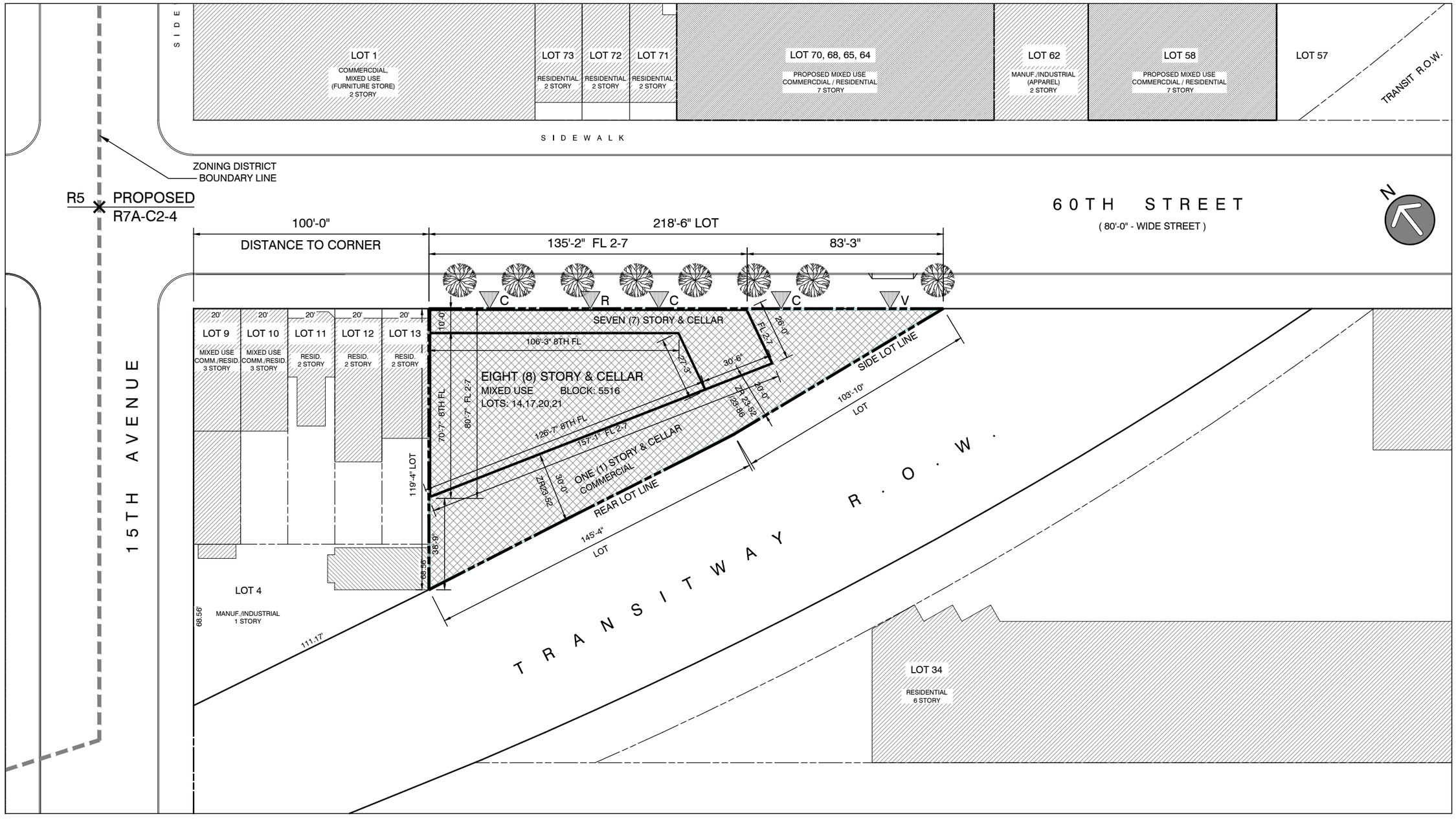
1514,1522,1528,1530 60th Street,

Brooklyn, New York

PROP. DEVELOPMENT SITE 'C'

R7A BUILD OUT SCENARIO

rev 12/11/18



SITE PLAN

SCALE 1 : 500

LEGEND

- PROPOSED DEVELOPMENT SITE 'C'
- EXISTING SURROUNDING BUILDINGS
- R — RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
- C — COMMERCIAL PEDESTRIAN ENTRANCE / EXIT
- V — VEHICULAR ENTRANCE / EXIT
- PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.
- ZONING LOT LINE / BOUNDARY LINE
- ZONING DISTRICT BOUNDARY LINE

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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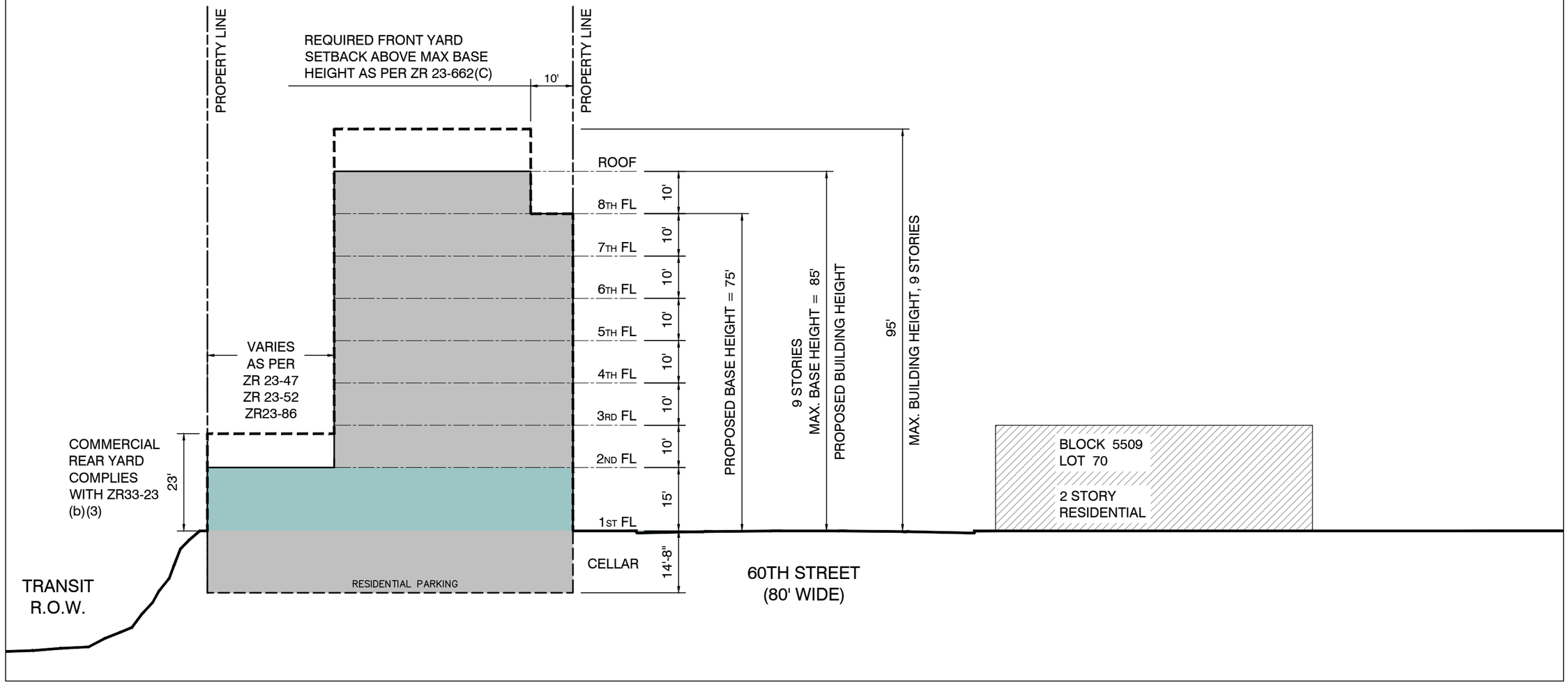
BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

1514,1522,1528,1530 60th Street,
Brooklyn, New York
PROP. DEVELOPMENT SITE 'C'
R7A BUILD OUT SCENARIO

rev 12/11/18



BUILDING HEIGHT DIAGRAM

SCALE 1:300

LEGEND

- COMMERCIAL USES
- RESIDENTIAL USES, FLOORS 2-7
- EXISTING SURROUNDING BUILDINGS
- ZONING LOT LINE / BOUNDARY LINE
- BUILDING ENVELOPE

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

REGISTERED ARCHITECT HENRY RADUSKY 015029 STATE OF NEW YORK

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

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Brooklyn, New York
PROP. DEVELOPMENT SITE 'C'
R7A BUILD OUT SCENARIO

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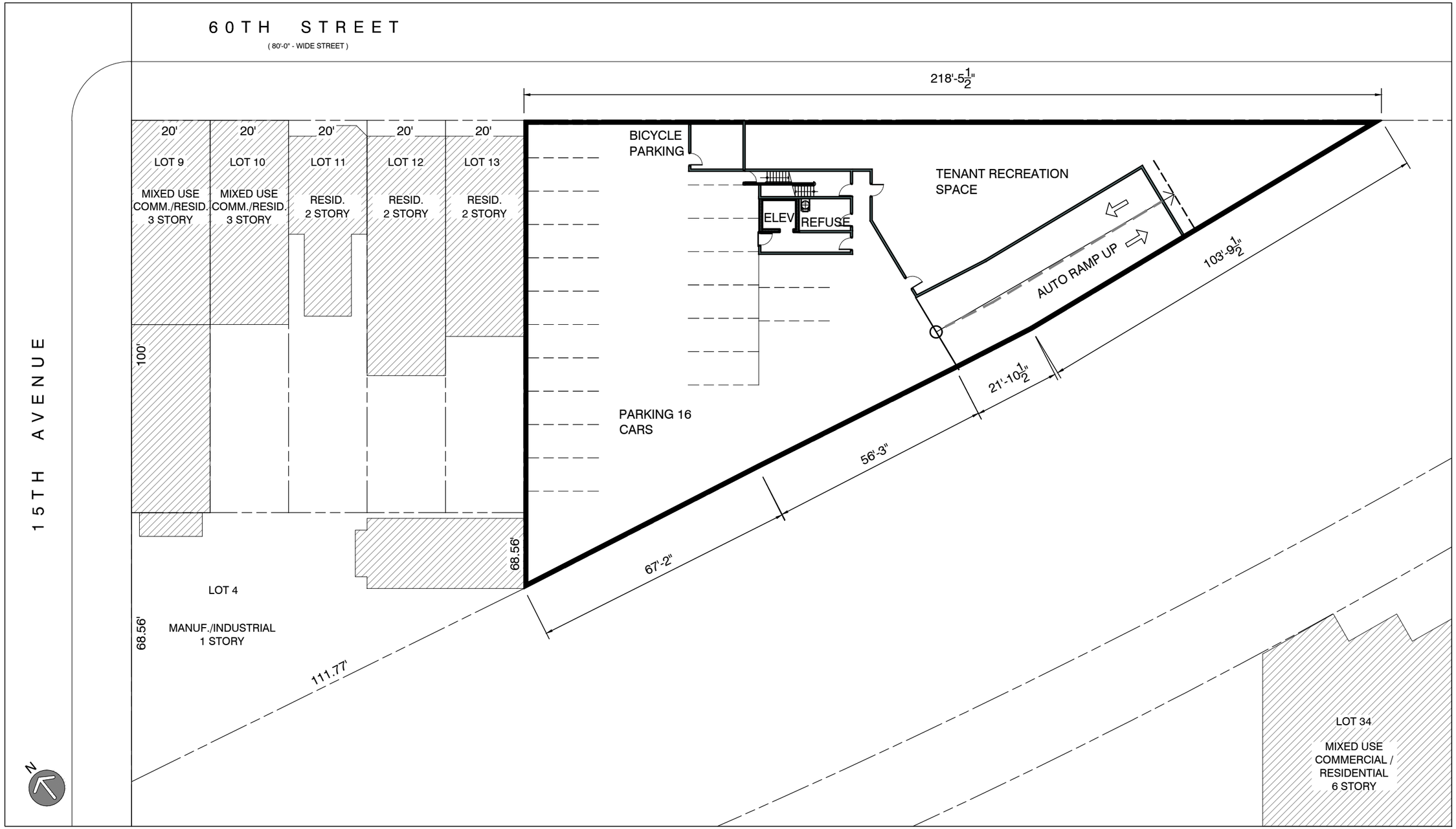

CELLAR PLAN

SCALE 1:300

LEGEND

ZONING LOT LINE / BOUNDARY LINE

EXISTING SURROUNDING BUILDINGS

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

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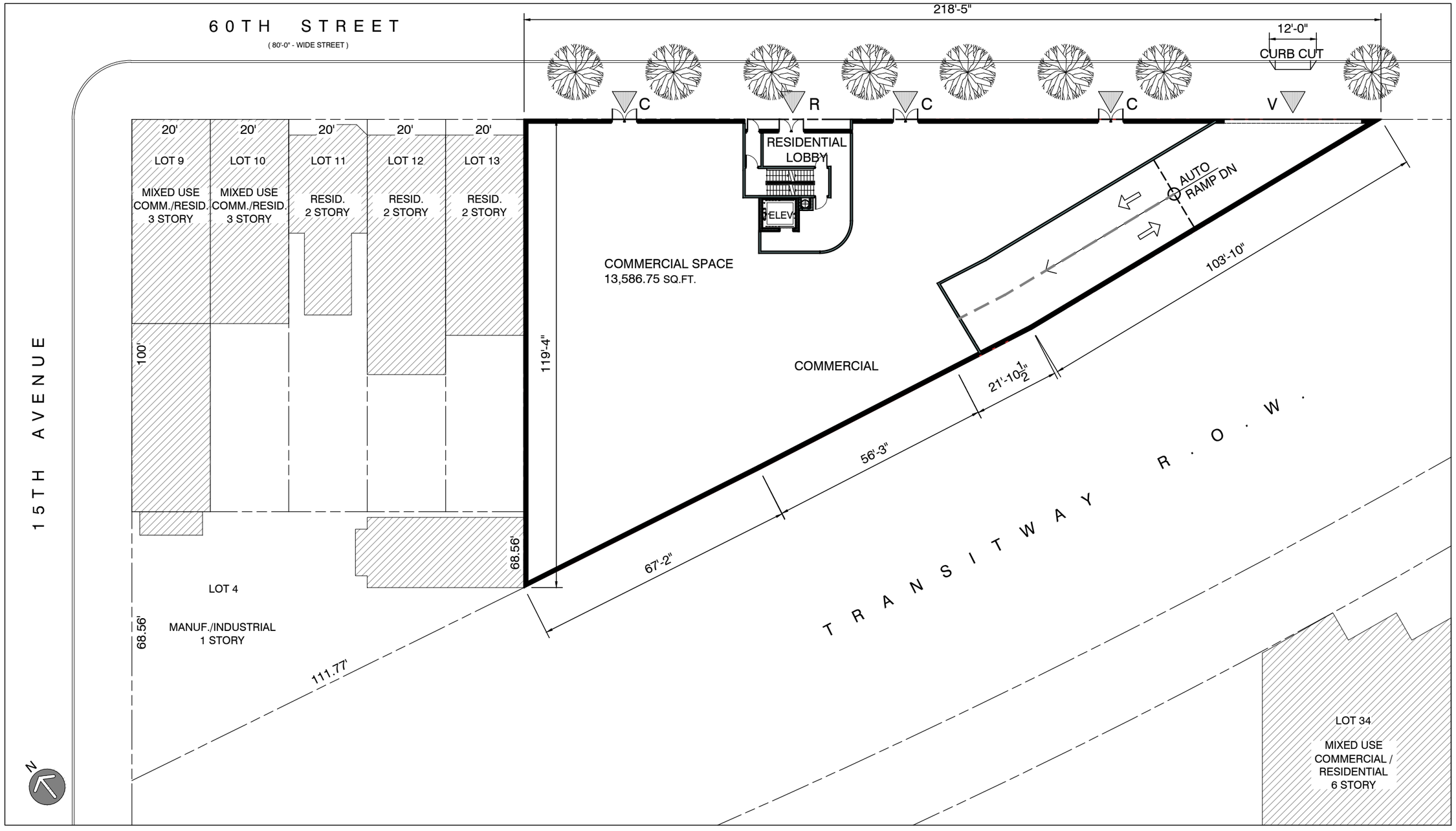

FIRST FLOOR PLAN

SCALE 1:300

LEGEND

ZONING LOT LINE / BOUNDARY LINE	R	RESIDENTIAL PEDESTRIAN ENTRANCE / EXIT
EXISTING SURROUNDING BUILDINGS	C	COMMERCIAL PEDESTRIAN ENTRANCE / EXIT
PROPOSED TREE AS REQUIRED BY NYC PARKS DEPT.	V	VEHICULAR ENTRANCE / EXIT

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

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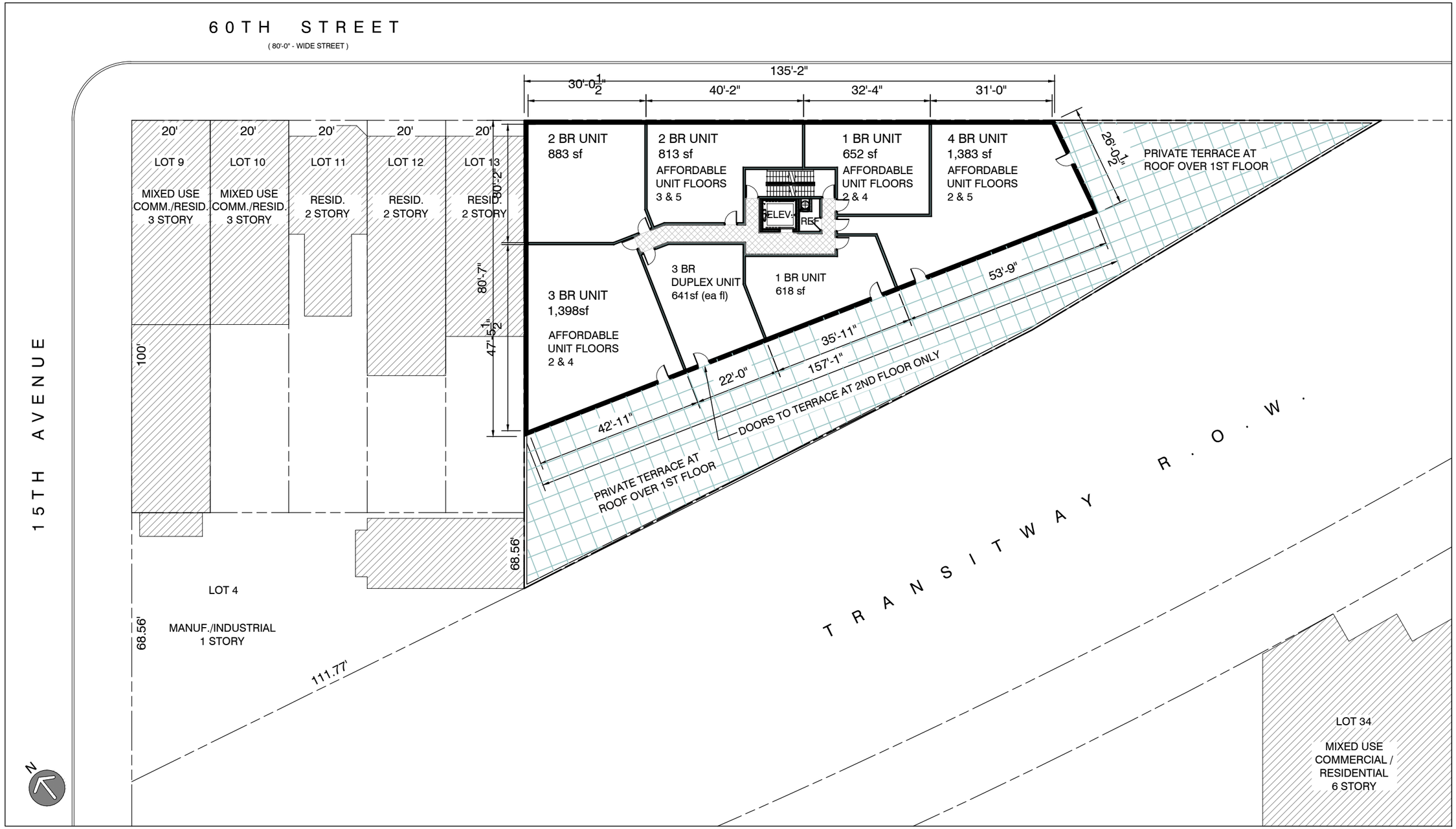

2ND TO 5TH FLOOR PLAN

SCALE 1:300

LEGEND

ZONING LOT LINE / BOUNDARY LINE

EXISTING SURROUNDING BUILDINGS

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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PROP. DEVELOPMENT SITE 'C'
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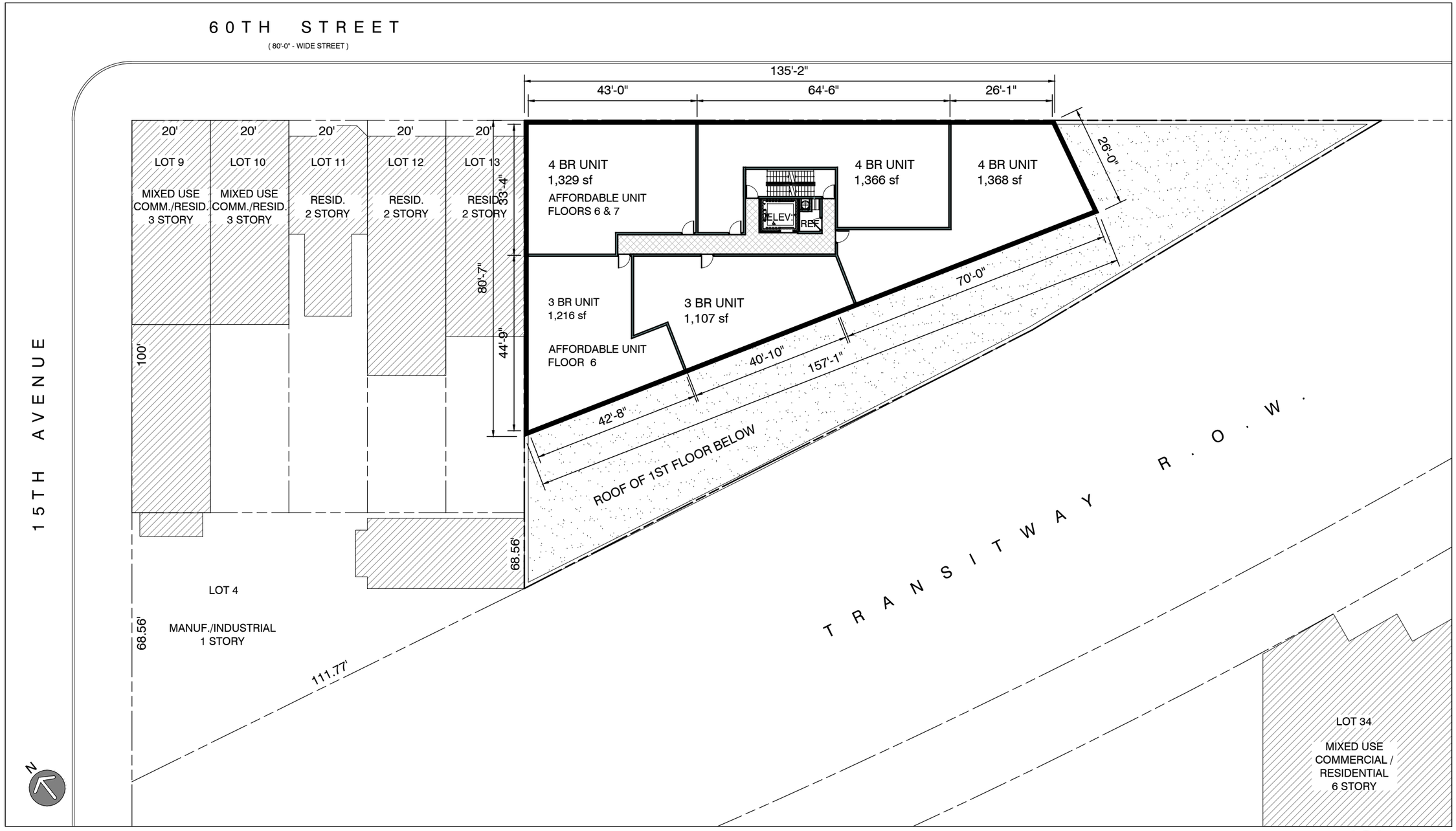

5TH TO 6TH FLOOR PLAN

SCALE 1:300

LEGEND

ZONING LOT LINE / BOUNDARY LINE

EXISTING SURROUNDING BUILDINGS

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

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R7A BUILD OUT SCENARIO

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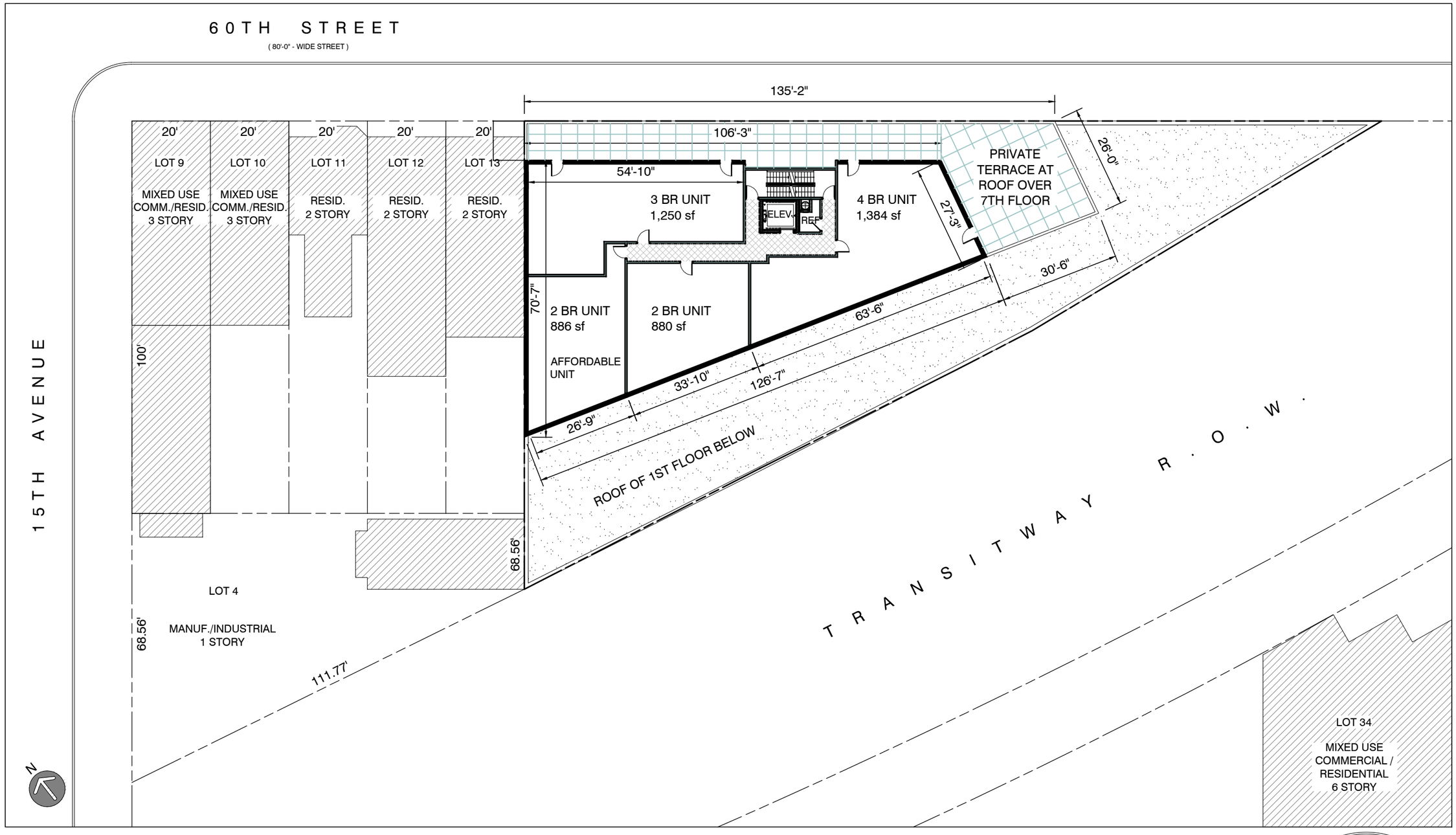

8TH FLOOR PLAN

SCALE 1:300

LEGEND

ZONING LOT LINE / BOUNDARY LINE

EXISTING SURROUNDING BUILDINGS

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

1514,1522,1528,1530 60th Street, Brooklyn, New York

PROP. DEVELOPMENT SITE 'C'

R7A BUILD OUT SCENARIO

rev 12/11/18



AERIAL VIEW LOOKING SOUTH FROM FIFTEENTH AVENUE

N.T.S.

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516
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AERIAL VIEW LOOKING SOUTH FROM FIFTEENTH AVENUE

N.T.S.

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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BLOCK 5516

LOTS 14, 17, 20, 21

ZONING R7A / C2-4

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PROP. DEVELOPMENT SITE 'C'
R7A BUILD OUT SCENARIO

rev 12/11/18



AERIAL VIEW LOOKING SOUTH FROM FIFTEENTH AVENUE

N.T.S.

SITE	C
BLOCK	5516
LOTS	14, 17, 20, 21
ZONING	R7A / C2-4

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