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# 1720 Atlantic Avenue Rezoning

## Environmental Assessment Statement

**Address: Brooklyn, NY 11213**

**Block 1335, Lots 28, 30, 35**

**Brooklyn Community District 8**

**CEQR Reference: 23DCP139K**

**ULURP Reference: N230315ZRK, 230316ZMK**

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

**Prepared for:**
Bermuda Realty No. 2 LLC

**Prepared by:**
GZA GeoEnvironmental




GZA GeoEnvironmental
55 Lane Road | Fairfield, NJ 07004
104 West 29th St, 10th Fl | New York, NY 10001
www.gza.com | GZA LinkedIn

**Date Submitted:**
April 29, 2025

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# EAS FULL FORM

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

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

## Part I: GENERAL INFORMATION

**PROJECT NAME** 1720 Atlantic Avenue Rezoning

**1. *Reference Numbers***

| CEQR REFERENCE NUMBER (to be assigned by lead agency) | BSA REFERENCE NUMBER (if applicable) |
|---|---|
| 23DCP139K | |
| ULURP REFERENCE NUMBER (if applicable) | OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA) |
| 230316ZMK, N230315ZRK | |

| **2a. *Lead Agency Information*** | | | **2b. *Applicant Information*** | | |
|---|---|---|---|---|---|
| NAME OF LEAD AGENCY<br>New York City Department of City Planning | | | NAME OF APPLICANT<br>Bermuda Realty No. 2 LLC | | |
| NAME OF LEAD AGENCY CONTACT PERSON<br>Stephanie Shellooe, AICP, Director<br>Environmental Assessment and Review Division | | | NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON<br>Qianyu Xiang, GZA GeoEnvironmental | | |
| ADDRESS 120 Broadway, 31st Floor | | | ADDRESS 55 Lane Road | | |
| CITY New York | STATE NY | ZIP 10271 | CITY Fairfield | STATE NJ | ZIP 07004 |
| TELEPHONE 212-720-3328 | EMAIL sshellooe@planning.nyc.gov | | TELEPHONE 917-470-3077 | EMAIL qianyu.xiang@gza.com | |

**3. *Action Classification and Type***

***SEQRA Classification***

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

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

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

**4. *Project Description***

The Applicant, Bermuda Realty No. 2 LLC, is seeking the approval of a zoning map amendment and two zoning text amendments (Proposed Actions) that would affect Block 1335, Lots 28, 30, and 35 (the "Affected Area" and "Projected Development Site") in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the Affected Area as a Mandatory Inclusionary Housing (MIH) area, for which Option 1 is being sought by the Applicant. The Applicant is also seeking a text amendment pursuant to ZR § 35-66 to widen the sidewalk along Atlantic Avenue. The zoning map amendment and zoning text amendments are considered the Proposed Actions.

Per the Applicant's proposal, the Proposed Actions would facilitate the development of Block 1335, Lots 28, 30, and 35 with a new 13-story (140-foot tall) 387,041 gross square foot (GSF) (300,695 zoning square foot; 6.23 FAR) mixed-use commercial, community facility, and residential building. The proposed development would include 300 dwelling units totaling 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial space; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility space; and 116 residential parking spaces (52,635 GSF).

It should be noted that a slightly different development scenario from the Applicant's proposed development was established as the Reasonable Worst-Case Development Scenario (RWCDS) for a more conservative analysis result. While the Applicant's proposed development meets the maximum permitted blened FAR of 6.23 and therefore the floor areas would be the same under the RWDCS, the building height under the RWCDS is assumed to reach the maximum permitted building height of 145 feet (13 stories) within the proposed C4-4D district and 115 feet (10 stories) within the proposed R7A and R&A/C2-4 districts; compared to the Applicant-proposed development, which has a building height of 140 feet (13 stories) within the proposed C4-4D district and 97 feet (9 stories) within the proposed R7A and R7A/C2-4 zoning districts. In addition, the RWCDS assumes that ground floor commercial uses total 31,522 GSF of local retail uses; the second floor will consider 24,475 GSF of general office use; and the remainder of the second floor will assume

21,641 GSF of UG III(B) medical office uses.

As per the Applicant's Proposed Plans, there would be 300 total dwelling units (1 DU per 856 SF), with 75 units or 25% permanently set aside as affordable units for households averaging 60% AMI per MIH Option 1. There would be no parking spaces required, and a total of 116 accessory parking spaces would be provided between the cellar and ground floor as per the Applicant's plans.

***Project Location***

| | | |
|---|---|---|
| BOROUGH Brooklyn | COMMUNITY DISTRICT(S) 8 | STREET ADDRESS 1706, 1708, and 1720 Atlantic Avenue |
| TAX BLOCK(S) AND LOT(S) Block 1335 / Lots 28, 30, and 35 | | ZIP CODE 11213 |
| DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Atlantic Avenue to the north, Schenectady to the east, Troy Avenue to the west, and Pacific Street to the south | | |
| EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | | ZONING SECTIONAL MAP NUMBER 17a |

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

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Appendix F, 35-66

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

☐ VARIANCE (use)

☐ VARIANCE (bulk)

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection***: ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit

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

| | |
|---|---|
| ☐ LEGISLATION | ☐ 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:

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

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

☒ SITE LOCATION MAP ☒ ZONING MAP ☒ SANBORN OR OTHER LAND USE MAP

☒ TAX MAP ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)

☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

***Physical Setting*** (both developed and undeveloped areas)

| | |
|---|---|
| Total directly affected area (sq. ft.): 48,300 | Waterbody area (sq. ft.) and type: |
| Roads, buildings, and other paved surfaces (sq. ft.): 48,300 | Other, describe (sq. ft.): |

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 387,041

| | |
|---|---|
| NUMBER OF BUILDINGS: 1 | GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 387,041 |
| HEIGHT OF EACH BUILDING (ft.): Applicant proposed: 140 / | NUMBER OF STORIES OF EACH BUILDING: 13 |

RWCDS: 145

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:

The total square feet not owned or controlled by the applicant:

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO

If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: 48,300 sq. ft. (width x length) VOLUME OF DISTURBANCE: 483,000 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 48,300 sq. ft. (width x length)

**8. *Analysis Year*** CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2028

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Factoring 12 months for technical review/environmental review, 7 months for ULURP process, and 38 months for construction

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction on the Projected Development Site is expected to last up to approximately 38 months beginning in November of 2025 with foundation and demolition and ending in December of 2028 with interior finishes.

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

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

**DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS**

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

| | EXISTING CONDITION | NO-ACTION CONDITION | WITH-ACTION CONDITION | INCREMENT |
|---|---|---|---|---|
| **LAND USE** | | | | |
| ***Residential*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☒ YES ☐ NO | |
| If "yes," specify the following: | | | | |
| Describe type of residential structures | | | mixed-use multi-family | |
| No. of dwelling units | | | 300 | 300 |
| No. of low- to moderate-income units | | | 75 | 75 |
| Gross floor area (sq. ft.) | | | 256,769 | 256,769 |
| ***Commercial*** | ☒ YES ☐ NO | ☒ YES ☐ NO | ☒ YES ☐ NO | |
| If "yes," specify the following: | | | | |
| Describe type (retail, office, other) | local retail | local retail | local retail, Office | |
| Gross floor area (sq. ft.) | 28,680 | 28,680 | 55,997 | 26,867 |
| ***Manufacturing/Industrial*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If "yes," specify the following: | | | | |
| Type of use | | | | |
| Gross floor area (sq. ft.) | | | | |
| Open storage area (sq. ft.) | | | | |
| If any unenclosed activities, specify: | | | | |
| ***Community Facility*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☒ YES ☐ NO | |
| If "yes," specify the following: | | | | |
| Type | | | UG III(B) Medical Office | |
| Gross floor area (sq. ft.) | | | 21,641 | 21,641 |
| ***Vacant Land*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If "yes," describe: | | | | |
| ***Publicly Accessible Open Space*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other): | | | | |
| ***Other Land Uses*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If "yes," describe: | | | | |
| **PARKING** | | | | |
| ***Garages*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☒ YES ☐ NO | |
| If "yes," specify the following: | | | | |
| No. of public spaces | | | 0 | |
| No. of accessory spaces | | | 116 | 116 |
| Operating hours | | | 24/7 | |
| Attended or non-attended | | | Non-attended | |
| ***Lots*** | ☒ YES ☐ NO | ☒ YES ☐ NO | ☐ YES ☒ NO | |
| If "yes," specify the following: | | | | |
| No. of public spaces | 56 | 56 | | -56 |
| No. of accessory spaces | 0 | 0 | | |
| Operating hours | 24/7 | 24/7 | | |
| ***Other*** (includes street parking) | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If "yes," describe: | | | | |
| **POPULATION** | | | | |
| ***Residents*** | ☐ YES ☒ NO | ☐ YES ☒ NO | ☒ YES ☐ NO | |
| If "yes," specify number: | | | 690 | 690 |
| Briefly explain how the number of residents was calculated: | Based on Brooklyn Community District 8 average household size of 2.30 persons per household - 2020 Decennial Census Data (300*2.3 = 642) | | | |

| | EXISTING CONDITION | NO-ACTION CONDITION | WITH-ACTION CONDITION | INCREMENT |
|---|---|---|---|---|
| ***Businesses*** | ☒ YES ☐ NO | ☒ YES ☐ NO | ☒ YES ☐ NO | |
| If "yes," specify the following: | | | | |
| No. and type | 10 total<br>2 restaurants; 1 pharmacy; 6 local retail; 1 grocery store | 10 total<br>2 restaurants; 1 pharmacy; 6 local retail; 1 grocery store | 15 total<br>3 medical offices and 12 local retail | |
| No. and type of workers by business | 86 total | 86 total | 257 total | 171 |
| No. and type of non-residents who are not workers | | | | |
| Briefly explain how the number of businesses was calculated: | 3 employees per 1,000 SF for local retail, supermarket, and medical office; 1 employee per 250 SF for office | | | |
| ***Other*** (students, visitors, concert-goers, *etc.*) | ☐ YES ☒ NO | ☐ YES ☒ NO | ☐ YES ☒ NO | |
| If any, specify type and number: | | | | |
| Briefly explain how the number was calculated: | | | | |
| **ZONING** | | | | |
| Zoning classification | M1-1 | M1-1 | C4-4D; R7A/C2-4; R7A | |
| Maximum amount of floor area that can be developed | 2.40 | 2.40 | 6.23 Blended | 3.83 |
| Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project | R5B, R6, R6B; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation | R5B, R6, R6B; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation | R5B, R6, R6B, C4-4D, R7A/C2-4, R7A; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation | |
| Attach any additional information that may be needed to describe the project.<br><br>If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site. | | | | |

## Part II: TECHNICAL ANALYSIS

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

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

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

| | YES | NO |
|---|---|---|
| enhance, or otherwise protect it? | | |
| **iv. Indirect Business Displacement** | | |
| ○ Would the project potentially introduce trends that make it difficult for businesses to remain in the area? | ☐ | ☒ |
| ○ Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets? | ☐ | ☒ |
| **v. Effects on Industry** | | |
| ○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area? | ☐ | ☒ |
| ○ Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses? | ☐ | ☒ |
| **3. *COMMUNITY FACILITIES***: CEQR Technical Manual Chapter 6 | | |
| **(a) Direct Effects** | | |
| ○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations? | ☐ | ☒ |
| **(b) Indirect Effects** | | |
| **i. Early Childhood Programs** | | |
| ○ Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6) | ☐ | ☒ |
| ○ If "yes," would the project result in a collective utilization rate of the Early Childhood Programs in the study area that is greater than 100 percent? | ☐ | ☐ |
| ○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario? | ☐ | ☐ |
| **ii. Public Schools** | | |
| ○ Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6) | ☐ | ☒ |
| ○ If "yes," would the project result in a utilization rate of the elementary or middle schools that is equal to or greater than 100 percent? | ☐ | ☐ |
| ○ If "yes," would the project generate 100 or more elementary or middle school students past the 100% utilization rate? | ☐ | ☐ |
| ○ If "yes," would the project result in a utilization rate of the high schools that is equal to or greater than 100 percent? | ☐ | ☐ |
| ○ If "yes," would the project increase the high school utilization rate by 5 percent or more from the No-Action scenario? | ☐ | ☐ |
| **iii. Libraries** | | |
| ○ Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6) | ☐ | ☒ |
| ○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels? | ☐ | ☐ |
| ○ If "yes," would the additional population impair the delivery of library services in the study area? | ☐ | ☐ |
| **iv. Health Care Facilities** | | |
| ○ Would the project result in the introduction of a sizeable new neighborhood? | ☐ | ☒ |
| ○ If "yes," would the project affect the operation of health care facilities in the area? | ☐ | ☐ |
| **v. Fire and Police Protection** | | |
| ○ Would the project result in the introduction of a sizeable new neighborhood? | ☐ | ☒ |
| ○ If "yes," would the project affect the operation of fire or police protection in the area? | ☐ | ☐ |
| **4. *OPEN SPACE***: CEQR Technical Manual Chapter 7 | | |
| **(a)** Would the project change or eliminate existing open space? | ☐ | ☒ |
| **(b)** Would the project generate more than 200 additional residents or 500 additional employees? | ☒ | ☐ |
| **5. *SHADOWS***: CEQR Technical Manual Chapter 8 | | |
| **(a)** Would the proposed project result in a net height increase of any structure of 50 feet or more? | ☒ | ☐ |
| **(b)** Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource? | ☒ | ☐ |
| **(c)** If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Supp Studies | | |

| | YES | NO |
|---|---|---|
| **6. *HISTORIC AND CULTURAL RESOURCES***: CEQR Technical Manual Chapter 9 | | |
| **(a)** Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm) | ☐ | ☒ |
| **(b)** Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated? | ☒ | ☐ |
| **(c)** If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Supp Studies | | |
| **7. *URBAN DESIGN AND VISUAL RESOURCES***: CEQR Technical Manual Chapter 10 | | |
| **(a)** Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning? | ☒ | ☐ |
| **(b)** Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning? | ☐ | ☒ |
| **(c)** If "yes" to either of the above, please provide the information requested in Chapter 10. | | |
| **8. *NATURAL RESOURCES***: CEQR Technical Manual Chapter 11 | | |
| **(a)** Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11? | ☐ | ☒ |
| ○ If "yes," list the resources and attach supporting information on whether the project would affect any of these resources. | | |
| **(b)** Is any part of the directly affected area within the Jamaica Bay Watershed? | ☐ | ☒ |
| ○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking Form and submit according to its instructions. | | |
| **9. *HAZARDOUS MATERIALS***: CEQR Technical Manual Chapter 12 | | |
| **(a)** Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials? | ☒ | ☐ |
| **(b)** Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure? | ☐ | ☒ |
| **(c)** Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts? | ☐ | ☒ |
| **(d)** Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in the Hazardous Materials Appendix (including nonconforming uses)? | ☒ | ☐ |
| **(e)** Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin? | ☐ | ☒ |
| **(f)** Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)? | ☒ | ☐ |
| **(g)** Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint? | ☐ | ☒ |
| **(h)** Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators? | ☐ | ☒ |
| **(i)** Has a Phase I Environmental Site Assessment been performed for the site? | ☒ | ☐ |
| ○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: An active Spill #9402692 at an adjacent site occupied by a Shell filling station at 1740 Atlantic Avenue (Block 1336, Lot 6); the suspect presence of an adverse impact to groundwater beneath the Site from an adjacent gasoline station; a Potential Vapor Encroachment Condition at the Projected Development Site | ☒ | ☐ |
| **(j)** Based on the Phase I Assessment, is a Phase II Investigation needed? | ☒ | ☐ |
| **10. *WATER AND SEWER INFRASTRUCTURE***: CEQR Technical Manual Chapter 13 | | |
| **(a)** Would the project result in water demand of more than one million gallons per day? | ☐ | ☒ |
| **(b)** If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens? | ☐ | ☒ |
| **(c)** If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13? | ☐ | ☒ |
| **(d)** Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase? | ☐ | ☒ |
| **(e)** If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, | ☐ | ☒ |

| | YES | NO |
|---|---|---|
| would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase? | | |
| **(f)** Would the proposed project be located in an area that is partially sewered or currently unsewered? | ☐ | ☒ |
| **(g)** Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system? | ☐ | ☒ |
| **(h)** Would the project involve construction of a new stormwater outfall that requires federal and/or state permits? | ☐ | ☒ |
| **(i)** If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation. | | |
| **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): 26,645 | | |
| ○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week? | ☐ | ☒ |
| **(b)** Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City? | ☐ | ☒ |
| ○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan? | ☐ | ☐ |
| **12. *ENERGY***: CEQR Technical Manual Chapter 15 | | |
| **(a)** Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 50,353,562.7 | | |
| **(b)** Would the proposed project affect the transmission or generation of energy? | ☐ | ☒ |
| **13. *TRANSPORTATION***: CEQR Technical Manual Chapter 16 | | |
| **(a)** Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16? | ☒ | ☐ |
| **(b)** If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions: | | |
| ○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour? | ☐ | ☒ |
| If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.* | ☐ | ☐ |
| ○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour? | ☐ | ☒ |
| If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing? | ☐ | ☐ |
| ○ Would the proposed project result in more than 200 pedestrian trips per project peak hour? | ☐ | ☒ |
| If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, bus stop, or Citywide Ferry Service landing? | ☐ | ☐ |
| **14. *AIR QUALITY***: CEQR Technical Manual Chapter 17 | | |
| **(a)** *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17? | ☒ | ☐ |
| **(b)** *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17? | ☒ | ☐ |
| ○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Supp Studies | ☐ | ☒ |
| **(c)** Does the proposed project involve multiple buildings on the project site? | ☐ | ☒ |
| **(d)** Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements? | ☐ | ☒ |
| **(e)** Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts? | ☐ | ☒ |
| **(f)** If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. | | |
| **15. *GREENHOUSE GAS EMISSIONS***: CEQR Technical Manual Chapter 18 | | |
| **(a)** Is the proposed project a city capital project or a power generation plant? | ☐ | ☒ |
| **(b)** Would the proposed project fundamentally change the City's solid waste management system? | ☐ | ☒ |
| **(c)** Would the proposed project result in the development of 350,000 square feet or more? | ☐ | ☒ |
| **(d)** If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18? | ☐ | ☐ |
| ○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation. | ☐ | ☐ |
| **16. *NOISE***: CEQR Technical Manual Chapter 19 | | |
| **(a)** Would the proposed project generate or reroute vehicular traffic? | ☒ | ☐ |

| | YES | NO |
|---|---|---|
| **(b)** Would the proposed project introduce new or additional receptors (see Section 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line? | ☒ | ☐ |
| **(c)** Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise? | ☐ | ☒ |
| **(d)** Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts? | ☐ | ☒ |
| **(e)** If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Supp Studies | | |
| **17. *PUBLIC HEALTH***: CEQR Technical Manual Chapter 20 | | |
| **(a)** Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise? | ☐ | ☒ |
| **(b)** If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. | | |
| **18. *NEIGHBORHOOD CHARACTER***: CEQR Technical Manual Chapter 21 | | |
| **(a)** Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise? | ☐ | ☒ |
| **(b)** If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. | | |
| **19. *CONSTRUCTION***: CEQR Technical Manual Chapter 22 | | |
| **(a)** Would the project's construction activities involve: | | |
| ○ Construction activities lasting longer than two years? | ☒ | ☐ |
| ○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare? | ☒ | ☐ |
| ○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)? | ☒ | ☐ |
| ○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out? | ☐ | ☒ |
| ○ The operation of several pieces of diesel equipment in a single location at peak construction? | ☒ | ☐ |
| ○ Closure of a community facility or disruption in its services? | ☐ | ☒ |
| ○ Activities within 400 feet of a historic or cultural resource? | ☐ | ☒ |
| ○ Disturbance of a site containing or adjacent to a site containing natural resources? | ☐ | ☒ |
| ○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall? | ☐ | ☒ |
| **(b)** If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. | | |

## 20. *APPLICANT'S CERTIFICATION*

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

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

| APPLICANT/REPRESENTATIVE NAME | SIGNATURE | DATE |
|---|---|---|
| Qianyu Xiang | Qianyu Xiang | 04/29/2025 |

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

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

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

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

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

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

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

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

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

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

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

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

| TITLE | LEAD AGENCY |
|---|---|
| Deputy Director, Environmental Assessment and Review Division | Department of City Planning on behalf of the City Planning Commission |
| NAME | DATE |
| Evren Ulker-Kacar, AICP, Deputy Director | May 2, 2025 |

SIGNATURE 

## NEGATIVE DECLARATION

**Statement of No Significant Effect**

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

**Reasons Supporting this Determination**

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

**Land Use, Zoning, and Public Policy**

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, Bermuda Realty No. 2 LLC, is seeking the approval of a zoning map amendment and a zoning text amendment (the "Proposed Actions") affecting Block 1335, Lots 28, 30, and 35 (the "Affected Area" or "Development Site") at 1720 Atlantic Avenue in the Crown Heights neighborhood of Brooklyn, Community District 8. Specifically, the Proposed Actions would rezone the Development Site from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts, map a Mandatory Inclusionary Housing (MIH) area, and to amend Section 35-662 of the Zoning Resolution ("ZR") to widen the existing sidewalk along Atlantic Avenue to a width of 20 feet. The Proposed Actions would facilitate the redevelopment of the Applicant-owned Development Site with a new 13-story, 140-foot-tall, 387,401 gross square foot (GSF) mixed-use commercial, community facility, and residential building. The proposed Development Site would include 256,769 GSF of residential space, including 300 total dwelling units (DUs), including 60-90 permanently affordable DUs pursuant to the applicable requirements of MIH. The Development Site would also include 55,997 GSF of commercial space; 21,641 GSF of community facility space; and 116 residential parking spaces. As noted above, it is proposed that the existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet. Overall, the Proposed Actions would facilitate the development of new housing and community facility opportunities and expand commercial opportunities that are compatible with the zoning and land uses found in the vicinity of the Development Site. In addition, the Proposed Project would be consistent with public policies such as the Housing Blueprint. Therefore, the Proposed Actions would not result in any significant adverse impacts to land use, zoning, or public policy.

**Socioeconomic Conditions**

A detailed analysis related to socioeconomic conditions is included in this EAS. The Proposed Actions would not result in the direct displacement of any residents or businesses, nor would it result in indirect business replacement, or have an adverse effect on specific industries. With respect to potential indirect residential displacement, the Proposed Actions would spur development of both affordable and market-rate housing units. Though the induced development resulting from the Proposed Actions would continue the established trend of population growth in the area and would add new population with a higher average income compared to the average income of the existing populations, the Proposed Actions would not have significant adverse impacts on the socioeconomic conditions. The Proposed Actions are anticipated to result in a 1.33 percent population increase to the 1/2-Mile Study Area, which is not large enough (more than 5%) to be considered significant per the 2021 CEQR Technical Manual. Therefore, the Proposed Actions would not result in any significant adverse socioeconomic impacts.

**Open Space**

A detailed analysis related to open space is included in this EAS. Under the With-Action Condition, the Open Space Ratio (OSR) decrease induced by the Proposed Actions would be 1.35 percent compared to the No-Action OSR: 0.519 to 0.512 acres per 1,000 residents. While the open space study area would continue to have OSRs below the City guideline of 2.50 acres per 1,000 residents, the percent change is lower than the CEQR threshold of two percent for areas with an OSR of 0.51 to 1.00 acres of open space per 1,000 residents. In addition, the Affected Area is located within a Walk to Park Service Area and is therefore not identified as a walk gap area. As a result, the Proposed Actions would not result in any significant adverse impacts on open space resources.

**Shadows**

A detailed analysis related to shadows is included in this EAS. The Proposed Actions would result in incremental shadows on one sunlight sensitive resource, Harmony Park. On December 21st, portions of the park would be in shadow for a total of 6 hours and 2 minutes, entering from the southwest corner at 8:51 am and exiting the southeast corner at 2:53 pm. Shadows occurring during the cold weather months do not affect the growing season, and therefore, does not constitute a significant adverse impact on vegetation. The chess boards would only be covered for 1 hour from 8:51 am to 9:51 am, leaving approximately 5 hours of sunlight on the chess tables. The benches would be covered in shadow from approximately 11:51 am to 1:51 pm, leaving 4 hours of sunlight on the benches. The increment of shadows cast on other open space amenities i.e., chess tables and benches within the park for the December 21st analysis period would still leave a significant amount of sunlight and would not constitute an adverse impact. Open space utilization of the resource would not be significantly impacted for the December analysis period. Shadows from the Proposed Actions would be cast on March 21st/September 21st for 7 hours and 31 minutes entering from the southwest corner at 8:29 am and exiting the southeast corner at 4:00 pm. The shadow that would be cast on the park would only encroach on an approximately 20-foot portion along the southern edge and would not impact the chess tables or benches. Open space utilization of the sunlight sensitive resource would not be impacted, and due to the minimal shadow cast on the resource, there would be no impact on vegetation. As there would be no incremental shadows on the park as a result of the Proposed Actions during the May 6/ August 6 and June 21st analysis days, and the portions of the park that would continue to have partial sunlight during the winter months, the Proposed Actions would not result in a significant adverse shadows impact.

**Disadvantaged Communities**

This EAS includes an assessment for effects on Disadvantaged Communities (DAC). The Project Site is located within a census tract identified as a DAC having comparatively lower burdens and vulnerabilities. As the CEQR Technical Manual has not been updated to include guidance for an assessment of Effects of Disadvantaged Communities,

**Project Name: 1720 Atlantic Avenue Rezoning**
**CEQR # 23DCP139K**
**SEQRA Classification: Unlisted**

the SEQRA Environmental Assessment for (EAF) has been consulted for guidance for this analysis. The Proposed Actions would not result in significant adverse impacts in any technical areas analyzed in this EAS: land use, zoning and public policy; shadows; historical resources; urban design and visual resources; transportation; noise; construction; and hazardous materials and air quality. Based on this assessment, the Proposed Actions would not disproportionately affect disadvantages communities, nor cause or increase a disproportionate pollution burden.

**Hazardous Materials, Air Quality, and Noise**

An (E) designation (E-845) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

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

| | |
|---|---|
| TITLE<br>Deputy Director, Environmental Assessment and Review Division | LEAD AGENCY<br>Department of City Planning on behalf of the City Planning Commission<br>120 Broadway, 31st Fl. New York, NY 10271 \| 212.720.3493 |
| NAME<br>Evren Ulker-Kacar, AICP | DATE<br>5/2/2025 |
| SIGNATURE | |
| TITLE<br>Chair, City Planning Commission | |
| NAME<br>Daniel R. Garodnick | DATE<br>5/5/2025 |
| SIGNATURE | |

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Determination of Significance Appendix

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

| Development Site | Borough | Block and Lot |
|---|---|---|
| Projected Development Site 1 | Brooklyn | Block 1335, Lots 28, 30 and 35 |

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-845**) would be established as part of approval of the proposed actions on **Projected Development Site 1** as described below:

| Development Site | Hazardous Materials | Air Quality | Noise |
|---|---|---|---|
| Projected Development Site 1 | X | X | X |

*Hazardous Materials*

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

*Task 1-Sampling Protocol*

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

*Task 2-Remediation Determination and Protocol*

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

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

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

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*Air Quality*

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

> ***Projected Development Site 1:*** *Any new residential, commercial, and/or community facility development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC system and hot water equipment, and ensure that HVAC system and hot water equipment stack is located at least 160 feet above grade, to avoid any potential significant adverse air quality impacts.*

*Noise*

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

> ***Projected Development Site 1:*** *In order to ensure an acceptable interior noise environment, future community facility (medical office) and/or commercial office uses must provide a closed-window condition with a minimum of 40 dBA window/wall attenuation on the northern façade of the first and second floor facing Atlantic Avenue, on the eastern façade of the first and second floor facing Schenectady Avenue within 100 feet from Atlantic Avenue, and on the western façade of the first and second floor facing Troy Street within 100 feet from Atlantic Avenue in order to maintain a daytime interior noise level of 45 Leq for commercial office spaces and community facility (medical office). Future residential uses must provide a closed-window condition of 41 dBA window/wall attenuation on the northern facades facing Atlantic Avenue, the eastern façade facing Schenectady Avenue within 100 feet from Atlantic Avenue, and the western façade facing Troy Street within 100 feet from Atlantic Avenue in order to maintain an interior Ldn noise level not greater than 40 dBA for residential uses. No other façades require attenuation. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.*

**Figure 1.1-1: Site Location Map**

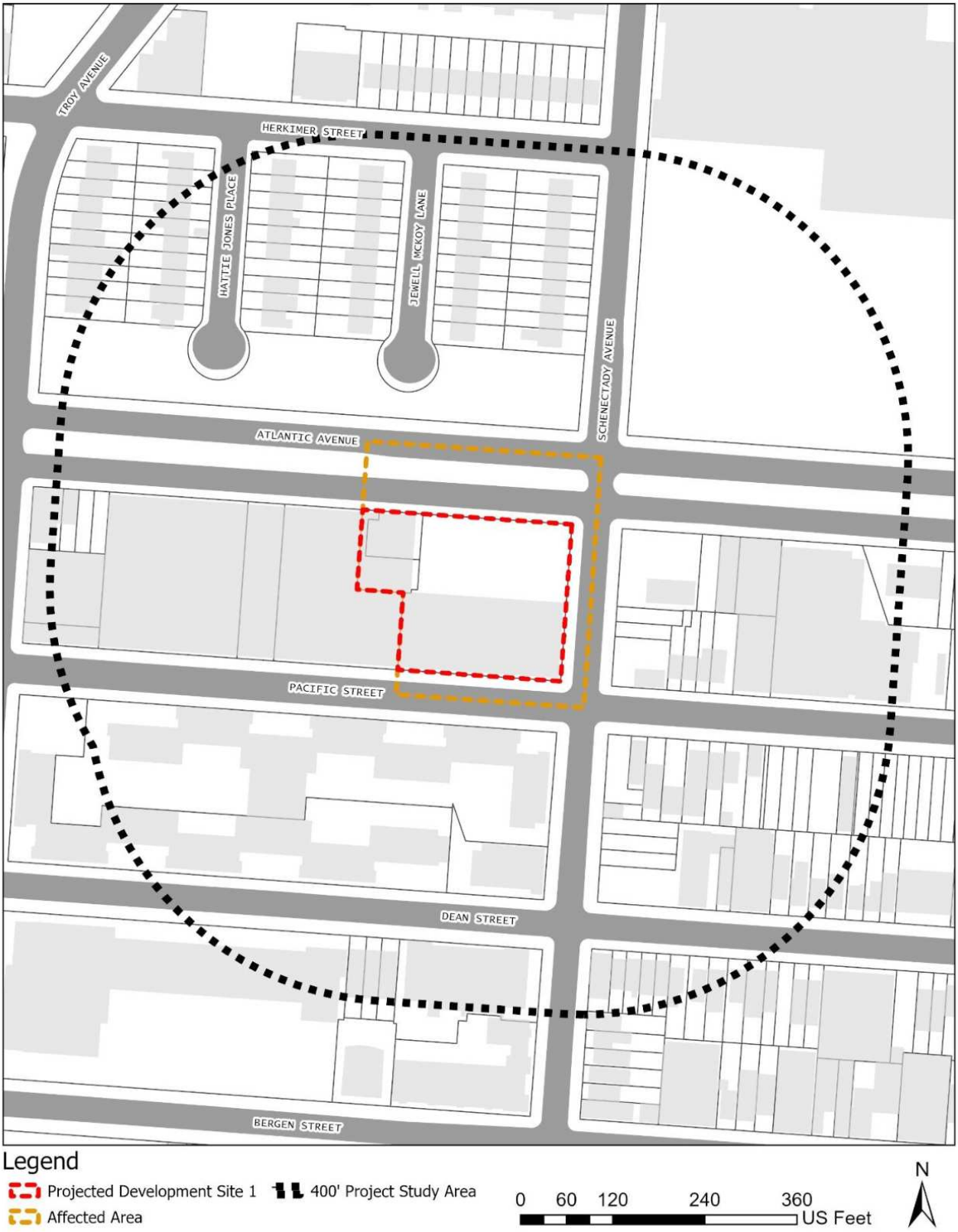


**Figure 1.1-2: Existing Land Use Map**

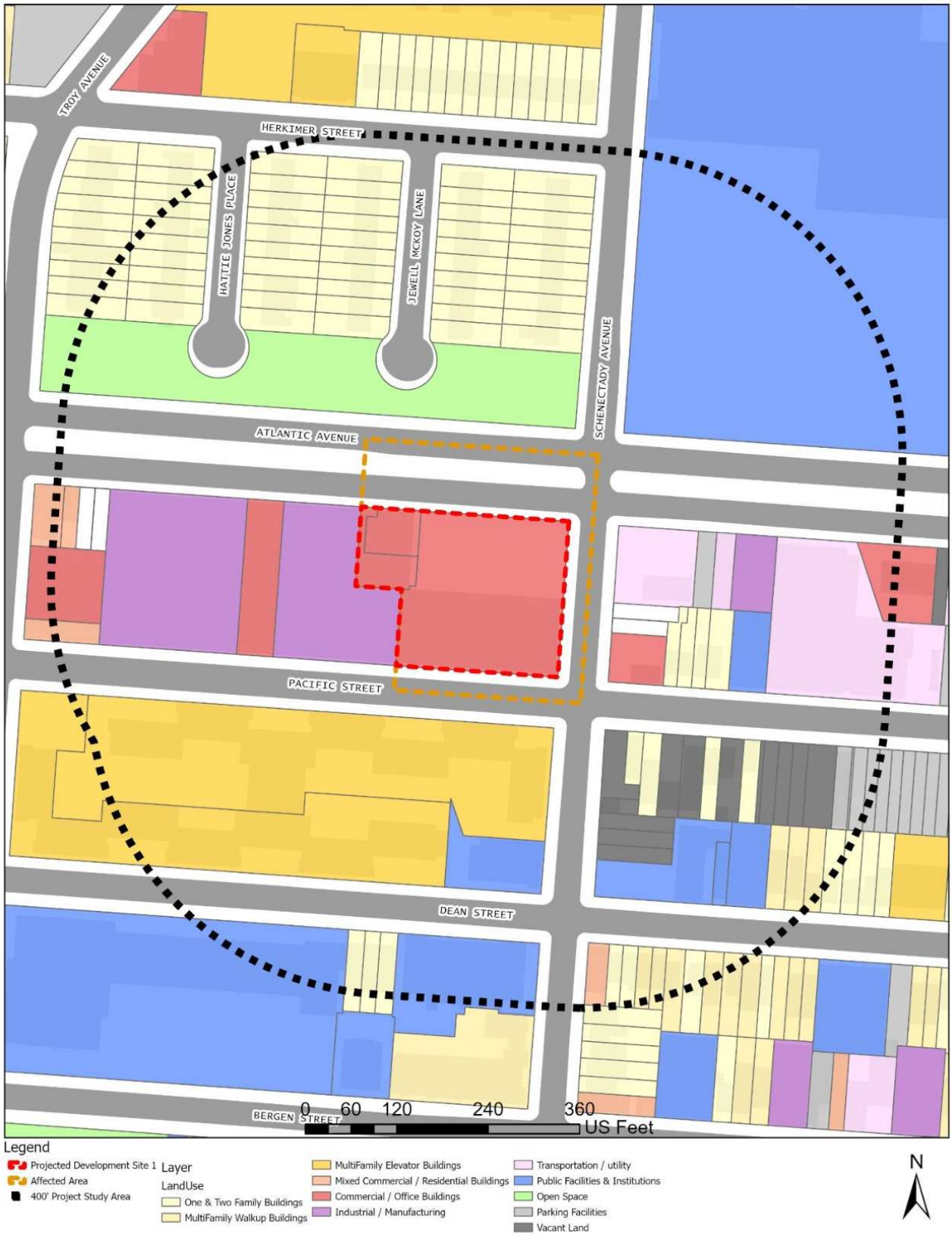


**Figure 1.1-3: Zoning Sectional Map**

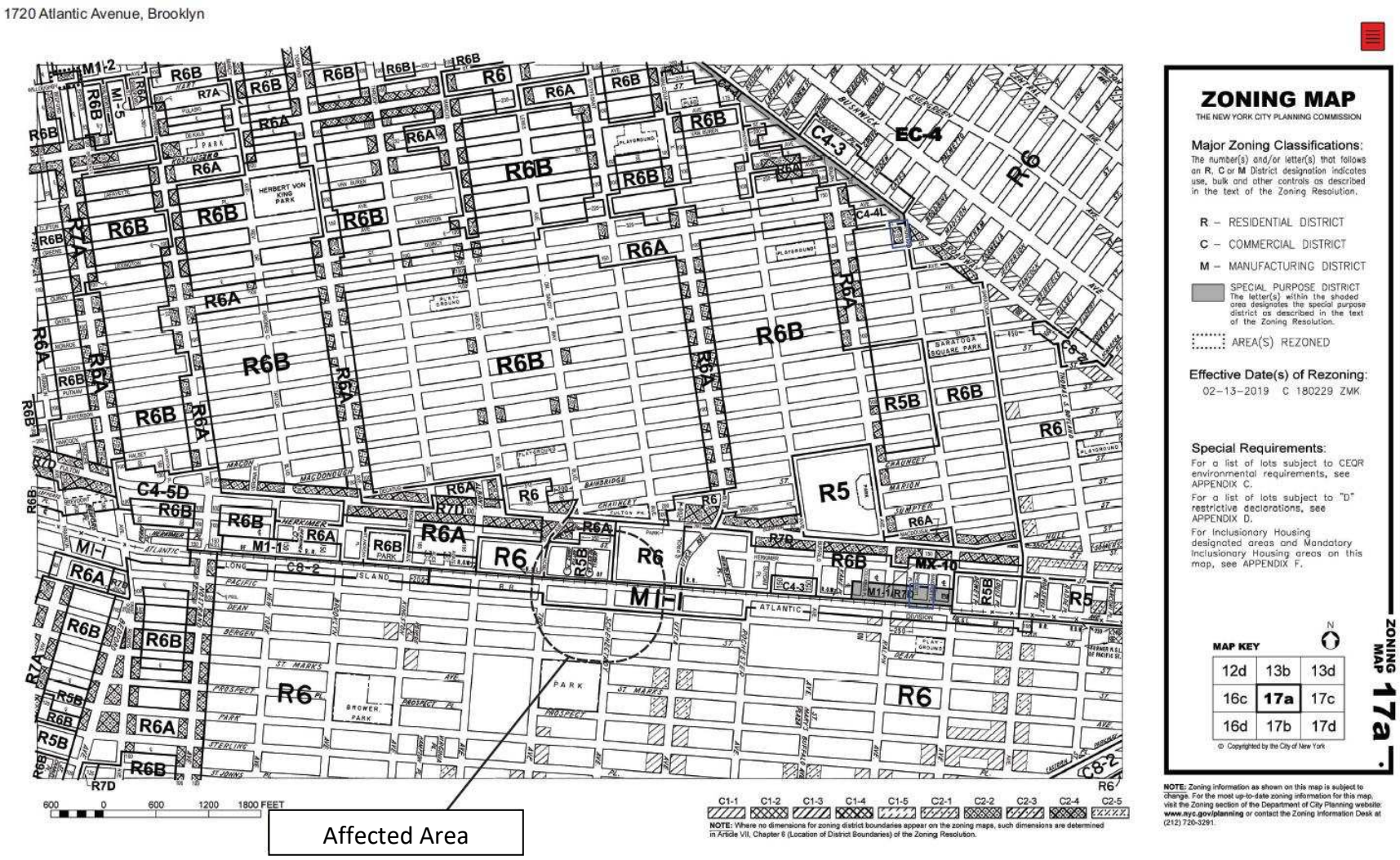
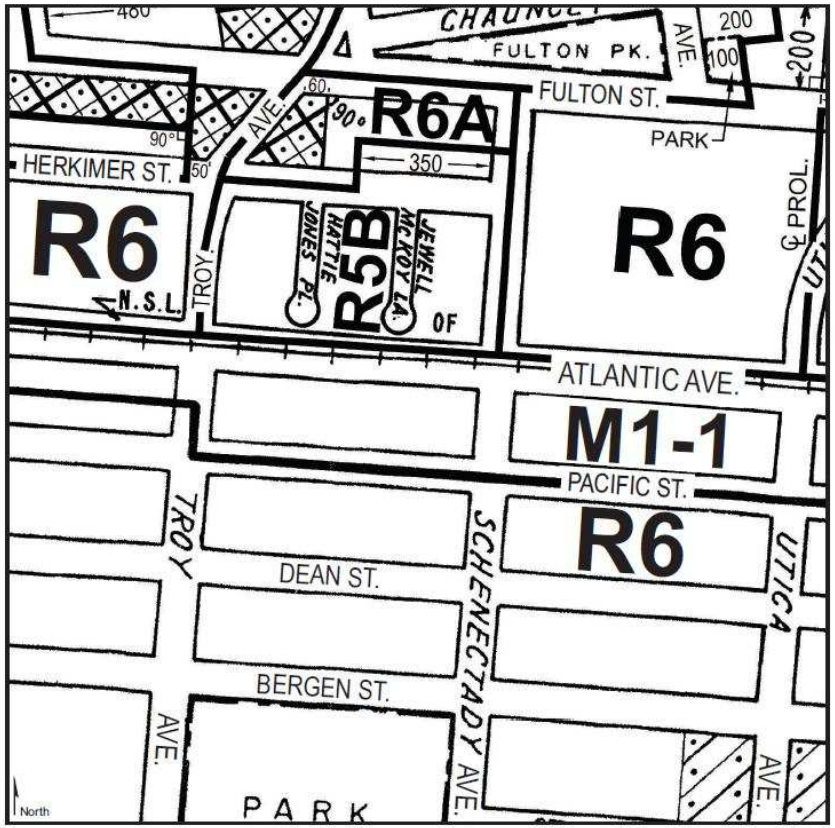
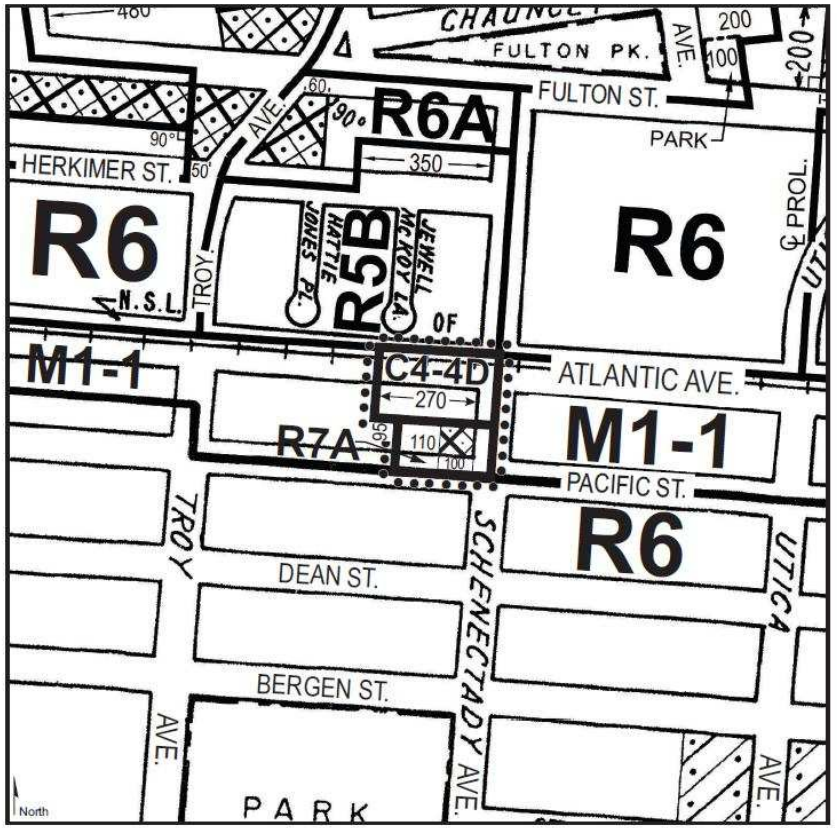


**Figure 1.1-4: Zoning Change Map**




Current Zoning Map (17a)




Proposed Zoning Map (17a) - Area being rezoned is outlined with dotted lines

Rezoning from M1-1 to C4-4D
Rezoning from M1-1 to R7A
Rezoning from M1-1 to R7A/C2-4

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.

**Figure 1.1-5: Tax Map**

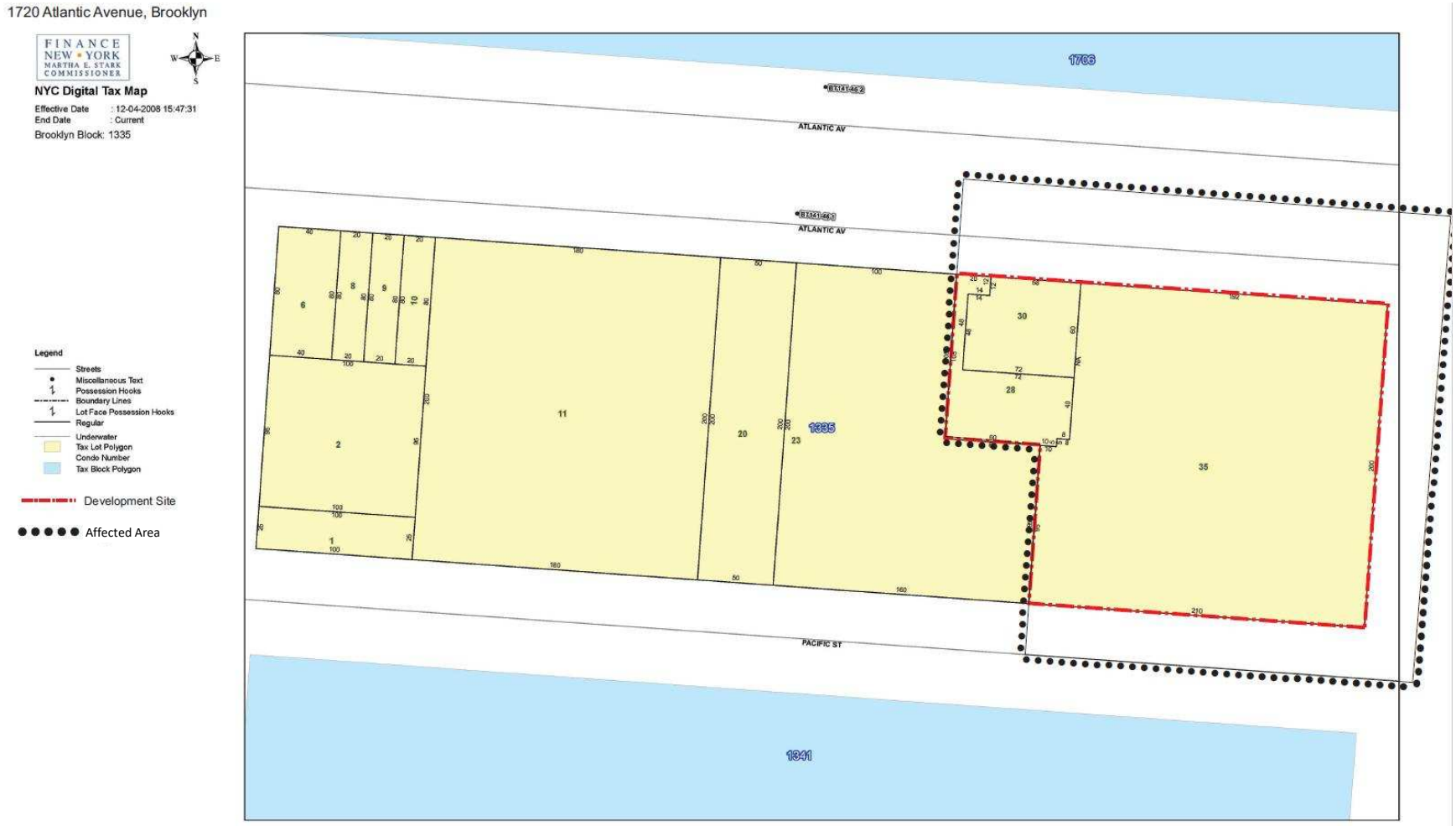


**Figure 1.1-6: Site Photos (1)**



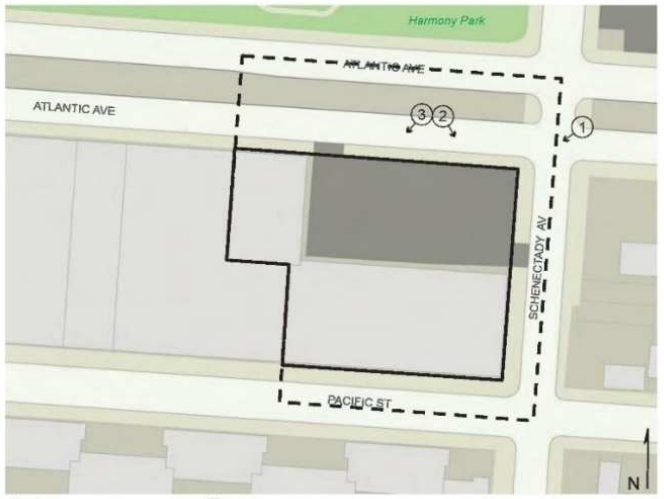

1. View of the Development Site facing southwest from the intersection of Schenectady Avenue and Atlantic Avenue.




2. View of the Development Site facing southeast from Atlantic Avenue.



3. View of the Development Site facing southwest from Atlantic Avenue.




Photographs Taken on December 5, 2023

**Figure 1.1-7: Site Photos (2)**



4. View of the Development Site facing southeast from Atlantic Avenue.



5. View of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).



6. View of the south side of Atlantic Avenue facing southeast (Development Site at far left).

Photographs Taken on December 5, 2023

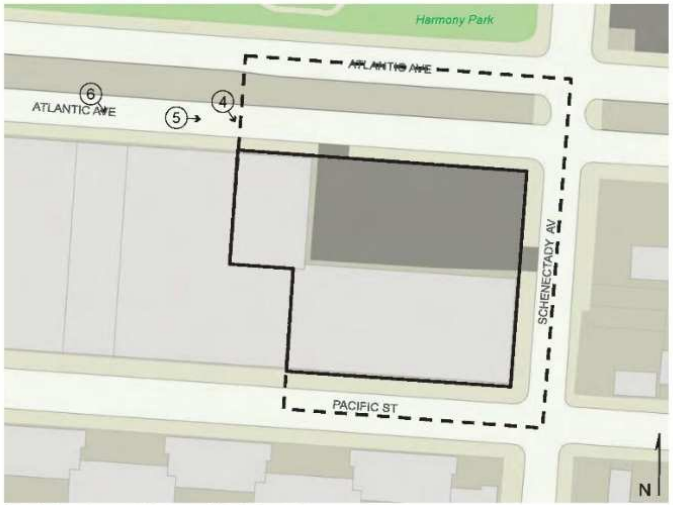


**Figure 1.1-8: Site Photos (3)**



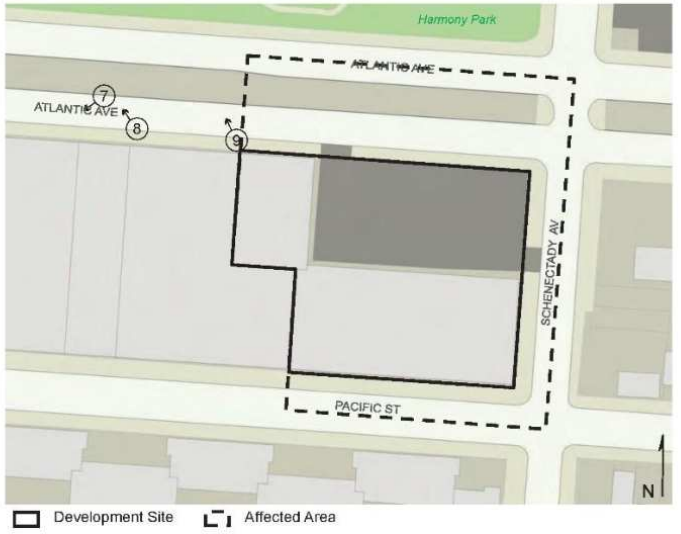
7. View of the south side of Atlantic Avenue between Troy Avenue and Schenectady Avenue facing southwest.



8. View of the north side of Atlantic Avenue facing northwest between Schenectady Avenue and Troy Avenue.



9. View of the north side of Atlantic Avenue facing northwest from the Development Site.




Photographs Taken on December 5, 2023

**Figure 1.1-9: Site Photos (4)**



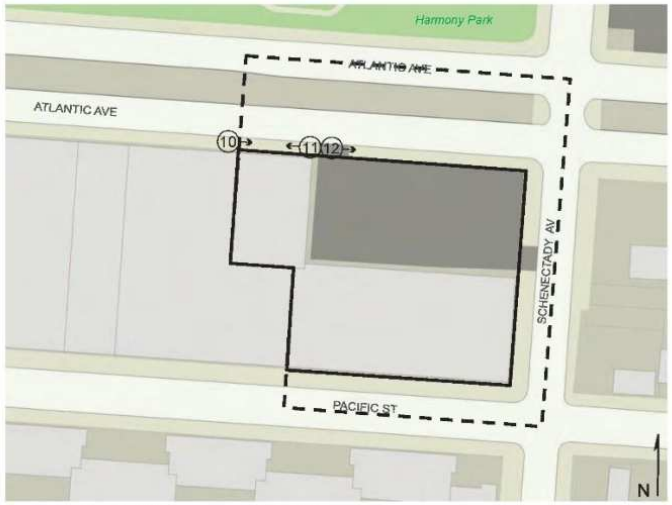
10. View of the sidewalk along the south side of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).



11. View of the sidewalk along the south side of Atlantic Avenue facing west toward Troy Avenue (Development Site at left).




12. View of the sidewalk along the south side of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).




Photographs Taken on December 5, 2023

**Figure 1.1-10: Site Photos (5)**



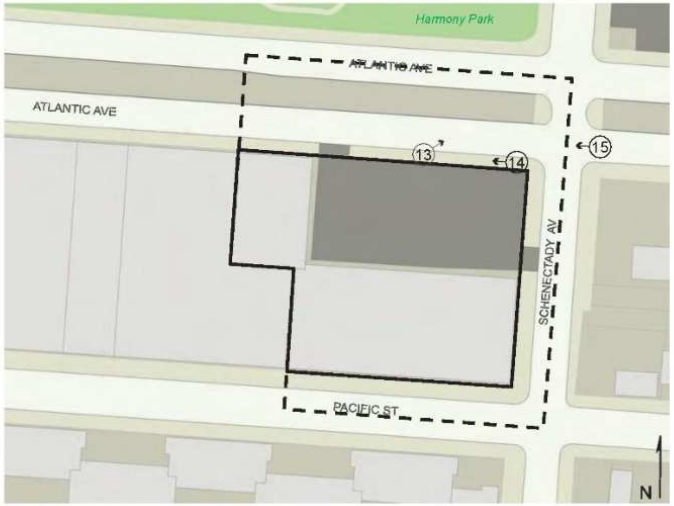
13. View of the north side of Atlantic Avenue facing northeast from the Development Site.



14. View of the sidewalk along the south side of Atlantic Avenue facing west from Schenectady Avenue (Development Site at left).



15. View of Atlantic Avenue facing west from Schenectady Avenue (Development Site at left).




Photographs Taken on December 5, 2023

**Figure 1.1-11: Site Photos (6)**



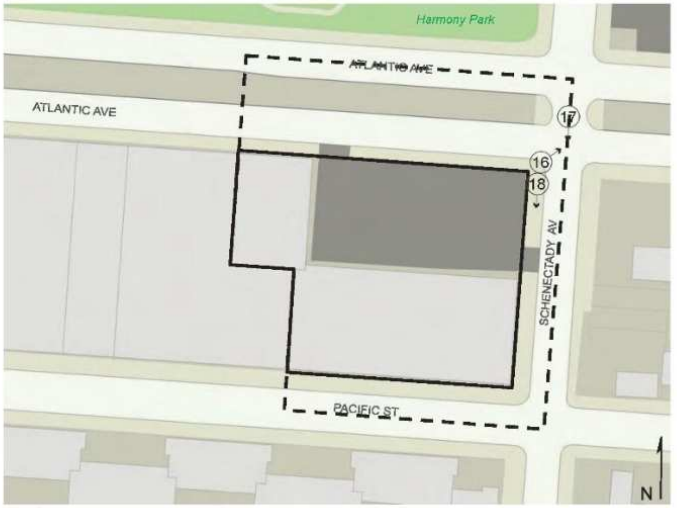
16. View of the intersection of Atlantic Avenue and Schenectady Avenue facing northeast from the Development Site.




17. View of Schenectady Avenue facing south from Atlantic Avenue (Development Site at right).




18. View of the sidewalk along the west side of Schenectady Avenue facing south from Atlantic Avenue (Development Site at right).




Photographs Taken on December 5, 2023

**Figure 1.1-12: Site Photos (7)**



19. View of the Development Site facing northwest from Schenectady Avenue.




20. View of the Development Site facing southwest from Schenectady Avenue.



21. View of the east side of Schenectady Avenue facing northeast from the Development Site.

Photographs Taken on December 5, 2023

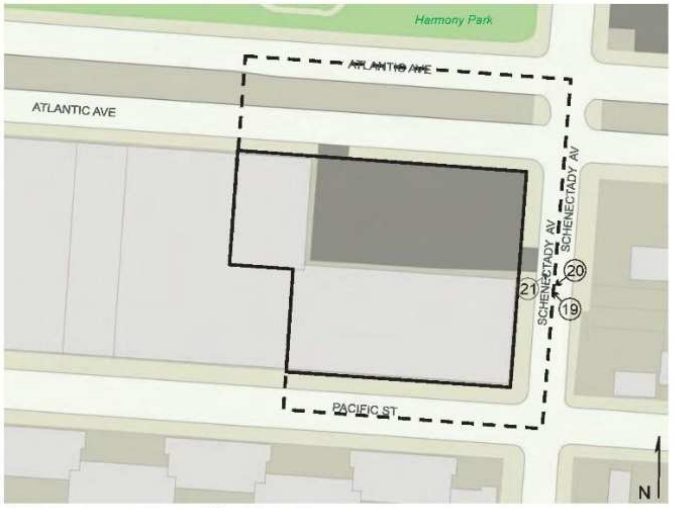


**Figure 1.1-12: Site Photos (8)**



22. View of the east side of Schenectady Avenue facing southeast from the Development Site.

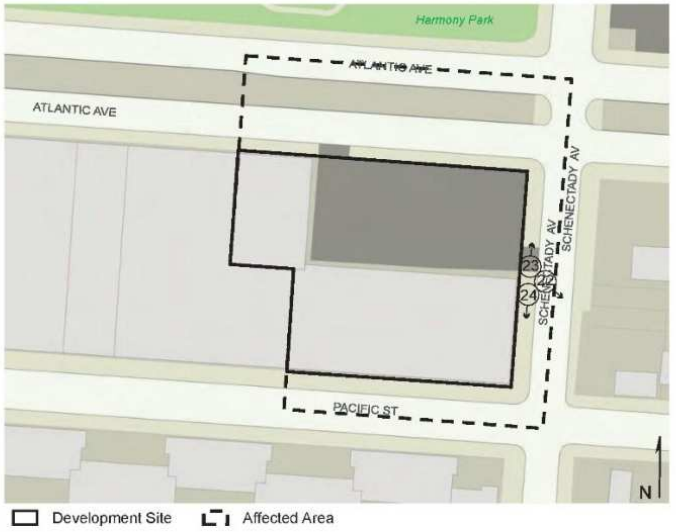


23. View of the sidewalk along the west side of Schenectady Avenue facing north toward Atlantic Avenue (Development Site at left).



24. View of the sidewalk along the west side of Schenectady Avenue facing south toward Pacific Street (Development Site at right).

Photographs Taken on December 5, 2023



## Figure 1.1-13: Site Photos (9)



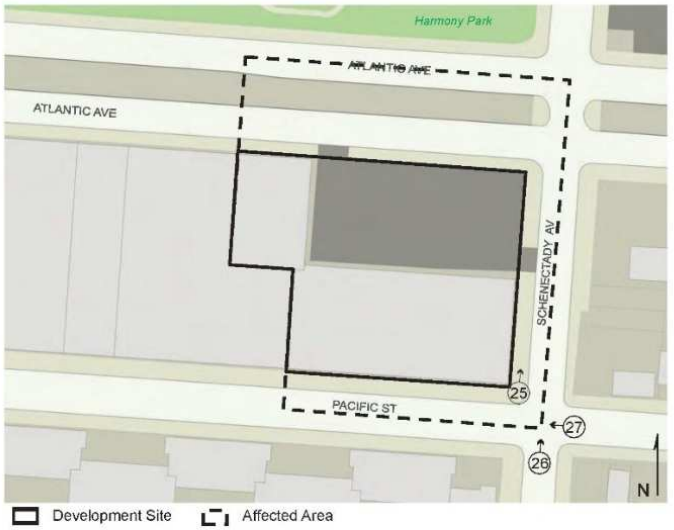

25. View of the sidewalk along the west side of Schenectady Avenue facing north from Pacific Street (Development Site at left).



26. View of Schenectady Avenue facing north from Pacific Street (Development Site at left).



27. View of Pacific Street facing west from Schenectady Avenue (Development Site at right).




Photographs Taken on December 5, 2023

**Figure 1.1-14: Site Photos (10)**



28. View of the intersection of Pacific Street and Schenectady Avenue facing southeast from the Development Site.




29. View of the Development Site facing northwest from the intersection of Pacific Street and Schenectady Avenue.



30. View of the sidewalk along the north side of Pacific Street facing west from Schenectady Avenue (Development Site at right).

Photographs Taken on December 5, 2023

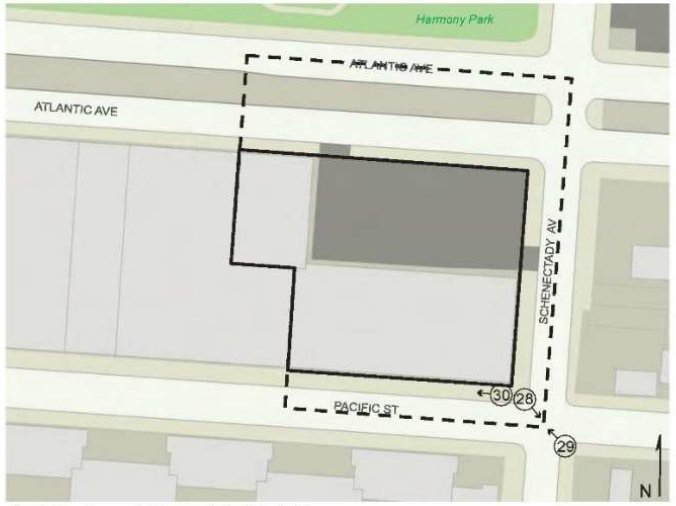


**Figure 1.1-15: Site Photos (11)**



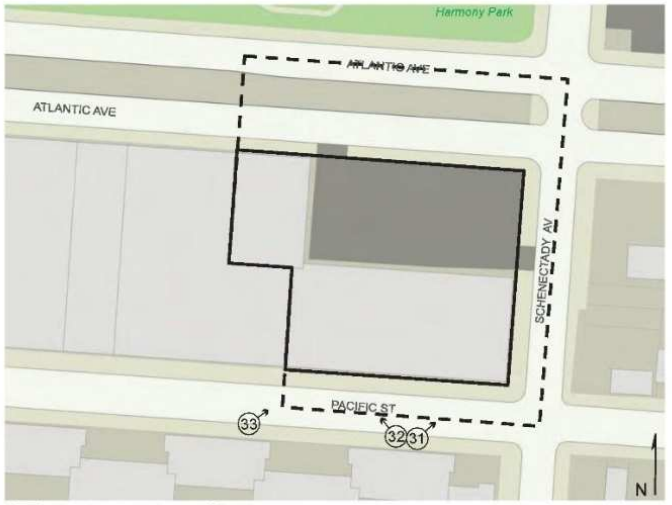
31. View of the Development Site facing northeast from Pacific Street.



32. View of the Development Site facing northwest from Pacific Street.



33. View of the Development Site facing northeast from Pacific Street.




Photographs Taken on December 5, 2023

**Figure 1.1-16: Site Photos (12)**



34. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



35. View of the south side of Pacific Street facing southwest from the Development Site.



36. View of the south side of Pacific Street facing southeast from the Development Site.

Photographs Taken on December 5, 2023

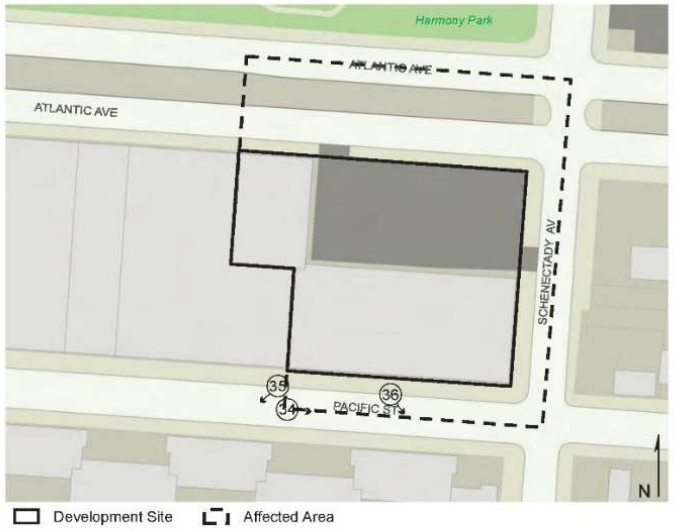


**Figure 1.1-17: Site Photos (13)**



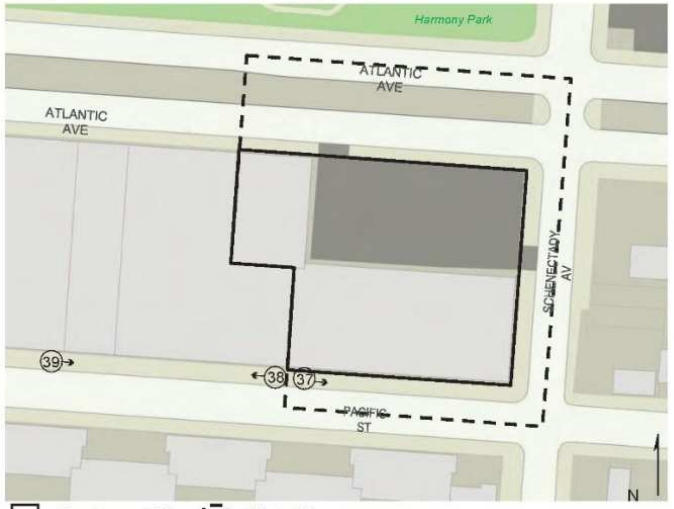
37. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



38. View of the south side of Pacific Street facing southwest from the Development Site.



39. View of the south side of Pacific Street facing southeast from the Development Site.




Photographs Taken on December 5, 2023

## Figure 1.1-18: Site Photos (14)



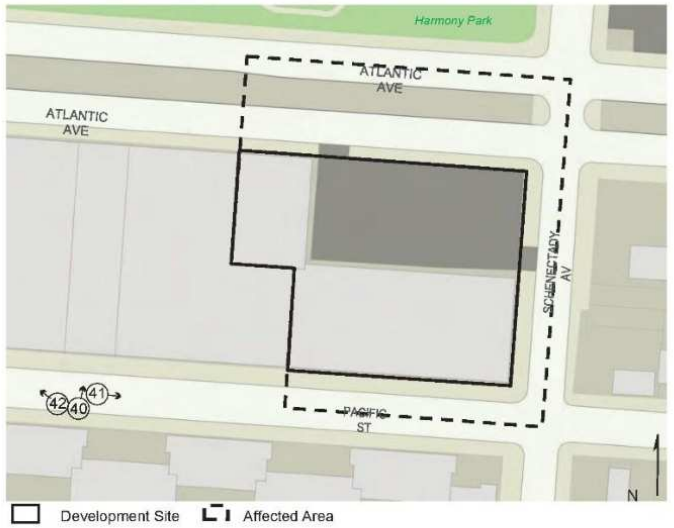
40. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



41. View of the south side of Pacific Street facing southwest from the Development Site.



42. View of the south side of Pacific Street facing southeast from the Development Site.




Photographs Taken on December 5, 2023

# 1 Project Description

## 1.1 Introduction

The Applicant, Bermuda Realty No. 2 LLC, is seeking the approval of a zoning map amendment and two zoning text amendments (the "Proposed Actions") that would affect Block 1335, Lots 28, 30, and 35 (the "Affected Area" and "Projected Development Site 1") in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the Affected Area as a Mandatory Inclusionary Housing (MIH) area. The Applicant is also seeking a text amendment to ZR Section 35-66, specifically ZR Section 35-662, to widen the existing sidewalk along Atlantic Avenue to a width of 20 feet.

The Proposed Actions would facilitate the development of Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) with a new 13-story, 140-foot-tall, 387,401 gross square foot (GSF) (300,695 zoning square foot (ZSF); 6.23 FAR) mixed-use commercial, community facility, and residential building, as proposed by the Applicant. The Applicant-proposed development would include 300 dwelling units totaling 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial space; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility space; and 116 residential parking spaces (52,635 GSF). As noted above, it is proposed that the existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

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

## 1.2 Background and Site History

The Affected Area was originally zoned M1-1 in 1961 and has not changed since. Lots 28, 30, and 35 are all occupied by three contiguous one-story buildings that are all part of a single shopping center that was constructed in 2002. There are no DOB records for previous development on any of the lots within the Affected Area. Historic aerials of the area indicate that the lots were vacant and undeveloped as far back as 1951, but aerials from 1924 show multiple buildings.

## 1.3 Description of the Surrounding Area

The Affected Area is bounded by Atlantic Avenue to the north, Schenectady Avenue to the east, Pacific Street to the south, and Troy Avenue to the west. Atlantic Avenue is a main east-west thoroughfare through the area and is classified as a Principal Arterial Roadway by the New York State Department of Transportation (NYSDOT); it is considered a wide road with 120 feet in width

and includes three moving lanes of traffic in each direction with elevated rail tracks running down the middle. Schenectady Avenue is a north to south one-way right-of-way that is classified as a Minor Arterial Road by NYSDOT with two moving lanes of traffic and curbside parking. Pacific Street is an east to west one-way right-of-way that is classified as a Local Road by NYSDOT with a single moving lane of traffic, a bike lane, and curbside parking. Troy Avenue is a south to north one-way road that is classified as a Minor Arterial Road with two moving lanes of traffic and curbside parking.

Land uses in the 400-foot surrounding area are a mix of manufacturing along Atlantic Avenue, one- and two-family buildings along Herkimer Street to the north, multi-family buildings, commercial buildings, public facilities, and mixed-use residential and commercial buildings. Major uses of note in the area include Harmony Park directly across Atlantic Avenue from Projected Development Site 1, Launch Expeditionary Learning Charter School, Boys and Girls High School, Nelson Mandela School for Social Justice, and the Interfaith Medical Center.

The Affected Area is entirely within an M1-1 zoning district that is mapped along the southern portion of Atlantic Avenue. The surrounding area to the south is zoned R6 with C2-3 and C1-3 commercial overlays along Utica Avenue; the surrounding area to the north is zoned with a mix of R5B, R6, R6A, and R6B districts, and includes several C2-4 commercial overlays along Fulton Street.

The traffic grid around the Affected Area is regularly shaped. The surrounding area includes or is adjacent to major thoroughfares including Atlantic Avenue (Principal Arterial roadway), Schenectady Avenue (Minor Arterial roadway), and Troy Avenue (Minor Arterial roadway). The area is well-served by transit and is within a Transit Zone. The Utica Avenue subway station is serviced by the MTA with stops for A and C lines and is approximately 1 block, or 950 feet to the northeast of the Affected Area. The Nostrand Avenue Long Island Railroad station is approximately 4,000 feet to the west, with trains providing service to various locations, including West Hempstead and Far Rockaway. Stops for the B15, B25, B46, and B65 buses are in the immediate area.

## 1.4 Description of the Affected Area

The three lots within the Affected Area are all Applicant-controlled. Each lot is currently developed with a one-story commercial building that makes up a shopping center at the corner of Atlantic Avenue and Schenectady Avenue, with parking provided on Lot 35:

- Block 1335, Lot 28: An irregularly shaped 3,998-sf lot that was improved in 2002 with a 3,998 GSF (1.00 FAR) portion of a commercial building. The building is currently tenanted by Golden Krust Caribbean Restaurant and Atlantic Pharmacy.
- Block 1335, Lot 30: A 4,152-sf lot fronting Atlantic Avenue that was improved in 2003 with a 4,152 GSF (1.00 FAR) portion of a commercial building. The building is tenanted by a Metro by T-Mobile, GEM Pawnbrokers, and Checks & More check cashing.

- Block 1335, Lot 35: The largest of the three lots, this 40,150-sf corner lot has frontage along Atlantic Avenue, Schenectady Avenue, and Pacific Street. The structure on site was built in 2002 and altered in 2007, and is 20,980 GSF and 0.52 FAR. The parking for the combined shopping center is located on Lot 35 and includes approximately 56 commercial accessory parking spaces. Uses at the site include a grocery store, a Dunkin' Donuts, a beauty supply store, a Dollar Tree, and a furniture store.

It should be noted that the proposed zoning map amendment would create a split lot zoning condition in the Affected Area. A rectangular area of approximately 27,000 sf containing Block 1335, Lots p/o 28, 30, and p/o 35, with a depth of 100 feet from Atlantic Avenue, would be rezoned from an M1-1 zoning district to a C4-4D zoning district. An L-shaped area of approximately 11,300 sf containing Block 1335, Lots p/o 28 and p/o 35 with a depth of 100 feet from Pacific Street would be rezoned from an M1-1 zoning district to an R7A zoning district. A square area of approximately 10,000 sf containing Block 1335, Lot p/o 35 with a 100-foot frontage on Pacific Street and a 100-foot frontage on Schenectady Avenue would be rezoned from an M1-1 zoning district to an R7A/C2-4 zoning district.

## 1.5 Description of the Proposed Project

The Proposed Project includes the demolition of the three existing buildings and the construction of a new 13-story, 140-foot-tall, 387,041 GSF mixed-use residential, commercial, and community facility building on Projected Development Site 1 (Block 1335, Lots 28, 30, and 35). The building would be 300,695 ZSF (6.23 FAR) and would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 13; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility use on the 2nd floor; and 52,635 GSF of accessory parking area split between the cellar and ground floor. There would be 300 total dwelling units, with 75 (25%) of those units made affordable to incomes averaging 60% AMI per MIH Option 1. There would be no parking spaces required, and a total of 116 parking spaces would be provided between the cellar and ground floors. Ground floor commercial space would include local retail uses.

It should be noted that the Proposed Actions include a zoning text amendment to ZR Section 35-66, specifically ZR Section 35-662 (Special height and setback provisions in certain districts along Atlantic Avenue within Community District 8, Borough of Brooklyn) to widen the sidewalk along the Projected Development Site 1 Atlantic Avenue frontage from its existing width of approximately 14' to 20'.

## 1.6 Action(s) Necessary to Facilitate the Proposed Project

There are three actions necessary to facilitate the Proposed Project:

(1) A Zoning Map Amendment to rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts.

(2) A Zoning Text Amendment to ZR Section 35-66, adding a Special Height and Setback Provision to allow for the sidewalk along Atlantic Avenue to be widened up to 20 feet.

(3) A Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designation Areas and Mandatory Inclusionary Housing Areas for Community District 8, Brooklyn, to establish the Affected Area as an MIH Area, Option 1.

## 1.7 Purpose and Need

The Proposed Project would not be possible under the existing M1-1 zoning regulations, which limits commercial development to 1.00 FAR and does not allow residential and certain community facility uses. The Proposed Actions would allow for increased density of residential, commercial, and community facility uses along a wide road with ample public transportation access. The Proposed Actions would increase allowable floor area from 1.00 to 6.23 FAR (blended FAR given the split lot zoning conditions) and would designate a considerable number of affordable housing units in furtherance of the City's goals. Additionally, the increase in commercial (1.00 FAR to 2.37 FAR) and community facility (2.40 to 5.40 FAR) floor area would create new jobs in the area.

## 1.8 Analysis Framework

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

The *2021 CEQR Technical Manua*l categorizes soft sites as either "projected" or "potential" development sites. Projected development sites are defined as those sites that are more likely to be developed as a result of the proposed project. Potential sites are defined as sites that could be developed but have been determined to have less development potential than the projected development sites, based on observed historic and current market conditions, location, site configuration, proximity to transit, infrastructure and other facilities, and other factors that affect the likelihood that they would be developed under the Proposed Actions. Projected Development Sites are analyzed for both site-specific and density-related effects, whereas potential development sites are only analyzed for site-specific effects.

Pursuant to *2021 CEQR Technical Manual* methodology, sites may be considered 'soft' if they are built to substantially less than the maximum permitted floor area ratio and are of a sufficient size or could be assembled into a parcel of sufficient size, to support a feasible development. Sites

that have recently been developed or redeveloped are considered less likely to be soft, due to the significant recent investment in the current use.

Build Year

The analysis year for the Proposed Actions is 2028 based on a 12-month period for environmental review, a 7-month period for ULURP process, and a 38-month period for the Applicant's development construction timeline.

The analysis which follows compares the difference between the future without the Proposed Actions (No-Action Condition) and the future with the Proposed Actions (With-Action Condition) for the 2028 analysis year. This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions.

Future Without the Proposed Actions (No-Action Condition)

The No-Action Condition is the same as under existing conditions. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

Future With the Proposed Actions (With-Action Condition)

*Projected Development Site 1 (Block 1335, Lots 28, 30, and 35; Applicant-Owned Lots)*

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) lot area would total 48,300 SF, and would be developed with a 13-story, 145-foot-tall, 387,041 GSF (300,695 ZSF; 6.23 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 14; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor. As noted above in Sections 1.5 and 1.6, the sidewalk along the Projected Development Site 1 Atlantic Avenue frontage would be widened from its existing width of approximately 14' to 20'.

**Reasonable Worst-Case Development Scenario**

For a more conservative analysis under CEQR, the analysis in this EAS will assume a slightly different development scenario under the RWCDS compared to the Applicant's proposed development. While the Applicant's proposed development meets the maximum permitted blended FAR of 6.23 and therefore the floor areas would be same under the RWCDS, the building height under the RWCDS is assumed to reach the maximum permitted building height of 145 feet (13 stories) within the proposed C4-4D zoning district and 115 feet (10 stories) within the proposed R7A and R7A/C2-4 zoning districts; compared to the Applicant-proposed development, which has a building height of 140 feet (13 stories) within the proposed C4-4D district and 97 feet (9 stories) within the proposed R7A and R7A/C2-4 districts. In addition, the RWCDS assumes that

ground floor commercial uses total 31,522 GSF of local retail uses; the second floor will consider 24,475 GSF of general office use; and the remainder of the second floor will assume 21,641 GSF of UG III(B) medical office uses.

As per the Applicant's Proposed Plans, there would be 300 total dwelling units (1 DU per 856 SF), with 75 units or 25% permanently set aside as affordable units for households averaging 60% AMI per MIH Option 1. There would be no parking spaces required, and a total of 116 accessory parking spaces would be provided between the cellar and ground floor as per the Applicant's plans.

The RWCDS Existing, No-Action, and With-Action Scenarios at the Projected Development Sites are shown below in **Table 1.8-1**. The RWCDS increment of Analysis on the Projected Development Sites within the Affected Area are presented in **Table 1.8-2**.

## Table 1.8-1: RWCDS Analysis Framework - Existing, No-Action, and With-Action Conditions

| Site Info | | | | Existing Condition | | | No-Action Condition | | | With-Action Condition | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Site ID** | **Block** | **Lot** | **Lot Area** | **Zoning** | **Com. (gsf)** | **Total gsf** | **Zoning** | **Com. (gsf)** | **Total gsf** | **Zoning** | **Com. (gsf)** | **CF (gsf)** | **Res. (gsf)** | **Parking (gsf)** | **Total gsf** | **Afford. DU** | **Total DU** |
| Projected Site 1 | 1335 | 28 | 3,998 | M1-1 | 3,998 | 3,998 | M1-1 | 3,998 | 3,998 | C4-4D | 55,997 | 21,641 | 256,769 | 52,635 | 387,041 | 75 | 300 |
| | | 30 | 4,152 | | 4,152 | 4,152 | | 4,152 | 4,152 | R7A/C2-4 | | | | | | | |
| | | 35 | 40,150 | | 20,980 | 20,980 | | 20,980 | 20,980 | R7A | | | | | | | |
| **Total** | | | **48,300** | **-** | **29,130** | **29,130** | **-** | **29,130** | **29,130** | | **55,997** | **21,641** | **256,769** | **52,635** | **387,041** | **75** | **300** |

DU = Dwelling Units

gsf = gross square feet

Res. = Residential

Com. = Commercial

CF = Community Facility

Afford. = Affordable Units

**Table 1.8-2: RWCDS Incremental Analysis Table**

| Use | No-Action Condition | With-Action Condition | Increment |
|---|---|---|---|
| Commercial GSF | 29,130 | 55,997 | +26,867 |
| Community Facility GSF | 0 | 21,641 | +21,641 |
| Residential GSF | 0 | 256,769 | +256,769 |
| Parking GSF | 0 | 52,635 | +52,635 |
| Total GSF | 29,130 | 387,041 | +387,041 |
| Residential DUs | 0 | 300 | +300 |
| Affordable DUs[1] | 0 | 75 | +75 |
| | | | |
| Residents[2] | 0 | 690 | +690 |
| Workers[3] | 86 | 257 | +171 |

Notes: 'DUs' indicates Dwelling Units; 'gsf' indicates gross square feet

Increments showing only Projected Development Sites

1 Assumes 25 percent of residential floor area is reserved as affordable to households with incomes averaging 60 percent of the AMI;

2 Assumes 2.30 persons per residential dwelling unit in Brooklyn Community District 8 per 2020 Decennial Census Data;

3 Assumes 3 employees per 1,000 sf for retail, and medical; and 1 employee per 250 sf for office uses.

# 2 Environmental Review

The following technical sections are provided as supplemental assessments to the Environmental Assessment Statement ("EAS") Full Form. Part II: Technical Analyses of the EAS forms a series of technical thresholds for each analysis area in the respective chapter of the *2021 CEQR Technical Manual*. If the proposed project was demonstrated not to meet or exceed the threshold, the 'NO' box in that section was checked; thus, additional analyses were not needed. If the proposed project was expected to meet or exceed the threshold, or if this was not able to be determined, the 'YES' box was checked on the EAS Full Form, resulting in a preliminary analysis to determine whether further analyses were needed. For those technical sections, the relevant chapter of the *2021 CEQR Technical Manual* was consulted for guidance on providing additional analyses (and supporting information, if needed) to determine whether detailed analysis was needed.

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

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Construction

## 2.1 Land Use, Zoning, and Public Policy

The *2021 CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the Surrounding Area. Land use, zoning, and public policy are described in detail below. This section considers existing conditions, development trends, and zoning and other public policies in relation to the Affected Area and the Surrounding Area as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Actions would permit the development of mixed-use building with a larger bulk and a wider range of uses compared to existing zoning regulations, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

**Methodology**

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 21v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of NYCDCP and other city agencies programs and documentation.

### 2.1.1 Land Use

The *2021 CEQR Technical Manual* suggests that a land use, zoning, and public policy Study Area should generally extend 400 feet from the Affected Area ("the Surrounding Area"). Existing land uses within approximately 400 feet of the Affected Area are presented in **Figure 1.1-2**.

**Existing Conditions**

Land Use Study Area

As shown in **Figure 1.1-2** and stated in **Section 1.3**, the surrounding area is a mix of manufacturing, one- and two-family buildings, multi-family buildings, commercial buildings, public facilities, and mixed-use residential and commercial buildings.

On the Affected Area Block, Block 1335, are three one-story commercial or office buildings (including the existing buildings on the Projected Development Site); two industrial or manufacturing buildings that are one-story and four stories tall and both built around 1920; three, three-story mixed-commercial and residential buildings that were all constructed around 1920; and two undeveloped lots that are currently used for surface parking.

North of the Affected Area, across Atlantic Avenue, are Blocks 1706 and 1701. Block 1706 is occupied by 60 two-story one- and two-family buildings that were all constructed around 1985 with a large city-owned open space area separating the residential units from Atlantic Avenue.

Block 1701 consists of a single large lot that is entirely occupied by the campus of the Boys and Girls High School, a public facility and institutional use.

Block 1336, across Schenectady Avenue to the east, is occupied by three sites with active transportation or utility uses within buildings that range in height from one to two stories and were built between 1920 and 1972; and four one- and two-family buildings that were constructed around either 1905 or 1923.

Southwest of the Affected Area is Block 1342, with four lots that include one- and two-family buildings, three multi-family walk-up buildings that are two to three stories in height; three sites occupied by public facilities or institutional uses, and two lots with parking facilities.

Block 1341 south of the Affected Area is occupied by a large NYCHA housing development that spans two large lots (Lots 1 and 12) and is known as Weeksville Gardens. The housing development is comprised of 14 multi-family walk-up buildings ranging between four and five stories constructed around 1950. There is a smaller lot (Lot 44) that is occupied by a one-story church, the Bethel Tabernacle A.M.E Church, which was constructed in 1927.

Further south of the Affected Area and partial within the 400-foot study area are Blocks 1347 and 1348. The lots on these blocks that are captured within the study area are occupied by two-story one- and two-family buildings, two- to four-story multifamily buildings, and two sites occupied by large public facilities (former Public School 83 and the Weeksville Elementary School – PS 243).

Affected Area

A full breakdown of each lot within the Affected Area can be found in **Section 1.4**.

The Affected Area is coterminous with Projected Development Site 1 and consists of three separate lots (Block 1335, Lots 28, 30, and 35) located on the east end of the block with frontage along Atlantic Avenue and Schenectady Avenue:

- Lot 28 is an irregularly shaped 3,998 SF lot that was improved in 2002 with a 3,998 GSF (1.00 FAR) portion of a commercial building that is currently tenanted by Golden Krust Caribbean Restaurant and Atlantic Pharmacy.
- Lot 30 is a 4,152 SF lot that was improved in 2003 with a 4,152 GSF (1.00 FAR) portion of a commercial building that is currently tenanted by Metro by T-Mobile, GEM Pawnbrokers, and Checks & More check cashing.
- Lot 35 is a 40,150 SF lot that was improved in 2002 with a 20,980 GSF (.52 FAR) commercial building that operates as a shopping center with 56 parking spaces (and similar to Lot 30) is tenanted by several retailers. Retailers operating on Lot 35 include a grocery store, a Dunkin' Donuts, a beauty supply store, a Dollar Tree, and a furniture store.

**Future No-Action Condition**

Land Use Study Area

Two active construction permits were identified in the 400-foot study area. An Alteration permit was issued for a three-story 2,936-gsf residential building at 85 Schenectady Avenue (Block 1342, Lot 6), which would have 2 dwelling units. A New Building permit was issued for a one-story 2,367-gsf gas station building at 1746 Atlantic Avenue (Block 1336, Lot 4). Other than the two active construction permits, no other changes are expected in the 400-foot study area.

Affected Area

The No-Action Scenario is the same as existing conditions in the Affected Area. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

**Future With-Action Condition**

*Projected Development Site 1 (Block 1335, Lots 28, 30, and 35)*

The Applicant-Owned Projected Development Site 1 lot area would total 48,300 SF, and would be developed with a 13-story, 145-foot-tall, 387,041 GSF (300,695 ZSF; 6.23 FAR) mixed-use commercial, community facility, and residential building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 13; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility use on the 2nd floor; and 52,635 GSF of accessory parking area split between the cellar and ground floor. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

For a conservative analysis under CEQR, the analysis will assume that ground floor commercial uses total 31,552 GSF of local retail uses; the second floor will consider 24,475 GSF of general office use; and the remainder of the second floor will assume 21,641 GSF of UG III(B) medical office uses. There would be 300 total dwelling units (1 DU per 856 GSF), with 75 units or 25% permanently set aside as affordable. There would be no parking spaces required, and a total of 116 parking spaces would be provided.

**Conclusion**

The Applicant believes that the density and uses permitted by the Proposed Actions would be consistent with nearby mid-density residential buildings, mostly along Pacific Street and Dean Street to the south of the Affected Area. The Proposed Actions would not be incompatible with surrounding uses, which are predominantly residential and include commercial and community facility uses. The Proposed Actions would not alter or accelerate development patterns in the area. Therefore, there would be no adverse impacts on land use as a result of the Proposed Actions, and further analysis is not required.

### 2.1.2 Zoning

The *2021 CEQR Technical Manual* suggests that a zoning Study Area should extend 400 feet from the Affected Area. The proposed zoning map amendment would affect 1335, Lots 28, 30, and 35. A rectangular area of approximately 27,000 sf containing Block 1335, Lots p/o 28, 30, and p/o 35, with a depth of 100 feet from Atlantic Avenue, would be rezoned from an M1-1 zoning district to a C4-4D zoning district. An L-shaped area of approximately 11,300 sf containing Block 1335, Lots p/o 28 and p/o 35 with a depth of 100 feet from Pacific Street would be rezoned from an M1-1 zoning district to an R7A zoning district. A square area of approximately 10,000 sf containing Block 1335, Lot p/o 35 with a 100-foot frontage on Pacific Street and a 100-foot frontage on Schenectady Avenue would be rezoned from an M1-1 zoning district to an R7A/C2-4 zoning district. Existing zoning districts within approximately 400 feet of the Affected Area are presented in **Figure 1.1-3**.

**Existing Conditions**

Zoning Study Area

Zoning districts within 400 feet of the Affected Area include M1-1, R5B, and R6, as illustrated in **Table 2.1-1**.

**Table 2.1-1: Zoning Districts in the Surrounding Area[1]**

| Zoning District | Type and Use Group[2] | Floor Area Ratio (FAR) | Parking |
|---|---|---|---|
| M1-1 | Light Manufacturing<br>UG I, III(B), IV(A), IV(B), IV(C), V, VI, VII, VIII, IX(A), IX(B), IX(C), X | 1.0 - Manufacturing<br>1.0 - Commercial<br>2.4 - Community Facility | Varies by use and size of establishment |
| R5B | Contextual Residential<br>UG I, II, III(A), III(B), IV(B), IV(C) | 1.50 - Residential<br>2.0 - Community Facility | 0 inside Inner Transit Zone |
| R6 | Residential<br>UG I, II, III(A), III(B), IV(B), IV(C) | 3.90 - Residential (Inclusionary, Wide Street)<br>4.8 - Community Facility | 0 inside Inner Transit Zone Non-residential varies by use and size of establishment |

[1] NYC Zoning Resolution

[2] Commercial Use: Any use listed in the following use groups depending on the district type (Commercial Districts – IV, V, VI, VII, VIII, IX, X; Manufacturing Districts – IV, V, VI, VII, VIII, IX). Community Facility Use: Any use listed in the following use groups depending on the district type (Residence Districts – I, III, IV; Commercial Districts – I, III; Manufacturing Districts - I, III). Manufacturing Use: Any use listed in the following use groups depending on the district type (Manufacturing Districts – X). Residential use: any use listed in Use Group II.

Existing zoning districts in the surrounding area include:

*M1-1*

M1 districts are often developed with multistory lofts, one- or two-story warehouses characterized by loading bays, serving as a buffer between M2 or M3 districts of intensive industrial uses and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Permitted uses in M1-1 districts are as follows: UG I, III(B) and IV-X. M1-1 districts permit a FAR of 1.0 for permitted commercial and manufacturing uses, and 2.40 for permitted community facility uses. M1-1 districts are subject to parking requirements based on the type of use and size of an establishment. Building heights are regulated by a sky exposure plane beginning at 30 feet (or two stories) above the street line.

*R5B*

Although an R5B contextual district permits detached and semi-detached buildings, it is primarily a three-story rowhouse district that is mapped in neighborhoods such as Windsor Terrace and Bay Ridge in Brooklyn. The traditional quality of R5B districts is reflected in the district's height and setback, front yard and curb cuts regulations that maintain the character of the neighborhood. The FAR of 1.50 typically produces a building with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum height of 33 feet. As in R4B districts, the front yard must be at least five feet deep and it must be at least as deep as one adjacent front yard and no deeper than the other, but it need not exceed a depth of 15 feet. Attached rowhouses do not require side yards but there must be at least eight feet between the end buildings in a row and buildings on adjacent zoning lots. Curb cuts are prohibited on zoning lot frontages less than 40 feet. Where off-street parking is required, on-site spaces must be provided for two-thirds of the dwelling units although parking can be waived when only one space is required.

*R6*

R6 districts are medium-density non-contextual zoning districts widely mapped in built-up, medium-density areas in Brooklyn, such as the Study Area. Developers can choose between two sets of bulk regulations. Standard height factor regulations, introduced in 1961, produce small multi-family buildings on small zoning lots and, on larger lots, tall buildings that are set back from the street. Optional Quality Housing regulations produce high lot coverage buildings within height limits that often reflect the scale of older, pre-1961 apartment buildings in the neighborhood. R6 districts permit a maximum FAR of 3.9 for residential uses that provided qualifying affordable or senior housing.

Affected Area

The Affected Area is zoned M1-1, which permits low-density manufacturing and commercial uses at a maximum FAR of 1.00 and certain community facility uses at 2.40 FAR.

**Future No-Action Condition**

No changes to zoning are anticipated in the future without the Proposed Actions within the Affected Area or the 400-foot Study Area. Existing zoning patterns would remain.

**Future With-Action Condition**

The Projected Development Site would be rezoned from M1-1 to C4-4D, R7A/C2-4, and R7A. The proposed Zoning Map Amendment would permit residential development on the Projected Development Site to a maximum FAR of 7.20 under the proposed C4-4D zoning district and 5.01 FAR under the proposed R7A/C2-4 and R7A zoning districts. Commercial floor area would be limited to 3.40 FAR under the proposed C4-4D zoning district and 2.00 FAR under the proposed R7A/C2-4. Community facility floor area would be limited to 6.50 FAR under the proposed C4-4D zoning district and 4.00 FAR under the proposed R7A/C2-4 and R7A zoning districts.

**Conclusion**

The Proposed Actions would not directly displace a land use that would adversely affect surrounding area land uses, nor would it generate a land use that would be incompatible with surrounding uses. The projected development that is expected to develop because of the Proposed Actions would provide a substantial amount of market rate and permanently affordable dwelling units, as well as locally serving retail uses along a wide road in close proximity to public transportation.

### 2.1.3 Public Policy

According to the *2021 CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the Study Area. If the Proposed Actions could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

The Affected Area is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, or a Solid Waste Management Plan. The Proposed Actions are also not a large publicly sponsored project, and as such, consistency with the City's OneNYC 2050 for sustainability is not warranted. In addition, although the Affected Area is located within a designated FRESH-eligible area, the Proposed Project would not include any FRESH programming.

The Proposed Actions include a Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 8, Brooklyn, to establish the Affected Area as an MIH Area under Program Option 1. As a result, analysis of the Proposed Actions' alignment with Housing New York 2.0 is warranted. In addition, the Proposed Actions consistency with "Rebuild, Renew, Reinvent: A Blueprint for New York City's

Economic Recovery" and "Housing Our Neighbors: A Blueprint for Housing and Homelessness" is provided below.

**Existing Conditions**

*Housing New York 2.0*

Carried out by Housing Preservation and Development (HPD), Housing New York is the Mayor's plan to build or preserve 300,000 affordable homes by 2026. The plan outlines a comprehensive set of policies and programs to address the city's affordable housing crisis and retain the diversity and vitality of its neighborhoods.

*Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery*

*Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery* aims to accelerate job creation and make communities more resilient to future environmental and public health emergencies, financially stronger, and more connected. It contains five main strategies, including:

1. Restarting the city's economic engines and reactivating the public realm, supporting small businesses, entrepreneurship, and a more equitable economy
2. Driving inclusive sector growth
3. Building a future-focused economy
4. Connecting New Yorkers to quality jobs and in-demand skills
5. Planning and building for inclusive growth now and in the future

*Housing Our Neighbors: A Blueprint for Housing and Homelessness*

Housing Our Neighbors: A Blueprint for Housing and Homelessness is a plan to get New Yorkers into Safe, High-Quality, Affordable Homes. Crafted with insight from New Yorkers who experienced homelessness, blueprint focuses not just on creating homes but also on getting New Yorkers into them more quickly. The blueprint contains five main strategies, including:

1. Transforming NYCHA,
2. Addressing Homelessness and Housing Instability,
3. Creating and Preserving Affordable Housing,
4. Improving the Health and Safety of New Yorkers, and
5. Reducing Administrative Burden.

**Future No-Action Condition**

No changes to Housing New York 2.0, Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery, or Housing Our Neighbors: A Blueprint for Housing and Homelessness are anticipated under Future No-Action Conditions.

**Future With-Action Condition**

*Housing New York 2.0*

The Proposed Actions are consistent with the goals of Housing New York as an MIH area would be established over the Affected Area to introduce more affordable residential units to the area. The development of Projected Development Site 1 would set aside 75 dwelling units as permanently affordable units for households making an income averaging 60% AMI, which makes up 25% of the total 300 project induced dwelling units. The affordable units that would be provided pursuant to the Proposed Actions would foster diverse and livable neighborhoods, preserve the affordability and quality of the housing stock, and build new affordable housing for all New Yorkers.

*Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery*

The Proposed Development would provide new-built spaces for local businesses, increase the community's economic diversity, and create quality jobs for New Yorkers. Thus, the Proposed Actions are supportive of this policy.

*Housing Our Neighbors: A Blueprint for Housing and Homelessness*

The Proposed Actions would facilitate the construction of 300 incremental dwelling units within the Affected Area, including 75 dwelling units permanently affordable for households making an income averaging 60% AMI. By creating the affordable housing, the Proposed Actions would contribute to the goal of getting New Yorkers into safe, high-quality, affordable homes expressed in "Housing Our Neighbors: A Blueprint for Housing and Homelessness".

**Conclusion**

While the proposed Actions would facilitate the development of a medium-density mixed-use building that would expand the permitted bulk and range of uses on Projected Development Site 1, the Proposed Actions' intent to map the Affected Area as an MIH area would further the City's goals to provide affordable housing and facilitate the construction of 75 permanently affordable dwelling units. The Applicant's Proposed Development takes into consideration the Projected Development Site's location in a Transit Zone, which encourages the use of mass transit by meeting a lower parking requirement. No other applicable public policies are within the Affected Area, and the Proposed Actions would not affect or impact public policy. Further analysis of public policy is not required.

## 2.2 Socioeconomic Conditions

According to the *2021 CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following circumstances would typically require a socioeconomic assessment:

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

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

- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or publicly adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location. Information provided in Chapter 4, "Land Use, Zoning, and Public Policy," may be useful in determining whether an assessment is appropriate. If any of these conditions is considered likely, assessments of direct business displacement and indirect business displacement are appropriate.

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

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

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

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

**Methodology**

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

**Existing Conditions**

The Affected Area is located on Block 1335, Lots 28, 30, and 35 in the Crown Heights neighborhood of Brooklyn. The combined rezoning area is approximately 48,300 SF with a total of 26,680 GSF of existing commercial uses.

**Future No-Action Condition**

In the future without the Proposed Actions existing conditions would remain. The one-story commercial buildings would be expected to operate with their existing retail uses.

**Future With-Action Condition**

In the future with the Proposed Actions, the Affected Area would be redeveloped with 300 total dwelling units (75 permanently set aside as affordable per MIH Option 1), 21,641 GSF of community facility floor area, and 55,997 GSF of commercial floor area.

### 2.2.1 Preliminary Socioeconomic Screening

**Direct Residential Displacement**

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

**Direct Business Displacement**

The Proposed Actions would replace the existing 29,130 GSF of commercial uses (local retail) and 86 workers (assuming 3 employees per 1,000 GSF of local retail uses). As the number of directly displaced employees is less than 100, an assessment of direct business displacement is not required.

**Indirect Residential Displacement**

The Proposed Actions would result in a net induced development of 300 dwelling units, 75 of which would be affordable per MIH Option 1. Pursuant to the *2021 CEQR Technical Manual*, for a project exceeding 200 dwelling units, an assessment of indirect residential displacement is appropriate. Therefore, further analysis of the potential for indirect displacement due to increased rents is warranted.

**Indirect Business Displacement due to Retail Market Saturation**

As noted above, the Proposed Actions are projected to result in the development of 55,997 GSF of commercial space and a net incremental development of 26,867 GSF of commercial uses. Induced development would be far below the 200,000 SF thresholds, and further analysis of indirect business displacement is not warranted.

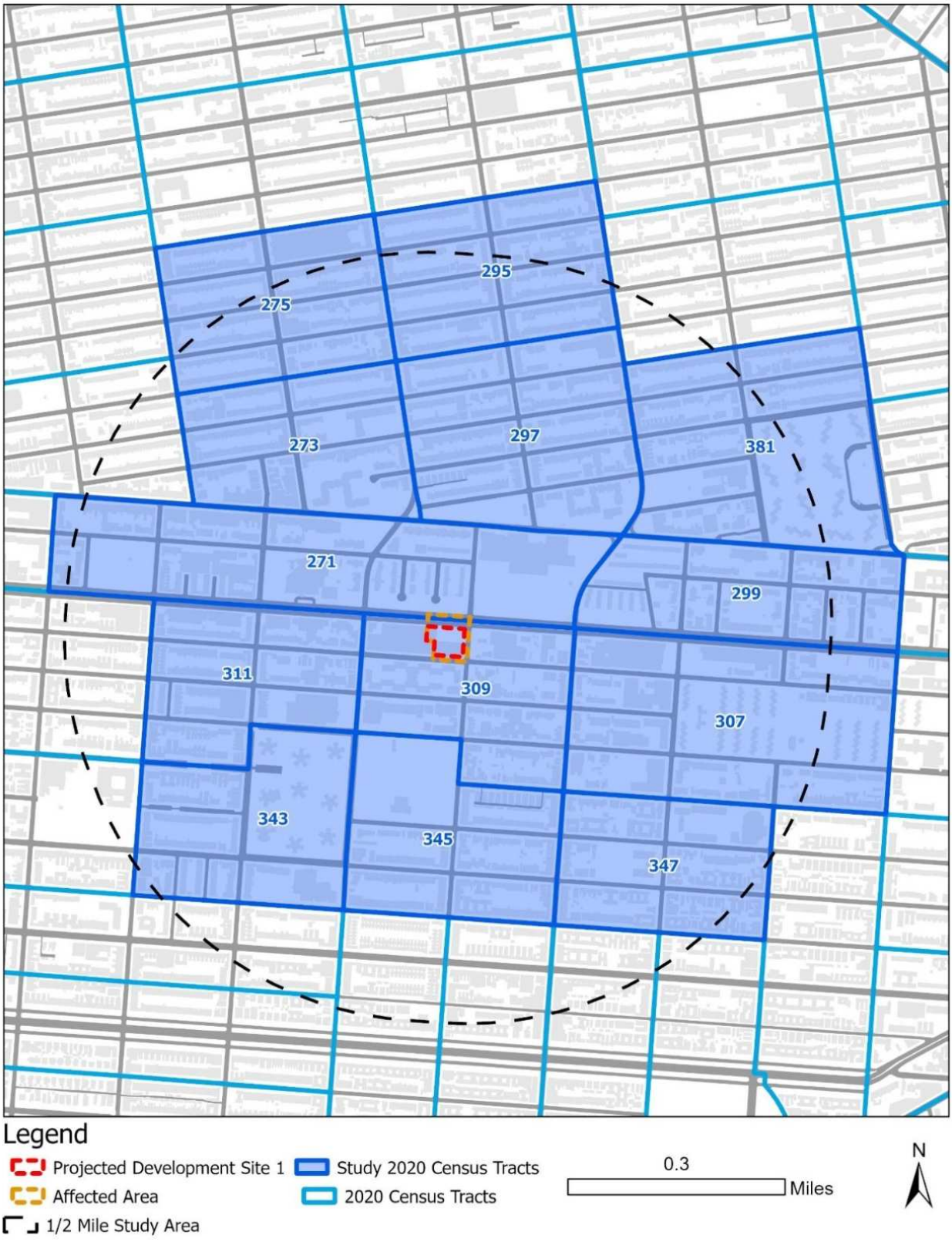
**Adverse Effects on Specific Industries**

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

### 2.2.2 Preliminary Indirect Residential Displacement Assessment

Because the Proposed Actions would result in the development of over 200 residential units, further analysis of the potential for indirect impacts associated with increased rents was conducted. Pursuant to the *2021 CEQR Technical Manual*, a 1/4-mile study area is appropriate for a project producing a small increase (below 5 percent) to the quarter-mile area population. The Proposed Actions would introduce a net increment of 690 residents, which is an approximately 6.95 percent increase to the existing 1/4-mile area population. Therefore, a 1/2-mile study area is more appropriate for this analysis, which is defined to include census tracts that have more than 50 percent of their area within a 1/2-mile radius of the Affected Area (**Figure 2.2-1**). Accordingly, the 1/2-mile Study Area includes census tracts 271, 273, 275, 295, 297, 299, 307, 309, 311, 343, 345, 347, and 381.

**Figure 2.2-1: Socioeconomic Study Area – 1/2 Mile**



Step 1

Step 1 of the socioeconomics analysis requires a determination of whether or not the Proposed Actions would add a new population to the Study Area with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the Study Area without the project.

*Study Area Household Income*

Household income characteristics within the 1/2-mile Study Area can be revealed with the median household income, the mean household income, and the percentage of households below poverty level. The median household income divides the household income distribution into two equal parts with half having income above that amount and half having income below that amount. Unlike the median household income, the mean household income is the amount obtained by dividing the total aggregate income of all households by the number of households, which is more affected by the relatively unequal distribution of the income that tilts towards the top. As a result, the mean household income is typically higher than the median household income given that the top earning households could boost the number. The percentage of households below poverty level is also important in forming a comprehensive understanding of the household income as the poverty level is determined by the Census Bureau with an official poverty measure that compares pre-tax cash income against a threshold that is set at three times the cost of a minimum food diet in 1963 and adjusted for family size.

Referencing the NYC Planning Population FactFinder[3], as shown below in **Table 2.2-1**, the 1/2-mile Study Area census tracts had a lower median household income ($45,738) and mean household income ($58,636) than those in Brooklyn ($54,646 for median household income and $78,589 for mean household income) and in New York City ($63,072 for median household income and $97,706 for mean household income) per the 2006-2010 ACS census data. Based on the 2017-2021 ACS census data, the median household income within the 1/2-mile Study Area has increased to $55,270, which remains lower than that in Brooklyn ($67,753) and in New York City ($70,663). The mean household income within the 1/2-mile Study Area has experienced the largest percentage increase to $83,897 per the 2017-2021 ACS census data as compared to Brooklyn and New York City, though it is still slightly lower than the mean household income of Brooklyn ($103,893) and New York City ($113,315).

[3] https://popfactfinder.planning.nyc.gov/

**Table 2.2-1: Household Income in the 1/2-Mile Study Area, Brooklyn, and New York City**

| | Median Household Income | | | Mean Household Income | | |
|---|---|---|---|---|---|---|
| | 2006-2010 ACS | 2017-2021 ACS | Percent Change | 2006-2010 ACS | 2017-2021 ACS | Percent Change |
| 1/2-Mile Study Area | $45,738 | $55,270 | Increase[1] | $58,636 | $83,897 | 43.1 |
| Brooklyn | $54,646 | $67,753 | 24.0 | $78,589 | $103,893 | 32.2 |
| New York City | $63,072 | $70,663 | 12.0 | $97,706 | $113,315 | 16.0 |

**Source:** Bureau of the Census, 2017-2021 Five-Year ACS Estimates, as reported on DCP's Population FactFinder
**Notes:** [1]The statistical reliability of the data included in this table has been vetted using DCP's Population FactFinder. For the study area, only the directionality of change over time was statistically reliable and therefore reported for the median household income.

*Study Area Market Rent*

The US Census provides information on median contract rent, which reflects the range of rents for both units of different sizes and ages and occupants who may have moved in recently or lived in their units for a long time. However, these data are of limited use because they fail to distinguish between units subject to market rents and those under some form of rent regulation. To understand the current trends, particularly trends affecting unregulated rental units, the rental data from the ACS should be supplemented by information from real estate brokers and examination of current rental apartment listings.

Though utilizing the median gross rent from the ACS data to determine market rents in a Study Area is not recommended as ACS rents do not distinguish between market and rent-regulated units, often making the data difficult to parse, the value of ACS rent data lies in its ability to show trends over time as opposed to the actual values. Therefore, the 2006-2010 ACS and 2017-2021 ACS have been included to show the trend of rent change in the 1/2-mile Study Area, Brooklyn, and New York City.

**Table 2.2-2: Median Gross Rent of the 1/2-Mile Study Area, Brooklyn, and NYC**

| | 2006-2010 ACS | 2017-2021 ACS | Change |
|---|---|---|---|
| **1/2-Mile Study Area** | 1,025 | 1,404 | +379 |
| **Brooklyn** | 1,281 | 1,582 | +301 |
| **New York City** | 1,343 | 1,579 | +236 |

As shown in **Table 2.2-2** above, the median gross rent within the 1/2-mile Study Area was the lowest at around $1,025, compared to that in Brooklyn ($1,281) and in New York City ($1,343) in 2006-2010. According to the 2017-2021 ACS, the 1/2-mile Study Area has a lowest median gross rent of $1,404 compared to that in Brooklyn ($1,582) and in New York City ($1,579). The median gross rent increase of $379 within the 1/2-mile Study Area is the highest, compared to $301 increase in Brooklyn and $236 increase citywide from 2006-2010 to 2017-2021. As described

above, though the ACS median gross rent data is considered to be of limited use, it still indicates that the 1/2-mile Study Area has experienced a readily observable trend toward increasing rents in the last decade.

In addition to the ACS data, a more appropriate data source for determining market rents in the 1/2-Mile Study Area would be from professional market reports of real estate agency websites. Since most real estate reports use the neighborhood as the basic geographic unit, Crown Heights, where the Affected Area is located, and Bedford-Stuyvesant, the closest neighborhood, which is witnessing a robust rental market, were used as the alternative and comparable of the 1/2-Mile Study Area in the market rate rental price research respectively. It should be noted that market reports in 2019 were reviewed to eliminate the huge negative impact of COVID pandemic on the NYC rental.

According to *Douglas Elliman's December 2019 Manhattan, Brooklyn, and Queens Rentals Report*[4], Brooklyn experienced yearly rises in the median rental price and average rental price by 9.2% and 9.5%, respectively. Further supplemented by the sliced data from *StreetEasy Data Dashboard* website[5], the median asking rent in Crown Heights was $2,399 in February 2019, which increased to $2,640 in February 2020. Bedford-Stuyvesant had a comparable median asking rent, which was $2,450 in Feb 2019 and $2,537 in February 2020.

The *M.N.S Real Estate NYC 2019 Year End market report*[6], which features a more detailed perspective in the average rental prices of different unit types in both Brooklyn and specific neighborhoods, also proves the trend of steadily increasing rent in the area. The report shows that the average rental prices in Brooklyn increased across all unit types in 2019. Average studio rental prices increased by 4.1% from $2,231 to $2,323, one-bedroom rental prices increased by 5.6% from $2,689 to $2,841, and two-bedroom rental prices increased by 6.2% from $3,495 to $3,712. Overall, the average rental price for a unit in Brooklyn was $2,959, up 5.5% from 2018's overall average of $2,805. The 2019 studio average rental price in Crown Heights increased approximately 3.9% from 2018 to $1,946. From 2018 to 2019, the average one-bedroom rental price went up by 1.4% to $2,225, and the average two-bedroom rental price also increased by 3.4% to $2,598. Over 2019, Bedford-Stuyvesant also experienced a rise in the rents, where studio prices increased by 0.3% to $1,898, one-bedroom prices increased by 3.5% to $2,241, and two-bedroom pricing increased by 4.9% to $2,604 in 2019.

To determine market rents for the Study Area, the website StreetEasy[7] was consulted. For the Study Area, rental prices ranged from $1,550 to $3,983, which is indicative of an area in transition that has seen a large number of private developments in recent years. The range of market rents

[4] https://www.elliman.com/resources/siteresources/commonresources/static%20pages/images/corporate-resources/q4_2019/rental%2012_2019.pdf
[5] https://streeteasy.com/blog/data-dashboard/
[6] http://www.mns.com/pdf/brooklyn_year_end_market_report_2019.pdf
[7] https://streeteasy.com/blog/data-dashboard/

is shown below in **Table 2.2-3,** along with columns showing the estimated annual household incomes to afford the rents. Typically, rents are estimated to be 30% of the household incomes.

**Table 2.2-3: StreetEasy Market Rent in Crown Heights**

| Bedrooms | # of Available Rental Units | Low Rent | Median Rent | High Rent | Annual Household Income Estimate (Low) | Annual Household Income Estimate (Median) | Annual Household Income Estimate (High) |
|---|---|---|---|---|---|---|---|
| Studio | 19 | $1,550 | $2,500 | $3,000 | $62,000 | $100,000 | $120,000 |
| 1BR | 87 | $1,626 | $2,699 | $3,315 | $65,040 | $107,960 | $132,600 |
| 2BR | 90 | $2,745 | $3,000 | $3,897 | $109,800 | $120,000 | $155,880 |
| 3BR | 66 | $3,033 | $3,500 | $3,983 | $121,320 | $140,000 | $159,320 |

*Proposed Building Household Income and Market Rent Estimates*

Since new development tends to be at the higher end of the rents, the third quartile of market rent range in Crown Heights would be referred to as the potential rent of the proposed market-rate units on Projected Development Site 1, which is approximately $2,750 for studio, $3,007 for one-bedroom, $3,449 for two-bedroom, and $3,742 for three-bedroom**.** Accordingly, the estimated annual household income to afford the rent would be $110,000 for studio, $120,280 for one-bedroom, $137,940 for two-bedroom, and $149,660 for three-bedroom. Of the proposed units, approximately 15.47% would be studios, 39.21% would be one-bedrooms, 37.41% would be two-bedrooms, and 7.91% would be three-bedrooms. Accordingly, it is estimated that the average income of households occupying the market-rate units on Projected Development Site 1 would be $127,622.

The Proposed Actions would introduce an increment of 300 dwelling units on Projected Development Site 1, with 75 units or 25% permanently set aside as affordable to households with incomes averaging 60% AMI pursuant to MIH Option 1. Accordingly, the average expected household income in the proposed affordable units would be based on the New York City Area Median Income provided on the New York City Department of Housing Preservation and Development (HPD) shown in **Table 2.2-4** below. Since the average household size is 2.30 in Brooklyn Community District 8 per 2020 Decennial Census, it is estimated that the average income of households occupying the affordable units on Projected Development Site 1 would be $70,338.

As described above, the Proposed Project would be subject to MIH Option 1, with 25% of the units as affordable and 75% as market-rate. Accordingly, the average household income of the residents in the Proposed Development would be $113,301.

**Table 2.2-4: New York City Area Median Income in 2021[8]**

| Family Size | 30% AMI | 50% AMI | 60% AMI | 80% AMI | 100% AMI | 120% AMI | 165% AMI |
|---|---|---|---|---|---|---|---|
| **1 Person** | $29,670 | $49,450 | $59,340 | $79,120 | $98,900 | $118,680 | $163,185 |
| **2 Persons** | $33,900 | $56,500 | $67,800 | $90,400 | $113,000 | $135,600 | $186,450 |
| **3 Persons** | $38,130 | $63,550 | $76,260 | $101,680 | $127,100 | $152,520 | $209,715 |
| **4 Persons** | $42,360 | $70,600 | $84,720 | $112,960 | $141,200 | $169,440 | $232,980 |

As shown in **Table 2.2-1** above, the 1/2-mile Study Area census tracts have an average household income of $83,897 according to the 2017-2021 ACS data. Although 75 units or 25% of all the proposed dwelling units would be permanently set aside as affordable for households earning incomes averaging 60% AMI, the overall average income of the introduced population would likely be higher than that of the surrounding Study Area. Therefore, the analysis will continue to Step 2.

Step 2

Step 2 of a socioeconomics analysis requires determining if the Proposed Actions would increase the Study Area's population in an amount large enough relative to the size of the population expected to reside in the Study Area without the project to affect real estate market conditions in the Study Area. If the population increase is less than five percent within the Study Area, further analysis is not warranted as the change would not be expected to affect real estate market conditions.

**Existing Conditions**

To determine the existing population for the Study Area, all completed DOB permits for the Study Area census tracts that were completed since 2020 were added to the 2020 Decennial Census population. As stated in the *2021 CEQR Technical Manual*, to better understand the trends of changing socioeconomic conditions of the Study Area that may potentially displace a vulnerable population, it is useful to include data from the most recent census as well as data from the completed DOB permits between the census year till now when determining the existing population of the Study Area. The data adopted to determine the existing population includes 2020 decennial census data and DCP Housing Database Project-Level Files.

Based on the 2020 Decennial Census, the total population of the thirteen census tracts within the 1/2-mile Study Area is 48,708 residents. According to the Project-Level DCP Housing Database, 113 permits were completed within the Study Area since January 1, 2020. As shown in **Table 2.2-5** below, an increment of 750 dwelling units were introduced into the 1/2-Mile Study Area as a result of the completed DOB permits since January 1, 2020. The 750 dwelling units multiplied by the average household size (2.30) for Brooklyn Community District 8 (2020

[8] https://www1.nyc.gov/site/hpd/services-and-information/area-median-income.page

Decennial Census Data) comes out to 1,725 additional residents. In total, there would be 50,433 existing residents in the 1/2-Mile Study Area.

**Future No-Action Condition**

The No-Action Condition for the Study Area, projecting to the 2028 build year, is based on the household size and known developments within the Study Area. A review of active major construction projects, approved BSA applications, and approved ULURP actions was undertaken to determine known developments in the area. As shown in **Table 2.2-6** below, a total of 38 proposed projects, resulting in 614,522 GSF of development and 696 proposed dwelling units, were identified. The proposed 696 dwelling units multiplied by the average household size (2.30) for Brooklyn Community District 8 (2020 Decennial Census) comes out to 1,601 additional residents. The No-Action population for the Study Area would be the 1,601 additional residents plus the existing Study Area population of 50,433, for a total No-Action population of 52,034 residents.

**Future With-Action Condition**

Compared to the No-Action Condition, the Proposed Actions would introduce 300 dwelling units, 75 units or 25% of which would be permanently affordable for households with an income averaging 60% AMI. Assuming an average household size of 2.30 persons for Brooklyn Community District 8 (2020 Decennial Census Data), there would be 690 incremental residents resulting from the Proposed Actions. As a result, the With-Action Condition population would result in a 1.33 percent increase over the No-Action Condition.

Per the *2021 CEQR Technical Manual*, if the population increase induced by the Proposed Actions is greater than 5 percent in the study area, such population increase is considered large enough to potentially affect real estate market conditions in the study area. Accordingly, the population increase induced by the Proposed Actions is not considered significant to the 1/2-Mile Study Area.

### 2.2.3 Conclusion

Though the induced development resulting from the Proposed Actions would continue the established trend of population growth in the area and would add new population with a higher average income ($125,201) compared to the average income of the existing populations ($83,897), the Proposed Actions would not have significant adverse impacts on the socioeconomic conditions. As indicated above, the Proposed Actions are anticipated to result in a 1.33 percent population increase to the 1/2-Mile Study Area, which is not large enough (more than 5%) to be considered significant per the *2021 CEQR Technical Manual*. Therefore, no significant adverse socioeconomic impacts would occur and no further analysis is warranted.

**Table 2.2-5: Completed Construction Projects in 1/2-Mile Study Area Since 2020**

| Address | CT # | Job Type | Completion Year | Permit Year | Initial DU | Proposed DU | Net DU |
|---|---|---|---|---|---|---|---|
| **1430 Fulton St** | 271 | New Building | 2021 | 2015 | 0 | 132 | 132 |
| 1556 Fulton St | 271 | Alteration | 2020 | 2015 | 2 | 6 | 4 |
| 1660 Fulton St | 271 | Alteration | 2020 | 2015 | 141 | 141 | 0 |
| 1520 Fulton St | 271 | New Building | 2020 | 2015 | 0 | 49 | 49 |
| 1516 Fulton St | 271 | Alteration | 2020 | 2015 | 4 | 23 | 19 |
| 1620 Fulton St | 271 | New Building | 2021 | 2018 | 0 | 103 | 103 |
| 369 Herkimer St | 271 | Alteration | 2022 | 2018 | 1 | 2 | 1 |
| 491 Herkimer St | 271 | New Building | 2022 | 2020 | 0 | 121 | 121 |
| 33 Kingston Ave | 271 | Demolition | 2022 | 2022 | 2 | 0 | -2 |
| 35 Kingston Ave | 271 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 191 Mac Donough St | 273 | Alteration | 2022 | 2016 | 3 | 3 | 0 |
| 1587 Fulton St | 273 | Alteration | 2020 | 2017 | 2 | 6 | 4 |
| 360 Macon St | 273 | Alteration | 2021 | 2020 | 3 | 2 | -1 |
| 1557 Fulton St | 273 | New Building | 2020 | 2017 | 0 | 23 | 23 |
| 172 Macdonough St | 273 | Alteration | 2020 | 2017 | 3 | 1 | -2 |
| 156 Decatur St | 273 | Alteration | 2021 | 2017 | 2 | 2 | 0 |
| 418A Lewis Ave | 273 | Alteration | 2021 | 2018 | 2 | 3 | 1 |
| 221 Macdonough St | 273 | Alteration | 2021 | 2017 | 2 | 1 | -1 |
| 65 Bainbridge St | 273 | Alteration | 2020 | 2018 | 5 | 2 | -3 |
| 160 Macdonough St | 273 | Alteration | 2020 | 2019 | 2 | 2 | 0 |
| 156 Macdonough St | 273 | Alteration | 2021 | 2019 | 3 | 2 | -1 |
| 361 Macon St | 275 | New Building | 2022 | 2017 | 0 | 4 | 4 |
| 424 Halsey St | 275 | New Building | 2021 | 2019 | 0 | 2 | 2 |
| 350 Halsey St | 275 | Alteration | 2021 | 2018 | 2 | 4 | 2 |
| 558 Jefferson Ave | 275 | Alteration | 2022 | 2015 | 1 | 1 | 0 |
| 402 Hancock St | 275 | Alteration | 2021 | 2018 | 2 | 3 | 1 |
| 533 Throop Ave | 275 | New Building | 2021 | 2019 | 0 | 2 | 2 |
| 466 Jefferson Ave | 275 | Alteration | 2021 | 2019 | 1 | 2 | 1 |

| Address | CT # | Job Type | Completion Year | Permit Year | Initial DU | Proposed DU | Net DU |
|---|---|---|---|---|---|---|---|
| 465 Hancock St | 275 | Demolition | 2020 | 2020 | 8 | 0 | -8 |
| 463A Hancock St | 275 | Demolition | 2022 | 2022 | 4 | 0 | -4 |
| 780 Putman Ave | 295 | Alteration | 2021 | 2009 | 3 | 4 | 1 |
| 228 Malcolm X Blvd | 295 | New Building | 2020 | 2015 | 0 | 15 | 15 |
| 489 Halsey St | 295 | Alteration | 2021 | 2018 | 1 | 2 | 1 |
| 527A Hancock St | 295 | Alteration | 2020 | 2018 | 2 | 2 | 0 |
| 212 Malcolm X Blvd | 295 | Alteration | 2020 | 2019 | 3 | 10 | 7 |
| 593 Hancock St | 295 | Alteration | 2022 | 2018 | 0 | 3 | 3 |
| 569 Jefferson Ave | 295 | Alteration | 2022 | 2020 | 1 | 3 | 2 |
| 702 Putnam Ave | 295 | Alteration | 2022 | 2020 | 4 | 2 | -2 |
| 526 Hancock St | 295 | Alteration | 2020 | 2019 | 2 | 2 | 0 |
| 688 Jefferson Ave | 295 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 636 Hancock St | 295 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 263 Stuyvesant Ave | 295 | Alteration | 2022 | 2022 | 4 | 4 | 0 |
| 335 Stuyvesant Ave | 297 | Alteration | 2022 | 2016 | 1 | 2 | 1 |
| 120 Bainbridge St | 297 | Alteration | 2021 | 2017 | 2 | 1 | -1 |
| 317 Decatur St | 297 | Alteration | 2021 | 2016 | 3 | 1 | -2 |
| 174 Bainbridge St | 297 | Alteration | 2021 | 2017 | 2 | 1 | -1 |
| 172 Bainbridge St | 297 | Alteration | 2022 | 2017 | 1 | 1 | 0 |
| 129 Chauncey St | 297 | Alteration | 2020 | 2018 | 3 | 3 | 0 |
| 390 Stuyvesant Ave | 297 | Alteration | 2022 | 2019 | 1 | 2 | 1 |
| 817 Herkimer St | 299 | Alteration | 2020 | 2011 | 2 | 4 | 2 |
| 42 Rochester Ave | 299 | New Building | 2021 | 2019 | 0 | 5 | 5 |
| 897 Herkimer St | 299 | New Building | 2021 | 2018 | 0 | 7 | 7 |
| 901 Herkimer St | 299 | Alteration | 2021 | 2018 | 1 | 6 | 5 |
| 15 Hunterfly Pl | 299 | New Building | 2020 | 2019 | 0 | 8 | 8 |
| 1882 Fulton St | 299 | Alteration | 2020 | 2018 | 6 | 8 | 2 |
| 948 Herkimer St | 299 | New Building | 2021 | 2017 | 0 | 6 | 6 |
| 954 Herkimer St | 299 | New Building | 2021 | 2017 | 0 | 6 | 6 |

| Address | CT # | Job Type | Completion Year | Permit Year | Initial DU | Proposed DU | Net DU |
|---|---|---|---|---|---|---|---|
| 853 Herkimer St | 299 | Alteration | 2021 | 2019 | 2 | 2 | 0 |
| 19 Kane Pl | 299 | Demolition | 2020 | 2020 | 2 | 0 | -2 |
| 793 Herkimer St | 299 | Alteration | 2022 | 2020 | 1 | 2 | 1 |
| 28 Rochester Ave | 299 | Alteration | 2022 | - | 2 | 2 | 0 |
| 64 Buffalo Ave | 307 | New Building | 2020 | 2008 | 0 | 3 | 3 |
| 85 Utica Ave | 307 | New Building | 2021 | 2018 | 0 | 2 | 2 |
| 1668 Bergen St | 307 | Demolition | 2022 | 2022 | 1 | 0 | -1 |
| 1752 Pacific St | 307 | Alteration | 2021 | 2019 | 0 | 1 | 1 |
| 1610 Bergen St | 307 | Demolition | 2022 | 2022 | 2 | 0 | -2 |
| 1690 Pacific St | 309 | New Building | 2021 | 2019 | 0 | 10 | 10 |
| 1692 Pacific St | 309 | New Building | 2021 | 2019 | 0 | 10 | 10 |
| 1545 Bergen St | 309 | New Building | 2021 | 2017 | 0 | 8 | 8 |
| 1528 Bergen St | 309 | New Building | 2021 | 2017 | 0 | 8 | 8 |
| 1672 Dean St | 309 | New Building | 2020 | 2018 | 0 | 8 | 8 |
| 103 Schenectady Ave | 309 | New Building | 2022 | 2021 | 0 | 7 | 7 |
| 1543 Bergen St | 309 | Demolition | 2020 | 2020 | 1 | 0 | -1 |
| 1707 Rear A Dean St | 309 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 1707 Dean St | 309 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 103 Schenectady Ave | 309 | Demolition | 2020 | 2020 | 1 | 0 | -1 |
| 1668 Dean St | 309 | Demolition | 2021 | 2021 | 2 | 0 | -2 |
| 1592 Pacific St | 311 | New Building | 2020 | 2017 | 0 | 2 | 2 |
| 1332 Bergen St | 311 | Alteration | 2021 | 2014 | 1 | 12 | 11 |
| 1572 Pacific St | 311 | New Building | 2021 | 2019 | 0 | 8 | 8 |
| 1633 Pacific St | 311 | New Building | 2020 | 2018 | 0 | 2 | 2 |
| 907 St Marks Ave | 311 | Alteration | 2021 | 2019 | 0 | 4 | 4 |
| 1581 Pacific St | 311 | Alteration | 2021 | 2018 | 2 | 4 | 2 |
| 917 St Marks Ave | 311 | Alteration | 2020 | 2019 | 4 | 4 | 0 |
| 1381 Bergen St | 311 | New Building | 2021 | 2020 | 0 | 8 | 8 |
| 1607 Pacific St | 311 | Demolition | 2022 | 2022 | 1 | 0 | -1 |

| Address | CT # | Job Type | Completion Year | Permit Year | Initial DU | Proposed DU | Net DU |
|---|---|---|---|---|---|---|---|
| 1100 Park Pl | 343 | Alteration | 2021 | 2006 | 2 | 4 | 2 |
| 14 Hampton Pl | 343 | Alteration | 2021 | 2016 | 2 | 2 | 0 |
| 1176 Park Pl | 343 | Alteration | 2022 | 2016 | 2 | 8 | 6 |
| 9 Virginia Pl | 343 | Alteration | 2020 | 2017 | 2 | 2 | 0 |
| 175 Kingston Ave | 343 | Alteration | 2021 | 2019 | 3 | 2 | -1 |
| 1325 Prospect Pl | 345 | Alteration | 2022 | 2015 | 2 | 8 | 6 |
| 1296 Park Pl | 345 | Alteration | 2020 | 2017 | 2 | 8 | 6 |
| 209 Troy Ave | 345 | New Building | 2020 | 2018 | 0 | 9 | 9 |
| 211 Troy Ave | 345 | New Building | 2020 | 2018 | 0 | 7 | 7 |
| 213 Troy Ave | 345 | New Building | 2020 | 2018 | 0 | 8 | 8 |
| 1396 Prospect Pl | 347 | Alteration | 2021 | 2018 | 2 | 2 | 0 |
| 1540 Park Pl | 347 | New Building | 2022 | 2019 | 0 | 10 | 10 |
| 1515 Park Pl | 347 | New Building | 2021 | 2019 | 0 | 52 | 52 |
| 1481 Sterling Pl | 347 | Alteration | 2022 | 2019 | 2 | 8 | 6 |
| 1487 Sterling Pl | 347 | Alteration | 2021 | 2017 | 2 | 6 | 4 |
| 170 Buffalo Ave | 347 | Alteration | 2020 | 2017 | 0 | 0 | 0 |
| 1526 Park Pl | 347 | Alteration | 2020 | 2018 | 4 | 10 | 6 |
| 203 Rochester Ave | 347 | Alteration | 2020 | 2018 | 2 | 9 | 7 |
| 207 Rochester Ave | 347 | Alteration | 2020 | 2018 | 2 | 9 | 7 |
| 205 Rochester Ave | 347 | Alteration | 2020 | 2018 | 2 | 8 | 6 |
| 194 Buffalo Ave | 347 | Demolition | 2020 | 2020 | 1 | 0 | -1 |
| 1591 Sterling Pl | 347 | Alteration | 2020 | 2020 | 4 | 10 | 6 |
| 1483 Sterling Pl | 347 | Alteration | 2021 | 2021 | 2 | 8 | 6 |
| 488 Decatur St | 381 | Alteration | 2021 | 2012 | 2 | 3 | 1 |
| 231 Bainbridge St | 381 | Alteration | 2021 | 2020 | 4 | 5 | 1 |
| 216 Bainbridge St | 381 | New Building | 2021 | 2020 | 0 | 8 | 8 |
| 266 Bainbridge St | 381 | Alteration | 2022 | 2020 | 1 | 1 | 0 |
| | | | | | **314** | **1,064** | **750** |

**Table 2.2-6: No-Action Developments within 1/2-Mile Study Area**

| Address | Permit Type | SF | DU | Story |
|---|---|---|---|---|
| 1607 Pacific Street | New Building | 7,729 | 8 | 4 |
| 85 Schenectady Avenue | Alteration | 2,936 | 2 | 3 |
| 1668 Dean Street | New Building | 7,651 | 8 | 4 |
| 1668 Bergen Street | New Building | 7,020 | 10 | 4 |
| 1327 Prospect Place | Alteration | 6,481 | 8 | 4 |
| 1266 Park Place | Alteration | 8,622 | 8 | 4 |
| 1479 Sterling Place | Support of Excavation | 6,173 | 8 | 4 |
| 560 Hancock Street | Mechanical Systems | 3,214 | 2 | 4 |
| 274 Malcolm X Blvd | Alteration | 6,609 | 8 | 4 |
| 321 Decatur Street | Structural | 3,661 | 2 | 3 |
| 358 Malcolm X Blvd | New Building | 3,228 | 3 | 3 |
| 1584 Fulton Street | Support of Excavation | 39,186 | 35 | 10 |
| 507 Herkimer Street | Alteration | 4,932 | 9 | 4 |
| 20 Suydam Place | New Building | 14,485 | 15 | 4 |
| 1889 Atlantic Avenue | Structural Foundation Work | 72,908 | 89 | 9 |
| 35 Kingston Avenue | New Building | 17,573 | 21 | 8 |
| 1746 Atlantic Avenue | Structural Foundation Work | 2,367 | 0 | 1 |
| 1707 Dean Street | New Building | 9,162 | 13 | 4 |
| 524 Halsey Street | Alteration | 53,396 | 31 | 4 |
| 488 Marcus Garvey Boulevard | New Building | 17,123 | 18 | 62 |
| 339 Herkimer Street | Structural Foundation Work | 4,534 | 8 | 4 |
| 458 Decatur Street | General Construction | 3,864 | 4 | 4 |
| 699 Jefferson Avenue | New Building | 3,588 | 3 | 3 |
| 13 Hunterfly Place | New Building | 3,313 | 3 | 3 |
| 1835 Atlantic Avenue | New Building | 3,139 | 3 | 3 |
| 191 Chauncey Street | New Building | 2,721 | 2 | 3 |
| 1543 Bergen Street | New Building | 7,674 | 8 | 4 |
| 423 Herkimer Street | New Building | 11,881 | 10 | 5 |
| 37 Rochester Avenue | New Building | 9,366 | 8 | 4 |
| 278 Bainbridge Street | New Building | 3,720 | 3 | 3 |
| 1832 Fulton Street | Support of Excavation | 154,413 | 214 | 11 |
| 1864 Fulton Street | Support of Excavation | 83,762 | 110 | 11 |
| 46 Buffalo Av | New Building | 2,956 | 2 | 3 |
| 50 Buffalo Avenue | New Building | 2,295 | 2 | 3 |
| 179 Chauncey Street | New Building | 3,707 | 3 | 3 |
| 444 Herkimer Street | New Building | 11,881 | 10 | 5 |
| 133 Rochester Avenue | New Building | 3,600 | 3 | 3 |
| 324 Macon Street | New Building | 3,652 | 2 | 4 |
| **Total** | | | **614,522** | **696** |

## 2.3 Open Space

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

Open space is defined as publicly or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment.

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

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

**Methodology**

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

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

**Direct Effects**

Direct effects to open space are addressed in the sections for those specific technical areas where warranted. Construction impacts to open space are not anticipated as there would be no physical loss of public open space, no change in existing open space so that it no longer serves the same user population, would not limit public access, and would not increase noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. An assessment of the effects of the Proposed Actions related to shadows on open space resources is provided in **Section 2.4: Shadows**.

**Indirect Effects**

The threshold for assessment of the potential for indirect open space impacts is 200 new residents or 500 additional employees. As discussed below, the Proposed Action would introduce 690 residents. Therefore, an assessment of indirect effects on public open space resources is warranted.

### 2.3.1 Preliminary Open Space Assessment

The Proposed Actions would result in a net increment of 357,911 GSF of development, including 256,769 GSF of residential floor area, 21,641 GSF of community facility floor area, 26,867 GSF of commercial floor area, and 52,635 GSF of parking area. The Proposed Actions are projected to result in the development of 300 dwelling units within the Affected Area. Assuming an average occupancy of 2.30 persons based on the average household size within Brooklyn Community District 8 (2020 Decennial Census Data), the population introduced as a result of the Proposed Actions would be approximately 690 residents. There would be an increment of approximately 171 additional workers as a result of the Proposed Actions. Per the *2021 CEQR Technical Manual*, the threshold for assessment of the potential for indirect impacts is 200 new residents or 500

additional employees. Since the residential population is above the threshold of 200 additional persons for assessment of the potential for indirect impacts, an assessment of indirect effects on public open space resources is warranted. The Proposed Actions would not introduce more additional employees to the area than the threshold, as such the preliminary assessment addresses the residential population introduced by the Proposed Actions.

**Study Area Definition**

In accordance with the guidance established in the City's *2021 CEQR Technical Manual*, the open space study area is defined to analyze both the nearby open space and the population using those open space resources. It is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational areas. Pursuant to the *2021 CEQR Technical Manual*, the open space study area includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area. As shown in **Figure 2.3-1** below, the following Census Tracts that have 50 percent or more of their area within the 1/2-mile study area are 271, 273, 275, 295, 297, 299, 307, 309, 311, 343, 345, 347, and 381.

### 2.3.2 Open Space Ratio Assessment

**Population Size Change**

**Existing Condition Residential Population**

The total residential population for the Study Area was established using data from the 2020 Decennial Census Data for New York City. As of 2020, the Study Area had a residential population of 48,708 persons**.**

**Future No-Action Condition Residential Population**

No development would occur in the future without the Proposed Actions within the Affected Area. As shown in **Table 2.3-1** below, there are 41 active permits within the study area, with 689 proposed new dwelling units. Using the same 2.30 residents per household figure as above, the No-Action condition would have 1,585 new residents introduced to the study area by the 2028 build year. The No-Action population would therefore be the existing population of 48,708 residents plus the 1,585 new residents introduced by the 41 active construction projects, for a total No-Action population of 50,293 residents.

**Future With-Action Condition Residential Population**

The With-Action population would be the No-Action population of 50,293 residents described above plus the 690 residents anticipated as a result of the Proposed Actions. The With-Action population would be 50,983 residents as shown below in **Table 2.3-2**.

**Figure 2.3-1: Open Space Study Area Census Tracts**

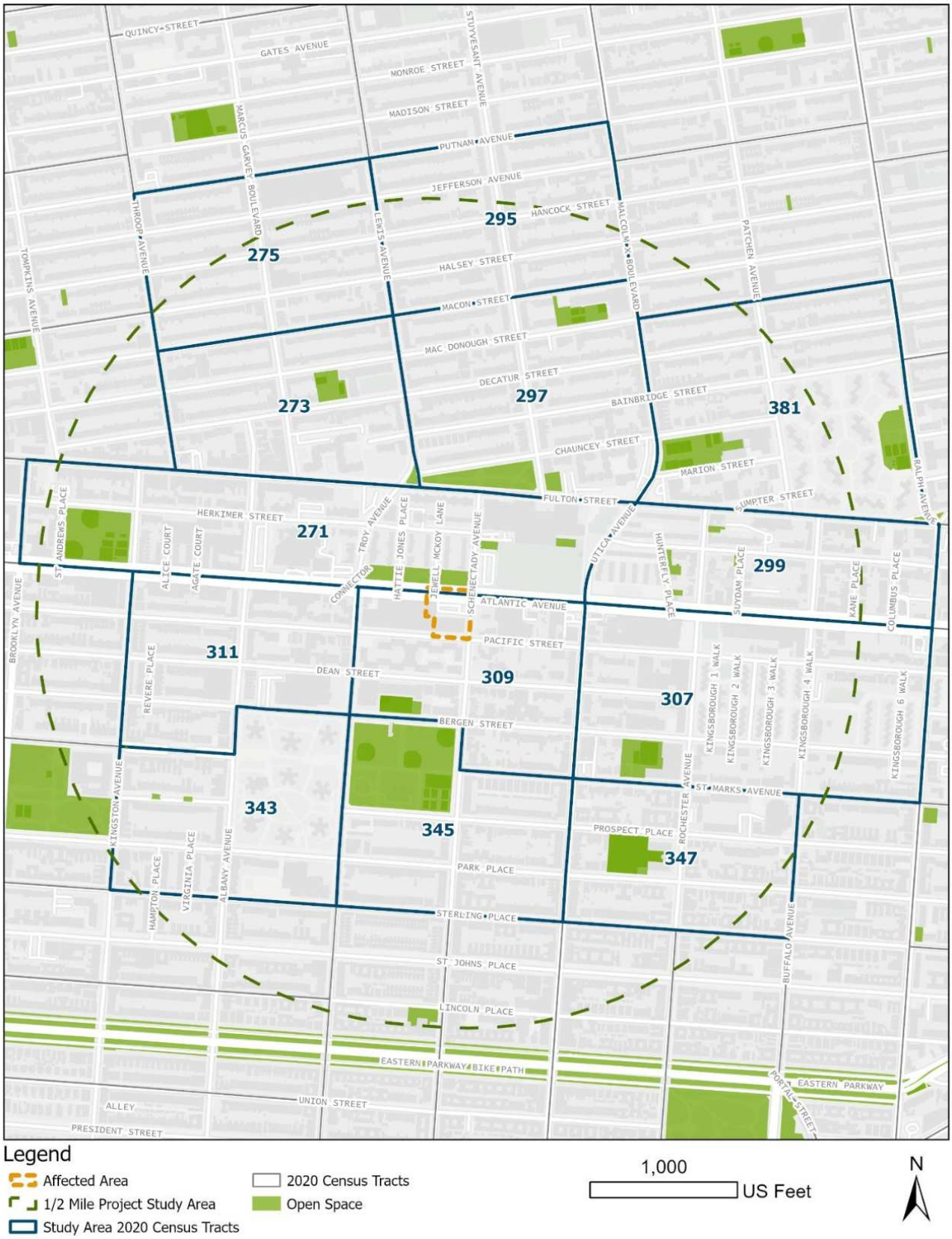


**Table 2.3-1: Active Construction Permits under the No-Action Condition**

| Project Location | Block | Lot | Permit Type | Total GSF | Proposed Dwelling Units | Proposed Stories |
|---|---|---|---|---|---|---|
| 1832 Fulton St | 1703 | 9 | New Building | 154,413 | 214 | 11 |
| 1864 Fulton St | 1703 | 33 | New Building | 83,762 | 110 | 11 |
| 1462 Atlantic Ave | 1203 | 10 | New Building | 20,556 | 57 | 5 |
| 1584 Fulton St | 1699 | 19 | ALT-CO - New Building with Existing Elements to Remain | 39,186 | 35 | 10 |
| 524 Halsey St | 1665 | 33 | ALT 1 Enlargement | 53,396 | 31 | 4 |
| 35 Kingston Ave | 1871 | 6 | New Building | 17,573 | 21 | 8 |
| 488 Marcus Garvey Blvd | 1859 | 29 | New Building | 17,123 | 18 | 62 |
| 20 Suydam Pl | 1709 | 28 | New Building | 14,485 | 15 | 4 |
| 1707 Dean St | 1342 | 65 | New Building | 9,162 | 13 | 4 |
| 1308 Lincoln Pl | 1390 | 15 | New Building | 11,341 | 13 | 6 |
| 1314 Lincoln Pl | 1390 | 16 | New Building | 11,341 | 13 | 6 |
| 1668 Bergen St | 1356 | 10 | New Building | 7,020 | 10 | 4 |
| 423 Herkimer St | 1864 | 48 | New Building | 11,881 | 10 | 5 |
| 444 Herkimer St | 1871 | 43 | New Building | 11,881 | 10 | 5 |
| 507 Herkimer St | 1699 | 55 | ALT 1 Enlargement | 4,932 | 9 | 4 |
| 1607 Pacific St | 1334 | 59 | New Building | 7,729 | 8 | 4 |
| 1668 Dean St | 1348 | 13 | New Building | 7,651 | 8 | 4 |
| 1327 Prospect Pl | 1360 | 80 | ALT 1 Enlargement | 6,481 | 8 | 4 |
| 1266 Park Pl | 1371 | 18 | ALT 1 Enlargement | 8,622 | 8 | 4 |
| 1479 Sterling Pl | 1373 | 66 | ALT-CO - New Building with Existing Elements to Remain | 6,173 | 8 | 4 |
| 274 Malcolm X Blvd | 1666 | 47 | ALT 1 Enlargement | 6,609 | 8 | 4 |
| 339 Herkimer St | 1863 | 53 | ALT-CO - New Building with Existing Elements to Remain | 4,534 | 8 | 4 |
| 1543 Bergen St | 1348 | 77 | New Building | 7,674 | 8 | 4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 37 Rochester Ave | 1709 | 9 | New Building | 9,366 | 8 | 4 |
| 1370 Dean St | 1215 | 18 | ALT 1 Enlargement | 5,511 | 4 | 3 |
| 358 Malcolm X Blvd | 1686 | 48 | New Building | 3,228 | 3 | 3 |
| 13 Hunterfly Pl | 1708 | 67 | New Building | 3,313 | 3 | 3 |
| 1835 Atlantic Ave | 1710 | 52 | New Building | 3,139 | 3 | 3 |
| 278 Bainbridge St | 1687 | 47 | New Building | 3,720 | 3 | 3 |
| 179 Chauncey St | 1687 | 80 | New Building | 3,707 | 3 | 3 |
| 133 Rochester Ave | 1356 | 6 | New Building | 3,600 | 3 | 3 |
| 85 Schenectady Ave | 1342 | 6 | ALT 1 Enlargement | 2,936 | 2 | 3 |
| 560 Hancock St | 1660 | 34 | Alteration CO | 3,214 | 2 | 4 |
| 321 Decatur St | 1676 | 74 | Alteration CO | 3,661 | 2 | 3 |
| 121 Macdonough St | 1852 | 54 | ALT 1 Enlargement | 5,227 | 2 | 4 |
| 191 Chauncey St | 1687 | 73 | New Building | 2,721 | 2 | 3 |
| 46 Buffalo Ave | 1710 | 47 | New Building | 2,956 | 2 | 3 |
| 50 Buffalo Ave | 1710 | 49 | New Building | 2,295 | 2 | 3 |
| 324 Macon St | 1669 | 2 | New Building | 3,652 | 2 | 4 |
| 1746 Atlantic Ave | 1336 | 4 | New Building | 2,367 | 0 | 1 |
| 272 Schenectady Ave | 1389 | 35 | New Building | 5,741 | 0 | 1 |
| | | | | **593,879** | **689** | |

**Table 2.3-2: Existing, No-Action, and With-Action Populations[9]**

| Existing | No-Action | With-Action |
|---|---|---|
| 48,708 | 50,293 | 50,983 |

[9] Existing = 2020 Decennial Census Data; No-Action = Existing plus 689 proposed dwelling units; With-Action = No-Action plus 690 additional residents from Projected Development Site 1

## Open Space Resources

There are thirteen public open space resources within the study area identified in **Table 2.3-3**. There are 26.12 acres of open spaces resources in the Study Area – approximately 67.13% or 17.53 acres are considered active and 32.87% or 8.59 acres are considered passive based on field visits and a review of open space site plans. The location of these resources present in the Study Area, are shown in **Figure 2.3-2**.

### Existing Condition Open Space Ratio

The study area has 26.12 acres of open space and an existing residential population of 48,708. The open space ratio (OSR) under existing conditions is 0.536 acres per thousand residents.

### Future No-Action Condition Open Space Ratio

In the future without the Proposed Actions, the population for the Study Area in the 2028 build year is forecasted to be 50,293 and is projected to be served by the same 26.12 acres of open space as in the existing condition. With this population, the OSR would be 0.519 acres per 1,000 residents. The OSR is far below the DCP planning goal of 2.5 acres per thousand people and reflects the area's shortfall of open spaces.

### Future With-Action Condition Open Space Ratio

The Proposed Actions would result in an increase of the No-Action population by 690 residents by the 2028 build year. The total 2028 build year With-Action population would be 50,983. With this increase in population, the OSR would be 0.512 acres per 1,000 residents, resulting in a 1.35% OSR reduction compared to the No-Action Condition.

**Figure 2.3-2: Open Space Location in Study Area**

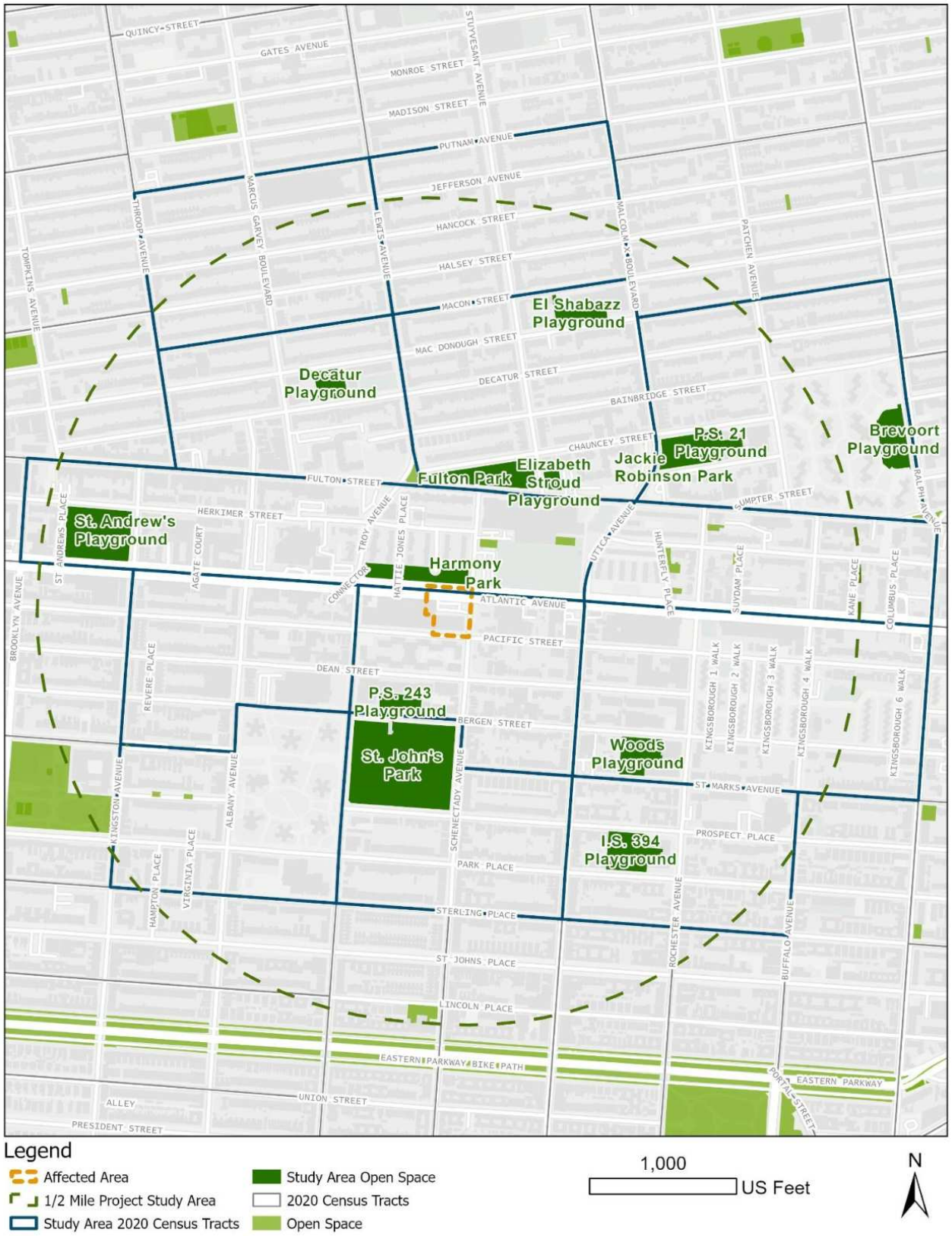


**Table 2.3-3: Open Space Resources**

| Name | Address | Responsible Agency | Acreage | % Active | % Passive | Total Active | Total Passive | Features |
|---|---|---|---|---|---|---|---|---|
| Brevoort Playground | Ralph Ave. bet. Chauncey St. and Sumpter St. | NYC DPR | 1.49 | 75 | 25 | 1.12 | 0.37 | Ba, FE, HC, Pg |
| Decatur Playground | Decatur St., Macdonough St. bet. Lewis Ave. and Marcus Garvey Blvd. | NYC DPR | 1.50 | 65 | 35 | 0.98 | 0.53 | BC, Pg, TC |
| El Shabazz Playground | Macdonough St. between Malcolm X Blvd. and Stuyvesant Ave. | NYC DPR | 0.89 | 75 | 25 | 0.67 | 0.22 | Ba, BC, HC, Pg, SS |
| Elizabeth Stroud Playground | Stuyvesant Ave. and Fulton St. | NYC DPR | 0.29 | 75 | 25 | 0.22 | 0.07 | Pg, SS |
| Fulton Park | Chauncey St. bet. Lewis Ave. and Stuyvesant Ave. | NYC DPR | 1.99 | 0 | 100 | 0 | 1.99 | Ba, DA |
| Harmony Park | Troy Ave. to Schenectady Ave. between Atlantic Ave. and Herkimer St. | NYC DPR | 1.56 | 0 | 100 | 0 | 1.56 | Be |
| I.S. 394 Playground* | Prospect Pl. and Park Pl. bet. Utica Ave. and Rochester Ave. | NYC DOE | 1.73 | 75 | 25 | 1.30 | 0.43 | BC, HC, Pg, RL |
| Jackie Robinson Park Playground | Malcom X Blvd. between Chauncey St. and Marion St. | NYC DPR | 1.61 | 85 | 15 | 1.37 | 0.24 | Ba, BC, Ea, FE, HC, Pg, SS, TC |
| P.S. 21 Playground* | Chauncey St. bet. Malcom X Blvd. and Patchen Ave. | NYC DOE | 0.51 | 75 | 25 | 0.38 | 0.13 | BC, HC, Pg |
| P.S. 243 Playground* | Bergen St. bet. Troy Ave. and Schenectady Ave. | NYC DOE | 0.69 | 75 | 25 | 0.52 | 0.17 | BC, Pg, RL |
| St. Andrew's Playground | Atlantic Ave., Herkimer St., Kingston Ave., St Andrew's Pl. | NYC DPR | 3.38 | 75 | 25 | 2.54 | 0.85 | Ba, BC, HC, Pg, SS |
| St. John's Recreation Center | Troy Ave., Bergen St., Prospect Pl., Schenectady Ave. | NYC DPR | 9.04 | 80 | 20 | 7.23 | 1.81 | Ba, BC, BF, HC, IP, ML, Pg, RC, SF, SS, WF |
| Woods Playground | Bergen St., Utica Ave., Rochester Ave., St Mark's Ave. | NYC DPR | 1.44 | 85 | 15 | 1.22 | 0.22 | Ba, BC, HC, Pg, SS |
| **Total** | | | **26.12** | **67.13** | **32.87** | **17.53** | **8.59** | |

* This is a Schoolyards to Playgrounds site regularly open to the public during non-school hours.
Ba = Bathrooms; BA = Badminton Courts; BC = Basketball Courts; Be = Benches; BF = Baseball Fields; DA = Dog-friendly Areas; Ea = Eateries; FE = Fitness Equipment; HC = Handball Courts; IP = Indoor Pools; ML = Media Labs; Pg = Playgrounds; RC = Recreation Centers; RL = Running Lanes; SF = Soccer Fields; SS = Spray Showers; TC = Tennis Courts; WF = Wi-Fi Hotspots

**Level of Significance**

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

- Projects in study areas where the open space ratio approaches or exceeds the City's planning goal of 2.5 acres per 1,000 residents, may generally tolerate up to a five percent decrease of the open space ratio before considering the need for more detailed analysis.
- For projects in study areas where the open space ratio is not near the City's planning goal of 2.5 acres per 1,000 residents, the percentage decrease in open space ratio is weighed against how the open space ratio of the study area compares to the City's planning goal for open space. Table 7-1 of the *2021 CEQR Technical Manual* (**Table 2.3-5** below) provides general guidelines for ranges of open space ratios and acceptable percentage changes.
- Projects that have an effect on a nonresidential population's use of passive open space would not follow the guidelines presented in **Table 2.3-5** and should consider the need for a detailed assessment based on a comparison of the open space ratio to the optimal ratio of 0.15 acres of passive space per 1,000 nonresidents. Projects that lead to the non-residential open space ratio to drop below the optimal ratio of 0.15 acres of passive open space per 1,000 non-residents may warrant a more detailed assessment.

As shown below in **Table 2.3-4**, under the No-Action and With-Action conditions, the overall residential OSR in the area would be below the planning goal in NYC of 2.5 acres per thousand residents. Under the Future With-Action condition, the OSR would be 0.512 acres per 1,000 residents, or a 1.35 percent reduction from the No-Action OSR. Referencing **Table 2.3-5** below, for areas with an open space ratio ranging from 0.51 to 1.00, a reduction of more than 2% would require detailed open space analysis. Since the Proposed Actions would not induce the reduction of the open space ratio for more than 2%, a detailed analysis of open space is not warranted.

**Table 2.3-4: Existing, No-Action and With-Action Open Space Ratios**

| | Residential Total | Residential Active | Residential Passive |
|---|---|---|---|
| Existing OSR | 0.536 | 0.360 | 0.176 |
| No-Action OSR | 0.519 | 0.349 | 0.171 |
| With-Action OSR | 0.512 | 0.344 | 0.168 |
| % Change | -1.35% | -1.35% | -1.35% |

**Table 2.3-5: Preliminary Assessment Guidance for Percentage Change in Open Space Ratio**

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

Source: Table 7-1 of the *2021 CEQR Technical Manual*

### 2.3.3 NYC Parks Walk to a Park Initiative

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

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the city within a Walk to a Park Service Area. Project sites that are located outside of a Walk to a Park Service Area (i.e., located in a known walk gap areas) suggests there is a need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the city with inadequate park access, potentially leading to a significant impact. While the focus of the Walk to a Park initiative is on residents living within walking distance to a park, projects that create a non-residential population (e.g., new workers) should also review if the project is located within a known walk gap and assess if the project would generate a new non-residential population within areas of the City with inadequate access to open space resources.

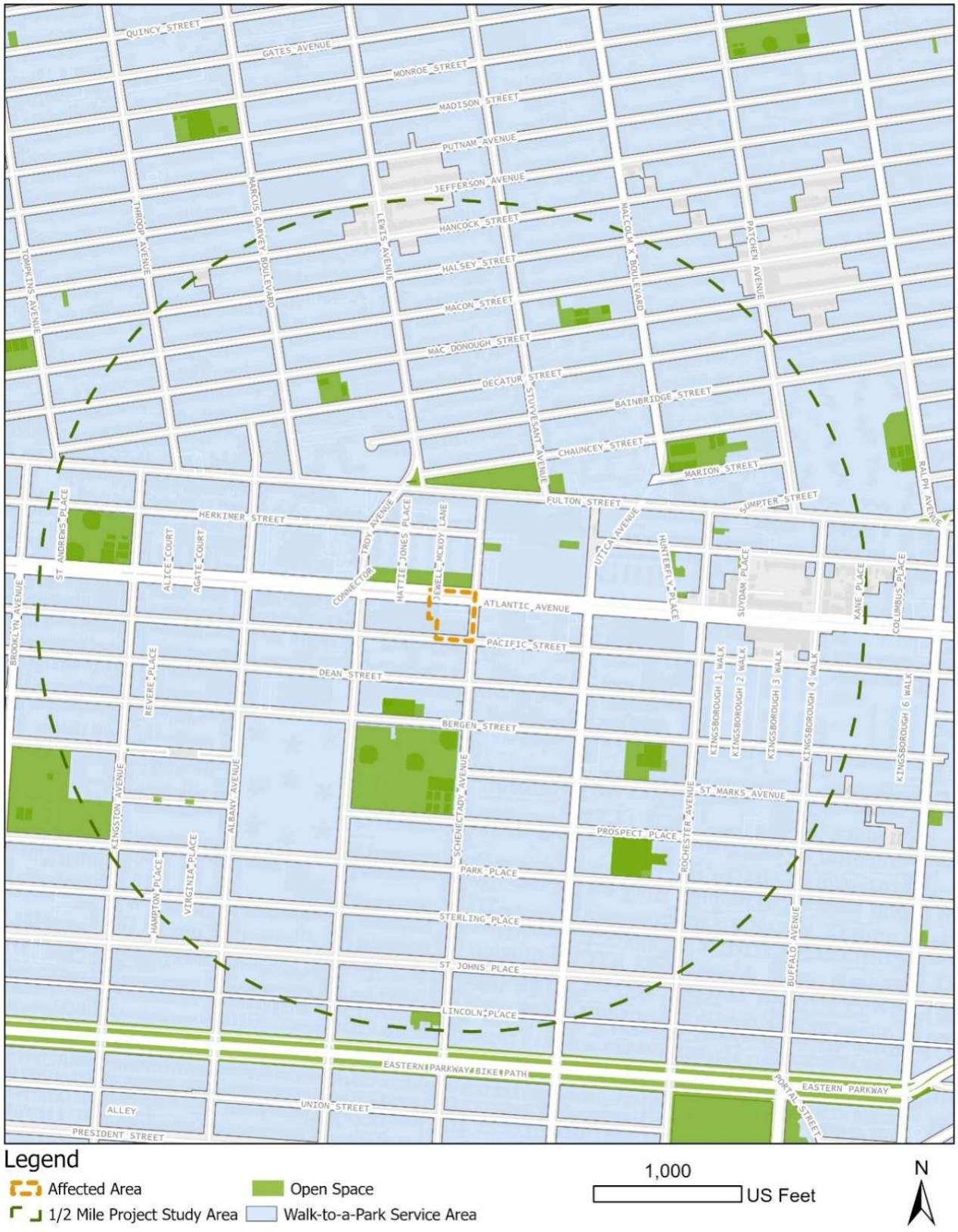
As shown in **Figure 2.3-3**, the entirety of the Affected Area is within a Walk to a Park service area, such that no further analysis is needed.

### 2.3.4 Conclusion

Under the existing, No-Action, and With-Action conditions, the OSR in the area would be below the city's planning goal of 2.5 acres per thousand residents. Pursuant to Table 7-1 of the *2021 CEQR Technical Manual* (See **Table 2.3-5**), an area with an OSR of 0.51 to 1.00 can tolerate up to a 2 percent decrease in the OSR between the Future No-Action and Future With-Action Condition without warranting additional analyses. As discussed above, although the area has a relatively low OSR of 0.512 under the With-Action Condition, the OSR decrease induced by the Proposed Actions would be 1.35%, which is lower than the CEQR threshold for areas with an OSR of 0.51 to 1.00. In addition, the Affected Area is located within a Walk to Park Service Area and is

therefore not identified as a walk gap area. As a result, the Proposed Actions would not have significant adverse impacts on open space resources, and further open space analysis is not warranted.

**Figure 2.3-3: Walk to a Park Service Area Map**



## 2.4 Shadows

The *2021 CEQR Technical Manual* defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space or feature. An incremental shadow is the additional or new shadow that a building or other built structure resulting from a Proposed Actions would cast on a sunlight-sensitive resource during the year. The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details, which make the resources significant.

The duration and dimensions of shadows are determined by the geographic location of the area from which the shadow is cast and the time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast farther towards the south than shadows cast in early and late winter months.

The *2021 CEQR Technical Manual* states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures, including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved, such as handball or basketball courts, places containing no seating areas and no vegetation, no unusual or historic plantings, or containing only unusual or historic plantings that are shade tolerant.

These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with *2021 CEQR Technical Manual* guidance.

**Methodology**

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

**Analysis Framework**

Projected Development Site 1 would be developed with one building of 160 feet in height (145-foot building plus an additional 15 feet for mechanical bulkheads) in the proximity of sunlight sensitive resources. Accordingly, a preliminary assessment of shadows is warranted.

### 2.4.1 Tier 1 Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, detailed shadow analysis may be warranted to be determine the extent and duration of the net incremental shadow resulting from the project. The effect of shadows on a sunlight-sensitive resources are site-specific; therefore, as directed in the *2021 CEQR Technical Manual*, the screening assessment was performed for the relevant Projected Development Site to determine whether it falls within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above.

To determine whether the Proposed Actions would reach any potential sunlight sensitive resources, a Tier I Screening Assessment was performed in accordance with the *2021 CEQR Technical Manual*. A base map is developed that illustrates the proposed site location in relation to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with

a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. A map as shown in **Figure 2.4-1** was prepared placing NYC Department of Parks Resources and Selected Facilities and Program Sites provided on the NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT – GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. After this a buffer map was prepared to display the maximum possible shadow of 688 feet, which could be cast from Projected Development Site 1 in the proposed rezoning area. This shadow cast was derived by multiplying the height of 160 feet (the maximum possible height under the proposed rezoning with MIH bonus plus a 15-foot bulkhead) by 4.3 (the 2021 *CEQR Technical Manual* multiplier representing the maximum shadow cast from any object as being 4.3 times its height). The potential impacted area of shadow from the projected site was then compared to those resources identified above to see if any fell within the shadow cast area.

Based on the Tier 1 analysis in **Figure 2.4-1**, it was determined that two (2) sunlight-sensitive resources, Harmony Park (Resource 1) and P.S. 243 playground/athletic field (Resource 2) are within reach of the longest possible shadow that could be cast from Projected Development Site 1 associated with the requested rezoning within the Affected Area. Though schoolyards are not typically listed as sunlight sensitive resources, the P.S. 243 playground/athletic field is analyzed as it is included in the Schoolyards to Playgrounds Program, which is open to the public regularly from school close to dusk on weekdays and from 8:00 am to dusk on weekends.

Therefore, a Tier 2 Assessment is required to determine what impacts, if any, may occur as a result of the Proposed Actions on these two sunlight sensitive resources.

**Figure 2.4-1: Tier 1 Shadow Screening Assessment**



### 2.4.2 Tier 2 Shadow Screening Assessment

The *2021 CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest Shadow Study Area, a Tier 2 screening assessment should be performed. Because of the path the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area cannot be shaded by Projected Development Site 1 and are screened out. The complementing portion to the north within the longest Shadow Study Area is the area that can be shaded by the proposed project.

As shown in **Figure 2.4-2**, the Tier 2 screening assessment shows that Harmony Park (Resource 1) is within the potentially shadowed area. Accordingly, a tier 3 shadow screening assessment is required.

### 2.4.3 Tier 3 Shadow Screening Assessment

The *2021 CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource is within the area that could be shaded by the Proposed Project, a Tier 3 screening assessment should be performed. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the Projected Development Sites. For a Tier 3 screening assessment, if the assessment determines that no shadows from the development would reach any of the sunlight-sensitive resources on any of the representative analysis days, then no further assessment for those days is needed. If, however, in the absence of intervening buildings, shadows from the proposed buildings would reach sunlight-sensitive resources on any of the representative analysis days, then a detailed shadow analysis would be warranted for those days.

As shown in **Figure 2.4-3** to **Figure 2.4-6** below, shadows from the Proposed Project would reach Harmony Park (Resource 1) on the winter solstice (December 21st), the vernal equinox (March 21st), and the autumn equinox (September 21st).

**Figure 2.4-2: Tier 2 Shadow Screening Assessment**



**Figure 2.4-3: Tier 3 Shadow Screening December 21st (Winter Solstice)**

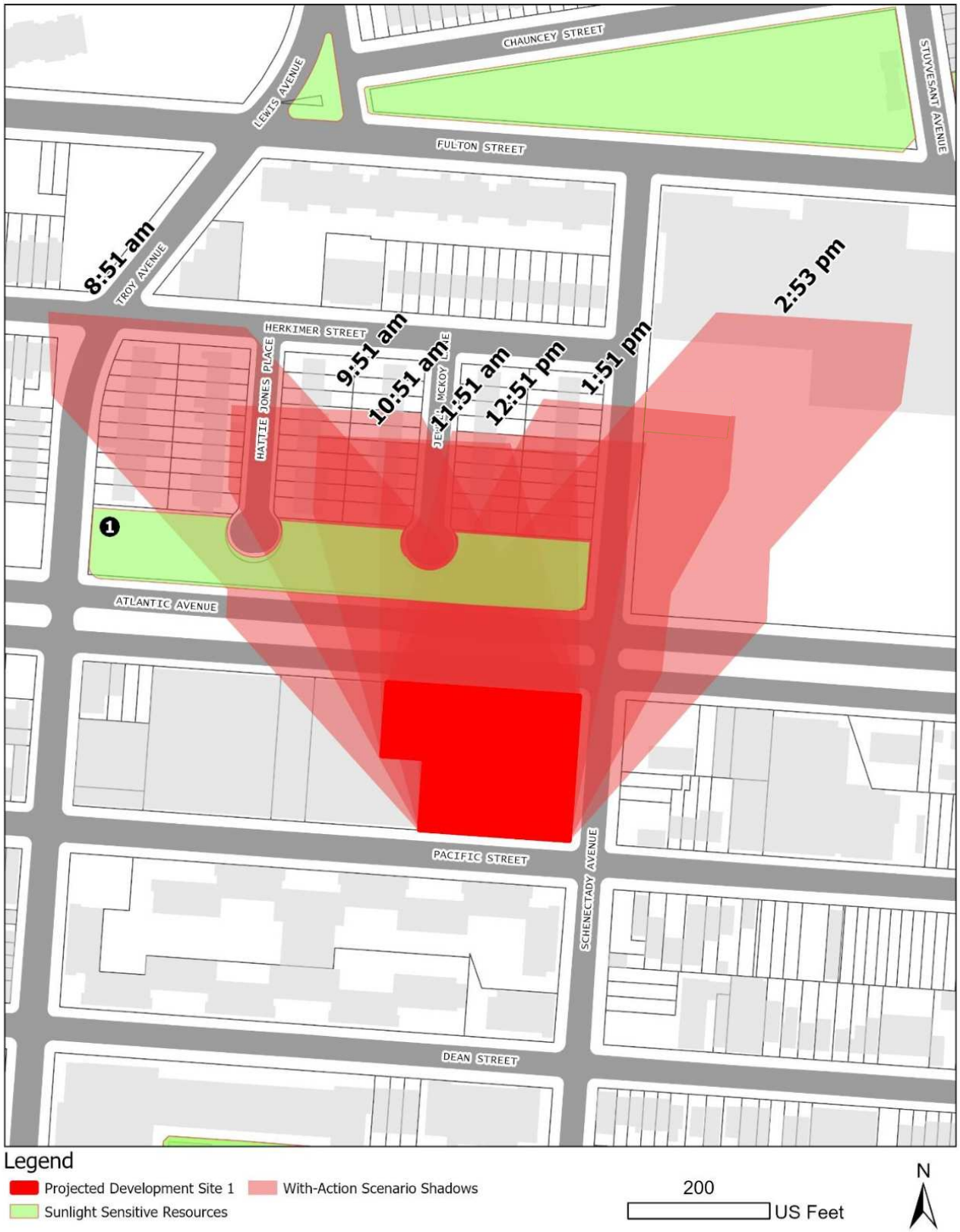


**Figure 2.4-4: Tier 3 Shadow Screening March/September 21st (Vernal and Autumnal Equinox)**

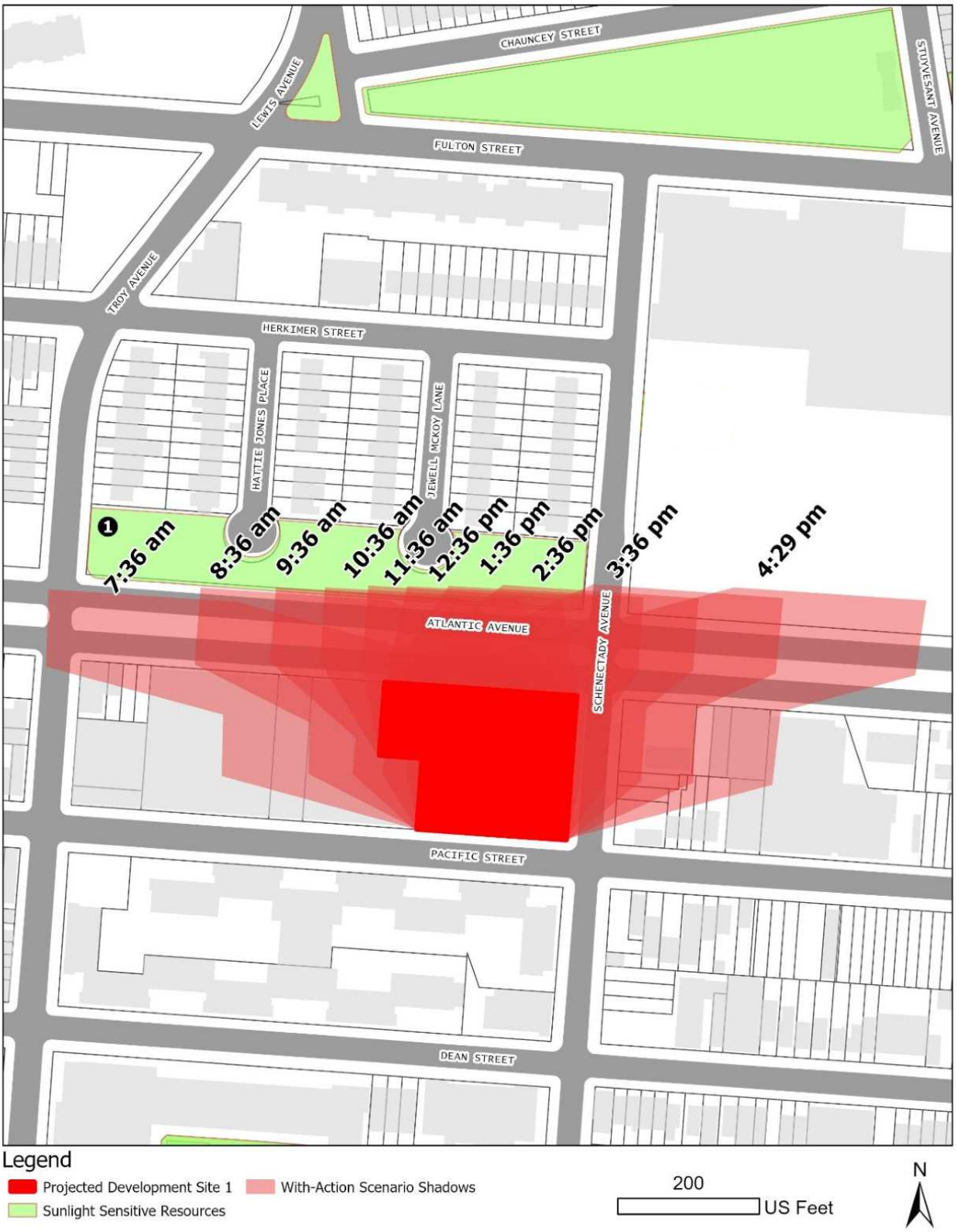


**Figure 2.4-5: Tier 3 Shadow Screening May/August 6th**

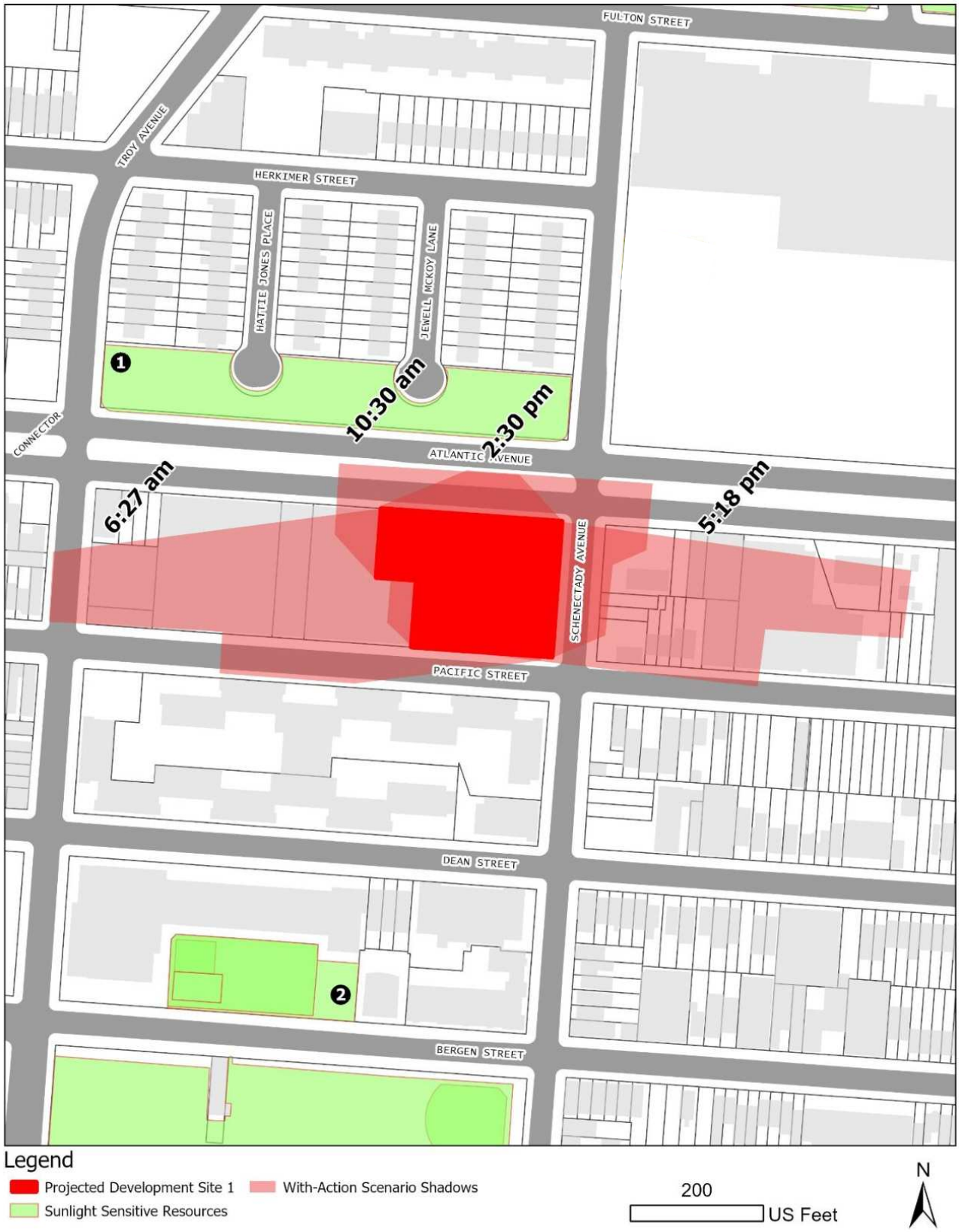


**Figure 2.4-6: Tier 3 Shadow Screening June 21st (Summer Solstice)**

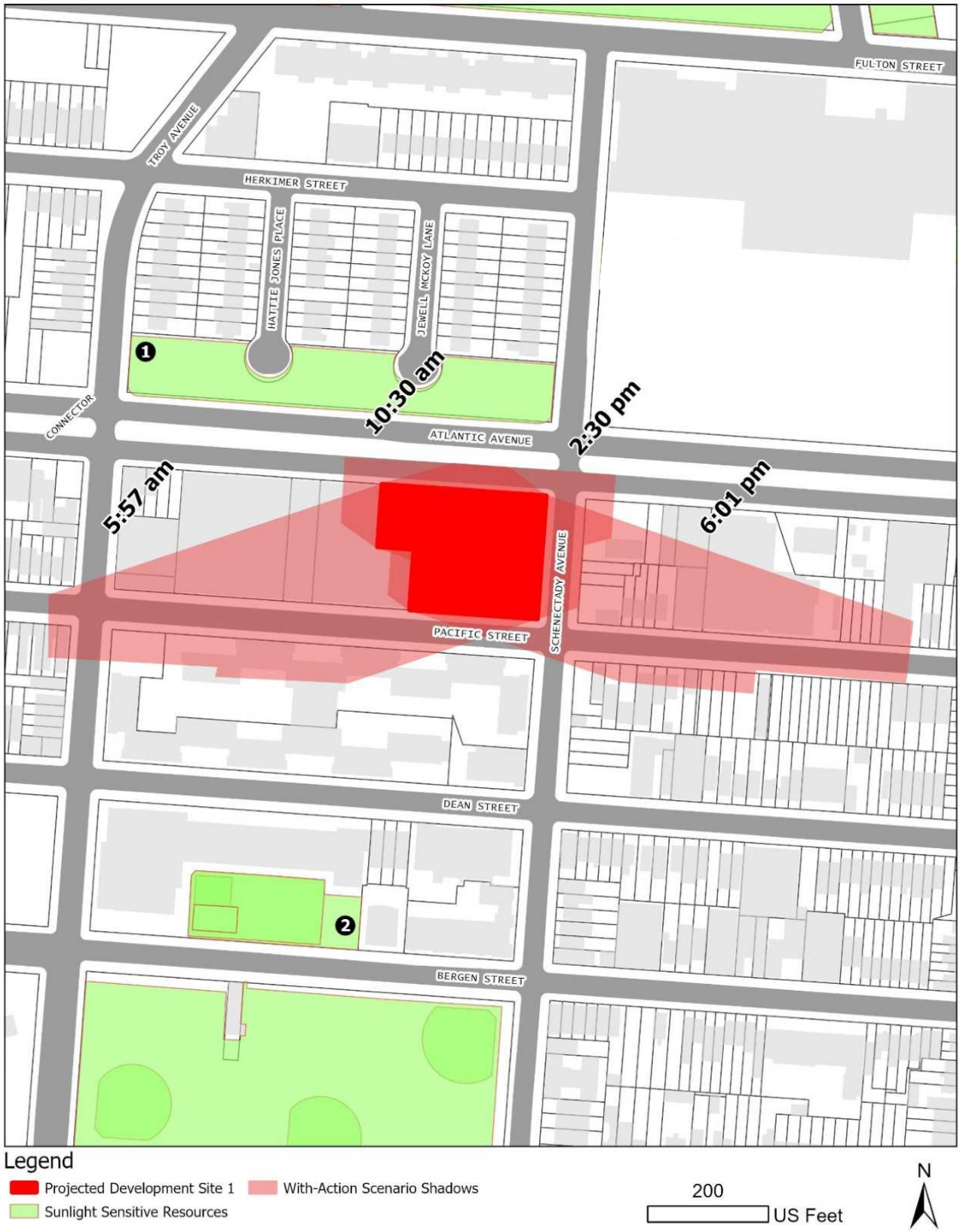


**Figure 2.4-7: Detailed Shadow Analysis - December 21st (8:51 am)**



**Figure 2.4-8: Detailed Shadow Analysis - December 21st (9:51 am)**



**Figure 2.4-9: Detailed Shadow Analysis - December 21st (10:51 am)**



**Figure 2.4-10: Detailed Shadow Analysis - December 21st (11:51 am)**



**Figure 2.4-11: Detailed Shadow Analysis - December 21st (12:51 pm)**



**Figure 2.4-12: Detailed Shadow Analysis - December 21st (1:51 pm)**



**Figure 2.4-13: Detailed Shadow Analysis - December 21st (2:53 pm)**



### 2.4.4 Detailed Shadow Analysis

The *2021 CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses do not rule out the possibility that project-generated shadows, in absence of shadows cast by intervening buildings, would reach any sunlight-sensitive resources. The detailed analysis aims to determine the extent and duration of shadows that fall on a sunlight-sensitive resource due to the proposed project. To evaluate the extent and duration of new shadows that would be cast on a sunlight-sensitive resource as a result of the proposed project, shadows that would exist in the future without the proposed project are also defined.

The results of the detailed shadow analyses on the identified resources of concern are summarized in **Table 2.4-1**. The incremental shadows cast by Projected Development Site 1 are shown above in **Figure 2.4-7** to **Figure 2.4-13** above. Based on the findings of the detailed shadow analysis, the Proposed Actions would result in casting of shadows on Harmony Park (Sunlight Sensitive Resource 1) on December 21st for 6 hours and 2 minutes and on March 21st/September 21st for 7 hours and 31 minutes. While Projected Development Site 1 would cast incremental shadows on Harmony Park on the March 21st/September 21st analysis day, only a small portion along the southern edge of the park would be cast in shadow (see **Figure 2.4-4** above). The shadow that would be cast on the park would only encroach on an approximately 20-foot portion along the southern edge and would not impact the chess tables or benches. Open space utilization of the sunlight sensitive resource would not be impacted, and due to the minimal shadow cast on the resource, there is minimal potential for impact on vegetation.

Harmony Park is a 1.56-acre park featuring walking paths, benches, chess tables. The park consists of grassy areas, waking paths, trees, and shrubbery. There is an elevated rail line located between the Project Site and Harmony Park shown in **Figure 2.4-14**.

**Table 2.4-1: Tier 3 Shadow Analysis Results**

| Analysis Day | December 21 | March 21 / September 21 | May 6 / August 6 | June 21 |
|---|---|---|---|---|
| **Timeframe Window** | **8:51 a.m. - 2:53 p.m.** | **7:36 a.m. - 4:29 p.m.** | **6:27 a.m. - 5:18 p.m.** | **5:57 a.m. - 6:01 p.m.** |
| **Sunlight Sensitive Resource 1** | **Harmony Park** | | | |
| **Shadow enter - exit times** | 8:51 am - 2:53 pm | 8:29 am - 4:00 pm | - | - |
| **Incremental Shadow Duration** | 6 Hours 2 Minutes | 7 Hours 31 Minutes | - | - |
| Note: Daylight savings time not used | | | | |

**Figure 2.4-14: Harmony Park (Sunlight Sensitive Resource 1)**



The *2021 CEQR Technical Manual* states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource are an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months, for example, generally do not affect the growing season of outdoor vegetation. This sensitivity is assessed for warm-weather-dependent features such as vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As stated in the *2021 CEQR Technical Manual*, to determine impact significance, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- Vegetation - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project). Or a reduction in direct sunlight exposure where the sunlight-sensitive feature of the resource is already subject to substandard sunlight (i.e., less than minimum time necessary for its survival).
- Open Space Utilization - A substantial reduction in the usability of open space as a result of increased shadow.
- For Any Sunlight-Sensitive Feature of a Resource - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

### 2.4.5 Conclusion

**Sunlight Sensitive Resource 1 (Harmony Park)**

Shadows from the Proposed Actions would cast on Sunlight Sensitive Resource 1 on December 21st for 6 hours and 2 minutes, entering from the southwest corner at 8:51 am and exiting the southeast corner at 2:53 pm. Shadows occurring during the cold weather months do not affect the growing season, and therefore, does not constitute a significant adverse impact on vegetation. The chess boards would only be covered for 1 hour from 8:51 am to 9:51 am, leaving approximately 5 hours of sunlight on the chess tables. The benches would be covered in shadow from approximately 11:51 am to 1:51 pm, leaving 4 hours of sunlight on the benches. The increment of shadows cast on the chess tables and benches within the park for the December 21st analysis period would still leave a significant amount of sunlight and would not constitute an adverse impact. Open space utilization of the resource would not be significantly impacted for the December analysis period.

Shadows from the Proposed Actions would cast on Sunlight Sensitive Resource 1 on September 21st for 7 hours and 31 minutes entering from the southwest corner at 8:29 am and exiting the southeast corner at 4:00 pm. The shadow that would be cast on the park would only encroach on an approximately 20-foot portion along the southern edge and would not impact the chess tables or benches. Open space utilization of the sunlight sensitive resource would not be impacted, and due to the minimal shadow cast on the resource, there would be no impact on vegetation.

## 2.5 Historic and Cultural Resources

An assessment of historic and cultural resources is usually necessary for projects that are located in close proximity to historic or landmark structures or districts, or for projects that require in-ground disturbance, unless such disturbance occurs in an area that has been formerly excavated, according to the *2021 CEQR Technical Manual*.

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

### Methodology

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

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

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

### 2.5.1 Architectural Resources

Per *2021 CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action(s) and in the area surrounding identified development sites. The historic resources Study Area is defined as the project site plus an approximately 400-foot radius around the Proposed Action area.

According to the *2021 CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a proposed action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. This section assesses the potential for the proposed action to result in significant adverse impacts on identified historic and cultural resources. **Table 2.5-1** below provides information about possible direct, indirect and construction-related impacts on historic and cultural resources. Generally, architectural resources should be surveyed and assessed if the proposed project would result in any of the following, whether or not any known historic resources are located near the site of the project:

**Table 2.5-1: Possible Impacts to Historic and Cultural Resources**

| |
|---|
| Construction resulting in ground disturbance, including construction of temporary roads and access facilities, grading, and landscaping. |
| Below-ground construction, such as excavation or installation of utilities. |
| Physical destruction, demolition, damage, alteration or neglect of all or part of an historic property. |
| Changes to the architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features. |
| Isolation of the property from, or alteration of, its setting or visual relationship with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor. |
| Introduction of incompatible visual, audible, or atmospheric elements to a resource's setting. |
| Replication of aspects of the resource so as to create a false historical appearance. |
| Elimination or screening of publicly accessible views of the resource. |
| Construction-related impacts such as falling objects, vibration, dewatering, flooding, subsidence, or collapse. |
| Introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over an historic landscape or an historic structure to the extent that the architectural details that distinguish that resource as significant are obscured. |

The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources. By letter dated December 14, 2023, LPC indicated that the study area does not contain any buildings of known architectural significance (see **Appendix A**). Therefore,

significant adverse impacts to architectural resources are not expected because of the Proposed Actions, and further analysis is not warranted.

### 2.5.2 Archaeological Resources

Unlike the architectural evaluation of a Study Area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells and privies. The *2021 CEQR Technical Manual* requires a detailed evaluation of a project's potential effect on the archeological resources if it would potentially result in an in-ground disturbance to an area not previously excavated.

The Proposed Actions would result in new in-ground construction on Projected Development Site 1. As noted, the LPC was contacted for their review of the project's potential to impact nearby historic and cultural resources, and a response was received on December 14, 2023 (see **Appendix A**). The LPC has indicated that no cultural resource of archaeological significance is associated with the study area. Therefore, significant adverse impacts to archaeological resources are not expected because of the Proposed Actions, and further analysis is not warranted.

### 2.5.3 Conclusion

The project would require in-ground disturbance to develop the proposed mixed-use building with a cellar for parking and mechanical space. LPC was contacted for their initial review of the proposed project's potential to impact historic and cultural resources on or near the Affected Area. In a letter dated December 14, 2023, LPC indicated that the Study Area does not contain any sites or buildings of known architectural or archeological significance (see **Appendix A**). The Proposed Actions, therefore, are not anticipated to result in significant adverse impacts to sensitive architectural or archaeology resources.

## 2.6 Urban Design and Visual Resources

According to the *2021 CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the *2021 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

The proposed rezoning of the Affected Area from M1-1 to C4-4D, R7A, and R7A/C2-4 would alter permitted use, bulk, and height within the Affected Area. Therefore, further analysis is warranted. The differences between existing and proposed zoning, with regards to those aspects of zoning affecting urban design, are presented in **Table 2.6-1**.

**Table 2.6-1: No-Action and With-Action Zoning Comparison**

| | **No-Action** | **With-Action** | |
|---|---|---|---|
| **Zoning** | M1-1 | C4-4D, R7A/C2-4, and R7A | |
| **Permitted Uses** | Manu., Com., CF | Res., Com., and CF | |
| **Maximum FAR** | Manu.: 1.00<br>Com.: 1.00<br>CF: 2.4 | Res.: | C4-4D = 7.20;<br>R7A/C2-4 and R7A = 5.01 |
| | | Com.: | C4-4D = 3.40;<br>R7A/C2-4 = 2.00;<br>R7A = N/A |
| | | CF: | C4-4D = 6.50;<br>R7A/C2-4 and R7A = 4.00 |
| **Maximum Height** | Sky Exposure Plane starting at: 30 feet | C4-4D | Min. Base Height: 60 feet<br>Max Base Height: 105 feet<br>Max Building Height: 145 feet |
| | | R7A/C2-4 and R7A | Min. Base Height: 40 feet<br>Max Base Height: 85 feet<br>Max Building Height: 115 feet |
| **Lot Coverage** | Minimum 20-foot rear yard | C4-4D | Residential Corner Lot Coverage: 100%<br>Residential Interior Lot Coverage: 70% |
| | | R7A/C2-4 and R7A | Residential Corner Lot Coverage: 100%<br>Residential Interior Lot Coverage: 65% |

Com. = Commercial; CF = Community Facility; Manu. = Manufacturing; Res. = Residential; QGF = Qualifying Ground Floor

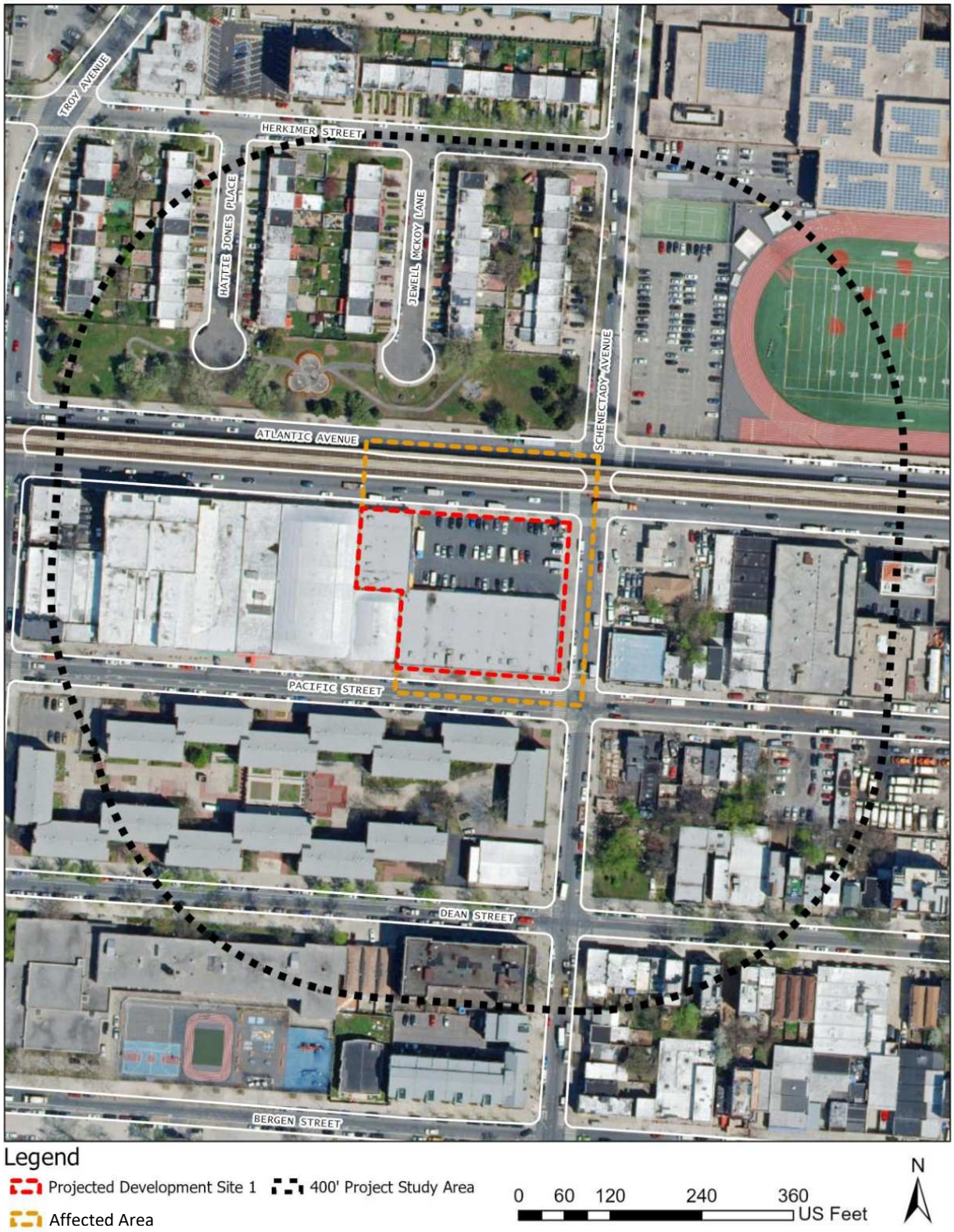
**Methodology**

Pursuant to the *2021 CEQR Technical Manual*, an assessment of urban design is appropriate when a project may affect one or more of the elements that contribute to the pedestrian experience of the public realm. This assessment of Urban Design and Visual Resources focuses on those elements of the Proposed Action that may have the potential to impact the use, arrangement, appearance, and functionality of the built environment. The *2021 CEQR Technical Manual* states that a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observer a material alteration beyond what is allowed by existing zoning. This preliminary analysis provides an assessment of the Proposed Action; to determine when comparing existing and future conditions with and without the Proposed Actions whether the project may result in a significant adverse environmental impact.

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

The following preliminary analysis also considers the effects of the Proposed Actions on an area's visual resources, or those important public view corridors, vistas, natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geological formations. Based on the *2021 CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environmental. The urban design study area consists of both a primary study area (where urban design defects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area is the Affected Area. As with the analysis of land use, zoning, and public policy, the second study area for the urban design assessment is defined as the area within approximately 400 feet of the Affected Area (see **Figure 2.6-1**). The analysis is based on field visits, aerial views, computerized massing studies and montages, photographs, geographic information systems analysis and other graphic images of the Affected Area and surrounding 400-foot study area. Zoning calculations, including floor area calculations, building heights, and lot coverage information are also provided.

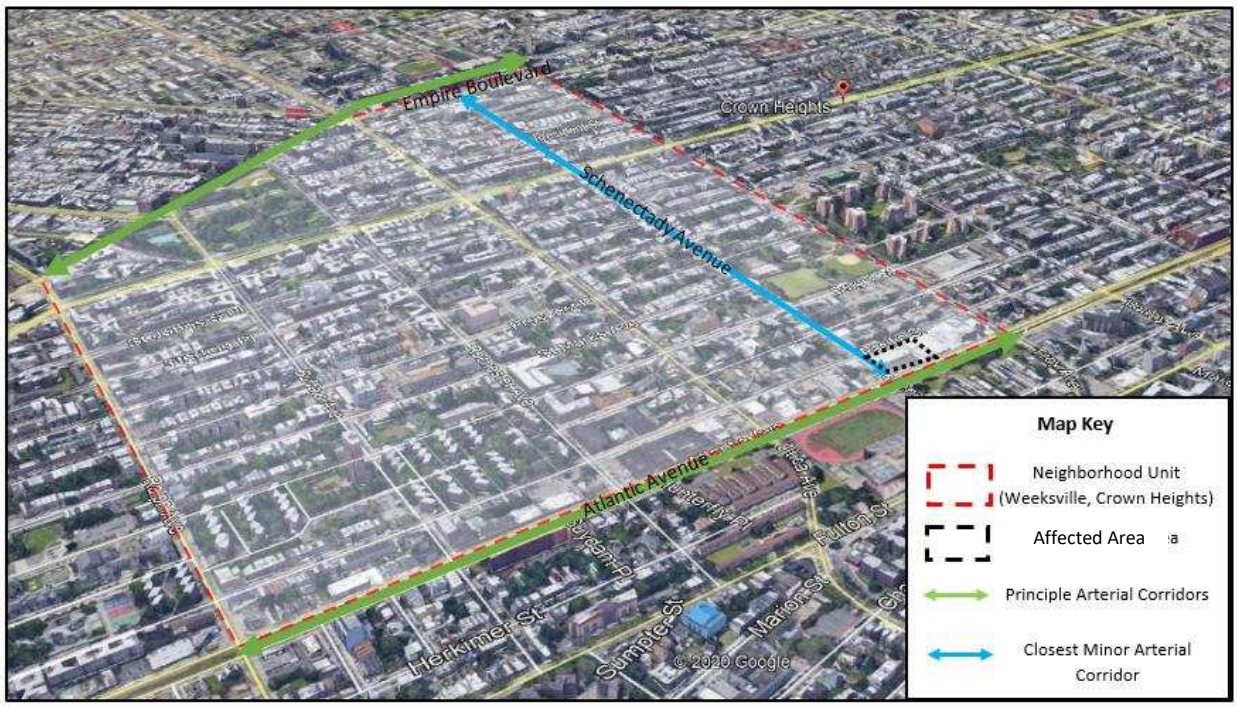
**Figure 2.6-1: Primary and Secondary Study Area**



### 2.6.1 Existing Conditions

The Affected Area consists of three lots on Block 1335 bounded by Atlantic Avenue, Schenectady Avenue, Pacific Street, and Troy Avenue in the Crown Heights neighborhood in Brooklyn, described in detail in **Section 1.4** and **Section 2.1**. From an urban design perspective, the study area, lies within a smaller, walkable neighborhood unit (See **Figure 2.6-2**).

**Figure 2.6-2: Neighborhood Unit Context**




*Land Uses*

The primary study area, as well as the 400-foot secondary study area, located in the Weeksville section of Crown Heights, is characterized by a mix of low- to medium-density land uses that varies in height and bulk. This impression is the result of the presence of many pre-existing conforming industrial and commercial uses set amongst a variety of housing topologies and densities. This section evaluates the characteristics of existing land uses, height, bulk and density within the primary and secondary study areas as well as the sidewalks and roadways linking the built form of the neighborhood, the integrated consideration of which establishes the basis for the overall urban design character experienced by the pedestrian.

Located at the north end of the block, Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) is owned and controlled by the Applicant and is developed with a single-story commercial building that is currently occupied by two retailers, Golden Krust restaurant and Atlantic Pharmacy. Lot 30 is developed with a single -story commercial building that is currently occupied

by three retailers; Metro MCS, GEM Pawnbrokers, and Money Gram/Checks & More – check cashing and payment center. Lot 35 is developed with a single-story commercial building that is currently occupied by five retailers; Dollar Tree, Aaron's, Raisa Beauty Supply, Dunkin' Donuts, and Food Universe Marketplace.

In terms of land use, there is an eclectic of mix commercial, light industrial, public facilities and institutions, residential, transportation and utility uses, and vacant land within the 400-foot secondary study area and which characterizes the broader neighborhood generally. The predominant land use in the secondary study area are residential, public facilities and institutions, and commercial uses. The lots and buildings housing these uses vary very little in height and bulk as shown in **Figure 2.6-3.** Directly abutting the study area on all frontages generally consists of a mix of residential buildings, public facilities and institutions to the north and south of the primary study area with commercial buildings and transportation and utility uses to the east and west along Atlantic Avenue.

The commercial buildings, which are more proximal to the primary study area and are located to the east and west along Atlantic Avenue, are characterized by brick one-story buildings. East of the primary study area, across Schenectady Avenue, the commercial uses are largely occupied by transportation and utility uses with residential buildings among those uses. There a Shell gas station on the southeastern corner of Atlantic Avenue and Schenectady Avenue and a large NYC Department of Sanitation facility in the middle of the block between Schenectady Avenue and Utica Avenue at 1760 Atlantic Avenue.

The residential uses that are generally located north of Atlantic Avenue and south the primary study area can be characterized by two-story one- and two-family building north the primary study area and four- and five-story buildings immediately south of the primary study area, which includes the NYCHA Weeksville Gardens that occupies the majority of Block 1341.

Other notable uses in the surrounding area includes the NYSDOE Boys and Girls High School located northwest of primary study that occupies the entirety of Block 1701 and the NYCDOE Weeksville Elementary School (P.S. 243) located at Block 1347, Lot 1. Just beyond the 400-foot secondary study area is St. John's Park (Park ID: B245), which is 650-feet away from the primary study area.

*Bulk and Height*

Within the secondary study area, built FARs vary depending on use: one- and two-family homes range from approximately 0.47 to 0.67 FAR, multifamily buildings range from 0.67 to 1.58 FAR with the vast majority being multifamily elevator buildings that have a built FAR of either .97 or 1.04 (i.e. the NYCHA Weeksville Gardens). Both Commercial and office buildings and Industrial or manufacturing buildings tend to be less than or equal to 1.00 FAR in accordance with existing M1-1 zoning regulations that have been in place since 1961.

In regard to building height, the tallest existing building in the secondary study area are the multifamily elevator buildings on Block 1341, Lot 1 where the build heights rang from four- to five-stories. Generally, all the buildings in the secondary study area range between one- and two-stories in height.

*Access*

The traffic grid around the primary study area is regularly shaped and sites at the intersection of major thoroughfares, Atlantic Avenue (a principal arterial) and Schenectady Avenue (a minor arterial). Vehicular traffic derived from both the primary study area, a shopping center in addition to the transportation and utility and uses to the east (i.e., the Shell gas station) contribute to the presence of automobiles and trucks in the area.

Sidewalks, ranging from 15 feet to 20 feet wide, are in good condition with paved surfaces and regular streetlights through the study area except that the limited number of street trees need to be improved. All the intersections are under good control with clear crossing markings and stop signs, securing the safety of the pedestrians when across the streets. Pedestrian activity is high because of the local retail within the primary study area and its proximity to the surrounding residential buildings.

*Visual Resources*

There are no eligible resources in the secondary study area, thus the projected development on the Projected Development Site 1 would not result in an adverse effect on the streetscape.

**Figure 2.6-3: Height and Bulk Visualization**

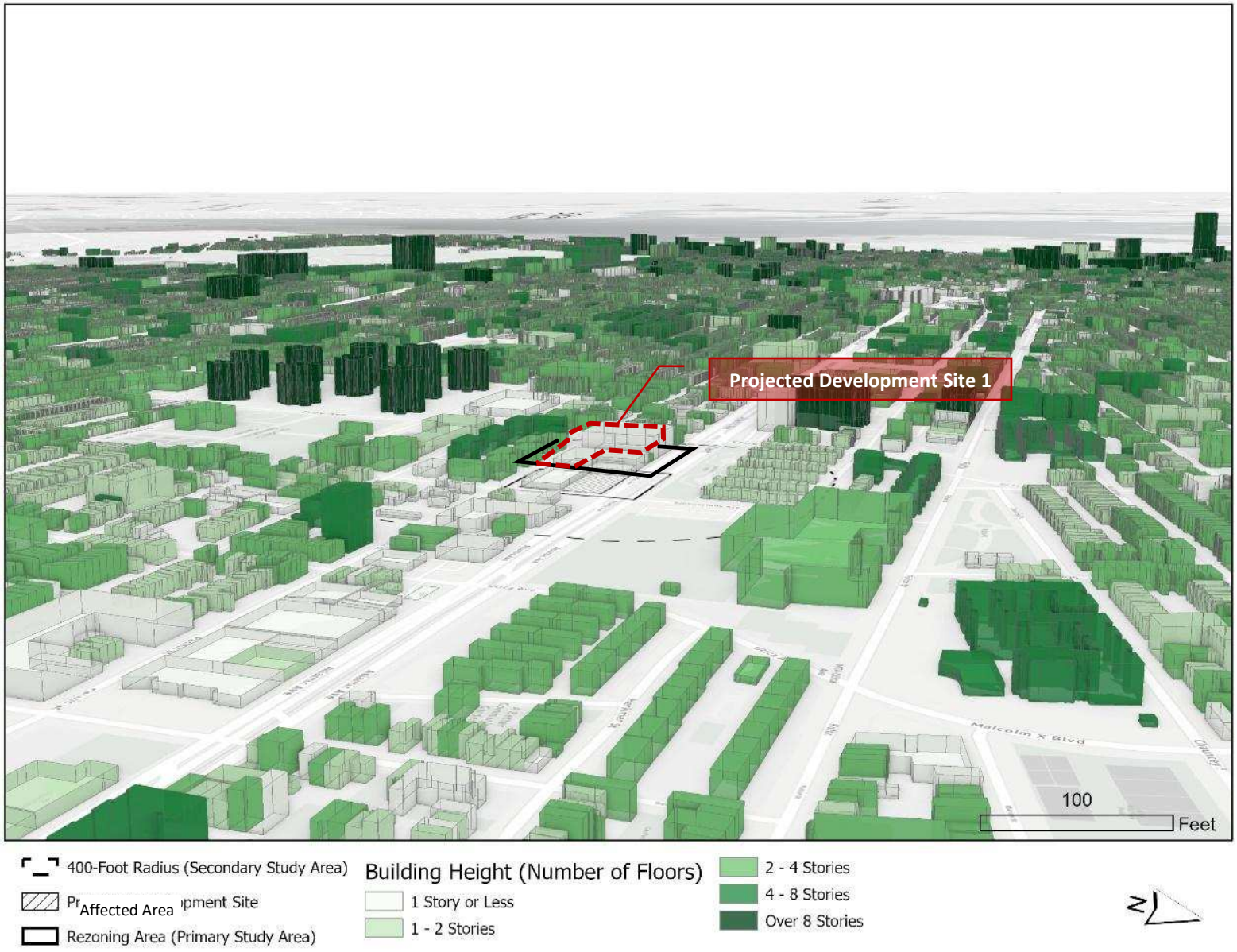


**Figure 2.6-4: Building Heights – Secondary Study Area**

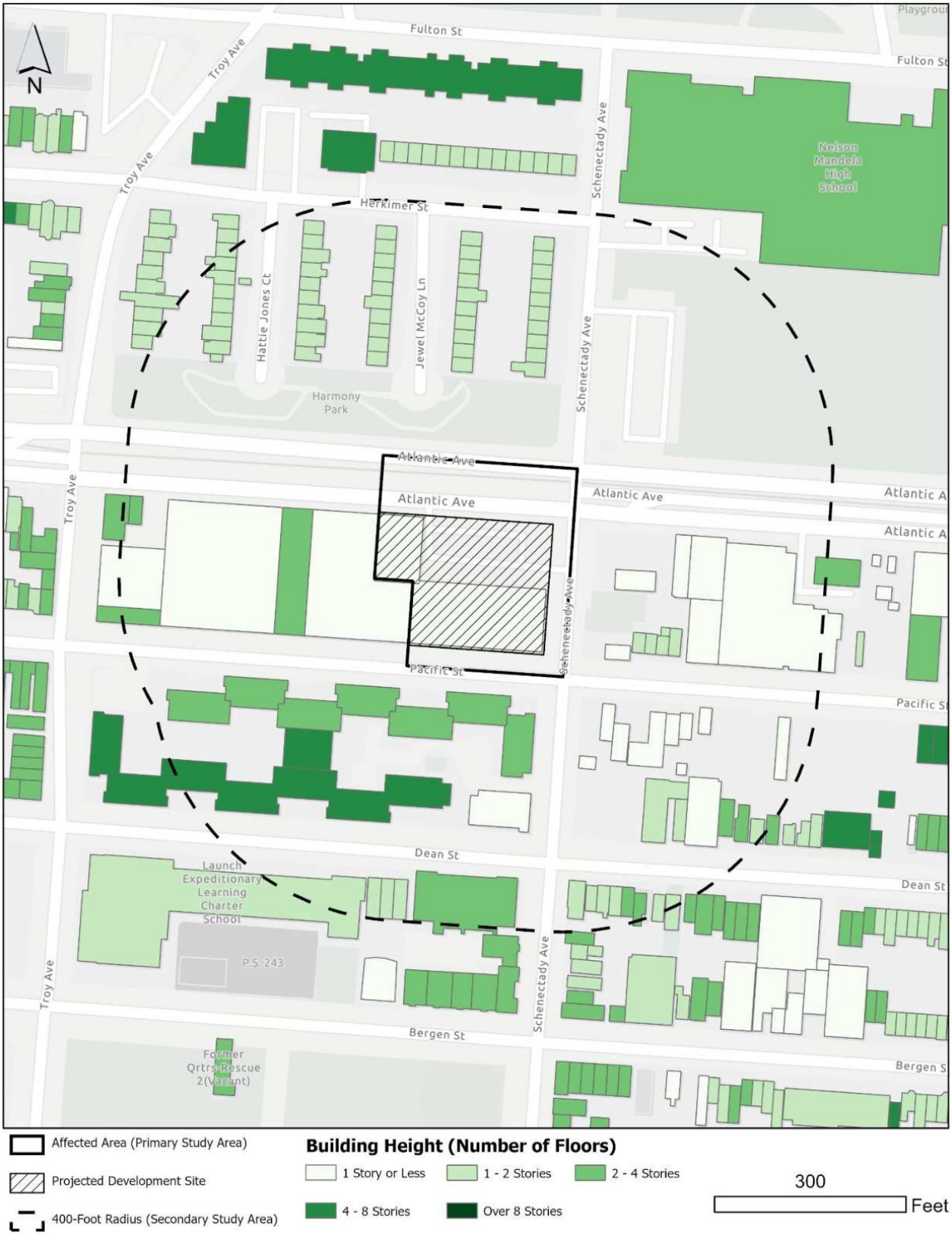


**Figure 2.6-5: Built FAR – Secondary Study Area**

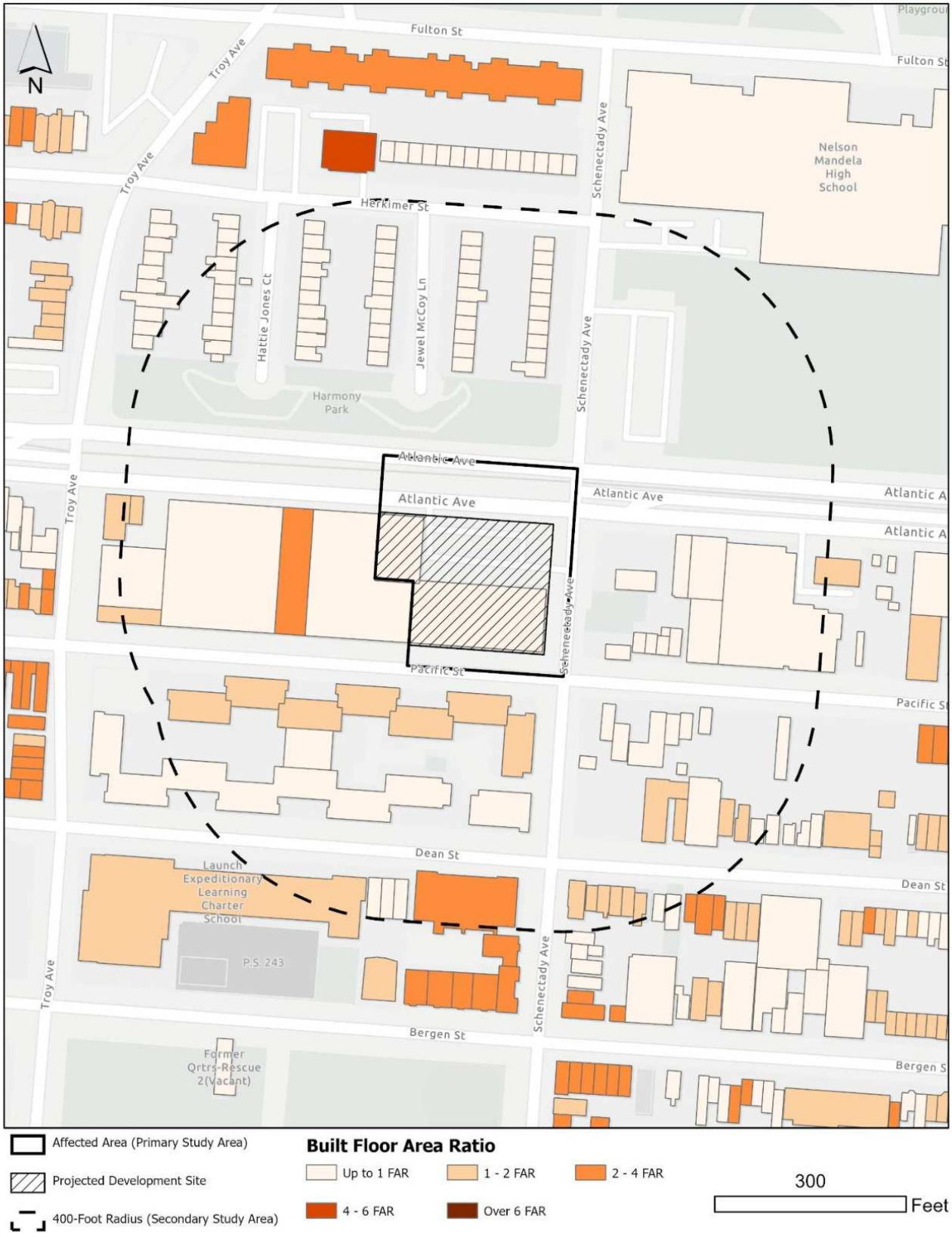


**Figure 2.6-6: Pedestrian Views Along the Atlantic Avenue Corridor**















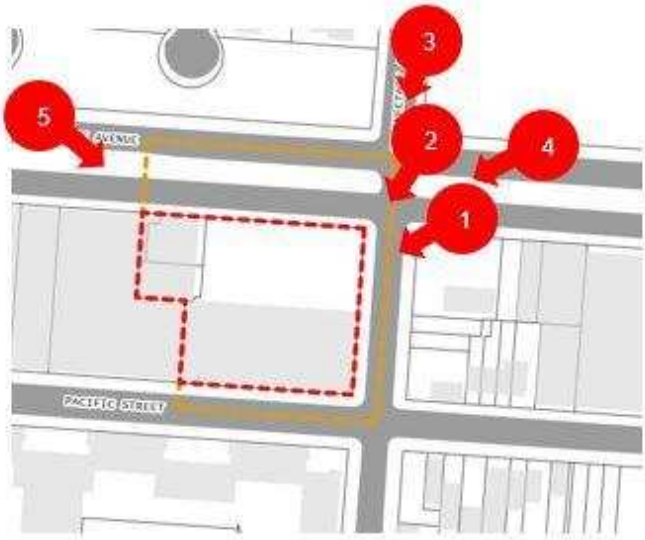



**Figure 2.6-7: Pedestrian Views Along Pacific Street and the Schenectady Avenue Corridor**





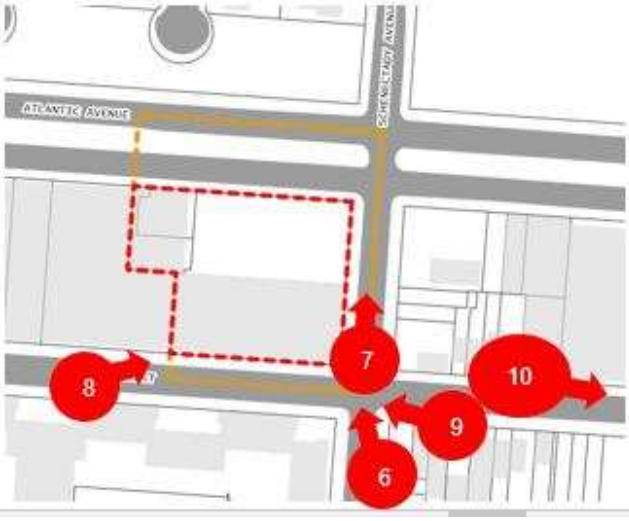










### 2.6.2 Future No-Action Condition

No changes to zoning are anticipated in the future without the Proposed Actions within the Affected Area. The Affected Area would continue to be subject to M1-1 zoning. Figure 2.6-8, **Figure 2.6-10**, **Figure 2.6-12**, and **Figure 2.6-14** show the No-Action Condition of the Affected Area.

### 2.6.3 Future With-Action Condition

On the Projected Development Site, the Applicant-owned Projected Development Site would be rezoned from M1-1 to C4-4D, R7A/C2-4, and R7A. The proposed Zoning Map Amendment would permit residential development on the Projected Development Site to a maximum FAR of 7.20 under the proposed C4-4D zoning district and 5.01 FAR under the proposed R7A/C2-4 and R7A zoning districts. Commercial floor area would be limited to 3.40 FAR under the proposed C4-4D zoning district and 2.0 FAR under the proposed R7A/C2-4. Community facility floor area would be limited to 6.50 FAR under the proposed C4-4D zoning district and 4.0 FAR under the proposed R7A/C2-4 and R7A zoning districts. The Future With-Action Condition would mirror the Proposed Development of a 13-story, 145-foot tall, 387,041 GSF (230,389 ZSF; 6.23 FAR), mixed-use commercial, community facility, and residential building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space to provide 300 dwelling units; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility space; and 52,635 GSF of accessory parking to provide 116 parking spaces. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

**Figure 2.6-9**, **Figure 2.6-11**, **Figure 2.6-13**, and **Figure 2.6-15** show the With-Action Condition of the Affected Area.

### 2.6.4 Conclusion

Although the Proposed Actions would introduce a new building height limit and bulk restriction that is greater than the currently exist in the surrounding area, the Projected Development would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood. The Proposed Development would not only consist of ground floor commercial space and significant residential space, but there will be new community facility space. The expanded set of uses that would be permitted is consistent with the majority of uses that currently exist in the surrounding area. Therefore, the Proposed Actions would not result in any significant adverse impact to the constituent elements of Urban Design, and a detailed analysis is not warranted.

There are no significant visual resources within the vicinity of the Affected Area. The Proposed Actions would not block any public view of a resource of significant aesthetic value. Therefore, it would not result in significant adverse impacts related to urban design and visual resources.

**Figure 2.6-8: No-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southwest**



**Figure 2.6-9: With-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southwest**



**Figure 2.6-10: No-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southeast**



**Figure 2.6-11: With-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southeast**

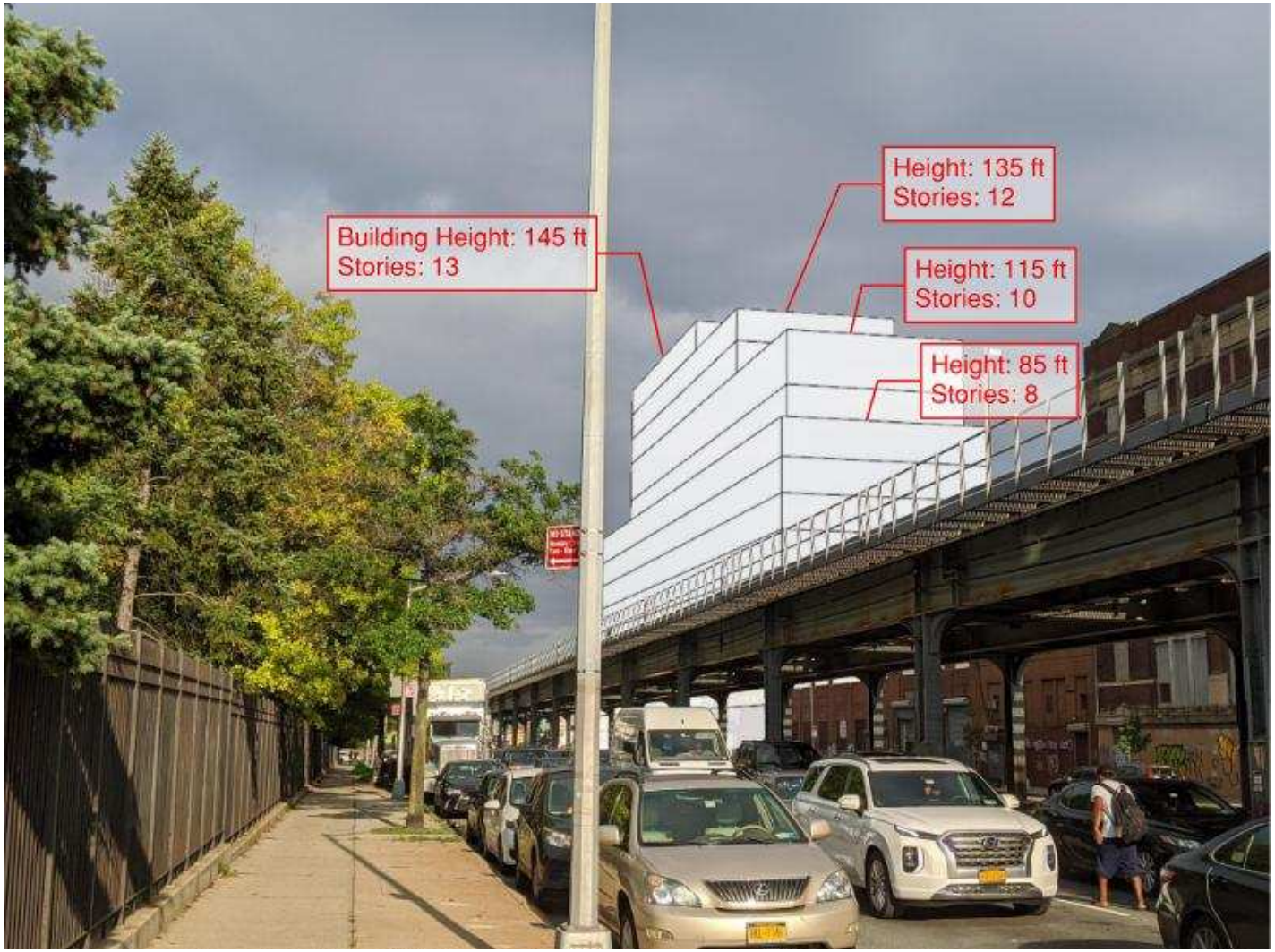


**Figure 2.6-12: No-Action View of Projected Development Site from East Side of Schenectady Avenue Facing Northwest**



**Figure 2.6-13: With-Action View of Projected Development Site from East Side of Schenectady Avenue Facing Northwest**

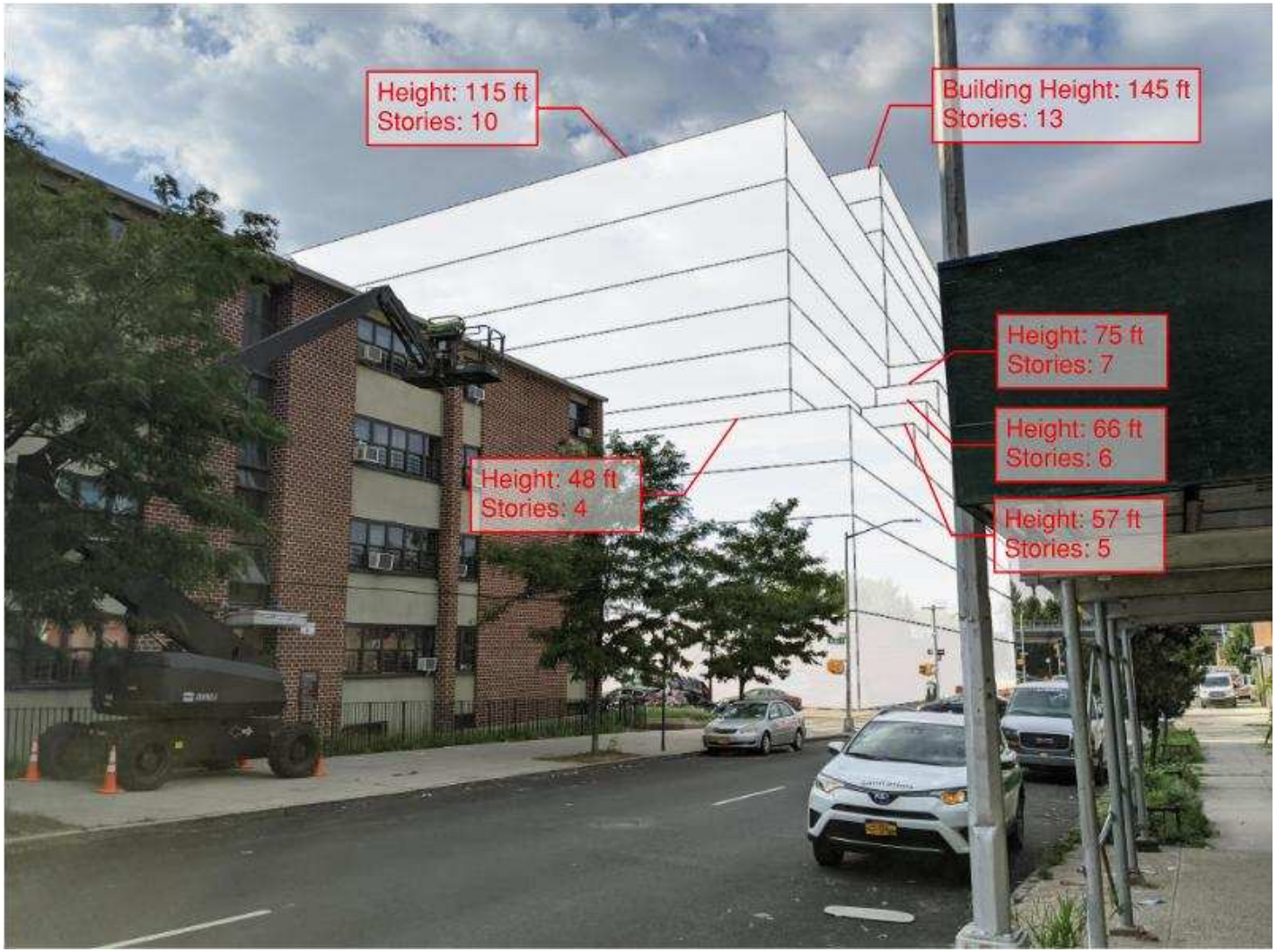
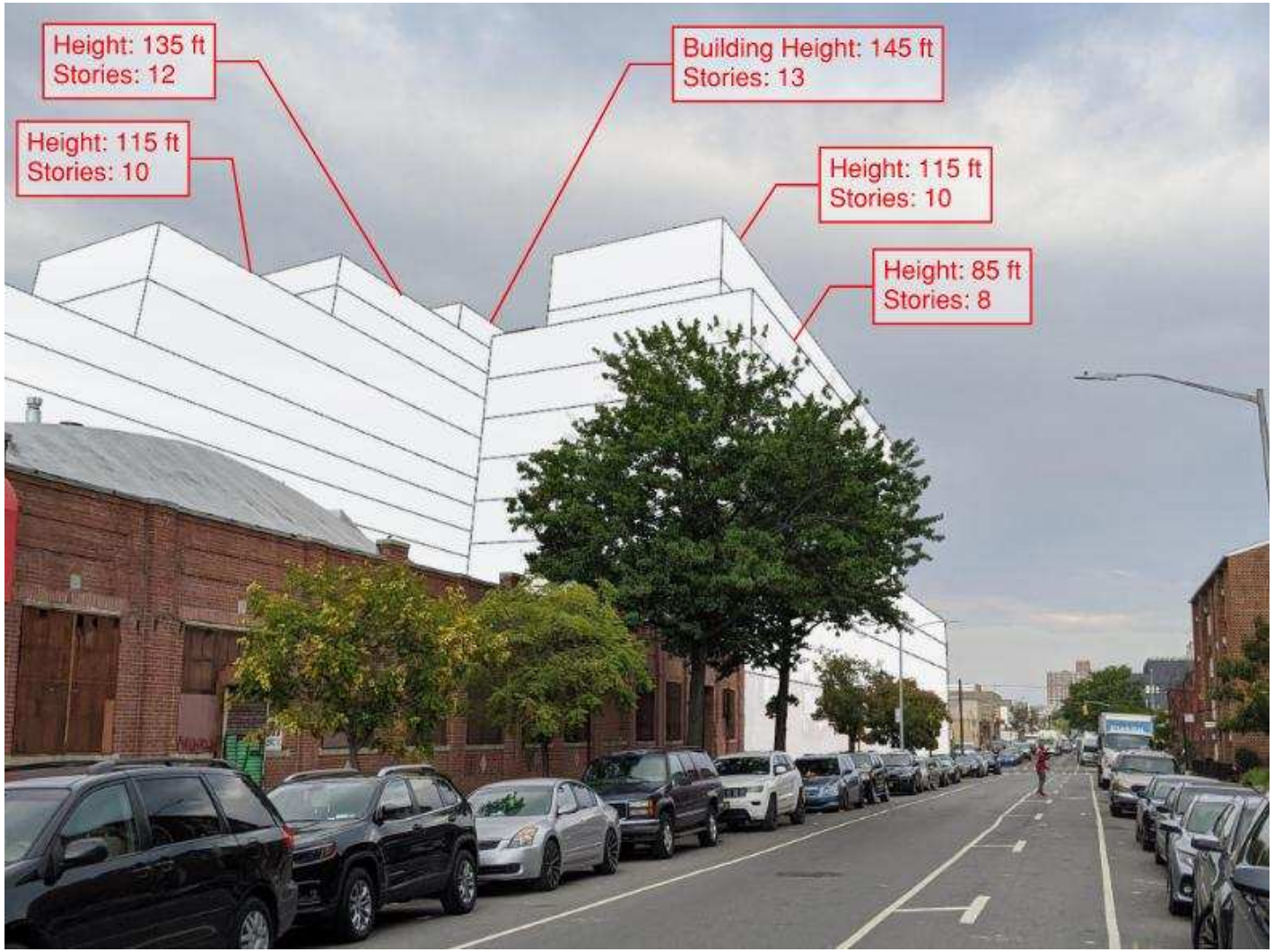


**Figure 2.6-14: No-Action View of Projected Development Site from South Side of Pacific Street Facing Northeast**



**Figure 2.6-15: With-Action View of Projected Development Site from South Side of Pacific Street Facing Northeast**



## 2.7 Hazardous Materials

According to the *2021 CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, and (b) an action would increase pathways to their exposure, or (c) an action would introduce new activities or processes using hazardous materials.

**Methodology**

The hazardous materials assessment begins with a Phase 1 ESA, which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the *2021 CEQR Technical Manual*, the Phase 1 ESA is conducted in accordance with the standards established by the current ASTM Phase 1 ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties. If a potential Recognized Environmental Conditions (RECs) is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

### 2.7.1 Phase I Environmental Site Assessment

The proposed rezoning from an M1-1 to an C4-4D, R7A/C2-4, and R7A zoning districts are being sought to facilitate the construction of a new 13-story, 145-foot-tall 387,041 GSF mixed-use building that would contain 300 dwelling units, 21,641 GSF of community facility space, and 55,997 GSF of commercial space. Accordingly, a Phase I ESA was conducted for Projected Development Site 1 by HydroTech Environmental in September of 2020. The Phase I ESA will be reviewed by the Department of Environmental Protection (DEP).

The purpose of a Phase I ESA is to determine whether any type of environmental hazard exists within or adjacent to the project site. Environmental hazards may include, but are not limited to, hazardous/toxic wastes or raw chemicals stored, dumped, or spilled on the site, underground and above ground storage of petroleum or hazardous materials; asbestos within the building materials/structures; and identification of potential off-site sources of hazardous waste contamination, such as industrial facilities adjacent to the subject property.

Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface waters of the property. De minimis RECs are those that do not present a threat to health or the environment and would not be the subject of an enforcement action by a government agency. All RECs, excluding de minimis RECs, were considered in the Phase I ESA.

HydroTech Environmental has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13. The following conditions were observed:

- The Subject Property - It is comprised of 48,300 square feet of land and is currently occupied by a 1-story shopping center that consist of 29,130 GSF of commercial space and a 19,170 SF surface parking lot built between 2002 and 2003. The commercial space is comprised of several vendors that include a Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gen Pawnbrokers and Checks Cashed. Sanborn Fire Rate Insurance Map for the Subject Property indicate that prior to the construction of the existing buildings that constitute the current shopping center the site had been vacant since as early as 1982. Earlier records indicate that between 1932 and 1980 the Projected Development Site was occupied by a 1-story building for a printing company (as of 1932), a clothing manufacturer built (as of 1951), and a machine shop (as of 1963). Records also indicate the presence of a 3-story building that was occupied by "Raydn Mill" (circa 1932) and a fire door manufacture (circa 1951).
- RECs - HydroTech Environmental found three RECs associated with Projected Development Site 1 that include:
    - The presence of an active Spill #9402692 at an adjacent site occupied by a Shell filling station at 1740 Atlantic Avenue (Block 1336, Lot 6) that was first reported on May 24, 1994 when free product was found in multiple monitoring wells during an investigation. Periodic monitoring and sampling had been performed throughout the years. A Soil Vapor Extraction (SVE) system was installed and operated to remediate the contamination. However, the SVE system did not prove to be effective as the soil on the site is too compact. A multi-phase extraction (total fluid pumps) system was proposed to remove the free phase product in addition to a proposed high vacuum SVE system to address the dissolved petroleum contamination. Both remediation proposals were approved by the New York State Department of Environmental Conservation (NYSDEC) in 2016. No further information is available regarding the remedial work on the site.
    - The suspect presence of an adverse impact to groundwater beneath the Site from an adjacent gasoline station. Three (3) monitoring wells with 5-inch manhole covers were identified on the sidewalk around the Projected Development Site including two (2) in the northwest along Atlantic Avenue and one (1) in the mid-east along Schenectady Avenue. The property owner is not able to provide further information on these wells. The presence of monitoring wells is typically related to previous/ongoing investigation or monitoring activities and might be indicative of potential impact on groundwater, which should be considered a REC. Furthermore, multiple monitoring wells with manhole coverings ranging from 5-

inch to 12-inch were observed in the adjacent Shell filling station at the eastern adjacent property. Based upon spill records, the monitoring wells at the Shell filling station is also indicative of a suspected impact on groundwater.

- The presence of a Potential Vapor Encroachment Condition at the Projected Development Site.

- HRECs - HydroTech Environmental found no HRECs associated with Projected Development Site 1.
- CRECs - HydroTech Environmental found no CRECs associated with Projected Development Site 1.
- VECs - HydroTech Environmental's Tier I evaluation of potential Vapor Encroachment Conditions (PVEC) indicates the historic/current operations of the gas station at the eastern-adjacent property as a PVEC at Projected Development Site 1.
- One non-scope consideration - presence of an LIRR aboveground rail within 200 feet from Projected Development Site 1.

The following conditions were identified in the surrounding area:

Environmental Database Reports (EDR) identified 43 sites within a 0.5-mile radius of the Projected Development Site that are listed on the Leaking Underground Storage Tank (LTANKs) database of which 41 have been cleaned up to the satisfaction of the NYSDEC and considered closed and one (1) LTANK site was identified as active and two (2) have been either closed or remediated with periodic monitoring; 17 sites listed in the New York Spills database within a 0.125-mile radius of the Projected Development Site; three (3) sites located within a 0.5-mile radius of the Projected Development Site that are listed in the Voluntary Cleanup Program (VCP) database; one (1) site located within a 0.5-mile radius of the Projected Development Site that is listed in the Brownfield Cleanup Program (BCP) database.

Based on the findings of the Phase I ESA, RECs were identified related to the Subject Property. Therefore, the development of Projected Development Site 1 under the Proposed Actions may have the potential for adverse impacts associated to hazardous materials and a Phase II ESA would be required.

As described above, Projected Development Site 1 is currently occupied by a 1-story shopping center that consist of 29,130 GSF of commercial space and a 19,170 SF surface parking lot. The commercial space is comprised of several vendors that include a Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gen Pawnbrokers and Checks Cashed. Given the Applicant's complicated tenancy relationships with multiple active vendors that have different business hours, making Projected Development Site 1 active in business from 5:00 AM to 10:00 PM seven days a week.

Phase II ESA testing will require site investigative work in multiple locations on the property, including the drilling of multiple borings (typically 2-3) deep into the ground to capture subsurface conditions for the entire property, which will be conducted with a rig powerful enough to penetrate pavement. Given that approximately half of Projected Development Site 1 is comprised of active small retail venues used by the public, it should be noted that these rigs are large enough to pose potential risks to the public safety.

As the Applicant rents Projected Development Site 1 to multiple active small local retail tenants, which has a considerable flow of patrons daily, the drilling of multiple borings on the ground could pose potential threats to the public safety. As such, Phase II investigative work is not feasible at this time and an (E) Designation is required to undertake Phase II work once the property is vacated, demolished and cleared, following approval of the Proposed Actions.

### 2.7.2 Conclusion

Based on the findings of the Phase I ESA, no HREC and CRECs were identified related to Projected Development Site 1. However, three RECs were identified related to potential impacts from the adjacent Shell filling station. Because the site is currently occupied by several vendors and an accessory parking lot, the Applicant intends on waiting for project approvals and site preparation activities before completing the Phase II work. Therefore, the development of Projected Development Site 1 under the Proposed Actions may have the potential for adverse impacts related to hazardous materials and an E-Designation will be mapped on the Affected Area.

The E-Designation language related to Hazardous Materials is as follows:

E-Designation (E-845)

An (E) Designation should be placed on the Projected Development Site (Block 1335; Lots 28, 30, and 35) to assure that testing and mitigation will be performed, as necessary be performed, as necessary, before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation (OER).

**E-845 Requirements**

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

If remediation is indicated 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 in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

## 2.8 Transportation

Pursuant to *2021 CEQR Technical Manual* methodology, a transportation assessment may be necessary when a proposed action would alter the transportation network by closing, opening, or realigning an element of the transportation system such as a roadway, pedestrian way, or transit route, or if it would generate new trips on the transportation network. The objective of the transportation analyses is to determine whether a proposed project may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement.

This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network.

**Analysis**

Future No-Action Condition

Existing conditions are expected to remain in the future No-Action Condition.

Future With-Action Condition

As further discussed in **Section 1.8**, the Proposed Actions would result in an additional 300 dwelling units (75 affordable), 26,867 GSF of commercial space, and 21,641 GSF of community facility space.

**Table 2.8-1: Increment Summary Table**

| Land Use | Existing | No-Action | With-Action | Increment |
|---|---|---|---|---|
| Residential | 0 | 0 | 300 DU | +300 DU |
| Community Facility | 0 | 0 | 21,640 GSF | +21,640 GSF |
| *Local Retail* | *29,130 GSF* | *29,130 GSF* | *31,522 GSF* | *+2,392 GSF* |
| *Office* | *0* | *0* | *24,475 GSF* | *+24,475 GSF* |
| *Total Commercial* | *29,130 GSF* | *29,130 GSF* | *56,030 GSF* | *+26,867 GSF* |

### 2.8.1 Preliminary Assessment

The Affected Area is within Traffic Zone 2. According to Table 16-1 of the *2021 CEQR Technical Manual,* in this zone, a development of fewer than 200 residential units, 100,000 square feet of commercial office, 15,000 square feet of local retail, 25,000 square feet of community facility space, or a weighted average below 1.00, typically does not warrant further assessment of the potential for adverse effects on transportation. As shown above in **Table 2.8-1**, while the proposed increases in commercial and community facility uses do not exceed their individual analysis threshold, the residential component with 300 new dwelling units does exceed the analysis threshold and therefore a Tier 1 trip generation is required.

### 2.8.2 Level 1 Trip Generation Screening Assessment

The *2021 CEQR Technical Manual* states that a preliminary Level 1 Trip Generation Screening Assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the Proposed Development would result in fewer than the following increments:

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

The *2021 CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted.

**Transportation Planning Assumptions**

As described below in more detail for individual land uses, the CEQR TM; 1045 Atlantic Avenue EAS; American Community Survey (ACS) 2015-2019 5-Year Journey-to-Work Census data (for Kings County Census Tracts 271, 299, 307, 309, 311, 343, 345, and 347); and data provided by NYCDOT were used to develop the Travel Demand Factors as shown in **Table 2.8-2** below. **Table 2.8-3** below shows the person trips, vehicular trips, and pedestrian trips generated based on the travel demand factors presented in **Table 2.8-2**.

Office

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits and vehicle occupancy rates are based on the 1045 Atlantic Avenue EAS.

Community Facility (Medical Office)

The daily person trip generation rates, temporal and directional distributions are based on the *2021 CEQR Technical Manual.* The modal splits and the vehicle occupancy rates are based on data provided by NYC DCP, while the truck trip generation, temporal and directional distributions are based on the 1045 Atlantic Avenue EAS.

Local Retail

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits are based on

data provided by NYC DCP, while the vehicle occupancy rates are based on the 1045 Atlantic Avenue EAS.

Residential

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits and auto vehicle occupancy rate are based on 2015-2019 American Community Survey (ACS) Journey-to-Work data for census tracts 271, 299, 307, 309, 311, 343, 345, and 347, while the taxi vehicle occupancy rate is based on the 1045 Atlantic Avenue EAS.

## Table 2.8-2: Travel Demand Factors

| | Office | | Community Facility (Medical Office) | | Local Retail | | Residential | |
|---|---|---|---|---|---|---|---|---|
| **Trip Generation** | (1) | | (1) | | (1) | | (1) | |
| **Weekday** | 18 | | 66.626(x)+141.77* | | 329 | | 8.18 | |
| **Saturday** | 3.9 | | 37 | | 358 | | 9.08 | |
| | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | | per dwelling unit | |
| **Temporal Distribution** | (1) | | (1) | | (1) | | (1) | |
| **AM** | 12.4% | | 11.0% | | 4.8% | | 9.3% | |
| **MD** | 11.0% | | 12.6% | | 8.0% | | 5.6% | |
| **PM** | 10.5% | | 8.5% | | 10.9% | | 8.5% | |
| **Sat MD** | 14.1% | | 16.6% | | 11.7% | | 8.4% | |
| **Modal Splits** | AM/PM/SAT (2) | MD (2) | (4) | | (4) | | (3) | |
| **Auto** | 12% | 2% | 22% | | 11% | | 16% | |
| **Taxi** | 1.0% | 1.0% | 4% | | 0.0% | | 2% | |
| **Bus** | 77% | 7% | 13% | | 2% | | 14% | |
| **Subway** | 6% | 7% | 13% | | 3% | | 60% | |
| **Walk/Other** | 4% | 83% | 48% | | 84% | | 8% | |
| **In/Out Splits** | In (1) | Out (1) | In (1) | Out (1) | In (1) | Out (1) | In (1) | Out (1) |
| **AM** | 86% | 14% | 62% | 38% | 52% | 48% | 22% | 78% |
| **MD** | 52% | 48% | 53% | 47% | 50% | 50% | 50% | 50% |
| **PM** | 16% | 84% | 39% | 61% | 50% | 50% | 62% | 38% |
| **Sat MD** | 48% | 52% | 54% | 46% | 50% | 50% | 55% | 45% |
| **Vehicle Occupancy** | (2) | | (2) | | (2) | | (3)(2) | |
| **Auto** | 1.42 | | 1.50 | | 1.20 | | 1.05 | |
| **Taxi** | 1.42 | | 1.50 | | 1.20 | | 1.40 | |
| **Truck Trip Generation** | (1) | | (2) | | (1) | | (1) | |
| **Weekday** | 0.32 | | 0.67 | | 0.35 | | 0.06 | |
| **Saturday** | 0.01 | | 0.67 | | 0.04 | | 0.02 | |
| **Temporal Distribution** | (1) | | (2) | | (1) | | (1) | |
| **AM** | 10.0% | | 14.0% | | 8.0% | | 12.0% | |
| **MD** | 11.0% | | 9.0% | | 11.0% | | 9.0% | |
| **PM** | 2.0% | | 1.0% | | 2.0% | | 2.0% | |
| **Saturday** | 11.0% | | 0.0% | | 11.0% | | 9.0% | |
| **In/Out Splits** | In | Out | In | Out | In | Out | In | Out |
| **AM/MD/PM/Sat** | 50.00% | 50.00% | 50.00% | 50.00% | 50.00% | 50.00% | 50.00% | 50.00% |

1 = 2021 CEQR Technical Manual

2 = 1045 Atlantic Avenue EAS, 2021

3 = 5-year ACS Journey to Work (2015 - 2019) for Kings County Tracts 271, 299, 307, 309, 311, 343, 345, and 347

4 = Data provided by NYC DCP and NYC DOT

## Table 2.8-3: Total Project Generated Trips

| | Office | | Community Facility (Medical Office) | | Local Retail | | Residential | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Size (gsf)** | 24,475 gsf | | 21,641 gsf | | 2,392 gsf | | 300 du | | | | |
| **Peak Hour Trips** | | | | | | | | | | | |
| **AM** | 55 | | 174 | | 38 | | 228 | | 495 | | |
| **MD** | 48 | | 200 | | 63 | | 137 | | 448 | | |
| **PM** | 46 | | 135 | | 86 | | 209 | | 475 | | |
| **Sat MD** | 13 | | 133 | | 100 | | 229 | | 475 | | |
| **Person Trips** | | | | | | | | | | | |
| **AM** | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| **Auto** | 6 | 1 | 24 | 15 | 2 | 2 | 8 | 28 | 39 | 45 | 85 |
| **Taxi** | 0 | 0 | 4 | 3 | 0 | 0 | 1 | 4 | 6 | 7 | 13 |
| **Bus** | 36 | 6 | 14 | 9 | 0 | 0 | 7 | 25 | 58 | 39 | 97 |
| **Subway** | 3 | 0 | 14 | 9 | 1 | 1 | 30 | 107 | 48 | 117 | 164 |
| **Walk/Other** | 2 | 0 | 52 | 32 | 16 | 15 | 4 | 14 | 74 | 61 | 136 |
| **Total** | 47 | 8 | 108 | 66 | 20 | 18 | 50 | 178 | 225 | 270 | 495 |
| | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| **Auto** | 1 | 0 | 23 | 21 | 3 | 3 | 11 | 11 | 38 | 35 | 73 |
| **Taxi** | 0 | 0 | 4 | 4 | 0 | 0 | 2 | 2 | 6 | 6 | 12 |
| **Bus** | 2 | 2 | 14 | 12 | 1 | 1 | 9 | 9 | 26 | 24 | 50 |
| **Subway** | 2 | 2 | 14 | 12 | 1 | 1 | 41 | 41 | 58 | 56 | 114 |
| **Walk/Other** | 1 | 19 | 51 | 45 | 26 | 26 | 5 | 5 | 84 | 96 | 180 |
| **Total** | 5 | 23 | 106 | 94 | 31 | 31 | 69 | 69 | 211 | 217 | 428 |
| **PM** | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| **Auto** | 1 | 5 | 12 | 18 | 5 | 5 | 20 | 12 | 37 | 40 | 77 |
| **Taxi** | 0 | 0 | 2 | 3 | 0 | 0 | 3 | 2 | 5 | 6 | 11 |
| **Bus** | 6 | 30 | 7 | 11 | 1 | 1 | 18 | 11 | 31 | 52 | 84 |
| **Subway** | 0 | 2 | 7 | 11 | 1 | 1 | 78 | 48 | 86 | 62 | 148 |
| **Walk/Other** | 0 | 2 | 25 | 39 | 36 | 36 | 10 | 6 | 72 | 83 | 155 |
| **Total** | 7 | 39 | 52 | 82 | 43 | 43 | 129 | 79 | 232 | 243 | 475 |
| **Saturday** | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| **Auto** | 1 | 1 | 16 | 13 | 6 | 6 | 20 | 16 | 42 | 36 | 78 |
| **Taxi** | 0 | 0 | 3 | 2 | 0 | 0 | 3 | 2 | 6 | 5 | 11 |
| **Bus** | 5 | 5 | 9 | 8 | 1 | 1 | 17 | 14 | 33 | 29 | 61 |
| **Subway** | 0 | 0 | 9 | 8 | 2 | 2 | 76 | 62 | 87 | 72 | 159 |
| **Walk/Other** | 0 | 0 | 34 | 29 | 42 | 42 | 10 | 8 | 87 | 80 | 167 |
| **Total** | 6 | 7 | 72 | 61 | 50 | 50 | 126 | 103 | 254 | 221 | 475 |

**Trip Generation Summary**

The *2021 CEQR Technical Manual* provides a methodology for evaluating the potential impacts of a Proposed Project on the transportation system. In accordance with the *2021 CEQR Technical Manual*, a Level 1 Screening Assessment includes a trip generation analysis to determine whether the project would result in more than 50 vehicle trip-ends, 200 subway/rail or bus transit riders, 50 CWFS ferry trips, or 200 pedestrian trip-ends in a peak hour.

The incremental project-generated trip ends determined based on the Level 1 Trip Generation Screening are summarized below in **Table 2.8-4**.

**Table 2.8-4: Summary of Project Generated Trip Ends**

| Peak Hour | AM Peak Hour | Midday Peak Hour | PM Peak Hour | Saturday Peak Hour |
|---|---|---|---|---|
| Total Subway Trip-Ends | 164 | 114 | 148 | 159 |
| Total MTA Bus Trip-Ends | 97 | 50 | 84 | 61 |
| Total Walk-Only Trip-Ends | 136 | 180 | 155 | 167 |
| **Total Pedestrian Trip-Ends** | **397** | **343** | **387** | **387** |
| **Total Vehicular Trip-Ends** | **91** | **76** | **75** | **82** |

**Highlighted** cells denote trips in exceedance of 200 transit/pedestrian trip ends or 50 vehicles per peak hour

Traffic

As shown in **Table 2.8-4**, the Proposed Project would generate greater than 50 vehicle trips during all four peak hours. Therefore, a Level 2 screening assessment of vehicular trips during the Weekday AM, Midday, PM, and Saturday Midday peak hours is warranted.

Subway

As shown in **Table 2.8-4**, the Proposed Project would generate fewer than 200 subway trips during all identified peak hours and therefore no further analysis of subway trips is warranted.

Bus

As shown in **Table 2.8-4**, the Proposed Project would generate fewer than 200 MTA bus trips during all identified peak hours and therefore no further analysis of bus trips is warranted.

Pedestrians

As shown in **Table 2.8-4**, the Proposed Project would generate more than 200 combined pedestrian trip ends (including pedestrians walking to / from subway stations and bus stops as well as walk-only trips) during all four peak hours, thereby exceeding the Level 1 threshold. As such, a Level 2 Screening assessment of pedestrian trips is warranted during the Weekday AM, Midday, PM, and Saturday Midday peak hours.

### 2.8.3 Level 2 Screening Assessment

Level 2 Screening Assessment assigns project-generated vehicular and pedestrian trips to specific intersections, bus routes, subway lines, CWFS ferry routes, or parking facilities. If the results of the analysis concludes that the Proposed Action(s) would result in intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 or more bus trips in a single direction on a single route, 25 or more passenger ferry trips in a single direction on a single route, 50 or more passengers at a ferry landing, or 200 or more passengers at a subway station or on a subway line during any analysis peak hour, further detailed analysis may be needed for a particular technical area.

**Traffic**

As discussed above, incremental vehicle trip-ends resulting from the Proposed Project would exceed the CEQR Level-1 screening threshold during all four peak hours. As such, a Level 2 Trip Assignment was prepared for the Weekday AM, Midday, PM, and Saturday Midday peak hours, as shown below in **Figure 2.8-1** through **Figure 2.8-4**.

Site Access and Egress Assumptions

Per the Proposed Project's architectural plans, the entrance and exit to/from the accessory parking garage will be located on the Michael Griffith (Pacific) Street frontage. As such, all auto trips to and from the Project Site were assigned to this frontage. Truck trips were also assigned to this frontage as this is assumed to be the most likely access point for truck deliveries. Taxi trips were assumed to drop off and pick up riders along all three site frontages, with most drop-offs and pick-ups expected to occur along the Atlantic Avenue frontage.

Origin and Destination Assumptions

The most likely travel routes to and from the Projected Development Sites, prevailing travel patterns, commuter origin-destination (O-D) summaries from the most recent census data, the configuration of the roadway network, and the anticipated locations of site access and egress by site and land use were examined and utilized to perform vehicular trip assignments. Census Transportation Planning Product (CTPP) Reverse Journey to Work and Journey to Work (2012 – 2016) data were utilized to determine the relative O-D points of trips.

Conclusion

As shown in **Figure 2.8-1** through **Figure 2.8-4**, based on the assignment of vehicular trips, none of the intersections in the study area would exceed the 50 vehicular trips analysis threshold during any of the analysis peak hours. As such, a detailed Level of Service traffic analysis is not warranted.

**Figure 2.8-1: Weekday AM Peak Hour Project Increment Traffic Volumes**

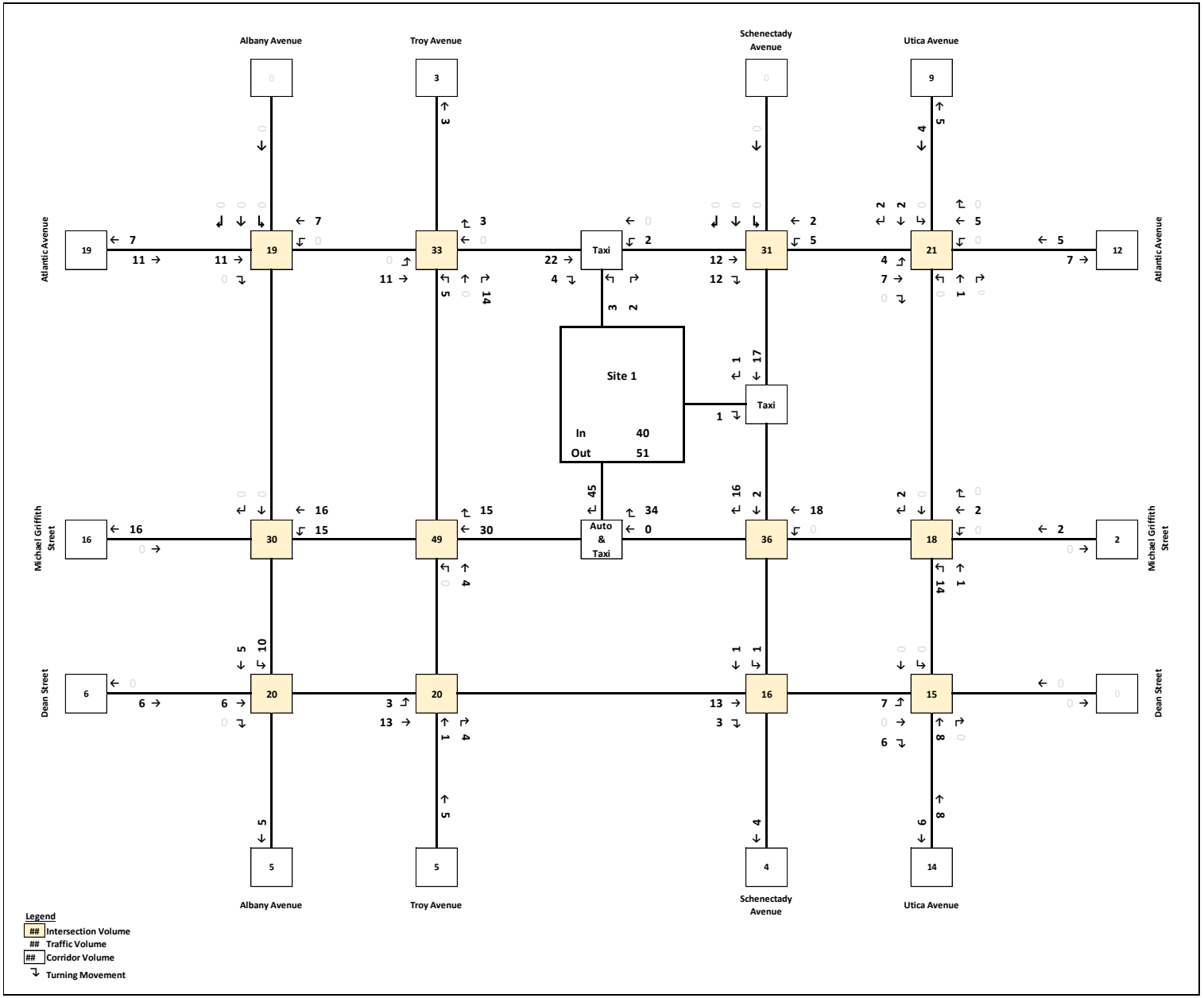


**Figure 2.8-2: Weekday Midday Peak Hour Project Increment Traffic Volumes**

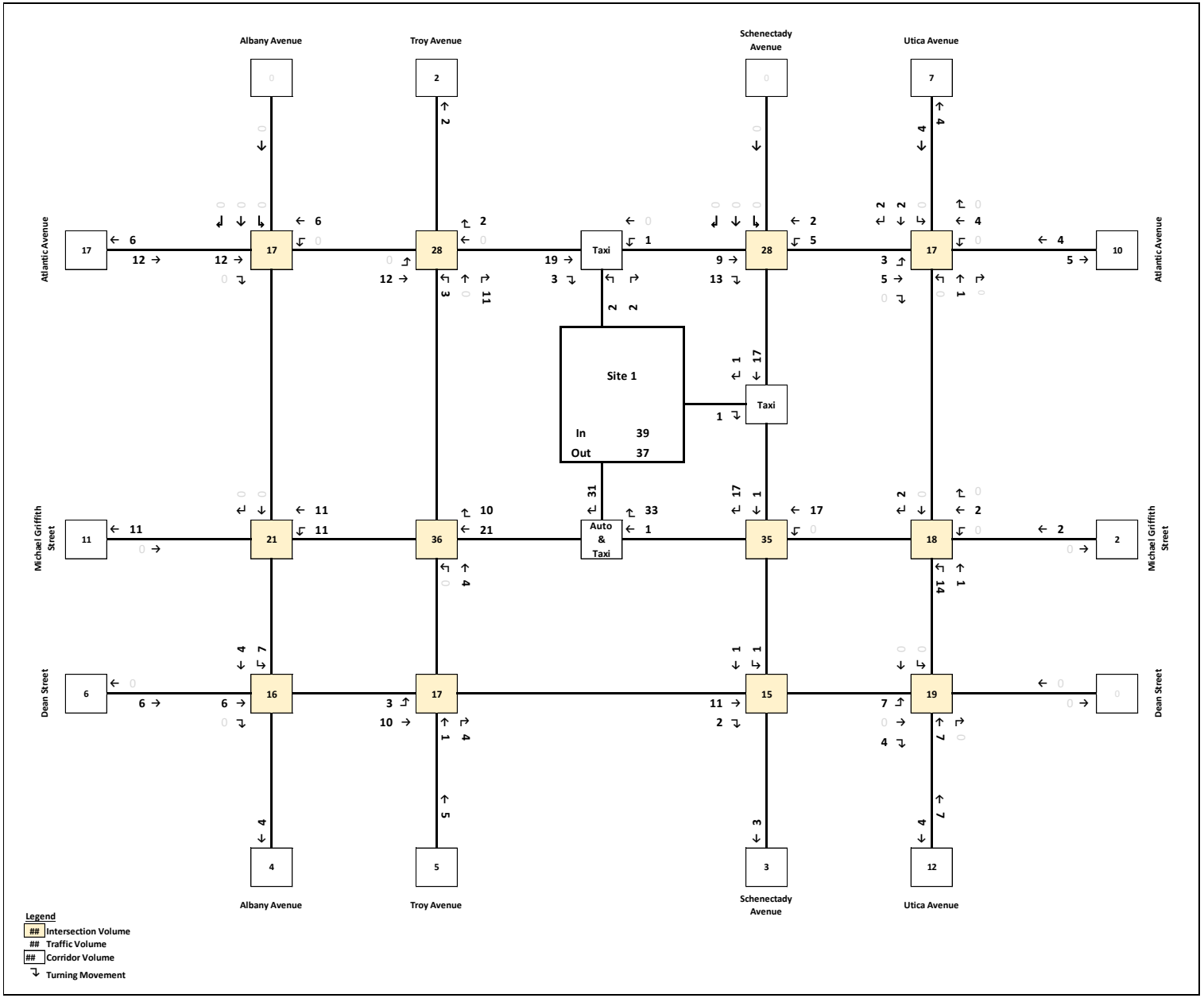


**Figure 2.8-3: Weekday PM Peak Hour Project Increment Traffic Volumes**

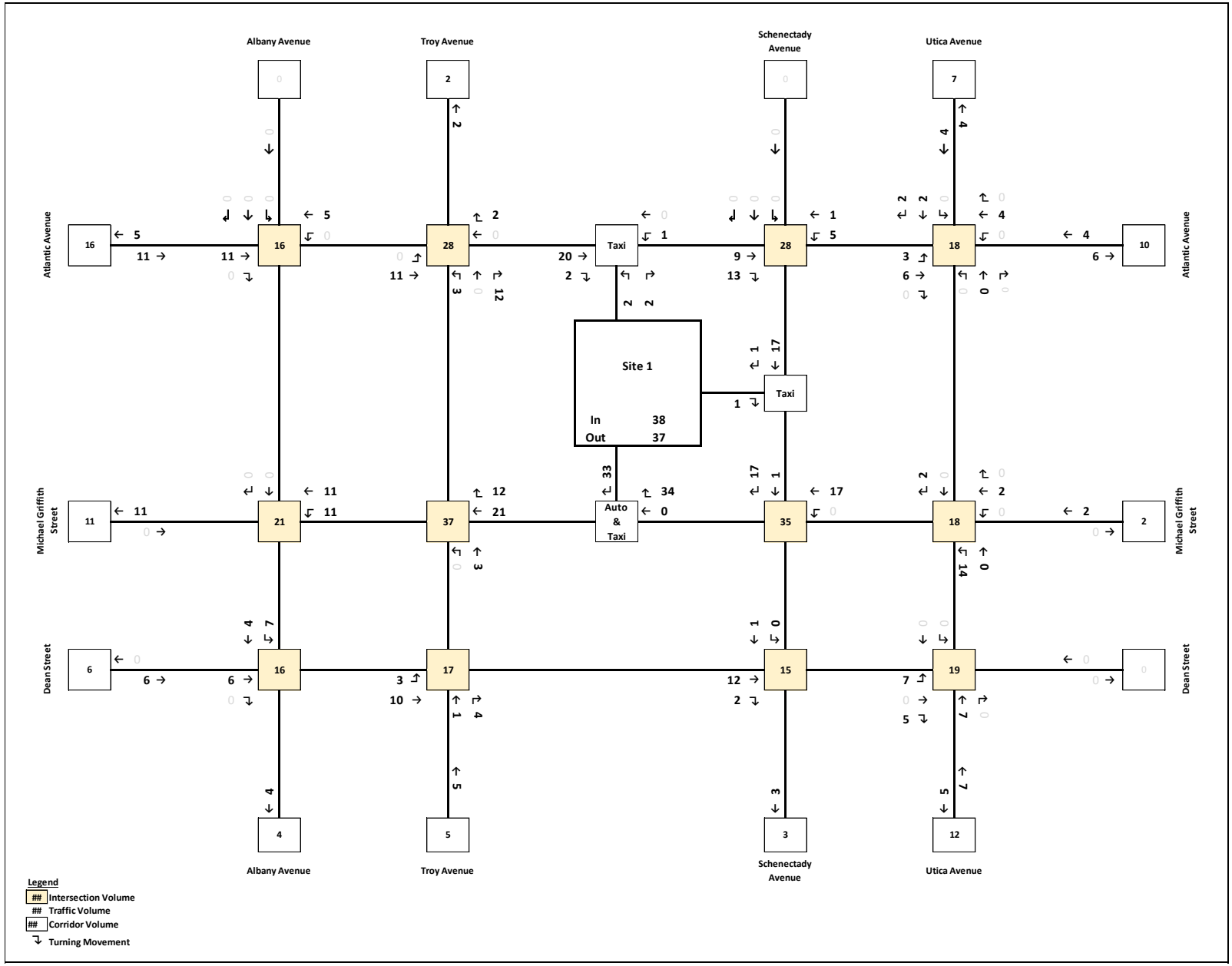
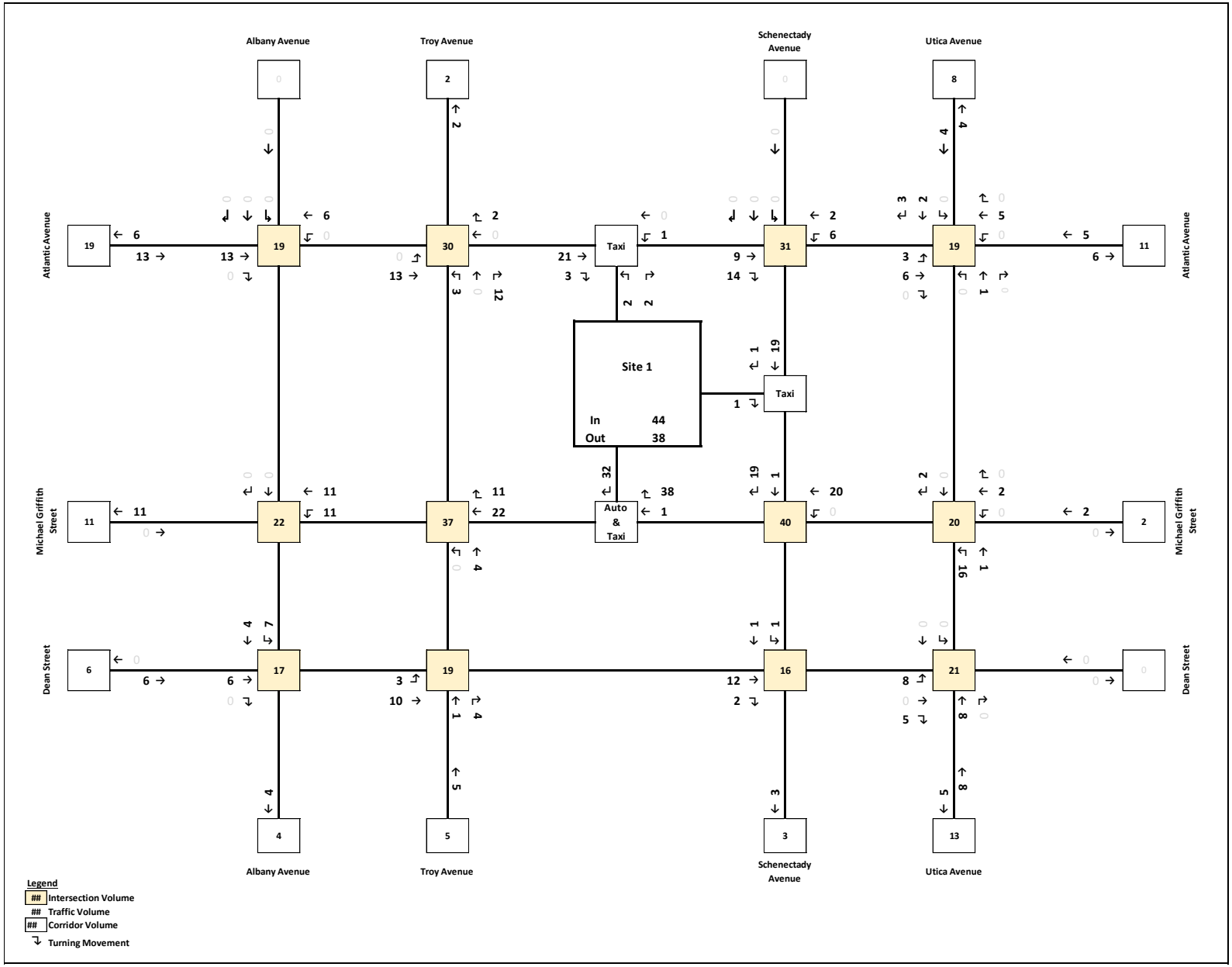


**Figure 2.8-4: Saturday Midday Peak Hour Project Increment Traffic Volumes**



**Pedestrians**

As discussed above, incremental pedestrian trips resulting from the proposed project would exceed the CEQR Level-1 screening threshold during all four peak hours. As such, Level 2 Trip Assignments were prepared for the Weekday AM, Midday, and PM, and Saturday Midday peak hours, as shown below in **Figure 2.8-5** through **Figure 2.8-8**.

The number of pedestrian trips shown in **Figure 2.8-5** through **Figure 2.8-8** include walk-only trips, which were distributed based on census origin-destination data; trips by subway riders, which are assumed to all walk the shortest available routes to/from the Utica Avenue (A,C) subway station on Fulton Street northeast of the site; and trips by bus trips, which are assumed to walk to the B15, B25, B49, and B65 bus stops closest to the project site. The trips were further distributed to the various entrances along the three site frontages on Atlantic Avenue, Schenectady Avenue and Michael Griffith (Pacific) Street.

As shown in **Figure 2.8-5** through **Figure 2.8-8**, none of the sidewalks, crosswalks, or corners in the study area would exceed the 200 pedestrian trips analysis threshold during any of the four analysis peak hours. As such, a detailed Level of Service pedestrian analysis is not warranted.

**Figure 2.8-5: Weekday AM Peak Hour Project Increment Pedestrian Volumes**

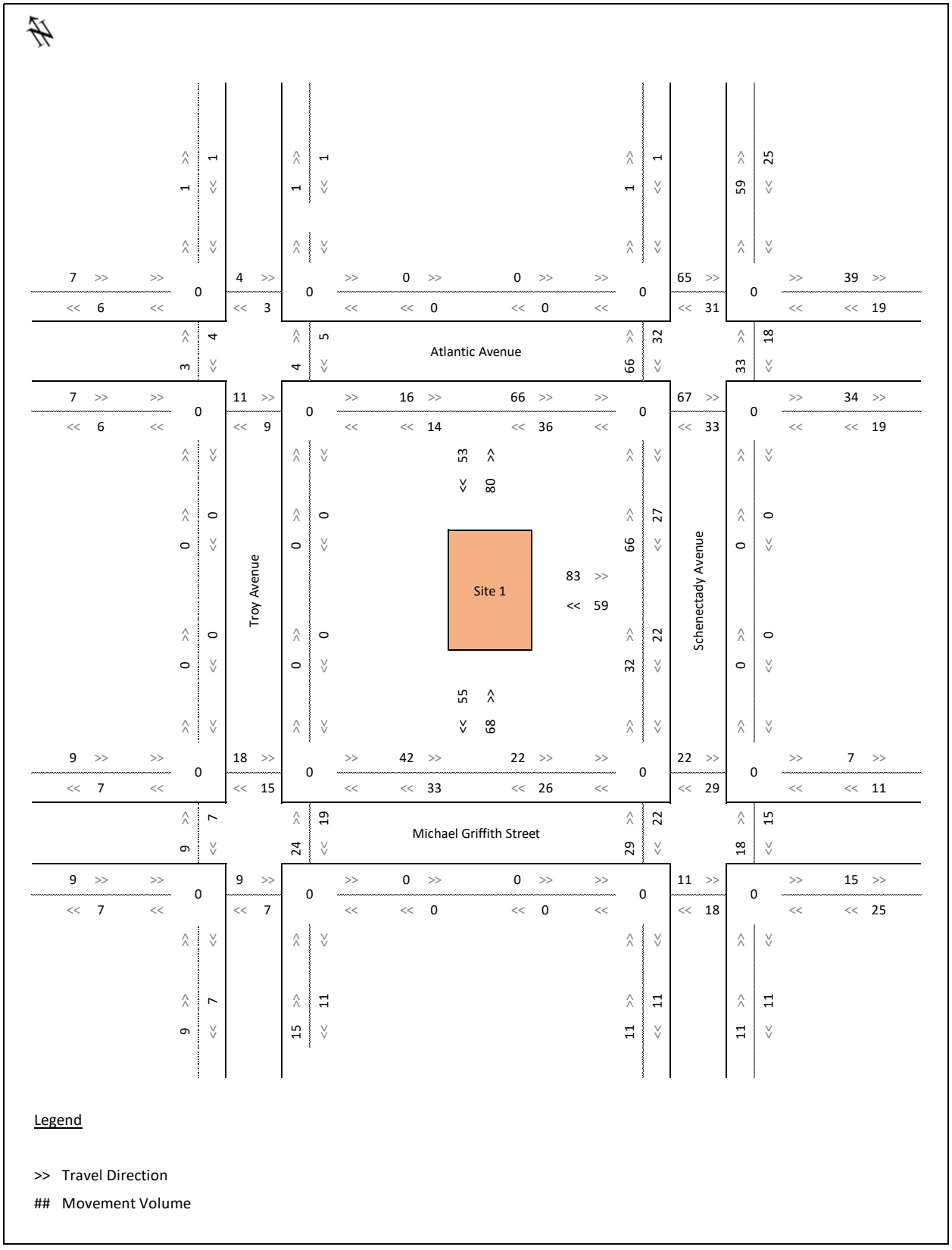


**Figure 2.8-6: Weekday Midday Peak Hour Project Increment Pedestrian Volumes**

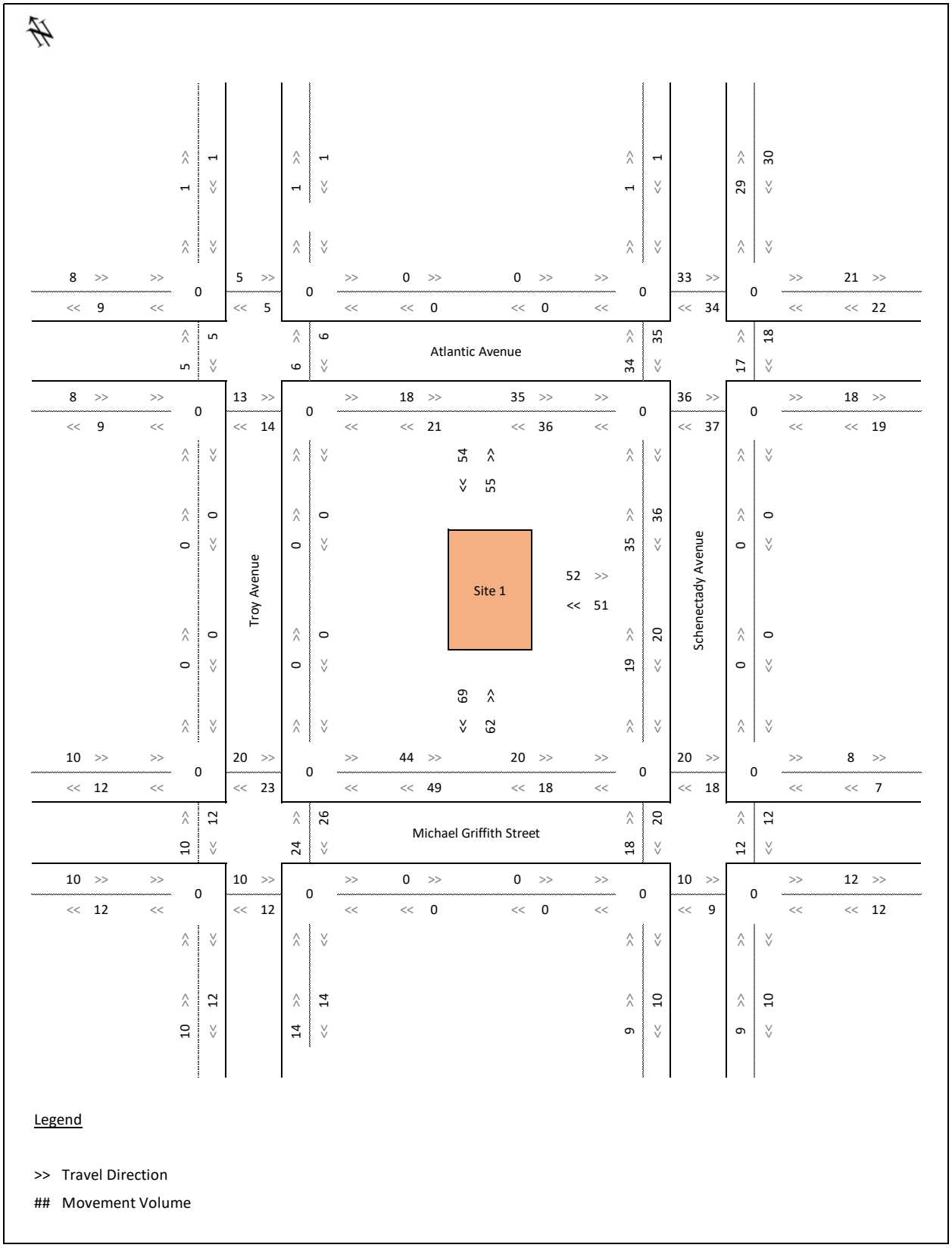


**Figure 2.8-7: Weekday PM Peak Hour Project Increment Pedestrian Volumes**

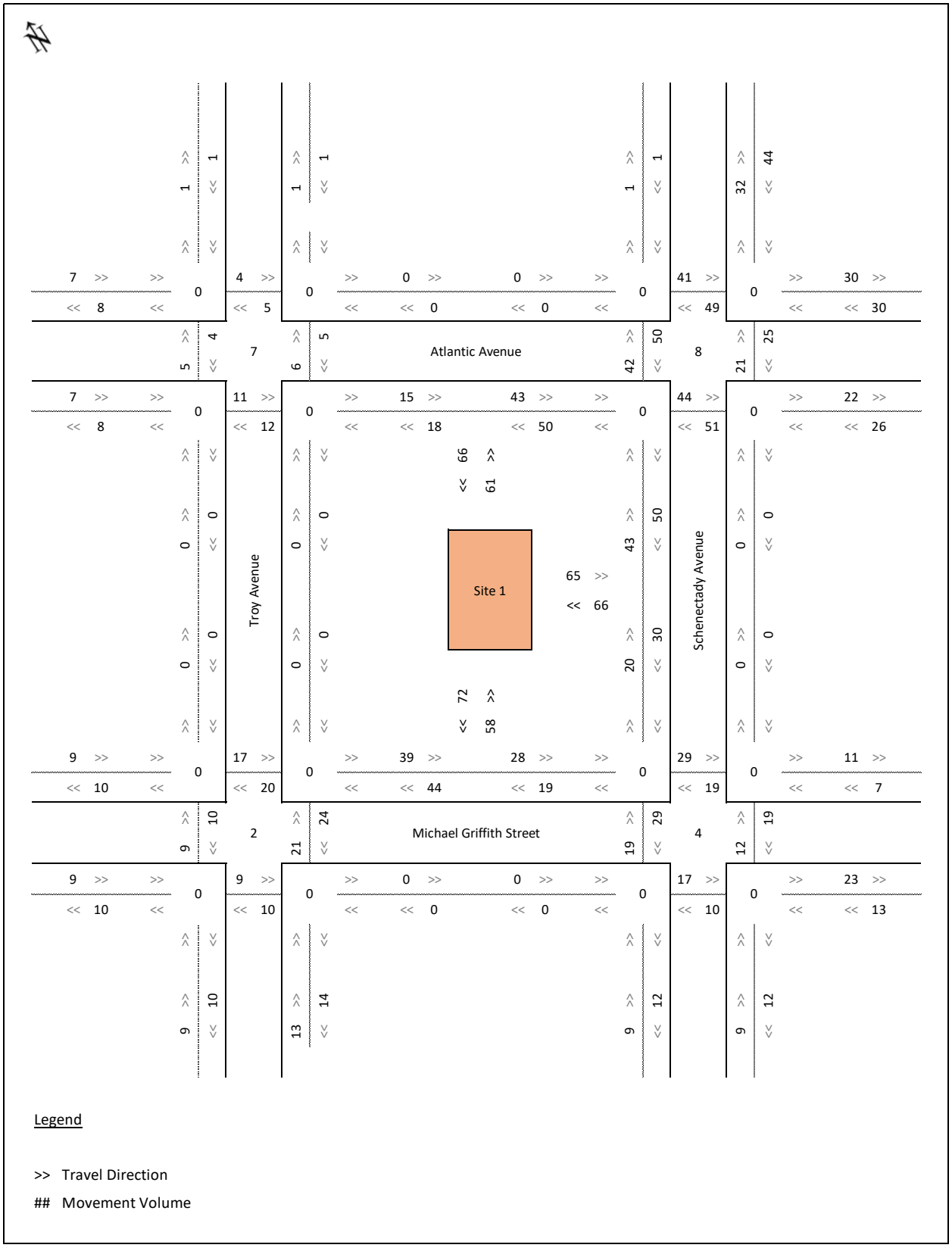
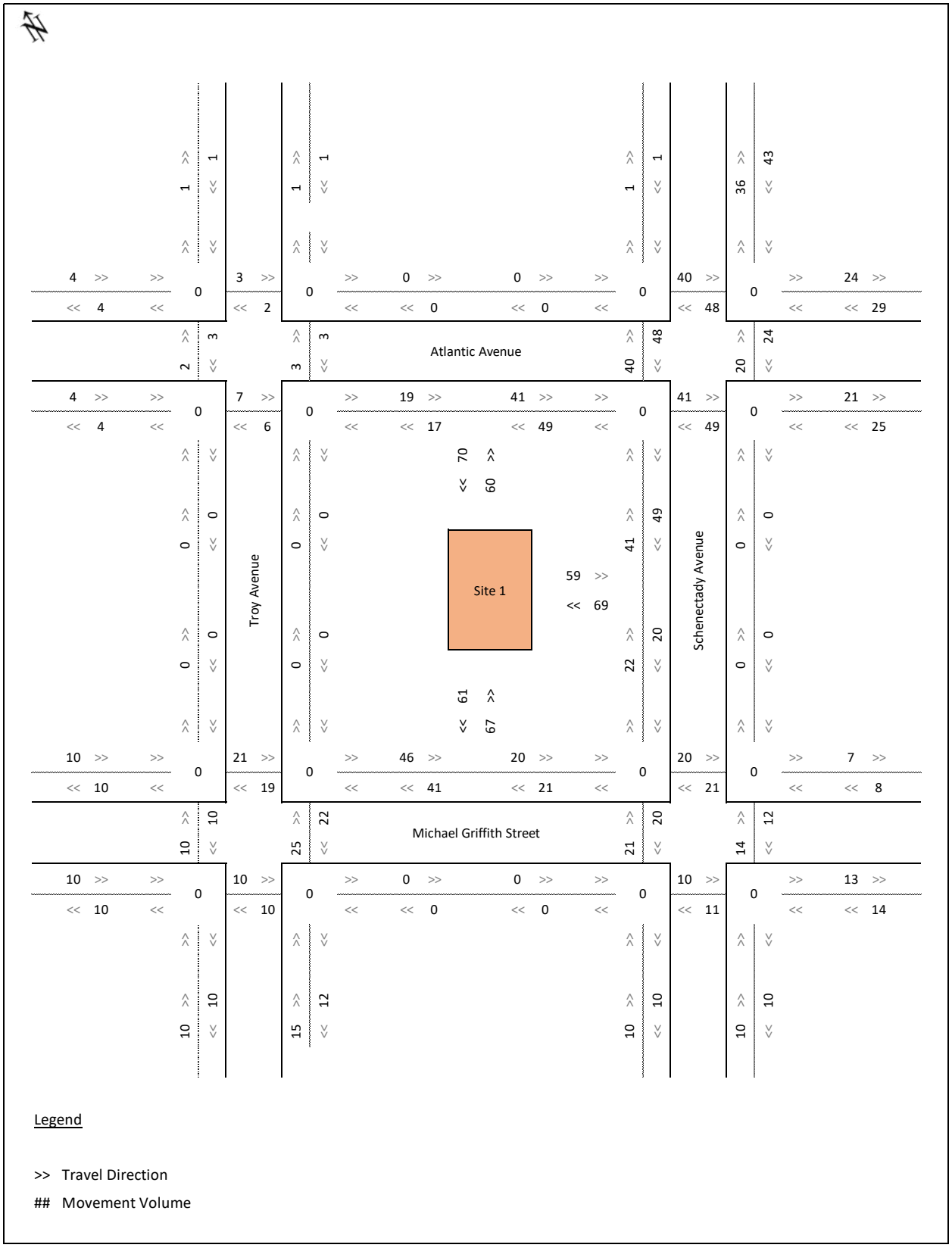


**Figure 2.8-8: Saturday Midday Peak Hour Project Increment Pedestrian Volumes**



## 2.9 Air Quality

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

**Methodology**

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

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

**Applicable Air Quality Standards and Significant Impact Criteria**

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the most common air pollutants (six criteria pollutants) by the U.S. Environmental Protection Agency (EPA). The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions. New York has adopted the NAAQS as the State ambient air quality standard. Criteria pollutants relevant to the analysis are particulate matter with aerodynamic diameters less than or equal to 2.5 microns ("$PM_{2.5}$") and carbon monoxide (CO).

In addition to the NAAQS, the *2021 CEQR Technical Manual* requires that projects subject to CEQR apply significant impact criteria (*de minimis*) for CO and $PM_{2.5}$. The *de minimis* criteria set allowable incremental CO and $PM_{2.5}$ concentrations resulting from a proposed action's implementation. The *de minimis* for CO is:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

$PM_{2.5}$ de minimis, for projects under CEQR, is evaluated as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Determination of significant impact related to criteria pollutants accounts for existing pollutant concentrations in the ambient air (background concentrations). Background concentrations from the nearest New York State Department of Environmental Conservation (NYSDEC) federally-mandated monitoring station(s) were applied in the analysis. **Table 2.9-1** shows the NAAQS, background concentration, and the City's *de minimis* for the pollutants/sources applicable to the analysis.

**Table 2.9-1: NAAQS and CEQR *de minimis* for the Relevant Pollutants**

| Pollutant | Averaging Period | NAAQS | Background Concentration ($\mu g/m^3$)[1] | Monitoring Station | CEQR *de minimis* |
|---|---|---|---|---|---|
| CO | 8 Hour | 9 ppm (10,000 $\mu g/m^3$) | 1.60 ppm | Queens College Site No. 36-081-0124 (1) | 3.70 ppm |
| $PM_{2.5}$ | 24 Hour | 35 $\mu g/m^3$ | 18.7 $\mu g/m^3$ | JHS 126 Site No. 36-047-0122 (2) | 8.15 $\mu g/m^3$ |
| | Annual | 9 $\mu g/m^3$ | 7.6 $\mu g/m^3$ | | 0.3 $\mu g/m^3$ |

Note:
1. Background concentration: NYSDEC. 2020. "New York State Ambient Air Quality Report for 2020." File version: 4/13/2020. http://extapps.dec.ny.gov/docs/air_pdf/2020airqualreport.pdf

ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

**Project Description**

The Projected Development Site would be developed with a 13-story, 145-foot-tall, 387,041 GSF (300,695 ZSF; 6.23 FAR) mixed-use commercial, community facility, and residential building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 14; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility use on the 2nd floor; and 52,635 GSF of accessory parking area split between the cellar and ground floor. For a conservative analysis under CEQR the analysis will assume that ground floor commercial uses total 31,522 GSF of local retail uses; the second floor will consider 24,475 GSF of general office use; and the remainder of the second floor will assume 21,641 GSF of UG III(B) medical office uses. There would be 300 total dwelling units. There would be no parking spaces required, and a total of 116 parking spaces would be provided between the cellar and ground floors.

### 2.9.1 Mobile Sources

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

- Projects that would result in placement of operable windows, balconies, air intakes or intake vents generally within 200 feet of an atypical source of vehicular pollutants.
- Projects that would result in the creation of a fully or partially covered roadway, would exacerbate traffic conditions on such a roadway, or would add new uses near such a roadway.
- Projects that would generate peak hour auto traffic or divert existing peak hour traffic of 170 or more auto trips in this area of the City.
- Projects that would generate peak hour heavy- duty diesel vehicle traffic or its equivalent in vehicular emissions resulting from 12 or more heavy-duty diesel vehicles (HDDVs) for paved roads with average daily traffic of fewer than 5,000 vehicles, 19 or more HDDVs for collector roads, 23 or more HDDVs for principal and minor arterials, or 23 or more HDDVs for expressways and limited-access roads.
- Projects that would result in new sensitive uses (e.g., schools or hospitals) adjacent to large existing parking facilities or parking garage exhaust vents.
- Projects that would result in parking facilities or applications requesting the grant of a special permit or authorization for parking facilities; or projects that would result in a

sizable number of other mobile sources of pollution (e.g., a heliport or a new railroad terminal).

- Projects that would substantially increase the vehicle miles traveled in a large area.

Projects may result in significant mobile source impacts when they create mobile sources of pollutants, change traffic patterns, 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 $PM_{10}$/$PM_{2.5}$ concentrations—the mobile source pollutants of concern—and compare the modeled concentrations with the applicable air quality standard.

*Mobile Source Screening*

The Proposed Actions would not result in operable windows or air intakes within 200 feet of an atypical roadway. It would not result in creation of a covered roadway or affect any covered roadway. Peak hour trip generation is far below the 170-car threshold, as per the transportation section, as potentially warranting further assessment (see **EAS Short Form** screen). The project would not create a new sensitive receptor adjacent to large parking facilities. The project would not result in the incremental generation of HDDVs exceeding the thresholds. The RWCDS for the Proposed Actions includes a 116-space parking garage. As such, a detailed parking garage air quality analysis is required.

### 2.9.2 Parking Garage Analysis

The RWCDS includes an enclosed parking garage accommodating 116 accessory parking spaces distributed between the cellar ground floor levels. Vehicles will enter and exit the parking garage via Michael Griffith Street (Pacific Street). The cellar level would be accessible via a ramp near the garage entrance/exit. **Table 2.9-2** shows the RWCDS parking accumulation. The parking garage was assumed to be fully operational in 2028 as the construction under the Proposed Actions is anticipated to last approximately 38 months (November 2025 to December 2028).

**Table 2.9-2: RWCDS Parking Garage Accumulation**

| Time Ending | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | In | Out | Accumulation | In | Out | Accumulation |
| 1:00 | 2 | 0 | 62 | 34 | 38 | 56 |
| 2:00 | 2 | 0 | 64 | 78 | 78 | 56 |
| 3:00 | 0 | 0 | 64 | 43 | 40 | 60 |
| 4:00 | 0 | 0 | 64 | 48 | 36 | 72 |
| 5:00 | 0 | 0 | 64 | 55 | 48 | 75 |
| 6:00 | 2 | 4 | 62 | 62 | 58 | 72 |
| 7:00 | 2 | 13 | 53 | 38 | 40 | 69 |
| 8:00 | 7 | 21 | 39 | 23 | 25 | 67 |
| 9:00 | 31 | 50 | 27 | 21 | 20 | 68 |
| 10:00 | 41 | 27 | 44 | 9 | 13 | 63 |
| 11:00 | 42 | 28 | 58 | 6 | 8 | 61 |
| 12:00 | 39 | 35 | 60 | 4 | 5 | 60 |

Emission Profile

Vehicle distribution between the cellar and ground floor levels was derived based on the dedicated parking space floor area at each floor level. Based on the *2021 CEQR Technical Manual*, cars in the parking garage (incoming/outgoing vehicles) were assumed to travel half the width and two-thirds the length of the garage, and outgoing cars were assumed to idle for 1 minute before exiting the parking facility. Emissions of cars traveling to, from, or on the ramp and vehicle start (engine ignition) emissions were accounted for in the analysis. All starting vehicles were assumed to soak for at least 720 minutes (based on the parking accumulation, not all outgoing cars can soak for 8 hours or longer). On-street Midday peak-hour traffic (Tier 1 approach) on Michael Griffith Street, corresponding with the time when the maximum outgoing vehicles exiting the parking garage, was included in the analysis. Vehicle volume and classification data collected in the field (see the "Noise" Chapter) were used to project the No-Action traffic in the modeled year, using the *2021 CEQR Technical Manual* annual background growth. The project-generated traffic was added to the No-Action Condition to predict the With-Action Condition.

The EPA's Mobile Vehicle Emission Simulator (MOVES3 version) was utilized to predict vehicular emissions. MOVES inputs of inspection/maintenance, fuel data, age distribution, and meteorology conditions were obtained from the NYSDEC. However, a temperature of 45 degrees Fahrenheit in the garage was specified based on the *2021 CEQR Technical Manual*. 2020 Average vehicle fuel technology (AVFT) was applied from 2021 to the year when the Proposed Project be in operation (2029 after the construction phase) as the database did not include data for these vehicle model years. Kings County's projected vehicle population dataset, part of the MOVES3 database, was used to augment the vehicle classification (e.g., passenger car/truck, intercity bus, transit bus, and school bus). MOVES3 model was run for each season (January for winter, April for spring, July for summer, and October for fall). The maximum emission was used for the short-

term analyses, and the average emission for the annual $PM_{2.5}$. In addition, $PM_{2.5}$ emissions of dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (annual fugitive dust emission is negligible, based on similar types of analysis under CEQR). Fugitive dust emissions were calculated using the EPA's AP-42 manual methodology, [10] where a conservative assumption of "dry" road conditions (precipitation reduces silt loading) was used. Based on the *2021 CEQR Technical Manual* specification, a silt loading factor of 0.4 grams per square meter ($g/m^2$), applicable to local roadways, was applied in the analysis.

Dispersion Analysis

Pollutant concentrations at sensitive receptors resulting from the parking garage vent and on-street traffic were modeled with AERMOD. AERMOD MPI version 23132 executable was used in the dispersion analysis. Lakes Environmental, Inc. adjusted the EPA AERMOD source code and recompiled the model to parallelize the processing of receptors, reducing run-time significantly. The MPI executable (used in the analysis) modified the EPA AERMOD executable model version 23132. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources and simple and complex terrain. The model was run with the regulatory default option, where applicable, and for both with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. Five consecutive years of meteorological data (2017-2021) from the NYSDEC were applied to the model. Meteorology surface data is from LaGuardia Airport, and upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five years. Population in New York City was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

The parking garage vent was placed near the garage exit/entrance and 12 feet above grade. The *2021 CEQR Technical Manual* default stack parameters were specified in the AERMOD model. Receptors were placed in spaced intervals in the middle of the sidewalk on both sides of Michael Griffith Street, and 6 feet above grade and five feet above the garage vent (simulating window receptors) at the Proposed Project's wall façade facing Michael Griffith Street. On-street emission was analyzed as a line area source, and the parking garage vent as a point source. The line source dispersion parameters were calculated using the EPA's guidance manual.[11]

The map application in Urchin Tracking Module (UTM) coordinates (zone 18), built into Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View), was used to spatially

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

[11] EPA. 2021. *PM Hot-spot Guidance, Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and $PM_{10}$ Nonattainment and Maintenance Areas*. EPA-420-B-21-037, Transportation and Regional Programs Division, Office of Transportation and Air Quality, U. S. Environmental Protection Agency, October 2021.

locate features (buildings, sources, and receptors). The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset), the terrain data set recommended by the EPA for use in the United States for regulatory purposes, was used to process the base elevation of the Proposed Project. Sources and receptors base elevations were set to the Proposed Project's base elevation.

The annual $PM_{2.5}$ increment (difference between the With-Action and No-Action Conditions) was calculated for each receptor, and the maximum concentration increment was used to determine the potential for a significant adverse air quality impact. **Table 2.9-3** shows the parking garage dispersion analysis results, where the results are the maximum between the no-downwash and with-downwash scenarios. The concentration increments were evaluated with the *2021 CEQR Technical Manual de minimis*.

**Table 2.9-3: Parking Facility Dispersion Analysis Results**

| Pollutant | Traffic scenario | Concentration | *de minimis* | Concentration Unit |
|---|---|---|---|---|
| 8-Hour CO | With-Action increment | 1.69 | 3.70 | ppm |
| 24-Hour $PM_{2.5}$ | With-Action increment | 2.67 | 8.15 | $\mu g/m^3$ |
| Annual $PM_{2.5}$ | No/With-Action increment (1) | 0.23 | 0.3 | $\mu g/m^3$ |

Note:
1. Concentration increment is the maximum difference between the With-Action concentration (parking garage vent plus on-street traffic) and the on-street No-Action traffic calculated for each receptor.

**Table 2.9-3** shows that the 8-hour CO and $PM_{2.5}$ concentrations do not exceed the *de minimis*. Therefore, no significant adverse air quality impacts associated with the proposed parking garage would occur in the future with the Proposed Actions.

### 2.9.3 Stationary Sources

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

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, and other large institutional uses).
- Certain new uses near existing (or planned future) emissions stacks are introduced that may affect the use.
- Structures near such stacks are introduced so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.
- Fossil fuels (fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems are used.
- Large emission sources are created (e.g., solid waste or medical-waste incinerators, cogeneration facilities, asphalt/concrete plants, or power-generating plants, etc.).

- New sensitive uses are located near a large emission source.
- Medical, chemical, or research labs are created or result in new uses being located near them.
- Operation of manufacturing or processing facilities is created.
- New sensitive uses created within 400 feet of manufacturing or processing facilities.
- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).
- Potentially significant odors are created.
- New uses near an odor-producing facility are created.
- "Non-point" sources that could result in fugitive dust are created.
- New uses near nonpoint sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a station.

**Analysis Framework**

The stationary source analysis will study the potential impacts of the Projected Development Site 1 on nearby receptors. The RWCDS for Projected Development Site 1 is described below.

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) lot area would total 48,300 SF, and would be developed with a 13-story, 145-foot-tall, 387041 GSF (300,695 ZSF; 6.23 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 14; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.41 FAR) of community facility use on the 2nd floor; and 52,635 GSF of accessory parking area split between the cellar and ground floor.

**Heating and Hot Water Systems**

The HVAC analysis considers the potential for emissions from the HVAC systems of the proposed development to significantly impact existing land uses (project-on-existing) within 400 feet, and, if multiple buildings are proposed, the potential of each or all of the proposed developments to significantly impact each other (project-on-project).

As outlined in the *2021 CEQR Technical Manual*, the analysis of buildings' HVAC systems follows stationary sources methodology; a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than

30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

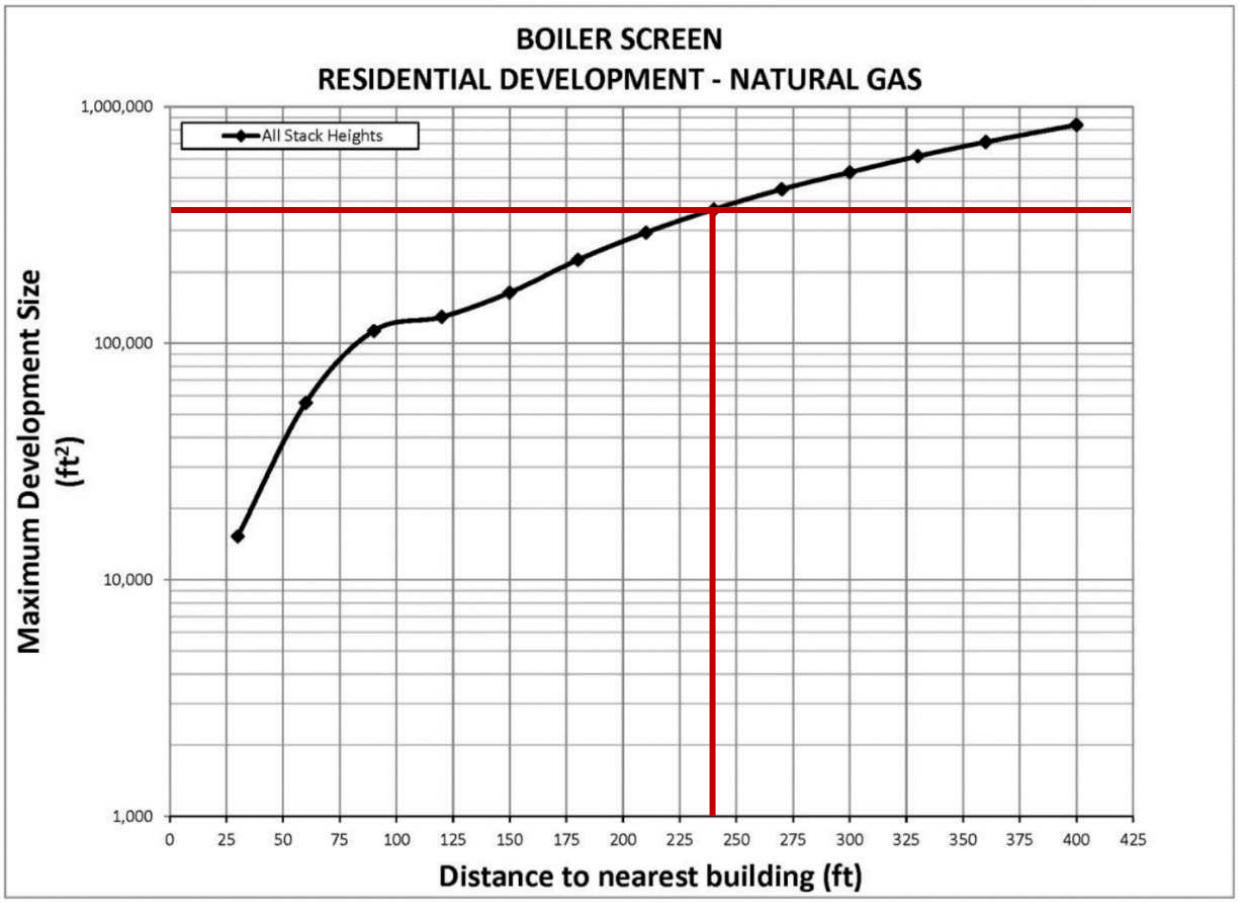
A new stationary source of emissions (HVAC System) would be introduced as a result of the Proposed Actions. The Proposed Development would consist of a 13-story mixed-use building with a natural gas-fueled heat and hot water system. The cellar would consist of parking for the facility, while the ground floor would be used for primarily commercial space with some residential. The second floor would be used as additional commercial space, a community facility space, and residential. The remaining eleven floors would be all residential space.

A screening (project-on-existing) analysis was performed for a residential use HVAC fueled by natural gas to determine if the proposed HVAC system has the potential for adverse stationary source impacts on adjacent receptors. Residential use was specified for screening because it is a more conservative estimate than the non-residential use screening. There is no need for a project-on-project analysis because the Proposed Actions would only introduce a single building.

Impacts from boiler emissions at Projected Development Site 1 are a function of fuel oil type, stack height, the minimum distance from the source to the nearest building, and square footage of the development. The proposed 387,041 GSF development would be heated by a natural gas-fired HVAC system, venting on the roofs at a height of approximately 160 feet (the maximum permitted 145-foot building height plus a 15-foot mechanical bulkhead). The development size of Projected Development Site 1 was plotted on the nomograph for residential developments utilizing natural gas depicted in Figure App 17-2 of the *2021 CEQR Technical Manual* Appendix (**Figure 2.9-1** below). This nomograph indicates the minimum distance between the Proposed Development and buildings of a similar or greater height to avoid a potential air quality impact.

The screening analysis in the nomograph shows that a detailed analysis is required if a building of similar or greater height is 240 feet or closer to the Proposed Development. A review of existing land uses shows that the nearest building of similar or greater height is a 172-foot NYCHA apartment building, located at 1414 Bergen Street (Block 1352, Lot 1), which is approximately 1,440 feet from Projected Development Site 1. The Proposed Actions are too far to cause an impact to the nearest similar sized building, and no further HVAC stationary assessment is warranted.

**Figure 2.9-1: Project Development Site 1 Screening Analysis on Existing Land Uses**




### 2.9.4 Stationary Sources Conclusion

Based on the analysis, conditions associated with the Proposed Actions HVAC systems would not result in any violations of the ambient air quality standards. In order to ensure that the Proposed Actions would not pose any significant adverse air quality impacts, the height of the emission stacks should be limited to no less than 160 feet. As a result, an E-Designation will be placed on Projected Development Site 1.

The stacks' restrictions, specified in the E-Designation (E-845) language, is detailed as follows:

**Block 1335, Lots 28, 30, and 35 (Projected Development Site 1): Any new residential, commercial, and/or community facility development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC system and hot water equipment, and ensure that HVAC system and hot water equipment stack is located at least 160 feet above grade, to avoid any potential significant adverse air quality impacts.**

With the E-Designation in place, the Proposed Actions HVAC systems would not potentially cause any significant adverse air quality impacts, and further assessment is not warranted.

### 2.9.5 Industrial Emissions

**400-Foot Study Area**

A search of potential air toxics emission sites was performed to identify any NYC DEP and USEPA1 Air Quality Permits issued within 400 feet of the Affected Area. This Study Area and land uses, preliminarily identified as commercial, manufacturing and industrial, or transportation and utility based on NYCDCP MAPPLUTO database, are identified in **Figure 2.9-2**. This search was performed to determine if hazardous air toxics would have the potential to impact the proposed development.

Twelve (12) sites were originally identified as potential air toxics emission sites as identified in **Figure 2.9-2**. These sites were further reviewed for permit activity. As shown in **Table 2.9-4**, none of these sites have an active or expired DEP industrial permit. However, two sites (Site 11 and 12) are currently occupied by auto body repair shops with the potential of unpermitted air toxics emissions. As a result, the business activities on the two sites were further screened for any potential unpermitted air toxics emissions.

**Table 2.9-4: Industrial/Manufacturing within 400 feet of the Affected Area**

| Site ID | Block | Lot | Address | Current Use | Industrial Permit Search Results |
|---|---|---|---|---|---|
| 1 | 1336 | 15 | 1750 Atlantic Avenue | Warehouse | No Record |
| 2 | 1335 | 23 | 1700 Atlantic Avenue | Warehouse | No Record |
| 3 | 1335 | 11 | 1680 Atlantic Avenue | Warehouse | No Record |
| 4 | 1336 | 28 | 1772 Atlantic Avenue | Hotel | No Record |
| 5 | 1336 | 18 | 1760 Atlantic Avenue | Public Department | No Record |
| 6 | 1335 | 2 | 71 Troy Avenue | Local Retail | No Record |
| 7 | 1335 | 20 | 1690 Atlantic Avenue | Local Retail | No Record |
| 8* | 1335 | 28 | 1706 Atlantic Avenue | Local Retail | No Record |
| 9* | 1335 | 30 | 1708 Atlantic Avenue | Local Retail | |
| 10* | 1335 | 35 | 1720 Atlantic Avenue | Local Retail | |
| 11 | 1336 | 2 | 71 Schenectady Avenue | Auto Body / Repair Shop | No Record |
| 12 | 1336 | 14 | 1748 Atlantic Avenue | Auto Body / Repair Shop | No Record |

* Applicant-owned Projected Development Site 1

*Site 11: 71 Schenectady Avenue (Block 1336, Lot 2)*

71 Schenectady Avenue (Block 1336, Lot 2) is owned by MDB Realty Partners LLC and is classed as a one-story retail building. Currently, the building is occupied by an auto repair shop called Jab Transmission and Auto Repair. Based upon review of the DEP CATS database and Air Permit Request Services, no permits were identified related to 71 Schenectady Avenue. Furthermore, GZA conducted a site investigation to see if there are any illegal industrial emissions on the property. Based on the findings, Jab Transmission and Auto Repair specializes in transmission

repairs, and also rebuilds engines and fixes breaks and electrical errors. There are no active spray booths located in the facility and spray is not included in their services. Therefore, no further investigate is required for this site because there are no emission sources present.

*Site 12: 1748 Atlantic Avenue (Block 1336, Lot 14)*

1748 Atlantic Avenue (Block 1336, Lot 14) is owned by Classon Prospect Inc and is classed as an auto repair building. Currently, the building is occupied by an auto repair shop called Lab Transmissions & Auto Repair Inc. Based upon review of the DEP CATS database and Air Permit Request Services, no permits were identified related to 1748 Atlantic Avenue. Furthermore, GZA conducted a site investigation to see if there are any illegal industrial emissions on the property. As listed on the front sign of the store, Lab Transmissions & Auto Repair Inc. specializes in engine and transmissions rebuild, reseal, and repair. There are no active spray booths located in the facility and spray is not included in their services. Therefore, no further investigate is required for this site because there are no emission sources present.

Since there are no active emission permits or potential unpermitted air toxics emissions in the 400-foot study area, there is no potential for significant impact from industrial sources on the Proposed Development.

**1,000-Foot Study Area**

A search of the EPA Envirofacts ICIS-AIR database and the Toxics Release Inventory (TRI) was conducted for all parcels within the 400- and 1000-foot Study Area. The Envirofacts ICIS Air Database contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The Toxics Release Inventory (TRI) is a publicly available database containing information on toxic chemical releases and other waste management activities in the United States. The search did not identify any large or major sources of industrial emissions or odor-producing facilities within 1,000 feet of the Affected Area. As such, no further analysis of large or major emissions sources is warranted.

### 2.9.6 Industrial Emissions Conclusion

As indicated above, there are no active industrial emissions permits within 400-foot Study Area. No large or major industrial emission sources were identified within the 1,000-foot Study Area. Additionally, there is no evidence present to conclude that there are illegal unpermitted air emissions present in the Study Area. Therefore, there does not appear to be any potentially significant impact in terms of air toxics to project occupants.

**Figure 2.9-2: Industrial Emissions Screening**



## 2.10 Noise

### Introduction

This Noise Analysis was conducted to assess the potential for adverse noise impacts related to the proposal for a zoning map amendment and two zoning text amendments that would affect Block 1335, Lots 28, 30, and 35 (Projected Development Site 1) in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the rezoning area as a Mandatory Inclusionary Housing (MIH) area for which Option 1 is being sought by the Applicant. The Applicant is also seeking a text amendment pursuant to ZR § 35-66 to widen the existing sidewalk along Atlantic Avenue to a width of 20 feet.

Projected Development Site 1, also known as Block 1335, Lots 28, 30, and 35, is bounded by Atlantic Avenue to the north, Schenectady Avenue to the east, Pacific Street to the south, and Troy Avenue to the west. Atlantic Avenue is a main east-west thoroughfare through the area and is classified as a Principal Arterial Roadway by the New York State Department of Transportation (NYSDOT); it is considered a wide road with 120 feet in width and includes three moving lanes of traffic in each direction with elevated rail tracks running down the middle. Schenectady Avenue is a north to south one-way right-of-way that is classified as a Minor Arterial Road by NYSDOT with two moving lanes of traffic and curbside parking. Pacific Street is an east to west one-way right-of-way that is classified as a Local Road by NYSDOT with a single moving lane of traffic, a bike lane, and curbside parking. Troy Avenue is a south to north one-way road that is classified as a Minor Arterial Road with two moving lanes of traffic and curbside parking.

This noise analysis is limited to an assessment of ambient noise that could adversely affect building occupants of the proposed 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 acoustic

energy that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud.

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common frequency weightings used are the A- and C-weightings. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighting is the most commonly used for environmental measurements, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high-frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high-frequency bands are significantly affected by C-weighting. **Table 2.10-1** notes the decibel levels of common noise sources.

**Table 2.10-1: Noise Levels of Common Sources[12]**

| 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.* | |

[12] Source: *2021 CEQR Technical Manual*

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

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

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

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

- $L_{eq}$ is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity level. High noise levels during a measurement period will have a greater effect on the $L_{eq}$ than low noise levels. $L_{eq}$ has an advantage over other descriptors because $L_{eq}$ values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.
- Lmax is the highest SPL measured during a given period of time. It is useful in evaluating Leqs for time periods that have an especially wide range of noise levels.
- $L_{dn}$ is the day-night equivalent sound level, defined as a 24-hour continuous Leq with a 10 dB adjustment added to all hourly noise levels recorded between the hours of 10 PM and 7 AM. This 10 dB addition accounts for the extra sensitivity people have to noise during typical sleeping hours.
- DNL is the annual average day-night average sound level. Aircraft noise around airports is usually mapped out in terms of DNL, which are normally depicted as noise contours on a map.

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

**Noise Standards and Guidelines**

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the CEQR noise exposure guidelines for exterior noise levels. As shown in **Table 2.10-2** below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable, Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior $L_{10}$ noise levels of 45 dB(A) or below or interior Ldn noise levels of 40 dB(A) or below depending on the noise source, as shown below in **Table 2.10-3**.

**Table 2.10-2: Noise Exposure Guidelines for Use in City Environmental Impact Review**

| Receptor Type | Time Period | Acceptable General External Exposure | Airport[3] Exposure | Marginally Acceptable General External Exposure | Airport[3] Exposure | Marginally Unacceptable General External Exposure | Airport[3] Exposure | Clearly Unac-ceptable General External Exposure | Airport[3] Exposure |
|---|---|---|---|---|---|---|---|---|---|
| 1. Outdoor area requiring serenity and quiet[2] | | $L_{10} \leq 55$ dBA | ----------DNL ≤ 60 dBA---------- | | ----------60 < DNL ≤ 65 dBA---------- | | (I) 65 < DNL ≤ 75 dBA | | ---------- 75 dBA < DNL ---------- |
| 2. Hospital, nursing home | | $L_{10} \leq 55$ dBA | | 55 < $L_{10}$ ≤ 65 dBA | | 65 < $L_{10}$ ≤ 80 dBA | | $L_{10}$ > 80 dBA | |
| 3. Residence, residential hotel, or motel | (7 AM to 10 PM) | $L_{10} \leq 65$ dBA | | 65 < $L_{10}$ ≤ 70 dBA | | 70 < $L_{10}$ ≤ 80 dBA | | $L_{10}$ > 80 dBA | |
| | (10 PM to 7 AM) | $L_{10} \leq 55$ dBA | | 55 < $L_{10}$ ≤ 70 dBA | | 70 < $L_{10}$ ≤ 80 dBA | | $L_{10}$ > 80 dBA | |
| 4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | |
| 5. Commercial or office | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | |
| 6. Industrial, public areas only[4] | Note 4 | Note 4 | | Note 4 | | Note 4 | | Note 4 | |

**Notes:**

(i) In addition, any new activity shall comply with Impact Thresholds detailed in Section 410.

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

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

[3] One may use the FAA-approved DNL contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved Aviation Environmental Design Tool (AEDT) Computer Model using flight data supplied by the PANYNJ.

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

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

**Table 2.10-3: Attenuation Values to Achieve Acceptable Interior Noise Levels**

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

Note:

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

### 2.10.1 Initial Impact Screening

**Future No-Action Condition**

Block 1335, Lots 28, 30, and 35 within the Affected Area are all Applicant-controlled. Each lot is developed with a one-story commercial building that makes up a shopping center at the corner of Atlantic Avenue and Schenectady Avenue, with parking provided on Lot 35.

The No-Action Scenario is the same as existing conditions. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

**Future With-Action Condition**

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) lot area would total 48,300 SF, and would be developed with a 13-story, 145-foot-tall, 387,041 GSF (300,695 ZSF; 6.23 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 14; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.411 FAR) of community facility use on the 2nd floor; and 55,997 GSF of accessory parking area split between the cellar and ground floor. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

For a conservative analysis under CEQR, the analysis will assume that ground floor commercial uses total 31,522 GSF of local retail uses; the second floor will consider 24,475 GSF of general office use; and the remainder of the second floor will assume 21,641 GSF of UG III(B) medical office uses. There would be 300 total dwelling units (1 DU per 856 GSF), with 70 units or 25% permanently set aside as affordable. There would be no parking spaces required, and a total of 116 parking spaces would be provided.

Stationary Sources

The *2021 CEQR Technical Manual* states that based upon previous studies, unless existing ambient noise levels are very low and/or stationary source levels are very high (and there are no structures that provide shielding), it is unusual for stationary sources to have significant impacts at distances beyond 1,500 feet. A detailed analysis may be appropriate if the Proposed Project would: cause a substantial stationary source (i.e., unenclosed mechanical equipment for manufacturing or building ventilation purposes, playground, etc.) to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor; or introduce a receptor in an area with high ambient noise levels resulting from stationary sources, such as unenclosed manufacturing activities or other loud uses. Machinery, mechanical equipment, heating, ventilating and air-conditioning units, loudspeakers, new loading docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor and is unenclosed.

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

Mobile Sources

Pursuant to Section 111 of the *2021 CEQR Technical Manual*, mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For Mobile Sources, an initial noise assessment may be appropriate if a proposed action would generate additional project-generated vehicular traffic in an area where roadways currently carry no or very low traffic volumes, or where a nearby receptor would potentially be impacted by high ambient noise levels.

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

### 2.10.2 Noise Monitoring Results

**Measurement Location and Equipment**

Because the predominant noise sources in the area of the proposed project consist of train and vehicular traffic, noise monitoring was conducted during peak weekday train and vehicular travel periods (AM, Midday, PM) on a typical midweek day for a 24-hour period at location 1, an hour long period at location 2, and for a 20-minute period at location 3. Noise Monitoring Location One (1) was located on the rooftop level at 1708 Atlantic Avenue approximately fifteen feet above street level; Noise Monitoring Location Two (2) was located at the 1708 Atlantic Avenue frontage at street level; and Noise Monitoring Location Three (3) was located on Pacific Street along the southern portion of 1720 Atlantic Avenue at street level. The noise monitoring locations are shown in **Figure 2.10-1** to **Figure 2.10-4** below.

Noise monitoring was conducted using Type 1 Casella CEL-633 sound level meters with wind screens. The monitors were placed on a tripod at a height of approximately four 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 around the Affected Area constitute a worst-case condition for noise at the project site. Noise meter calibration certification and back up data are provided in **Appendix D**.

**Figure 2.10-1: Noise Monitoring Locations**

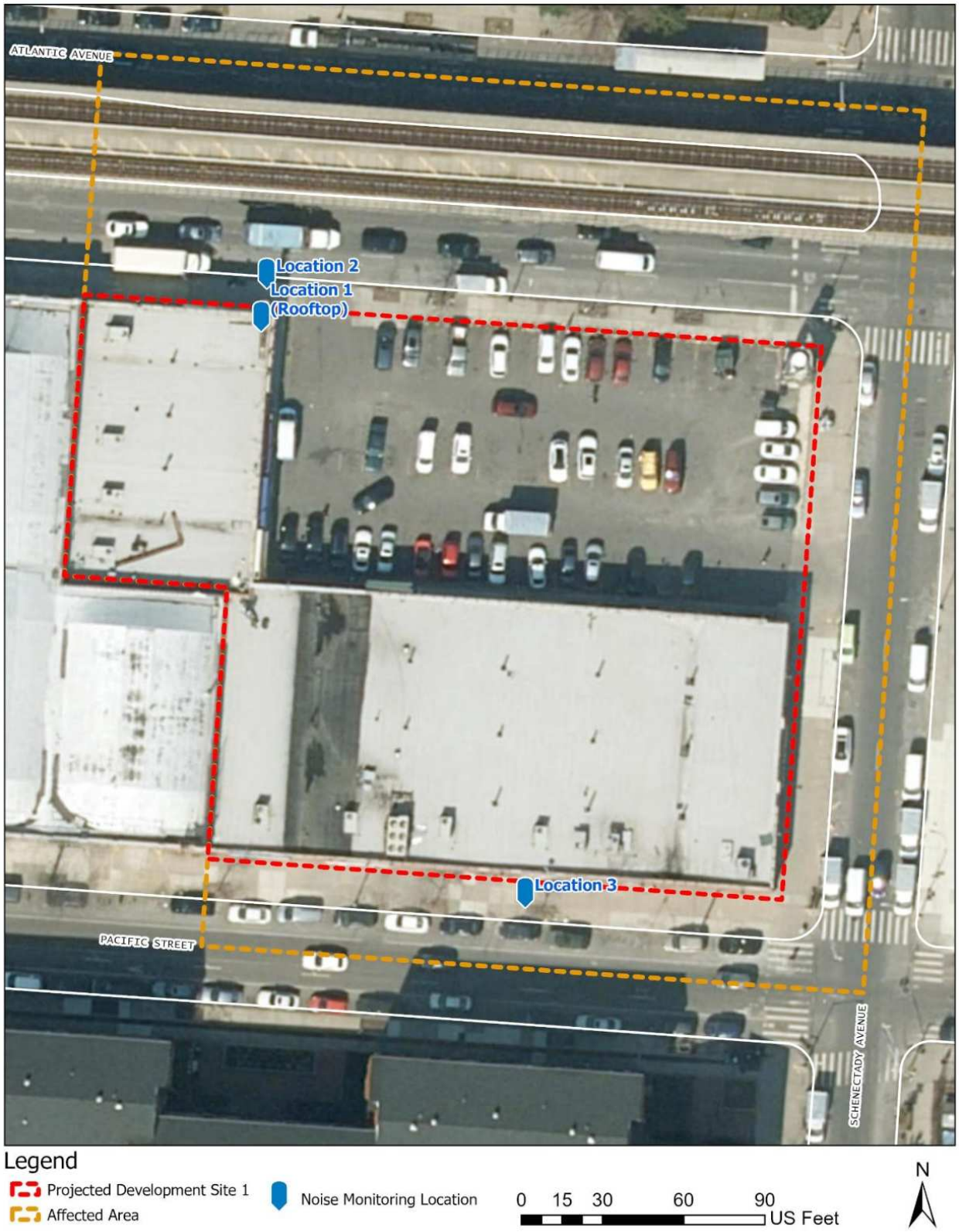


**Figure 2.10-2: Location 1 – Project Site Roof**



**Figure 2.10-3: Location 2 – 1708 Atlantic Avenue Frontage**



**Figure 2.10-4: Location 3 - Southern Portion of 1720 Atlantic Avenue**



**Existing Conditions**

Monitoring was conducted during typical midweek conditions, on Wednesday, June 21, 2023, and Thursday, June 22, 2023. The weather was dry and wind speeds were moderate during all monitoring periods. **Table 2.10-4** to **Table 2.10-6** below contains the results for the measurements taken at Location 1 to Location 3, respectively.

**Table 2.10-4: Noise Levels in dBA at Location 1**

| Start Date & Time | LAeq | LASmin | LAS 10% | LAS 50% | LAS 90% | LASmax |
|---|---|---|---|---|---|---|
| 6/21/2023 7:09 | 78.1 dB | 61.7 dB | 73.0 dB | 67.0 dB | 64.0 dB | 94.2 dB |
| 6/21/2023 8:09 | 78.3 dB | 62.4 dB | 74.0 dB | 67.0 dB | 65.0 dB | 94.3 dB |
| 6/21/2023 9:09 | 77.1 dB | 61.3 dB | 71.5 dB | 66.5 dB | 64.0 dB | 94.2 dB |
| 6/21/2023 10:09 | 74.0 dB | 57.7 dB | 68.5 dB | 63.5 dB | 60.5 dB | 93.3 dB |
| 6/21/2023 11:09 | 74.7 dB | 57.2 dB | 69.0 dB | 63.5 dB | 60.5 dB | 94.4 dB |
| 6/21/2023 12:09 | 74.7 dB | 56.6 dB | 70.0 dB | 64.0 dB | 60.5 dB | 94.1 dB |
| 6/21/2023 13:09 | 75.6 dB | 57.8 dB | 70.0 dB | 64.0 dB | 61.0 dB | 98.8 dB |
| 6/21/2023 14:09 | 74.5 dB | 58.0 dB | 70.5 dB | 64.5 dB | 61.5 dB | 93.5 dB |
| 6/21/2023 15:09 | 73.8 dB | 57.5 dB | 69.5 dB | 64.5 dB | 61.0 dB | 93.2 dB |
| 6/21/2023 16:09 | 78.6 dB | 58.5 dB | 76.0 dB | 65.5 dB | 61.5 dB | 95.7 dB |
| 6/21/2023 17:09 | 77.4 dB | 57.7 dB | 75.0 dB | 65.5 dB | 61.5 dB | 93.4 dB |
| 6/21/2023 18:09 | 77.2 dB | 57.9 dB | 74.5 dB | 65.0 dB | 60.5 dB | 93.7 dB |
| 6/21/2023 19:09 | 75.4 dB | 54.1 dB | 69.0 dB | 64.5 dB | 59.5 dB | 93.3 dB |
| 6/21/2023 20:09 | 74.5 dB | 53.1 dB | 68.0 dB | 62.0 dB | 57.0 dB | 96.4 dB |
| 6/21/2023 21:09 | 74.9 dB | 52.9 dB | 69.0 dB | 62.5 dB | 57.5 dB | 94.1 dB |
| 6/21/2023 22:09 | 74.3 dB | 51.6 dB | 67.5 dB | 62.0 dB | 57.0 dB | 93.2 dB |
| 6/21/2023 23:09 | 76.1 dB | 51.0 dB | 69.0 dB | 61.5 dB | 56.0 dB | 97.4 dB |
| 6/22/2023 0:09 | 75.4 dB | 47.1 dB | 67.5 dB | 59.0 dB | 51.0 dB | 94.1 dB |
| 6/22/2023 1:09 | 71.8 dB | 49.8 dB | 66.0 dB | 58.0 dB | 52.5 dB | 93.9 dB |
| 6/22/2023 2:09 | 60.5 dB | 52.7 dB | 64.0 dB | 56.0 dB | 54.0 dB | 75.7 dB |
| 6/22/2023 3:09 | 60.3 dB | 52.1 dB | 63.0 dB | 56.0 dB | 53.5 dB | 79.6 dB |
| 6/22/2023 4:09 | 71.5 dB | 49.6 dB | 66.5 dB | 58.0 dB | 51.5 dB | 92.0 dB |
| 6/22/2023 5:09 | 73.5 dB | 49.8 dB | 69.5 dB | 65.0 dB | 55.0 dB | 92.4 dB |
| 6/22/2023 6:09 | 75.8 dB | 55.6 dB | 70.0 dB | 65.5 dB | 62.0 dB | 92.6 dB |
| **LDN** | 80.2 | | | | | |

**Table 2.10-5: Noise Levels in dBA at Location 2**

| *Wednesday, June 21, 2023* | | | |
|---|---|---|---|
| **Time** | **7:30 am – 8:30 am** | **12:00 pm – 1:00 pm** | **4:30 pm – 5:30 pm** |
| $L_{max}$ | 102.5 | 104.1 | 102.9 |
| $L_{10}$ | 78.0 | 74.0 | 77.0 |
| $L_{eq}$ | 84.3 | 79.8 | 81.9 |
| $L_{50}$ | 70.0 | 68.5 | 69.0 |
| $L_{90}$ | 65.5 | 64.0 | 64.5 |
| $L_{min}$ | 58.7 | 56.7 | 54.1 |

**Table 2.10-6: Noise Levels in dBA at Location 3**

| *Wednesday, June 21, 2023* | | | |
|---|---|---|---|
| **Time** | **8:33 am – 8:53 am** | **1:03 pm – 1:23 pm** | **5:33 pm – 5:53 pm** |
| $L_{max}$ | 83.1 | 95.0 | 95.2 |
| $L_{10}$ | 68.5 | 68.5 | 69.5 |
| $L_{eq}$ | 65.2 | 69.6 | 67.5 |
| $L_{50}$ | 61.0 | 63.0 | 53.0 |
| $L_{90}$ | 57.0 | 57.5 | 58.5 |
| $L_{min}$ | 53.3 | 52.3 | 53.3 |

The traffic volumes (vehicle counts) and vehicle classifications collected during peak vehicular travel periods [morning (AM), noon (MD), and evening (PM)] are shown below in **Table 2.10-7** and **Table 2.10-8**.

**Table 2.10-7: Traffic Volumes and Vehicle Classifications Noise Location 2**

| | **7:30 am – 8:30 am** | **12:00 pm – 1:00 pm** | **4:30 pm – 5:30 pm** |
|---|---|---|---|
| **Car/ Taxi** | 375 | 309 | 402 |
| **Van/Light Truck/SUV** | 435 | 390 | 427 |
| **Medium Truck** | 30 | 22 | 19 |
| **Heavy Truck** | 15 | 7 | 12 |
| **Bus** | 32 | 22 | 37 |
| **Train** | 13 | 9 | 12 |

**Table 2.10-8: Traffic Volumes and Vehicle Classifications Noise Location 3**

| | 8:33 am – 8:53 am | 1:03 pm – 1:23 pm | 5:33 pm – 5:53 pm |
|---|---|---|---|
| **Car/ Taxi** | 22 | 18 | 27 |
| **Van/Light Truck/SUV** | 24 | 20 | 20 |
| **Medium Truck** | 5 | 3 | 6 |
| **Heavy Truck** | 0 | 0 | 1 |
| **Bus** | 2 | 1 | 0 |

### 2.10.3 Conclusion

The *2021 CEQR Technical Manual* sets external noise exposure standards, which are classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 40 dB(A) or lower where rail movement is the noise source and 45 dB(A) or lower where traffic movements are the noise source.

The LDN at Location 1 was 80.2 dB(A). The highest recorded $L_{eq}$ at Location 2 ground level was 84.3 dB(A) during the morning period. The highest recorded $L_{eq}$ at Location 3 was 69.6 dB(A) during the morning period.

Considering Floors 1 and 2 would be commercial and community facility (medical office) uses that are expected to operate during the daytime, the highest recorded $L_{eq}$ at Location 2 ground level of 84.3 dB(A) is used to determine attenuation on these floors.

To ensure that no significant adverse impacts related to noise occur as a result of the Proposed Actions, the following E-Designation would be placed on Projected Development Site 1:

**The text for E-Designation would be as follows:**

**E-845**

**Block 1335, Lots 28, 30, and 35 (Projected Development Site 1**): In order to ensure an acceptable interior noise environment, future community facility (medical office) and/or commercial office uses must provide a closed-window condition with a minimum of 40 dBA window/wall attenuation on the northern façade of the first and second floor facing Atlantic Avenue, on the eastern façade of the first and second floor facing Schenectady Avenue within 100 feet from Atlantic Avenue, and on the western façade of the first and second floor facing Troy Street within 100 feet from Atlantic Avenue in order to maintain a daytime interior noise level of 45 $L_{eq}$ for commercial office spaces and community facility (medical office). Future residential uses must provide a closed-window condition of 41 dBA window/wall attenuation on the northern facades facing Atlantic Avenue, the eastern façade facing Schenectady Avenue within 100 feet from Atlantic Avenue, and the western façade facing Troy Street within 100 feet from Atlantic Avenue

in order to maintain an interior Ldn noise level not greater than 40 dBA for residential uses. No other façades require attenuation. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

The facade attenuation requirements above are detailed in **Figure 2.10-5** below.

**Figure 2.10-5: Noise Attenuation Requirements[13]**




[13] The above attenuation requirements are for residential and community facility uses. Commercial office uses would require attenuation 5 dBA less.

## 2.11 Construction

Construction, although temporary, can result in disruptive and noticeable effects on a proposed action area. A determination of the significance of construction and the need for mitigation is based on the duration and magnitude of these effects. Construction is typically of greatest importance when it could affect traffic conditions, archaeological resources, and the integrity of historic resources, noise patterns, or air quality conditions. Based on the guidelines presented in the *2021 CEQR Technical Manual*, a preliminary construction analysis may be required because the future development facilitated by the Proposed Actions could result in:

- Construction activities lasting longer than 24 months;
- The operation of several pieces of diesel equipment in a single location at peak construction; and
- Construction activities along an arterial highway.

This chapter describes the preliminary construction plans for Projected Development Site 1 and assesses the potential for the Proposed Actions to result in significant adverse construction impacts in accordance with the *2021 CEQR Technical Manual*. Construction impacts, although temporary, can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and the need for mitigation are generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, hazardous materials, archaeological resources, the integrity of historic resources, community noise patterns, and/or air quality conditions.

As described above under **Section 1.0, "Project Description,"** the Proposed Project includes the demolition of the three existing buildings and construction of a new 13-story, 145-foot-tall, 387,041 GSF mixed-use residential, commercial, and community facility building on Projected Development Site 1 (Block 1335, Lots 28, 30, and 35). The building would be 300,695 ZSF (6.23 FAR) and would include 256,769 GSF (230,389 ZSF; 4.77 FAR) of residential space on floors 3 through 13; 55,997 GSF (50,397 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,641 GSF (19,910 ZSF; 0.44 FAR) of community facility use on the 2nd floor; and 52,635 GSF of accessory parking area split between the cellar and ground floor. There would be 300 total dwelling units, with 75 (25%) of those units made affordable to incomes averaging 60% AMI per MIH Option 1. There would be no parking spaces required, and a total of 116 parking spaces would be provided between the cellar and ground floors. Ground floor commercial space would include a supermarket and local retail uses.

In addition to describing the construction plans for Projected Development Site 1, this chapter provides a discussion of the governmental coordination and oversight related to construction, a conceptual construction schedule, activities likely to occur during construction, the types of equipment that are expected to be used, construction logistics (e.g., site access points and potential staging area locations), and construction workers and truck delivery estimates. Based

on this information, potential impacts from construction activities are assessed with respect to transportation, air quality, noise and vibration, land use and neighborhood character, socioeconomic conditions, community facilities, open space, historic and cultural resources, and hazardous materials.

For each of the various technical areas presented below, appropriate construction analysis years were selected to represent reasonable worst-case conditions relevant to that technical area, which can occur at different times for different analyses. For example, the noisiest part of the construction may not be at the same time as the heaviest construction traffic. Therefore, the analysis periods differ for different technical analyses. Where appropriate, the analysis accounted for the effects of those components of the project that would be completed and operational during the selected construction analysis years.

### 2.11.1 Governmental Coordination and Oversight

The governmental oversight of construction in New York City is extensive and involves a number of city, state, and federal agencies. **Table 2.11-1** shows the main agencies involved in construction oversight and each agency's areas of responsibility. The primary responsibilities lie with New York City agencies. The New York City Department of Buildings (DOB) has the primary responsibility for ensuring that the construction meets the requirements of the New York City Building Code and that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both construction workers and the public. The areas of responsibility include the enforcement of regulations pertaining to the installation and operation of construction equipment, such as cranes and lifts, sidewalk sheds, and safety netting and scaffolding. The New York City Department of Parks and Recreation (NYC Parks) has oversight on tree protection and tree removal during construction. The New York City Department of Environmental Protection (DEP) enforces the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and the DEP Notice of Adoption Rules for Citywide Construction Noise Mitigation (also known as Chapter 28), approves Remedial Action Plans (RAPs) and Construction Health and Safety Plans (CHASPs), regulates water disposal into the sewer system, and oversees dust control for construction activities. The New York City Fire Department (FDNY) has primary oversight for compliance with the New York City Fire Code and for the installation of tanks containing flammable materials. The New York City Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures. The New York City Landmarks Preservation Commission (LPC) approves studies and testing to prevent loss of archaeological materials and to prevent damage to fragile historic structures.

**Table 2.11-1: Construction Oversight in New York City**

| Agency | Area(s) of Responsibility |
|---|---|
| **New York City** | |
| Department of Buildings (DOB) | Primary oversight for Building Code and site safety |
| Department of Parks & Recreation (DPR) | Tree protection and removal |
| Department of Environmental Protection (DEP) | Noise, hazardous materials, dewatering, dust |
| Fire Department (FDNY) | Compliance with fire code, tank operation |
| Department of Transportation (DOT) | Traffic lane and sidewalk closures |
| Landmarks Preservation Commission (LPC) | Archaeological and historic architectural protection |
| **New York State** | |
| Department of Labor (DOL) | Asbestos workers |
| New York City Transit (NYCT) | Bus stop relocation; any subsurface construction within 200 feet of a subway |
| Department of Environmental Conservation (DEC) | Dewatering, hazardous materials, tanks, Stormwater Pollution Prevention Plan (SWPP), Industrial SPDES, if any discharge into the Hudson River. |
| **United States** | |
| Environmental Protection Agency (EPA) | Air emissions, noise, hazardous materials, toxic substances |
| Occupational Safety and Health Administration (OSHA) | Worker safety |

At the state level, the New York State Department of Environmental Conservation (NYSDEC) regulates discharge of water into rivers and streams, disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. The New York State Department of Labor (NYSDOL) licenses asbestos workers. New York City Transit (NYCT) is in charge of bus stop relocations, and any subsurface construction within 200 feet of a subway. On the federal level, the U.S. Environmental Protection Agency (EPA) has wide ranging authority over environmental matters, including air emissions, noise emission standards, hazardous materials, and the use of poisons. Much of the responsibility is delegated to the state level. The U.S. Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

### 2.11.2 Proposed Construction Schedule

In the With-Action Condition, construction would occur on Projected Development Site 1. As shown in **Figure 2.11-1**, It is assumed construction of Projected Development Site 1 would begin in November of 2025. The proposed development on Projected Development Site 1 is expected to be completed by 2028. Construction of Projected Development Site 1 is expected to begin in the 4th quarter of 2025 and be completed within 38 months by 2028.

**Figure 2.11-1: Anticipated Construction Schedule**

| Projected Development Site | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Q1 | | | Q2 | | | Q3 | | | Q4 | | | Q1 | | | Q2 | | | Q3 | | | Q4 | | | Q1 | | | Q2 | | | Q3 | | | Q4 | | | Q1 | | | Q2 | | | Q3 | | | Q4 | | |
| | | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D |
| 1 | Demolition / Excavation / Foundation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Superstructure / Exteriors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Interior Fit-Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

### 2.11.3 Proposed Construction Activities

General Construction Practices

*Hours of Work*

Construction of the Proposed Project would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays, with most workers arriving between 6:00 AM and 7:00 AM. Normally work would end at 3:30 PM, but it can be expected that in order to complete certain critical tasks (e.g., finishing a concrete pour for a floor deck), the workday may occasionally be extended beyond normal work hours. Any extended workdays would generally last until approximately 6:00 PM and would not include all construction workers onsite, but only those involved in the specific task requiring additional work time. Weekend or night work may also be occasionally required for certain construction activities, such as the erection of the tower crane. Appropriate work permits from DOB would be obtained for any necessary work outside of normal construction and no work outside of normal construction hours would be performed until such permits are obtained. The numbers of workers and pieces of equipment in operation for night or weekend work would typically be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend or night work would be less than that of a normal workday.

*Deliveries, Access, and Staging Areas*

Access to Projected Development Site 1 during construction would be fully controlled. The work areas would be fenced off and limited access points for workers and construction-related trucks would be provided. Construction workers are generally prohibited from parking their vehicles onsite during the construction period. Truck movements would be spread throughout the day and would generally occur between the hours of 6 AM and 3 PM, depending on the stage of construction. Material deliveries to the site would be controlled and scheduled. To aid in adhering to the delivery schedules, as is normal for building construction in New York City, flaggers would be employed at each construction gate. The flaggers could be supplied by the subcontractor on-site at the time or by the construction manager. The flaggers would control trucks entering and exiting the site so that they would not interfere with one another. In addition, they would provide an additional traffic aid as the trucks enter and exit the on-street traffic streams.

The DOT OCMC reviews and approves all maintenance and protection of traffic (MPT) plans which specify any planned sidewalk or lane closures and staging for all construction sites. MPT plans would be developed for any required temporary sidewalk, lane, and/or street closures to ensure the safety of the construction workers and the public passing through the area. Approval of these plans and implementation of the closures would be coordinated with DOT's OCMC. Measures specified in the MPT plans that are anticipated to be implemented would include parking lane closures, safety signs, safety barriers, and construction fencing.

Initial construction activity involves the siting of work trailers, installation of temporary power and communication lines, and the erection of site perimeter fencing.

Description of Construction Activities

Construction of large-scale buildings in New York City typically follows a general pattern. The first task is construction startup, which involves the siting of work trailers, installation of temporary power and communication lines, and the erection of site perimeter fencing. If a site has existing structures, the structures are demolished with some of the materials (such as concrete, block, and brick) either recycled or crushed on-site to be reused as fill and the debris taken to a licensed disposal facility. Hazardous materials remediation typically occurs at this point. Excavation of the soils is next along with the construction of the foundations. When the below-grade construction is completed, construction of the superstructure of the new building begins. As the core and floor decks of the building are being erected, installation of the mechanical and electrical internal networks would start. As the building progresses upward, the exterior cladding is placed, and the interior fit out begins. During what is typically considered the busiest time of building construction, the upper core and structure is being built while mechanical/electrical connections, exterior cladding, and interior finishing are progressing on lower floors. The following provides a description of each of the anticipated construction tasks for Projected Development Site 1.

*Construction Startup Tasks*

Construction startup work prepares a site for the construction work and would involve the installation of public safety measures, such as fencing, sidewalk sheds, and Jersey barriers. For each proposed building, the construction site would be fenced off, typically with solid fencing to minimize interference between the persons passing by the site and the construction work. Separate gates for workers and for trucks would be installed, and sidewalk sheds and Jersey barriers would be erected. Trailers for the construction engineers and managers would be hauled to the site and installed within Projected Development Site 1. On-site power generation capabilities would also be placed at this time where necessary.

*Demolition*

Projected Development Site 1 is developed with a one-story shopping center and parking lot. All of the buildings would be demolished to facilitate construction of the Proposed Project. Before the commencement of demolition of any structures, the portion of the buildings to be demolished would first be abated of any hazardous materials. A New York City-certified asbestos investigator would inspect the building for asbestos-containing materials (ACM), and if present, those materials would be removed by a DOL-licensed asbestos abatement contractor prior to interior demolition. Asbestos abatement is strictly regulated by DEP, DOL, EPA, and OSHA to protect the health and safety of construction workers and nearby residents, workers, and visitors. Depending on the extent and type of ACMs (if any), these agencies would be notified of the asbestos removal and may inspect the abatement area to ensure that work is being performed in accordance with applicable New York State and New York City regulations. Any activities with

the potential to disturb lead-based paint (LBP) would be performed in accordance with the applicable OSHA regulation (including federal OSHA regulation 29 CFR 1926.62—Lead Exposure in Construction). In addition, any suspected polychlorinated biphenyls (PCB)-containing equipment (such as fluorescent light ballasts) would be evaluated prior to disturbance. Unless labeling or test data indicate the contrary, such equipment would be assumed to contain PCBs, and would be removed and disposed of at properly licensed facilities in accordance with all applicable regulatory requirements.

Prior to demolition, any economically salvageable materials that could be reused would typically be removed. Then the building would be demolished and demolition debris removed from the site. Hand tools, excavators with hoe ram attachments, loaders, and generators, would be used during this stage of construction. Demolition debris would typically be sorted prior to being disposed at landfills to maximize recycling opportunities.

*Excavation and Foundation*

The Proposed Project would require excavation for the proposed building's foundation. Excavators would be used to excavate soil and the excavated materials would be loaded onto dump trucks for transport to a licensed disposal facility or for reuse on any portion of Projected Development Site 1 that needs fill. No blasting is anticipated for the construction of the Proposed Project. This stage of construction would include the construction of the foundation and below-grade elements of the proposed buildings. Piles would be installed with the use of drill rigs. If boulders are encountered during pile installation activities, the obstructions would be removed by a rock hammer. Concrete trucks would be used to pour the foundation and the below-grade structures. Excavation and foundation activities may also involve the use of rebar benders, generators, air compressors, cherry pickers, rock hammers, and saws.

*Superstructure and Exterior Façade – Core and Shell Construction*

The core is the central part of the building and is the main part of the structural system. It contains the building's beams and columns, as well as elevator shafts, vertical risers for mechanical, electrical, and plumbing systems, electrical and mechanical equipment rooms, and core stairs. The shell is the exterior of the building. Cranes would be brought onto the construction area as needed and would be used to lift structural components, façade elements, and other large materials, and load and place materials into and on the building. Core and shell construction activities would also require the use of generators, concrete trowels, welders, saws, rebar benders, and a variety of small handheld tools. In addition, temporary construction elevators (hoists) would be used for the vertical movement of workers and materials during this stage of construction.

*Interior Fit-Out*

Interior fit-out activities would typically include the construction of interior partitions, installation of lighting fixtures, and interior finishes (e.g., flooring, painting, etc.), and mechanical and

electrical work, such as the installation of elevators and lobby finishes. Final cleanup and touchup of the buildings and final building system (e.g., electrical system, fire alarm, plumbing, etc.) testing and inspections would be part of this stage of construction. Equipment used during this stage of construction would include hoists, delivery trucks, and a variety of small handheld tools. In addition, grid power is expected to be available during this stage of construction although generators may be needed for welding operations. Interior fit out activities would typically be the quietest period of construction in terms of its effect on the public, because most of the construction activities would occur inside the buildings with the façades substantially complete and the proposed building.

Number of Construction Workers and Material Deliveries

The number of workers and truck trips associated with material deliveries vary with the scale of the project and the general construction task. **Table 2.11-2**, below, shows the estimated number of workers and deliveries to Projected Development Site 1 by calendar quarter for all construction activities, based on the construction schedule provided in **Figure 2.11-1**. As shown below in **Table 2.11-2**, the average number of workers would be approximately 102 per day throughout the construction period and the average number of trucks would be approximately 15 per day. The number of daily workers and construction trucks would peak in during the third quarter of 2026 to the second quarter of 2027.

**Table 2.11-2: Average Number of Daily Construction Workers and Trucks by Year and Quarter**

| **Year** | | **2025** | | | | **2026** | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Quarter** | | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** |
| **Total** | **Workers** | - | 14 | 42 | 42 | 42 | 42 | 162 | 162 |
| | **Trucks** | - | 8 | 15 | 15 | 15 | 15 | 21 | 21 |
| **Year** | | **2027** | | | | **2028** | | | |
| **Quarter** | | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** |
| **Total** | **Workers** | 162 | 162 | 147 | 117 | 117 | 117 | - | - |
| | **Trucks** | 21 | 21 | 16 | 7 | 7 | 7 | - | - |

| | **Project Total** | |
|---|---|---|
| | **Peak** | **Average** |
| **Construction Workers** | 162 | 102 |
| **Construction Trucks** | 21 | 15 |

## 2.11.4 Probable Impacts of the Proposed Actions

Similar to many development projects in NYC, construction can cause temporary disruption to the surrounding area throughout the construction period. The following analyses describe potential construction impacts on transportation, air quality, noise and vibration, as well as other

technical areas including land use and neighborhood character, socioeconomic conditions, community facilities, open space, historic and cultural resources, and hazardous materials.

Construction Transportation

*Traffic*

Similar to other construction projects in New York City, most of the construction activity at Projected Development Site 1 is expected to take place during the typical construction shift of 7:00 AM to 3:30 PM. The estimated daily vehicle trips were distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. While construction truck trips would be made throughout the day (with more trips typically made during the early morning), construction workers would typically commute during the hours before and after the work shift. For analysis purposes, each truck delivery was assumed to result in two truck trips during the same hour (one "in" and one "out"), and each truck trip was assumed to have a passenger car equivalent (PCE) of 2.0, consistent with *2021 CEQR Technical Manual* guidance. For construction workers, the majority (80 percent) of arrival and departure trips are expected to take place during the hour before and after each shift. For construction trucks, deliveries would typically peak during the early morning, with an estimated 25 percent overlapping with construction worker arrival traffic.

Based on reverse-journey-to-work census data for workers in the construction occupations It is anticipated that construction workers' travel to Projected Development Site 1 would be primarily by auto (approximately 43.8 percent), with smaller numbers using public transit (approximately 36.9 percent including bus and subway) and taxi (approximately 4.9 percent). It is also estimated that auto occupancy would average approximately 1.03 persons per vehicle. These trip generation assumptions were used as the basis for assessing the potential transportation-related impacts during construction. **Table 2-11.3** shows a forecast of hourly construction worker auto and construction truck trips during the third quarter of 2026 (2026 Q3) through the second quarter of 2027 (2027 Q2) based on the assumptions described above. As shown in **Table 2-11.3**, it is estimated that peak construction activities would result in 127 PCEs between 6:00 AM and 7:00 AM during 2026 Q3 through 2027 Q2. For the 3:00 PM to 4:00 PM period, there would be a maximum of 109 PCEs associated with construction activities.

**Table 2.11-3: 2026 Q3 – 2027 Q2 Peak Construction Vehicle Trip Projections (in PCEs)**

| Time Period | Workers – Auto Trips | | | Workers – Taxi Trips | | | Truck Trips (PCEs) | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total | In | Out | Total | |
| **6-7AM** | **55** | **0** | **55** | **25** | **25** | **50** | **11** | **11** | **22** | **127** |
| 7-8AM | 14 | 0 | 14 | 6 | 6 | 12 | 4 | 4 | 8 | 34 |
| 8-9AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 8 |
| 9-10AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 8 |
| 10-11AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 8 |
| 11AM-12PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 8 |
| 12-1PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 8 |
| 1-2PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 4 |
| 2-3PM | 0 | 4 | 4 | 2 | 2 | 4 | 2 | 2 | 4 | 12 |
| **3-4PM** | **0** | **55** | **55** | **25** | **25** | **50** | **2** | **2** | **4** | **109** |
| 4-5PM | 0 | 10 | 10 | 4 | 4 | 8 | 1 | 1 | 2 | 20 |
| *Daily Total* | *69* | *69* | *138* | *62* | *62* | *124* | *42* | *42* | *84* | *346* |

**Figure 2.11-2** and **Figure 2.11-3** show the assignment of construction peak hour vehicle trips to the study area street network during the 6 to 7 AM and 3 to 4 PM construction peak hours. Although construction workers would likely park on-street or in nearby off-street public parking facilities located in proximity to Projected Development Site 1 and would therefore be dispersed throughout the surrounding street network, all construction worker autos were conservatively assigned to the three streets with legal on-street parking immediately adjacent to the site, thereby concentrating these trips at intersections in the site's immediate vicinity. As shown in **Figure 2.11-2** and **Figure 2.11-3**, no intersection would experience 50 or more PCEs during the 6:00 AM to 7:00 AM and/or 3:00 PM to 4:00 PM construction peak hours. As peak traffic from construction trucks and worker vehicles would not exceed the 50 trips/hour *2021 CEQR Technical Manual* threshold for a detailed traffic analysis at any intersection, significant adverse traffic impacts are not expected to occur during the construction peak hours during 2026 Q3 through 2027 Q2.

**Figure 2.11-2: Construction AM Peak Hour (6 – 7 AM) Traffic Assignments (in PCEs)**

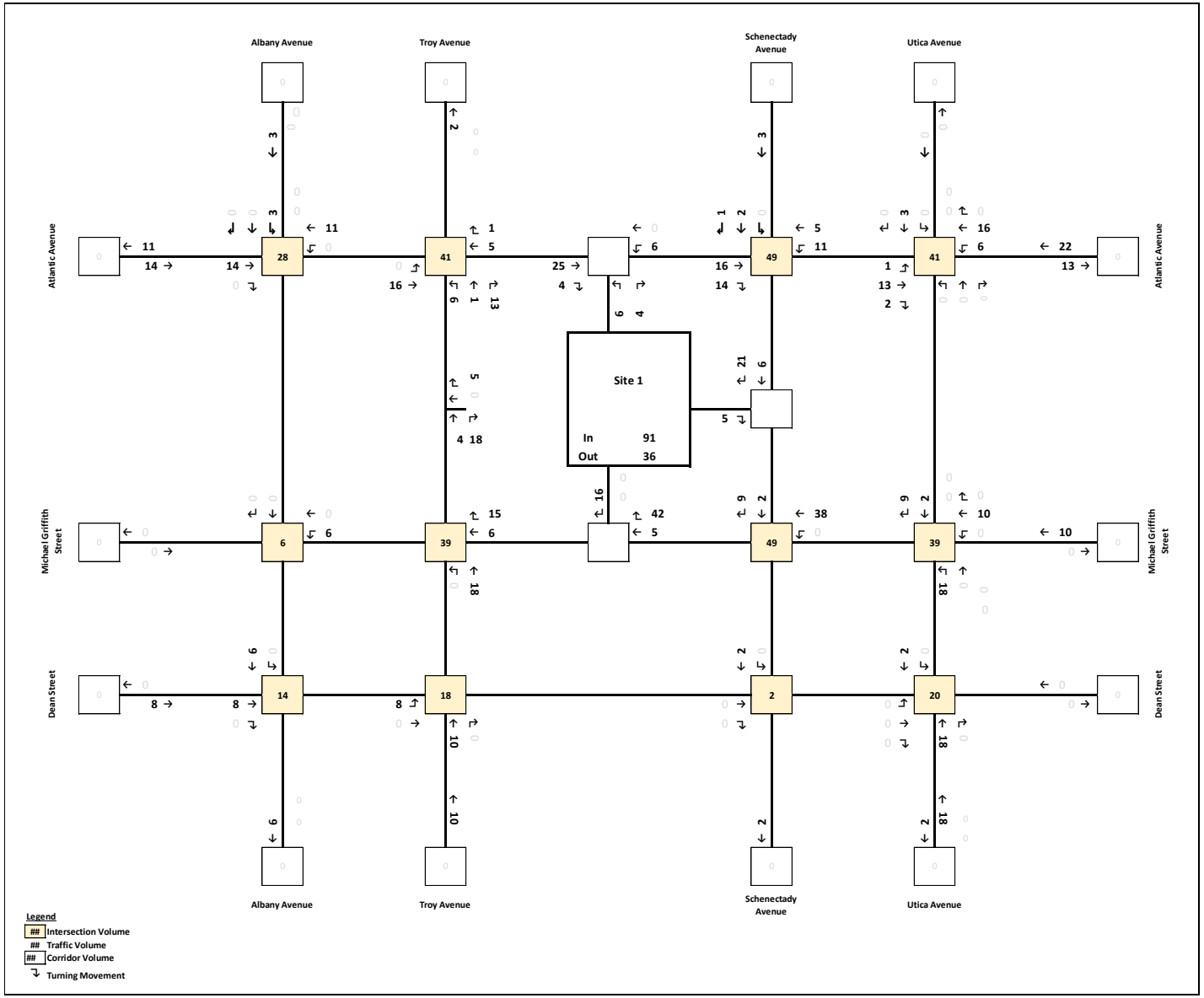
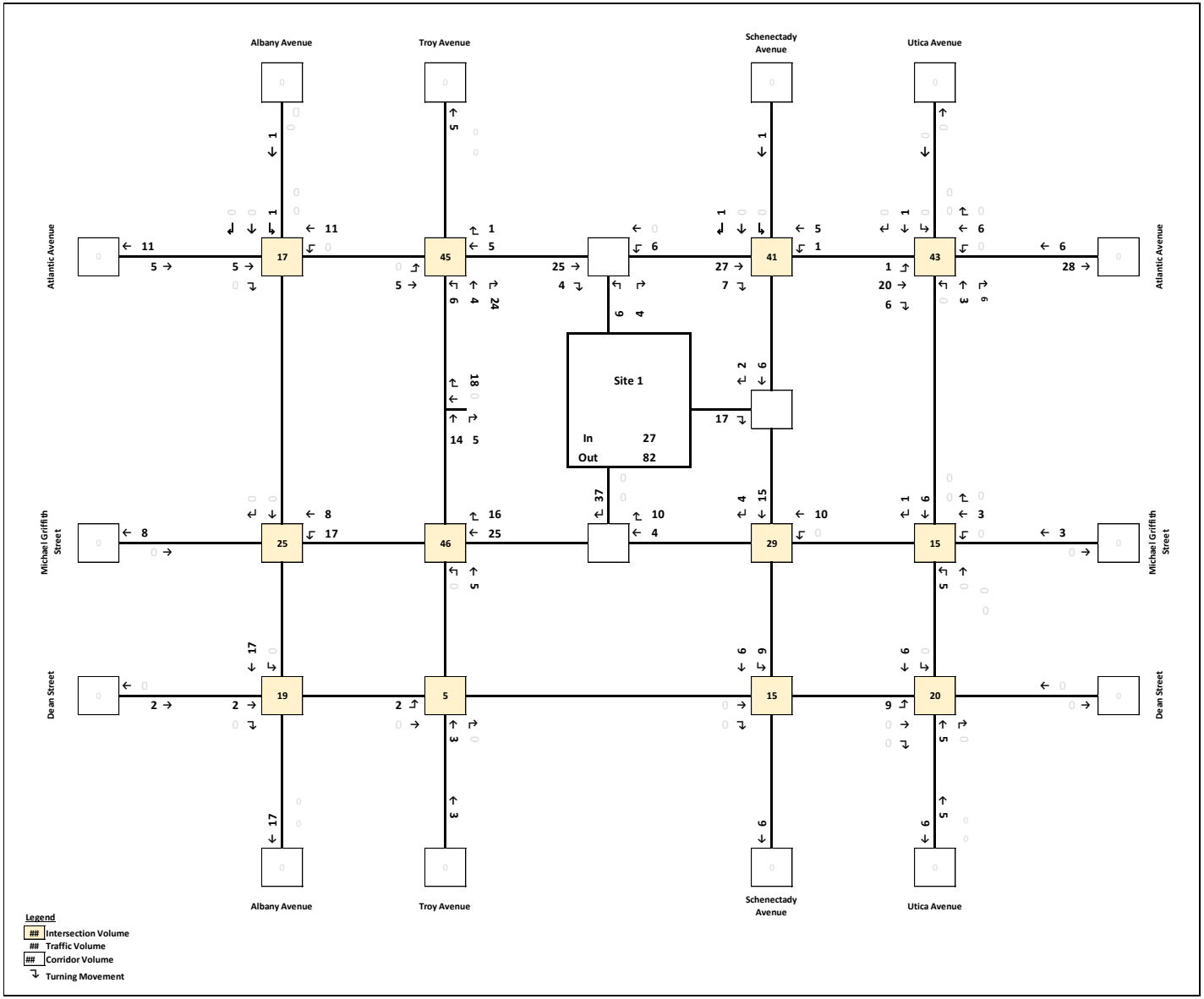


**Figure 2.11-3: Construction PM Peak Hour (3 – 4 PM) Traffic Assignments (in PCEs)**



*Curb Lane Closures and Staging*

Construction staging would most likely occur on Projected Development Site 1 and may extend within portions of sidewalks, curbs and travel lanes of public streets adjacent to Projected Development Site 1. Similar to many other construction projects in New York City, temporary curb lane and sidewalk closures are expected to be required adjacent to the Projected Development Sites, which would have dedicated gates, driveways, or ramps for delivery vehicle access. It is anticipated that construction activity would mostly take place within Projected Development Site 1, and perhaps within portions of Atlantic Avenue, Pacific Street, and Schenectady Avenue. Any sidewalk or street closures would require the approval of the NYCDOT-OCMC, the entity that ensures critical travel arteries are not interrupted, especially in peak travel periods.

Flag persons are expected to be present at active project site driveways, where needed, to manage the access and movement of trucks to ensure no on-street queuing. Some of the site deliveries may also occur along the perimeter of the construction site within delineated closed-off areas for concrete pour or steel delivery.

*Transit and Pedestrians*

As discussed above and shown in **Table 2.11-2**, in the 2026 Q3 through 2027 Q2 peak construction periods, approximately 162 construction workers would travel to and from Projected Development Site 1 each day. As also discussed above, a total of approximately 36.9 percent of construction workers are expected to travel to and from the site by public transit (subway or bus). It is also anticipated that 14.3 percent of construction workers would travel to and from the project by walking or taking other modes. In addition, it is estimated that approximately 80 percent of all construction workers would arrive and depart in the peak hour before and after each shift. Therefore, it is estimated that approximately 120 and 46 construction workers would travel to and from the site via public transit or by walking each day, and that approximately 96 and 37 of these trips, a combined 133 pedestrian trips, would occur in each of the 6:00 AM to 7:00 AM and 3:00 PM to 4:00 PM construction peak hours.

As peak transit demand from construction workers on Projected Development Site 1 would not meet the 200 trips/hour *2021 CEQR Technical Manual* analysis threshold for a detailed subway analysis, nor the 50 trips/hour/direction analysis threshold for a detailed bus analysis, significant adverse impacts to subway and bus services are not expected to occur in the construction peak hour during 2026 Q3 through 2027 Q2 peak construction period. In addition, peak pedestrian demand would not meet the 200 trips/hour *2021 CEQR Technical Manual* analysis threshold for detailed pedestrian analysis and significant impacts would not occur. During construction, if sidewalk closures are required, adequate protection or temporary sidewalks would be provided in accordance with DOT-OCMC requirements.

*Parking*

Of the estimated 162 construction workers who would travel to Projected Development Site 1 during the second through fourth quarters of the 2026 peak construction period, approximately 43.8 percent are expected to travel by private auto. Based on an average auto occupancy of 1.03 persons per auto, the maximum daily parking demand from construction workers would total approximately 69 spaces. As it is assumed that there would be no on-site parking until completion of the Proposed Project, it is anticipated that construction workers would park on-street or in nearby off-street public parking facilities located in proximity to Projected Development Site 1 during this period. Under *2021 CEQR Technical Manual* guidance, the inability of the Proposed Project or the surrounding area to accommodate future parking demands would be considered a parking shortfall, but would generally not be considered significant due to the magnitude of available alternative modes of transportation. Therefore, should any parking shortfall occur due to incremental demand from construction workers during the 2026 Q3 through 2027 Q2 peak construction period, it would not be considered a significant adverse parking impact based on *2021 CEQR Technical Manual* guidance.

Construction Air Quality

The need for a quantitative air quality analysis is determined by several factors, such as the type of construction activity and the construction equipment used, the duration of any heavy construction activity, the physical relationship of the project site to nearby sensitive receptors (e.g., residential, hospital, school), and the commitment to use emission control measures.

Construction under the Proposed Actions is anticipated to last approximately 38 months (November 2025 to December 2028). The level of construction activity would vary among the stages of construction. The demolition, excavation, and foundation work stage (first segment) will last approximately eight months (November 2025 to June 2026). Following the construction's first segment, the superstructure and exterior envelope build-out stage will last fourteen months (July 2026 to August 2027). The interior fit-out will last approximately sixteen months (September 2027 to December 2028).

The emissions generated in the demolition excavation and foundation stage are mainly related to on-site nonroad diesel equipment, truck emissions, and particulate matter (as fugitive dust) generated by excavation and earth-moving operations. Generally, there is significantly more particulate emission during the excavation and foundation stage of the construction. In addition to on-site emission sources, the construction air quality analysis also accounted for the emissions of construction-related on-road trucks and workers' vehicles traveling on streets adjacent to the site.

The construction activities would involve heavy-duty diesel equipment and earth-moving operations, the construction phase would last more than two years, and there are sensitive receptors near Projected Development Site 1. Therefore, a quantitative air quality analysis was undertaken to evaluate the potential for significant adverse impact. The analysis included

emissions from non-road construction equipment, construction-related dust emissions, and on-road vehicles.

*Air Quality Standards, Regulations, and Benchmarks*

As required by the Clean Air Act, The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six of the most common air pollutants, known as "criteria" pollutants. The presence of these pollutants (criteria pollutants) in the ambient air is generally due to numerous diverse and widespread sources of emissions. Generally, criteria pollutants are the pollutants of concern for construction activities. Determination of significant impact related to criteria pollutants accounts for pollutant concentrations in the ambient air, which include background concentrations. Background concentrations at the nearest New York State Department of Environmental Conservation (NYSDEC) federally-mandated monitoring station(s) were applied in the analysis.

The EPA mandates ultra-low sulfur diesel (ULSD) fuel for all highway and non-road diesel engines. As such, sulfur oxide (SOx) emissions associated with the construction activities would be negligible. Therefore, the pollutants analyzed for the construction period were annual average nitrogen dioxide ($NO_2$), particulate matter with aerodynamic diameters less than or equal to 10 microns ($PM_{10}$) and 2.5 microns ($PM_{2.5}$), and carbon monoxide (CO).

In addition to the NAAQS, New York City's *de minimis* criteria are used to determine the significance of the incremental increases in CO and $PM_{2.5}$ concentrations. The *CEQR Technical Manual de minimis* criteria set allowable incremental increases in CO and $PM_{2.5}$ concentrations that would result as a consequence of a proposed project. The *de minimis* for CO is:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

The following criteria are used for the determination of significant adverse $PM_{2.5}$ incremental impacts for projects under CEQR:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).

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

*Emission Reduction Program*

Emission reduction measures concerning dust suppression measures, idling vehicles, and use of clean fuel would be implemented to reduce pollutants emissions. The following emission reduction measures are specified in the New York City Air Pollution Code (New York City Administrative Code and Rules of the City of New York (RCNY)):

- *Dust Control.* Dust suppression measures would be implemented. Such actions would include, but not be limited to, wetting of construction material and particulate matter kept on-site (e.g., soil or debris piles), wetting where certain construction activities (e.g., drilling and grinding) occur, covering of spoil or loose material during transport and wetting of material before loading into trucks, removal of dust from adjacent streets and sidewalks, and requiring that vehicles entering or exiting the site travel at low speed.

- *Restrictions on Vehicle Idling.* Idling restrictions require that no motor vehicle idle for longer than three minutes unless the engine is used to operate a loading, unloading, or processing device (e.g., concrete mixing trucks and concrete pump trucks).

- *Diesel Equipment Reduction.* Construction of the proposed development would minimize the use of diesel engines and maximize the use of electric motors to the extent practicable. This would reduce the need for on-site generators and require using electric motors instead of diesel where feasible. Nonroad construction equipment utilizing line-electric power instead of diesel engines includes but may not be limited to hoists, compressors, and rebar benders.

- *Clean Fuel.* The EPA regulates the use of USLD under diesel fuel regulations. Ultra-low-sulfur diesel (ULSD) would be used for all diesel-fueled nonroad equipment. The sulfur content in ULSD is 15 parts per million (ppm).

In addition to the required emission reduction measures specified above, the construction activities under the Proposed Action are expected to implement additional measures. These control measures aim to reduce particulate matter emissions during construction (implementing these measures could potentially decrease emissions of other pollutants). The following emission control measures' commitments were specified:

- *Best Available Tailpipe Reduction Technologies.* Under the Proposed Actions, all diesel-powered nonroad construction equipment with a horsepower (hp) rating of 50 hp or greater would meet at least the Tier 3 emissions standards. In addition, diesel-powered nonroad construction equipment with a horsepower (hp) rating of 100 hp or greater would be equipped with a diesel particulate filter (DPF). The DPFs would either be installed by the original equipment manufacturer or retrofitted. The retrofitted DPFs would adhere to the specifications in the New York City Air Pollution Code.

*Emissions Profile*

Construction emission sources include nonroad construction equipment, on-road vehicles, and dust-generating construction activities. Nonroad construction equipment may consist of equipment operating on site, such as a crane, excavators, and a front-end loader. On-road vehicles may include trucks (e.g., dump trucks, concrete mixing trucks, etc.) traveling on-site and on roadways. Worker vehicles could potentially travel on streets adjacent to the site.

A representative construction equipment schedule was developed based on similar project analyses under CEQR and the stages of construction. Truck distribution (dump, concrete, and delivery trucks) was based on the construction and equipment schedule and to reasonably maximize emissions (dump trucks traveling on-site generate significant emissions). As such, a reasonable minimum number of delivery or concrete mixing trucks was assumed during the construction's demolition, excavation, and foundation stage. During the superstructure build-out, truck trip generation will mainly consist of concrete mixing trucks. Concrete mixing truck emissions during unloading were based on 60 minutes of idle time. Dump and delivery trucks were assumed to idle for 3 minutes while loading/off-loading and soak for less than an hour before restarting. As shown in the transportation trip assignment analysis, vehicles (trucks and worker vehicles) would travel to the site through Pacific/Michael Griffith Street, mostly coming from Atlantic Avenue and Schenectady Avenue.

Pollutant emission factors emitted by nonroad construction equipment and on-road vehicles were developed with the EPA's Motor Vehicle Emission Simulator version 3 (MOVES3) emission model. Particulate emission of diesel-powered nonroad equipment with a 100-horsepower rating or greater was derived from the MOVES3 2007-2011 average output, except for the excavators, for which the MOVES3 predicted emission showed no need for additional emission reduction measure(s). A 90 percent removal efficiency for particulate matter was used for the Tier 3 diesel-powered nonroad equipment retrofitted with DPF. In the last 30 years, the EPA has adopted multiple tiers of emission standards to reduce emissions of criteria pollutants from nonroad diesel engines. The first federal standard Tier 1 for new nonroad diesel engines was adopted in 1994. The standard applies to nonroad diesel engines with over 50 horsepower (hp) rated power. Tier 2 and Tier 3 standards, mainly met by advanced engine designs, were phased in between 2000 and 2008 (Tier 3 for PM was never adopted). Tier 4 standard was adopted in 2004 and phased between 2008 and 2015. Tier 4 emission standards are achieved by utilizing engine or after-treatment control technologies. For particulate emissions, a Tier 3 diesel engine with a DPF after-treatment control technology achieves similar emission reduction as a Tier 4 engine. Onroad MOVES3 input (inspection and maintenance, fuel data, age distribution, and meteorology) was obtained from NYSDEC. The MOVES3 model was compiled for the year 2025.

Fugitive dust emissions ($PM_{10}$ and $PM_{2.5}$) generated by traveling vehicles (on paved or unpaved roads) and material handling were calculated using the EPA's AP-42 manual *Chapter 13:*

*Miscellaneous Source.*[14] Silt loading factors for paved and unpaved roadways, obtained from the *2021 CEQR Technical Manual*, were used in the analysis, except during the demolition stage. During the demolition stage, on-site trucks and nonroad equipment would travel on a paved surface, where a typical silt loading factor for municipal solid waste landfill was applied. Applying water to unpaved or paved roads and surfaces (trucks and equipment travel on-site) and suppressing airborne dust emissions at the source accounted for fifty percent control efficiency, based on similar types of projects under CEQR. A worst-case analysis period was derived for each pollutant. The maximum 12-month rolling average emission for each pollutant was applied in the annual time frame periods.

*Dispersion Analysis*

Pollutant concentrations were predicted with AERMOD. AERMOD MPI version 23132 executable was used in the dispersion analysis. Lakes Environmental, Inc. adjusted the EPA AERMOD source code and recompiled the model to parallelize the processing of receptors, reducing run-time significantly. The MPI executable (used in the analysis) modified the EPA AERMOD executable model version 23132. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources and simple and complex terrain. The model was run with the regulatory default option, where applicable, and for both with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses used five consecutive years of meteorological data (2017-2021) from the NYSDEC. Meteorology surface data is from LaGuardia Airport, and upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five years. Population in New York City was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

Receptors were placed at land uses within 400 feet of Projected Development Site 1. This included nearby existing buildings, where receptors were placed on all wall façade from the ground floor (6-foot above grade) to rooftop height in spaced intervals, and on sidewalks and at ground level (6 feet above grade) over open spaces where the public has access to. Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View) was used to spatially locate features (buildings, emission sources, and receptors). On-street vehicular emissions were modeled as line area sources, where the source dispersion parameters were calculated based on the EPA's guidance manual.[15] CO concentration was evaluated with the AERMOD variable

[14] EPA. "Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1: Stationary Point and Area Sources." Accessed April 3, 2023. epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-13-miscellaneous-0.

[15] EPA. 2021. *PM Hot-spot Guidance, Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and $PM_{10}$ Nonattainment and Maintenance Areas*. EPA-420-B-21-037, Transportation and Regional Programs Division, Office of Transportation and Air Quality, U. S. Environmental Protection Agency, October 2021.

emission factor algorithm specifying emission between 6 AM to 4 PM, where on-road 1-hour maximum emission was used for the 8-hour average CO.

The model was run twice (with the building wake effect enabled/disabled). The predicted concentration is the highest concentration of these. The dispersion analysis results are presented in **Table 2.11-4**. As seen in **Table 2.11-4**, $PM_{2.5}$ and 8-hour CO concentrations are within the *de minimis,* and all other pollutant concentrations are within the NAAQS.

**Table 2.11-4: Criteria Pollutants Dispersion Analysis Results**

| Criteria Pollutant | Increment Conc. | Background Conc.(1,2) | Evaluated Conc. | Standard Conc. | Standard | Conc. Unit(2) |
|---|---|---|---|---|---|---|
| $PM_{2.5}$ 24-Hour | 1.68 | 18.7 | 1.68 | 8.15 | *de minimis* | $\mu g/m^3$ |
| $PM_{2.5}$ Annual | 0.286 | 7.6 | 0.286 | 0.3 | *de minimis* | $\mu g/m^3$ |
| $PM_{10}$ 24-Hour | 25.3 | 28 | 53 | 150 | NAAQS | $\mu g/m^3$ |
| CO 1-Hour | 3.79 | 2.13 | 5.92 | 35 | NAAQS | ppm |
| CO 8-Hour | 1.30 | 1.60 | 1.30 | 3.70 | *de minimis* | ppm |
| $NO_2$ Annual | 3.3 | 26.8 | 30 | 100 | NAAQS | $\mu g/m^3$ |

Note:

1. NYSDEC. "New York State Ambient Air Quality Report for 2020."
    a. $PM_{2.5}$: NYSDEC JHS 126 monitoring station (Site ID 36-047-0122);
    b. $PM_{10}$ and CO: Queens College (Site ID 36-081-0124)
2. NYSDEC. "New York State Ambient Air Quality Report for 2019."
    a. $NO_2$: Queens College (Site ID 36-081-0124)
3. Part per million – ppm; Micrograms per cubic meter $\mu g/m^3$.

As the annual $PM_{2.5}$ maximum predicted concentration for stationary sources is within the *de minimis*, exceedance of the neighborhood scale $PM_{2.5}$ (annual increase in concentration representing the average over an area of approximately 1 square kilometer) is unlikely. In addition, as no significant adverse air quality impact was predicted for the worst-case emission, it is unlikely that pollutant concentrations would exceed the NAAQS or the *2021 CEQR Technical Manual de minimis* during other construction periods.

*Conclusion*

Predicted pollutant concentrations at nearby sensitive land uses will not exceed the NAAQS, and the increment pollutant concentrations will be within the *de minimis*. Therefore, there is no reason to believe that the Proposed Actions construction phase would result in any potentially significant adverse air quality impact with the implementation of the following commitment(s) in a Restrictive Declaration (RD):

> *Under the Proposed Actions, all diesel-powered non-road construction equipment with a horsepower (hp) rating of 50 hp or greater would meet at least the Tier 3 emission standard.*

*In addition, diesel-powered nonroad construction equipment with a horsepower (hp) rating of 100 hp or greater would be equipped with a diesel particulate filter (DPF). The DPFs would either be installed by the original equipment manufacturer or retrofitted. The retrofitted DPFs would adhere to the specifications in the New York City Air Pollution Code.*

Construction Noise

Potential impacts on community noise levels during construction of the Proposed Project could result from construction equipment operation and construction trucks and worker vehicles traveling to and from Projected Development Site 1. Noise levels at a given location are dependent on the type and number of pieces of construction equipment operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating at full power), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels from construction activities would vary widely, depending on the stage of construction and the location of the construction relative to receptor locations as described below. The most noise-intensive construction activities would not occur every day or every hour on those days that they would occur. During hours when the loudest pieces of construction equipment are not in use, receptors would experience lower construction noise levels. Construction noise levels would fluctuate during the construction period at each receptor, with the greatest levels of construction noise occurring for limited periods. The most substantial construction noise sources are expected to be impact equipment such as excavators with hydraulic break rams and paving breakers, as well as the movements of trucks.

Construction noise is regulated by the requirements of the *New York City Noise Control Code* (also known as Chapter 24 of the *Administrative Code of the City of New York*, or Local Law 113) and the DEP Notice of Adoption of Rules for Citywide Construction Noise Mitigation (also known as Chapter 28). These requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. For weekend and after hour work, permits would be required, as specified in the *New York City Noise Control Code*. As required under the *New York City Noise Control Code*, a site-specific noise mitigation plan for the Projected Development Sites would be developed and implemented that may include source and path controls.

*Construction Noise Analysis Fundamentals*

The *2021 CEQR Technical Manual* states that an assessment of construction noise is warranted if a proposed project's construction activities include any of the following:

- Is considered long-term construction (greater than two years);
- Is located near sensitive receptors;
- Involves the construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out;

- Generates road traffic (heavy trucks, worker trips).

The construction that would occur as a result of the Proposed Actions is considered long-term construction that would be approximately 3 years at Projected Development Site 1 (see construction schedule above). The Affected Area is located near various sensitive receptors (listed in **Table 2.11-6** below). There is a total of one (1) Applicant-Controlled Projected Development Site.

In order to determine the possible increased noise level from the construction equipment operations and movement, all equipment used on site is to be generally calculated by computing the sum of the noise produced by all pieces of equipment operating at the construction site as a worst-case scenario. For each piece of equipment, the noise level at each sensitive receptor is a function of the following:

- The noise emission level of the equipment (see **Table 2.11-5**) (typical reference levels obtained from the *2021 CEQR Technical Manual Table 22-1 and quieter equipment levels considered for PCRE commitment*) (some equipment noise levels obtained from in-field monitoring, other approved rezonings, and provided by DCP);
- A usage factor, which accounts for the percentage of time the equipment is operating at full power (see **Table 2.11-5** for typical equipment usage factors);
- The distance between noise sources and the receptor;
- Topography and ground effects; and
- Shielding.

Construction-related traffic noise levels are a function of the following:

- The noise emission levels of each vehicle type (car, light-duty truck, heavy-duty truck, bus, etc.);
- Volume of vehicular traffic produced by construction activities on each road segment;
- Distance between roadway and the receptor;
- Vehicular speed;
- Topography and ground effects; and
- Shielding.

SoundPLAN was used to determine the worst-case equipment location for each site with respect to each receiver. Worst-case receivers (height and location on the facade) were also determined using SoundPLAN. All equipment was then modeled at that worst-case point on each site for each worst-case receiver to determine the sound level due to each piece of equipment. Multiple sites were modeled simultaneously per the construction schedule. In SoundPlan, for line and area sources, a spatial maximum level is calculated when the setting *total sound power located in one point* is activated. The maximum noise level of a line/area source is caused by moving the entire sound power to the spot on the line/area that produces the highest noise levels at each receiver. SoundPlan determines the worst possible source position for each receiver and the

corresponding maximum at each receiver. The individual equipment contribution was then added in excel to yield the calculated total construction sound level at each receiver, assuming all equipment was operating simultaneously at that worst-case location on each site.

**Table 2.11-5: Noise Emission Reference Levels (A-weighted decibels with RMS "slow" time constant)**

| Equipment Description | Typical $L_{max}$ @ 50 feet | Quantity | Usage Factor |
|---|---|---|---|
| Concrete Pump | 72* | 1 | 0.2 |
| Crane | 75* | 1 | 0.16 |
| Excavator | 77* | 2 | 0.4 |
| Forklift | 64 | 1 | 0.4 |
| Front End Loader | 80 | 1 | 0.4 |
| Generator | 70* | 2 | 0.5 |
| Pile Driver | 85* | 1 | 0.2 |
| Troweling Machine 1 | 70 | 1 | 0.3 |
| Troweling Machine 2 | 70 | 2 | 0.3 |
| Rebar Bender | 80 | 2 | 0.2 |
| Compressor^ | 58 | 2 | 0.4 |
| Concrete Mixer Truck | 85 | 1 | 0.4 |
| Hoist | 75 | 2 | 0.5 |
| Manlift | 85 | 1 | 0.2 |

*PCRE committed equipment noise levels

^ Electric

*Construction Noise Impact Criteria*

The noise impact criteria outlined in the *2021 CEQR Technical Manual* serves as a screening-level threshold for potential construction noise impacts. If the construction of a proposed project does not result in an exceedance at a specific sensitive receptor, that receptor screens out of any further analysis. However, if the construction of a proposed project exceeds the screening-level threshold, further analysis would be warranted. The screening-level noise impact criteria for mobile and on-site construction activities are as follows:

- If the No-Action noise level is less than 60 dB(A) $L_{eq(1)}$, a 5 dB(A) $L_{eq(1)}$ or greater increase would require further action;
- If the No-Action noise level is between 60 dB(A) $L_{eq(1)}$ and 62 dB(A) $L_{eq(1),}$ a resulting $L_{eq(1)}$ of 65 dB(A) or greater would require further action;
- If the No-Action noise level is equal to or greater than 62 dB(A) $L_{eq(1),}$ or if the analysis period is a nighttime period (between 10PM and 7AM). The threshold required for further consideration would be 3 dB(A) $L_{eq(1)}$.

If noise levels at a given receptor are predicted to exceed the screening criteria described above, further consideration of the intensity and duration of construction noise at a receptor would be

warranted. Noise level increases that would be considered objectionable (i.e., equal to or greater than 15 dB(A)) lasting 12 consecutive months or more and noise level increases considered very objectionable (i.e., equal to or greater than 20 dB(A)) lasting three consecutive months or more would be considered significant impacts.

For receptors representing interior spaces (i.e. not open space) that are predicted to experience construction noise exceeding the incremental increase and duration criteria described above, and where façade attenuation can be determined based on readily available information, interior noise level may also be considered in the determination of impact significance. Portions of the construction period during which predicted interior noise level would be in the acceptable range (i.e., not greater than 45 dBA(A) for residential and community facility uses or not greater than 50 dB(A) for commercial office uses), would not be counted toward the consecutive duration of construction noise impact as described above.

*Construction Noise Analysis Methodology*

This construction noise analysis consists of the following:

- Identification of sensitive receptors near the Affected Area;
- Identification and development of noise reduction measures that would be deployed during construction of the proposed and projected development;
- Consideration of potential noise impacts from mobile sources (PCE's);
- Analysis of potential noise impacts from the operation of construction equipment during the construction consistent with the impact criteria discussed above. The analysis will first look at the intensity of the noise levels during operation, then look at the possible duration of those noise levels, then make a determination of impact, if any.
- Duration of the construction noise is based on the planned construction schedule.

*Noise Receptor Locations*

The Affected Area is located within the Crown Heights neighborhood of Brooklyn and is bounded by Atlantic Avenue to the north, Schenectady Avenue to the east, and Pacific Street to the south. The area surrounding the Affected Area is predominantly residential and commercial uses. The sensitive receptors located closest to the Affected Area are listed in **Table 2.11-6** and shown in **Figure 2.11-4** below. The SoundPlan model used the worst-case points at each receptor for modeling purposes. The receptor points are labeled in **Figure 2.11-4** below.

**Table 2.11-6: Sensitive Noise Receptor Locations**

| Receptor | Description | Address | Distance to Projected Development Site (closest point) |
|---|---|---|---|
| **1** | 4-Story Multi-Building Housing Development | 1670 Pacific Street | 70 feet |
| **2** | 4-Story Residential Building, 2 Story Residential Building | 1690 Pacific Street, 1682 Pacific Street | 128 Feet – 168 Feet |
| **3** | Nelson Mandela High School | 1700 Fulton Street | 140 Feet to Property Line<br>530 Feet to School |
| **4** | Multiple 2 Story Residential Developments | Troy Ave, Hattie Jones Court, Jewell McKoy Lane | 233 Feet |

*Noise Monitoring*

Noise monitoring was conducted during AM, MD, and PM peak vehicular travel periods at the Affected Area. For the purpose of the construction noise assessment, the lowest general noise readings of the peak periods were selected. Noise monitoring was conducted using Type 1 Casella CEL-633C sound meters with wind screen. The monitors were placed on a tripod at least three feet above the ground or roof, away from any other noise-reflective surfaces. Periods of peak vehicular traffic and rail activity around the Affected Area constitute a worst-case condition for noise. As is standard practice, the Casella sound level meters were calibrated before and after readings and the meters have valid laboratory calibration within 1 year of use their use at the site. The data were digitally recorded by the sound level meters and displayed at the end of the measurement period in units of dBA. Measured quantities included $L_{eq}$, $L_{10}$, $L_{50}$, $L_{90}$, and 1/3 octave band levels. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

*Noise Measurement Results*

For the purpose of the construction noise assessment, the lowest peak hour during construction hours noise readings collected in-field were utilized as they generally had the lowest noise level of the Midday peak hours. These readings were collected as part of the noise analysis discussed above in detail in **Section 2.10, "Noise."** Noise Monitoring Location 1 was selected as the most representative location for the Noise Sensitive Receptor ambient noise levels to the north of Projected Development Site 1 (NSR's 3 and 4) and Noise Monitoring Location 3 was selected as the most representative location for the Noise Sensitive Receptor ambient noise levels to the south of Projected Development Site 1 (NSR's 1 and 2).This measurement will be used as the baseline levels in the vicinity of the Affected Area. Noise monitoring locations are shown in **Figure 2.11-5** below. The noise levels during the lowest peak hour are shown in **Table 2.11-7** and **Table 2.11-8** below.

**Table 2.11-7: Noise Measurement Results – Location 1 (selected hours)**

| *Wednesday, June 21, 2023* | | |
|---|---|---|
| **Time** | **8:09 am – 9:09 am** | **12:09 pm – 1:09 pm** |
| $L_{max}$ | 94.3 | 94.1 |
| $L_{10}$ | 74.0 | 70.0 |
| $L_{eq}$ | 78.3 | 74.7 |
| $L_{50}$ | 67.0 | 64.0 |
| $L_{90}$ | 65.0 | 60.5 |
| $L_{min}$ | 62.4 | 56.6 |

**Table 2.11-8: Noise Measurement Results – Location 3**

| *Wednesday, June 21, 2023* | | |
|---|---|---|
| **Time** | **8:33 am – 8:53 am** | **1:03 pm – 1:23 pm** |
| $L_{max}$ | 83.1 | 95.0 |
| $L_{10}$ | 68.5 | 68.5 |
| $L_{eq}$ | 65.2 | 69.6 |
| $L_{50}$ | 61.0 | 63.0 |
| $L_{90}$ | 57.0 | 57.5 |
| $L_{min}$ | 53.3 | 52.3 |

**Figure 2.11-4: Sensitive Noise Receptor Locations and SoundPlan Analysis Locations**

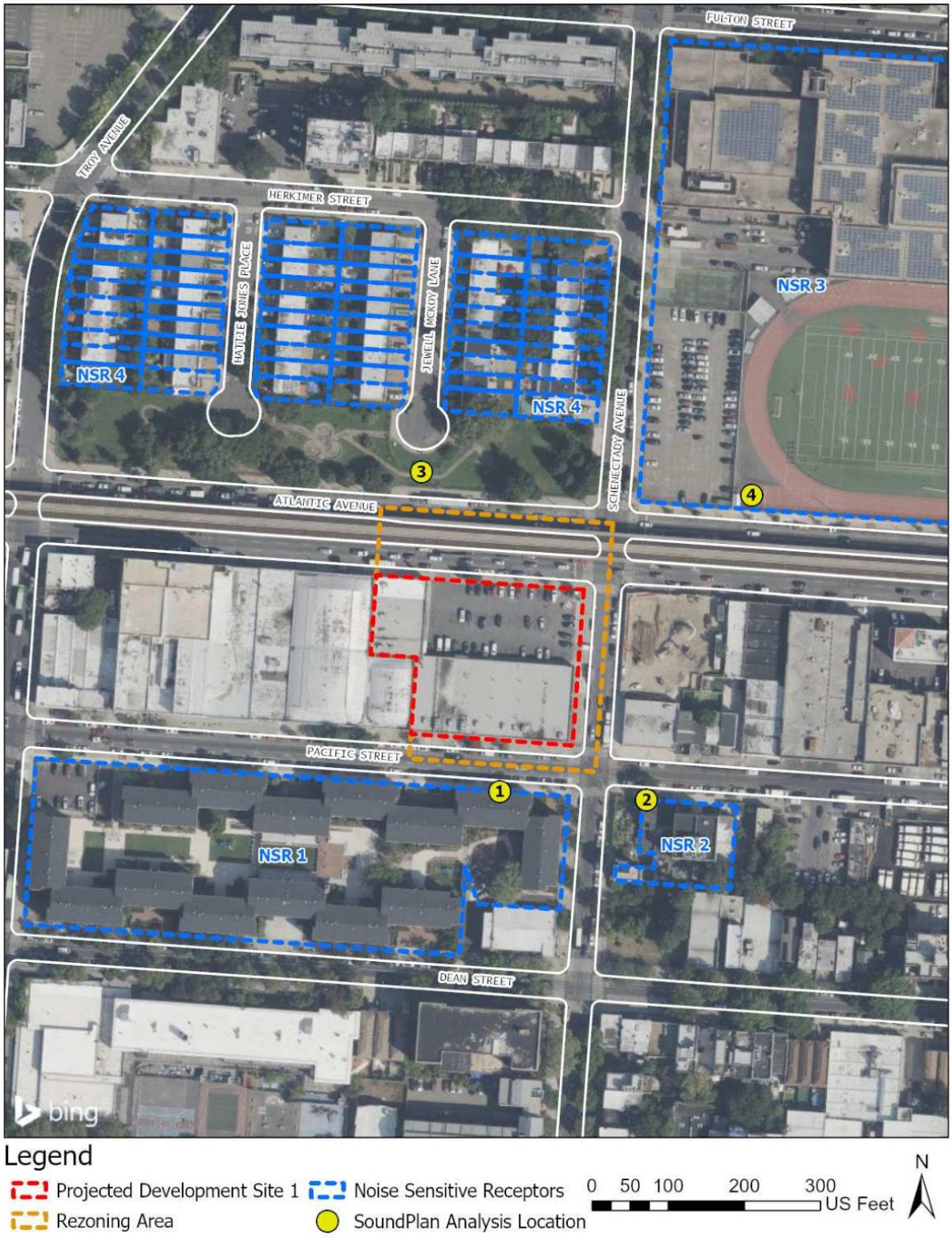
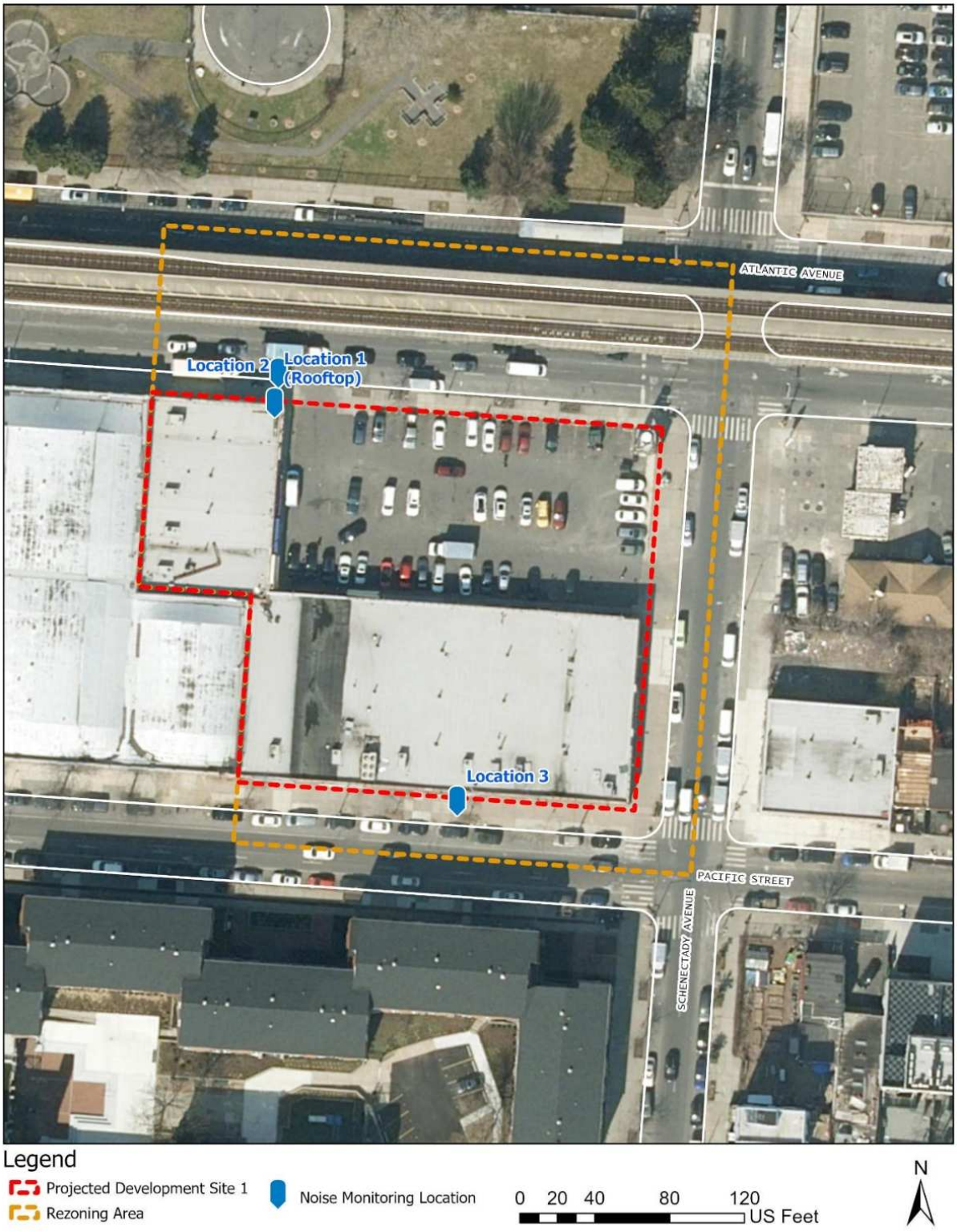


**Figure 2.11-5: Noise Monitoring Locations**



*Noise Reduction Measures*

The construction of Projected Development Site 1 would be required to follow the requirements of the New York City Noise Control code (known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) for construction noise control measures. In addition to the minimum requirements, the Applicant would utilize additional noise control measures to reduce the potential noise effects on the surrounding sensitive noise receptors. Specific noise control measures would be incorporated into a Noise Mitigation Plan required under the New York City Noise Code. The measures to be taken for noise control include source controls and path controls.

Source controls are known as measures that reduce noise at the source. The following source controls included under New York regulations would be implemented:

- Equipment that meets the sound level standards specified in Subchapter 5 of the New York City Noise Control Code would be utilized during the entirety of construction. **Table 2.11-5** above shows the noise levels for the construction equipment that would be used for construction of the Projected Development Site 1;
- As electric power is expected to be available throughout Projected Development Site 1, electrically powered equipment such as welders and saws would be used over diesel-powered equipment, where feasible and practicable;
- The construction site would be configured to minimize backup alarm noise where possible. Additionally, trucks would not be allowed to idle more than three minutes at Projected Development Site 1 based upon Title 24, Chapter 1, Subchapter 7, Section 24-163 of the New York City Administrative Code; and
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

The following source controls listed below would be implemented as PCREs in addition to the regulations discussed above for the construction of the Proposed Project:

- Equipment that meets the quieter noise level commitments that are to be used for the construction of Projected Development Site 1 is identified in **Table 2.11-5** with an asterisk.

Path controls are known as measures that reduce noise between the source and receptor. Examples include placement of equipment, implementation of barriers, etc. The following path controls included under New York regulations will be utilized at Projected Development Site 1 during construction:

- Equipment with high noise emissions, such as cranes and concrete trucks, would be located away from and shielded from sensitive receptor locations when possible;

- Path noise control measures such as portable noise barriers and enclosures would be utilized where feasible for certain dominant noise equipment such as generators and compressors.
- Truck deliveries would be taken behind these barriers where possible.

The following path controls would be implemented as PCREs in addition to the regulations discussed above at Projected Development Site 1 during construction:

- Noise barriers that will be constructed of plywood or other materials will surround the entire construction site perimeter constructed to a height of at least 8 feet. This barrier will provide noise shielding. At the southern perimeter and 50 feet of the eastern perimeter from the south, the barrier would be at least 12 feet tall and include a three foot cantilever towards the construction work to further shield the upper floors of adjacent sensitive noise receptors.
- There will be electric service to the Project Site during construction, therefore, no generators will be used on-site during construction. The construction logistics team confirmed this in the letter provided as backup.
- The construction logistics team commits to keeping all concrete operations within the boundary of the Site as confirmed by the letter provided as backup.

*Mobile Source Construction Noise Analysis*

Pursuant to Section 111 of the *2021 CEQR Technical Manual*, mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For mobile sources, an initial noise assessment may be appropriate if a proposed action would generate additional construction-generated vehicular traffic in an area where roadways currently carry no or very low traffic volumes. Receptors are generally the subject of most noise impact analyses. A noise-sensitive location (known as a “receptor”) is usually defined as an area where human activity may be adversely affected when noise levels exceed predefined thresholds of acceptability or when noise levels increase by an amount exceeding predefined thresholds of change.

Automobile noise is a function of vehicle speed and engine noise. With changing gears, the noise levels tend to increase in a sawtooth kind of pattern as vehicular speed increases. The interaction of the road surface with the tires generates noise that increases with vehicle speed. At vehicular speeds below 30 miles per hour, the typical automobile noise spectrum is dominated by engine noise. At speeds higher than 30 miles per hour, the automobile noise signature is composed of a combination of lower frequency engine noise and higher frequency tire noise. The engine and tire noise for vehicular speeds above 30 miles per hour are comparable in noise level. Noise

generated by buses and heavy trucks is also composed of engine and tire noise, but tire noise tends to dominate the noise signature at vehicular speeds above 30 miles per hour in trucks and buses. Cargo load normally does not significantly affect noise levels because increased load usually results in decreased vehicular speed and the effects cancel each other out. Because individual trucks and buses are noisier than individual automobiles, the concept of noise passenger car equivalents (PCEs) is used.

Pursuant to Section 332.1 of the *2021 CEQR Technical Manual*, the below values can be used to calculate vehicular noise using the following projections:

- Each Automobile or Light Truck: 1 Noise PCE
- Each Medium Truck: 13 Noise PCEs
- Each Bus: 18 Noise PCEs
- Each Heavy Truck: 47 Noise PCEs

To determine if the Proposed Actions would result in an increase to noise PCE values by 100 percent or more, a preliminary screening was conducted. This screening assesses the noise PCE values of the vehicles projected to arrive at the construction site during peak arrival and departure hours as determined by the construction traffic forecast, compared to the PCE values of existing background traffic recorded during noise monitoring at Noise Locations 2 and 3, grown to the No-Action worst-case PCE year/quarter for construction (2026).

*Noise PCE Screening*

The With-Action project generated construction vehicular volumes were referenced to determine the worst-case PCE year and quarter over the period of construction activities (2026 Q3 through 2027 Q2). In worst-case PCE years, the With-Action AM peak hour is 6-7 AM, and the With-Action PM peak hour is 3-4 PM. Based on the construction traffic analysis, these AM and PM vehicles were assigned to the local network. The screening was conducted based on the construction trip assignment of construction autos and trucks. The heavy trucks referenced in the PCE screening do not reflect the traffic PCE factor of 2.0. This was removed for the purposes of the PCE screen in order to accurately reflect the number of projected trucks and their corresponding noise PCEs. The existing vehicle classifications collected during noise monitoring were used for the PCE screening. To determine the 2026 No-Action traffic volumes and Noise PCEs at each location, an annual growth factor of 0.50% for the first 5 years (3 years from the noise counts in 2023 to the 2026 worst-case traffic construction quarter) was applied to the existing traffic volumes pursuant to Table 16-4 of the *2021 CEQR Technical Manual*. **Table 2.11-9** through **Table 2.11-10** below show the results of the construction noise PCE screening.

**Table 2.11-9: Noise Sensitive Receptor 2 Noise PCE Screening Results**

| Peak Hour | Existing | No-Action | With-Action | Increment | % Increase |
|---|---|---|---|---|---|
| AM Noise PCE | 2,481 | 2,518 | 3,223 | 705 | 28% |
| PM Noise PCE | 2,306 | 2,341 | 2,431 | 90 | 4% |

**Table 2.11-10: Noise Sensitive Receptor 3 Noise PCE Screening Results**

| Peak Hour | Existing | No-Action | With-Action | Increment | % Increase |
|---|---|---|---|---|---|
| AM Noise PCE | 441 | 448 | 851 | 404 | 90% |
| PM Noise PCE | 516 | 524 | 620 | 96 | 18% |

Per the *2021 CEQR Technical Manual*, if existing PCE noise values would not increase by 100 percent or more due to a proposed action, a detailed analysis is not required. A noise PCE screening was conducted for Noise Sensitive Receptors 2 and 3. The Proposed Actions would not result in an increase to existing noise PCE values by greater than 100% at the bounding roadways during any of the AM or PM peak hours. Construction traffic increases would not solely cause significant adverse construction noise impacts and a detailed construction noise PCE analysis is not warranted.

Additionally, as off-site construction truck trips were considered in the SoundPlan Acoustical Model. Based on the construction schedule and the traffic analysis, the 7 am – 8 am hour of truck trips was analyzed, as the peak truck hour is 6 am – 7 am but there would be no onsite operations at this time. This equates to four (4) trucks being added (2 in, 2, out). It was assumed that it would take a truck approximately 30-second to traverse the length of the site on the road, so a usage factor of 0.0083 was used for each truck. The results are reflected within the modeling results shown in the tables below.

*On-Site Construction Noise Analysis*

The on-site construction noise analysis determined the intensity of the noise levels generated during construction to assess the potential for adverse impacts on the surrounding noise-sensitive receptors. To determine the anticipated construction noise levels, overall A-weighted sound level data was adjusted based on usage factor (see **Table 2.11-5** above) and converted to sound power (LwA). The calculations to determine the sound pressure levels due to the equipment at the noise-sensitive areas were performed based on ISO Standard 9613-2 using SoundPLAN acoustical modeling software. The acoustical model considered the propagation of sound over distance, the shielding and reflection of sound due to buildings and structures, and the effect of ground absorption and topography. The model was configured to calculate the maximum sound level from each source at each receiver, assuming the equipment was located at the loudest point for each receiver within Projected Development Site 1. The maximum sound level results from each piece of equipment were summed at each receiver to yield the total

maximum sound level due to all equipment for each phase of construction. The noise impacts were evaluated with the noise impact criteria discussed above. The results of the On-Site Construction Noise Analysis are listed below by Noise Sensitive Receptor.

For the purposes of the construction noise analysis and based on the construction schedule, the construction timeframes assigned analysis periods as shown below in **Table 2.11-11.**

**Table 2.11-11: Analysis Periods**

| **Analysis Periods** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|
| **Dates** | 11/25 – 12/25 | 1/26 – 2/26 | 3/26 – 7/26 | 8/26 | 9/26 – 7/27 | 8/27 – 12/28 |
| **Work Phases** | Demolition; Excavation | Excavation; Foundation | Excavation; Foundation; Superstructure | Superstructure | Superstructure; Exteriors | Exteriors; Interior Fit-Out |

Receptor 1: 4-Story Residential Development – Multiple Buildings – 1650 Pacific Street

Noise Sensitive Receptor 1 consists of a development of 4-story residential buildings. Receptor 1 is across Pacific Street to the south of Projected Development Site 1. The closest building is 70' from Projected Development Site 1. Based on Noise Monitoring Location 3, the existing noise level $L_{eq}$ at Receptor 1 is 65.2 dB(A). Construction noise (including the baseline) is expected to produce sound levels of 79.3 dB(A) at this location at its peak for a duration of 3 months. This is an increase of 14.1 dB(A). Noise level increases that would be considered objectionable (i.e., equal to or greater than 15 dB(A)) lasting 12 consecutive months or more and noise level increases considered very objectionable (i.e., equal to or greater than 20 dB(A)) lasting three consecutive months or more would be considered significant impacts. **Table 2.11-12** below summarizes the results of the SoundPLAN acoustic model at the ground floor.

**Table** 2.11-13 below summarizes the total noise levels at floors 2 – 4 of NSR 1. The predicted noise levels are well below the threshold to be considered significant impacts, and therefore no further analysis of Receptor 1 is warranted. See **Photo 2.11-1** and **2.11-2** below.

**Table 2.11-12: Receptor 1 – SoundPLAN Acoustic Model Results**

| AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Total Construction Noise | **78.6** | **78.8** | **79.1** | **78.9** | **79.0** | **78.7** |
| Baseline Noise Level | 65.2 | 65.2 | 65.2 | 65.2 | 65.2 | 65.2 |
| *Total Noise Level* | **78.8** | **78.9** | **79.3** | **79.1** | **79.2** | **78.8** |
| *Increment Over Baseline* | *13.6* | *13.7* | *14.1* | *13.9* | *14.0* | *13.6* |

*Numbers represent decibels dB(A)
*AP = Analysis Period

**Table 2.11-13: Receptor 1 – SoundPLAN Acoustic Model Results – Floors 2 - 6**

| Floor | AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 2 | Total Noise Level | **77.3** | **77.7** | **78.5** | **78.0** | **78.3** | **77.4** |
| 3 | | **76.2** | **77.2** | **79.0** | **77.9** | **78.6** | **76.5** |
| *4* | | **76.0** | **77.5** | **80.0** | **78.5** | **79.4** | **76.5** |

**Photo 2.11-1: Receptor 1 – Aerial**

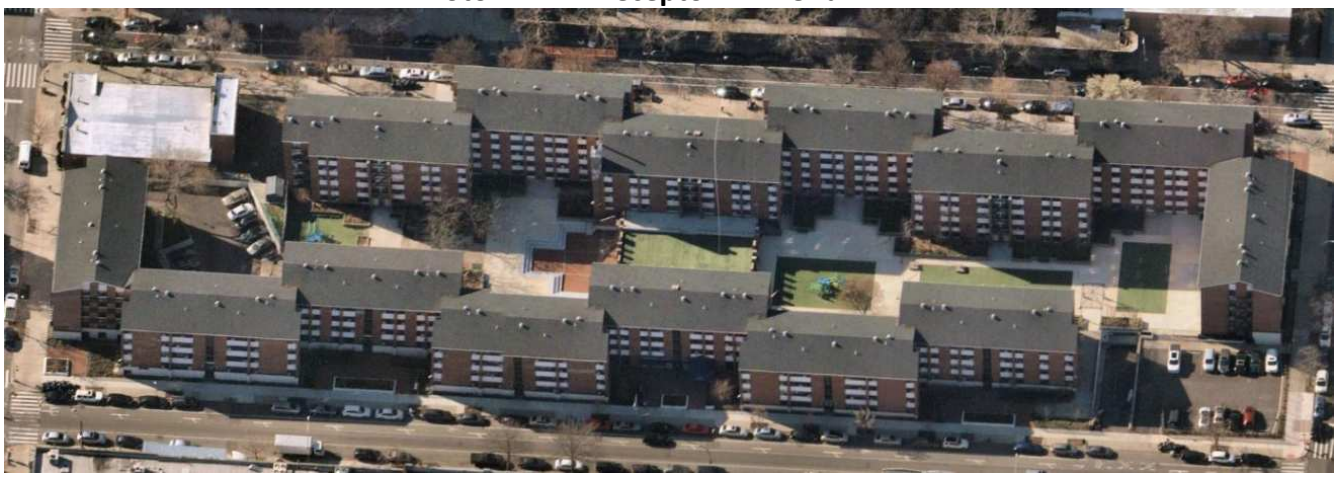


**Photo 2.11-2: Receptor 1 – Façade**




<u>Receptor 2: 4-Story Residential Building, 2 Story Residential Building – 1690 and 1682 Pacific Street</u>

Noise Sensitive Receptor 2 is two residential buildings; one building is a 4-story residential building (2A) and the other is a 2-story residential building (2B). Receptor 2 is located across the intersection of Pacific Street and Schenectady Avenue and is approximately 128 feet from Projected Development Site 1 at its closest point. Based on Noise Monitoring Location 3, the existing $L_{eq}$ at Receptor 2 is 65.2 dB(A). Construction noise (including the baseline) is expected to produce sound levels of 78.8 dB(A) at this location at its peak for a duration of 3 months. This is an increase of 13.6 dB(A). Noise level increases that would be considered objectionable (i.e., equal to or greater than 15 dB(A)) lasting 12 consecutive months or more and noise level increases considered very objectionable (i.e., equal to or greater than 20 dB(A)) lasting three consecutive months or more would be considered significant impacts. **Table 2.11-14** below summarizes the results of the SoundPLAN acoustic model at the ground floor of NSR 2A. **Table 2.11-15** below summarizes the total noise levels at the 2nd floor of NSR 2A. **Table 2.11-16** below summarizes the total noise levels at Floors 1-4 of NSR 2B. The predicted noise levels are below the threshold to be considered significant impacts, and therefore further analysis of Receptor 2 is warranted. See **Photo 2.11-3** and **2.11-4** below.

**Table 2.11-14: Receptor 2A – SoundPLAN Acoustic Model Results – Ground Floor**

| AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Total Construction Noise | **78.2** | **78.3** | **78.6** | **78.4** | **78.5** | **78.2** |
| Baseline Noise Level | 65.2 | 65.2 | 65.2 | 65.2 | 65.2 | 65.2 |
| *Total Noise Level* | **78.4** | **78.5** | **78.8** | **78.6** | **78.7** | **78.4** |
| *Increment Over Baseline* | *13.2* | *13.3* | *13.6* | *13.4* | *13.5* | *13.2* |

*Numbers represent decibels dB(A)
*AP = Analysis Period

**Table 2.11-15: Receptor 2A – SoundPLAN Acoustic Model Results – 2nd Floor**

| Floor | AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 2 | Total Noise Level | **77.4** | **77.6** | **78.0** | **77.7** | **77.9** | **77.5** |

**Table 2.11-16: Receptor 2B – SoundPLAN Acoustic Model Results – Floors 1-4**

| Floor | AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1 | Total Noise Level | **68.8** | **69.4** | **70.5** | **69.8** | **70.2** | **69.0** |
| 2 | | **69.3** | **70.0** | **71.3** | **70.4** | **71.0** | **69.5** |
| 3 | | **69.4** | **70.0** | **71.3** | **70.5** | **71.0** | **69.6** |
| 4 | | **69.6** | **70.5** | **72.1** | **71.1** | **71.7** | **69.9** |

**Photo 2.11-3: Receptor 2 – Aerial**

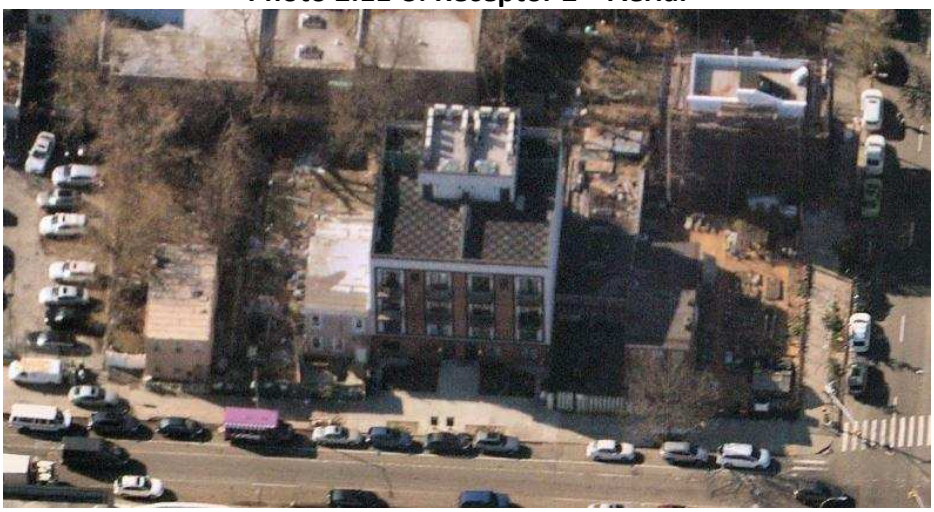


**Photo 2.11-4: Receptor 2 - Facade**



Receptor 3: Nelson Mandela High School – 1700 Fulton Street

Noise Sensitive Receptor 3 consists of Nelson Mandela High School. Receptor 3 is located across Atlantic Avenue and the property line of the school and the school building are located approximately 140 feet and 530 feet, respectively, from Projected Development Site 1. The acoustic model analysis point was placed at the edge of the track, 238 feet from Projected Development Site 1. Based on Noise Monitoring Location 1, the existing $L_{eq}$ at Receptor 3 is 74.7 dB(A). Construction noise (including the baseline) is expected to produce sound levels of 75.4 dB(A) at this location for its peak duration of 3 months. This is an increase of 0.7 dB(A). Noise level increases that would be considered objectionable (i.e., equal to or greater than 15 dB(A)) lasting 12 consecutive months or more and noise level increases considered very objectionable

(i.e., equal to or greater than 20 dB(A)) lasting three consecutive months or more would be considered significant impacts. **Table 2.11-17** below summarizes the results of the SoundPLAN acoustic model at the edge of the track. **Table 2.11-18** below summarizes the results at the school building. The predicted noise levels are well below the threshold to be considered significant impacts, and therefore no further analysis of Receptor 3 is warranted. See **Photo 2.11-5** and **2.11-6** below.

**Table 2.11-17: Receptor 3 – SoundPLAN Acoustic Model Results**

| AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Total Construction Noise | **61.6** | **63.8** | **66.9** | **65.2** | **66.3** | **62.5** |
| Baseline Noise Level | 74.7 | 74.7 | 74.7 | 74.7 | 74.7 | 74.7 |
| *Total Noise Level* | **74.9** | **75.0** | **75.4** | **75.2** | **75.3** | **75.0** |
| *Increment Over Baseline* | *0.2* | *0.3* | *0.7* | *0.5* | *0.6* | *0.3* |

*Numbers represent decibels dB(A)
*AP = Analysis Period

**Table 2.11-18: Receptor 3 – SoundPLAN Acoustic Model Results – Floors 1 - 3**

| Floor | AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1 | Total Noise Level | **74.8** | **74.8** | **75.0** | **74.9** | **74.9** | **74.8** |
| 2 | | **65.9** | **66.3** | **67.3** | **66.7** | **67.0** | **66.0** |
| *3* | | **74.8** | **74.9** | **75.0** | **74.9** | **75.0** | **74.8** |

**Photo 2.11-5: Receptor 3 – Aerial**



**Photo 2.11-6: Receptor 3 – Façade**



Receptor 4: Multiple 2-Story Residential Developments – Troy Avenue, Hattie Jones Court, Jewell McKoy Lane

Sensitive Receptor 4 consists of the residential buildings within a development along Troy Avenue, Hottie Jones Court, and Jewell McKoy Lane. Receptor 4 is located across Atlantic Avenue and is approximately 233 feet from Projected Development Site 1. The acoustic model analysis point was placed in the park to the south of Noise Sensitive Receptor 4, approximately 155 feet from Projected Development Site 1. Based on Noise Monitoring Location 1, the existing $L_{eq}$ at Receptor 3 is 74.7 dB(A). Construction noise (including the baseline) is expected to produce sound levels of 77.1 dB(A) at its peak for a duration of 3 months. This is an increase of 2.4 dB(A). Noise level increases that would be considered objectionable (i.e., equal to or greater than 15 dB(A)) lasting 12 consecutive months or more and noise level increases considered very objectionable (i.e., equal to or greater than 20 dB(A)) lasting three consecutive months or more would be considered significant impacts. **Table 2.11-19** below summarizes the results of the SoundPLAN acoustic model at the park. **Table 2.11-20** below summarizes the results at the development. The predicted noise levels are well below the threshold to be considered significant impacts, and therefore no further analysis of Receptor 3 is warranted. See **Photo 2.11-7** and **2.11-8** below.

**Table 2.11-19: Receptor 4 – SoundPLAN Acoustic Model Results**

| AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Total Construction Noise | **67.9** | **70.2** | **73.3** | **71.4** | **72.6** | **68.8** |
| Baseline Noise Level | 74.7 | 74.7 | 74.7 | 74.7 | 74.7 | 74.7 |
| *Total Noise Level* | **75.5** | **76.0** | **77.1** | **76.4** | **76.8** | **75.7** |
| *Increment Over Baseline* | *0.8* | *1.3* | *2.4* | *1.7* | *2.1* | *1.0* |

*Numbers represent decibels dB(A)
*AP = Analysis Period

**Table 2.11-20: Receptor 4 – SoundPLAN Acoustic Model Results – Floors 1 - 2**

| Floor | AP | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1 | Total Noise Level | **75.0** | **75.2** | **75.8** | **75.4** | **75.6** | **75.1** |
| 2 | | **67.6** | **68.8** | **70.9** | **69.6** | **70.4** | **68.0** |

**Photo 2.11-7: Receptor 4 – Aerial**

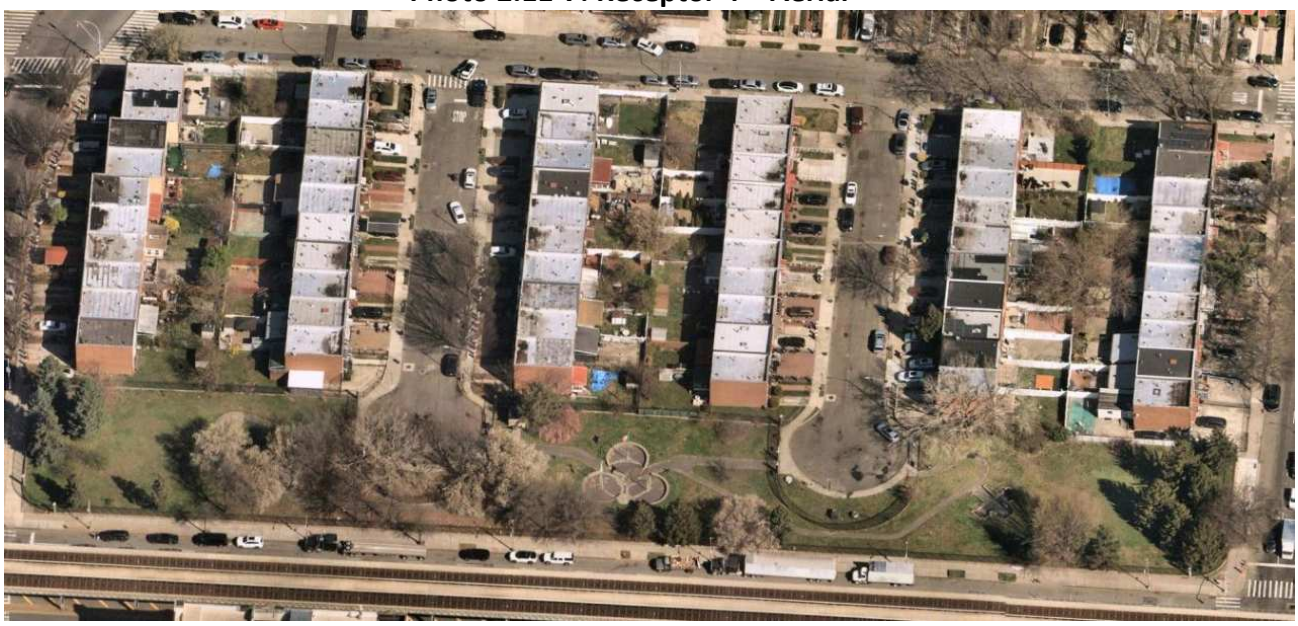


**Photo 2.11-8: Receptor 3 – Façade**



*Construction Noise Conclusion*

Construction of the Proposed Development is predicted to result in elevated noise levels at several of the analyzed receptors, which represent existing residential buildings, community facility, and outdoor recreational spaces. With the adherence to existing construction noise regulations and additional noise control measures beyond the minimum required by code, construction noise at these receptors would not rise to the level of significant adverse impact according to the impact criteria described above. Further, Construction of the Proposed

Development would typically occur during weekday daytime hours and would therefore not produce noise during nighttime hours when residents would be most sensitive to noise and, per New York City Noise Control Code regulations, the Proposed Development would be required to prepare a Construction Noise Mitigation Plan, which may identify more control measures that would further reduce construction noise levels.

Other Technical Areas

*Land Use and Neighborhood Character*

Construction activities would affect land use within the Affected Area but would not alter surrounding land uses. As is typical with construction projects, during periods of peak construction activity there would be some disruption, predominantly noise, to the nearby area. There would be construction trucks and construction workers coming to Projected Development Site 1. These disruptions would be temporary in nature and would have limited effects on land uses within the surrounding area, particularly as most construction activities would take place within Projected Development Site 1 or within portions of sidewalks, curbs, and travel lanes of public streets immediately adjacent to the sites. Overall, while the construction at Projected Development Site 1 would be evident to the local community, the temporary nature of construction would not result in significant or long-term adverse impacts on local land use patterns or the character of the nearby area.

*Socioeconomic Conditions*

Construction activities could temporarily affect pedestrian and vehicular access. However, lane and/or sidewalk closures would not obstruct entrances to any existing businesses, and businesses are not expected to be significantly affected by any temporary reductions in the amount of pedestrian foot traffic or vehicular delays that could occur as a result of construction activities. Maintenance and Protection of Traffic (MPT) plans would be developed for any temporary curb-lane and sidewalk narrowing/closures as required by DOT. Overall, construction activities associated with the Proposed Actions would not result in any significant adverse impacts on surrounding businesses. Construction would create direct benefits resulting from expenditures on labor, materials, and services, and indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction also would contribute to increased tax revenues for the City and State, including those from personal income taxes.

*Community Facilities*

No community facilities would be directly affected by construction activities for an extended duration. Projected Development Site 1 will be surrounded by construction fencing and barriers that would limit the effects of construction on nearby facilities. Construction workers would not place any burden on public schools and would have minimal, if any, demands on libraries, child care facilities, and health care.

*Open Space*

There are no publicly accessible open spaces within the Affected Area and no open space resources would be used for staging or other construction activities. Therefore, no adverse construction-related impacts are expected to result on open space.

*Historic Resources*

In order to determine whether the Proposed Actions have the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No historic or architectural resources were identified within the 400-foot study area. Therefore, adverse construction-related impacts are not expected on any historic resource in the vicinity of the Affected Area.

*Hazardous Materials*

The Proposed Actions would result in new development in the Affected Area. As such, a hazardous materials assessment was undertaken, as presented in **Section 2.7** above. As discussed in the section, all contaminants and contaminated materials are expected to be removed in accordance with environmental regulations, and no significant adverse impacts are expected.

Conclusion

Construction-related activities are not expected to have any significant adverse impacts on Transportation, Air Quality, Noise, or other technical areas as a result of the Proposed Actions.

## 2.12 Disadvantaged Communities Assessment

Effective December 30, 2024, Section 8-0109(2)(k) of the New York State Environmental Conservation Law requires that this Environmental Assessment Statement (EAS) include a statement of the effects of the Proposed Actions on disadvantaged communities, including whether the action may cause or increase a disproportionate pollution burden. The *2021 CEQR Technical Manual* does not provide guidance regarding the scope of this analysis. On January 29, 2025, the New York State Department of Environmental Conservation (NYSDEC) proposed a rule that provides additional considerations regarding this new statutory provision. This assessment of effects on disadvantaged communities considers the impacts that have been assessed using the *CEQR Technical Manual* guidance.

**Methodology**

Disadvantaged communities (DAC) in New York State were identified based on criteria adopted in 2023 by the Climate Justice Working Group (CJWG), a group composed of representatives from State Agencies and Environmental Justice groups across the State. The CJWG used 45 indicators to identify 35 percent of Census Tracts within New York State as DACs. The criteria include multiple indicators that represent the environmental burdens or climate change risks within a community, or population characteristics and health vulnerabilities that can contribute to more severe adverse effects of climate change. Each Census Tract was scored based on relative burden, risk, vulnerability, or sensitivity. Specifically, the percentile ranks of the indicators for each Census Tract were combined to produce a value measuring a Census Tract's relative level of "Environmental Burdens and Climate Change Risks" as well as "Population Characteristics and Health Vulnerabilities" relative to other Census Tracts. Census Tracts with higher scores relative to other Census Tracts statewide or to their region (i.e., New York City) were identified as DACs, using NYSDEC's Disadvantaged Community Assessment Tool (DACAT).

### 2.12.1 Preliminary Assessment

The Proposed Actions would permit the construction of a new 13-story, 387,401 gross square foot (GSF) mixed-use commercial, community facility, and residential building with 25% of the proposed units made affordable to incomes averaging 60% AMI.

The Project Site is located at 1720 Atlantic Avenue within the Crown Heights neighborhood of Brooklyn Community District 8. As shown in **Figure 2.12-1** below, the Project Site is located within a disadvantaged community identified as having comparatively lower burdens and vulnerabilities (Census Tract ID 36047030900), within the area of Atlantic Avenue to the north, Utica Avenue to the east, Troy Avenue to the west and Bergen Street and Saint Marks Avenue to the south. The Project Site is also approximately 0.16-mile west of a disadvantaged community identified as having comparatively higher burdens and vulnerabilities. Accordingly, an assessment of potential impacts is provided below.

Based on the Phase I Environmental Site Assessment completed by HydroTech Environmental in September 2020, a Phase II Environmental Site Assessment is required in multiple locations on

the property to further evaluate the potential presence of hazardous materials on the Projected Development Site. To avoid the potential for significant adverse impacts to multiple active small local retail tenants that rent the applicant-owned Projected Development Site 1 (Block 1335, Lots 28, 30, and 5), an (E) Designation for hazardous materials would be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution. This (E) Designation would ensure that appropriate testing and mitigation are conducted prior to any future development and/or soil disturbance.

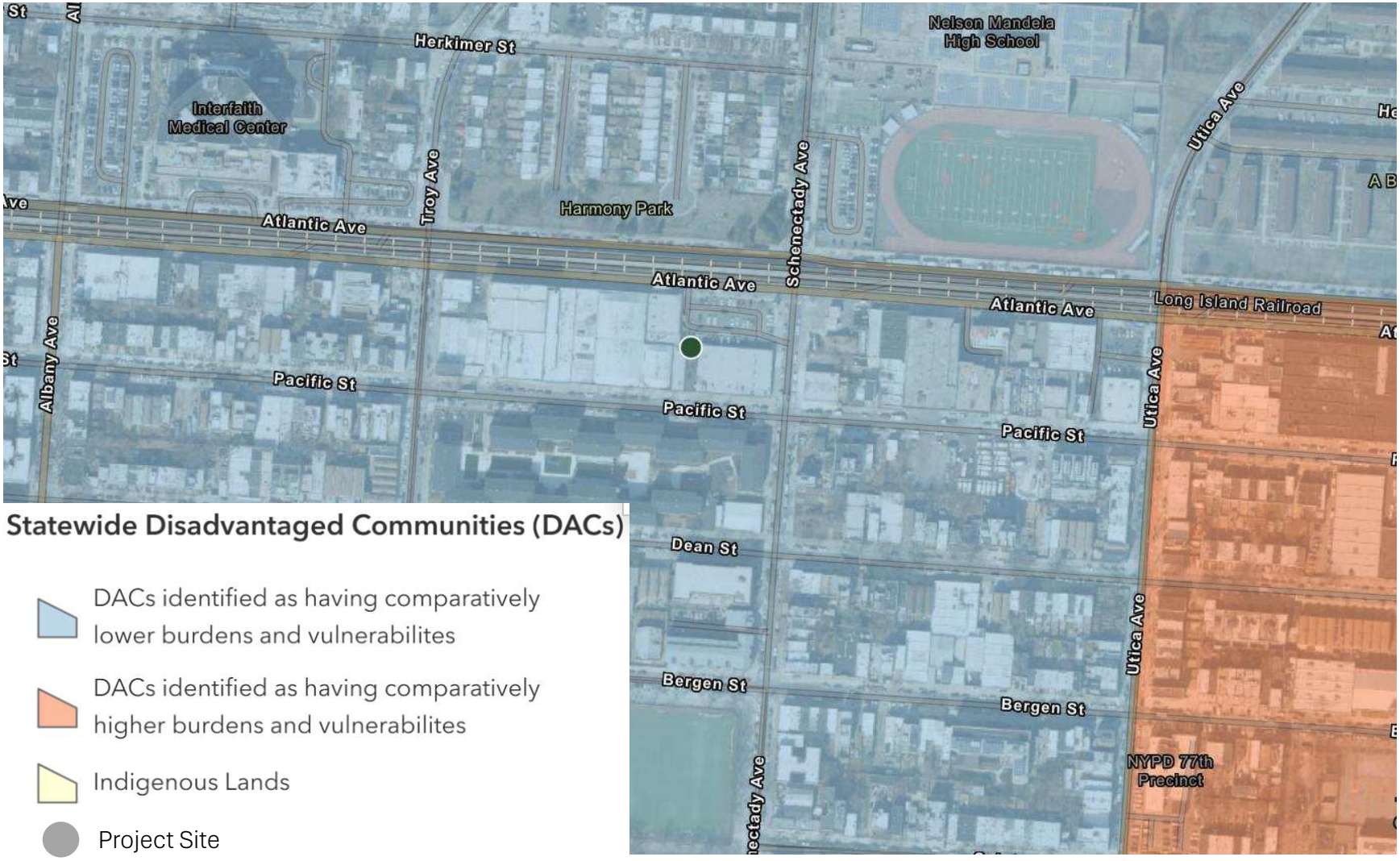
If hazardous materials are identified, a Construction Health and Safety Plan (CHASP) would be required and implemented during excavation and construction activities. The CHASP would protect both workers and the surrounding community from potential exposure to contaminated soil, groundwater, and/or soil vapor. Given the expected volume of soil disturbance, if any solid or hazardous waste is encountered during remediation, it is anticipated to be minimal in quantity and would be handled in compliance with all applicable regulatory requirements. Therefore, the Proposed Action(s) would not result in significant hazardous waste impacts to surrounding disadvantaged communities.

The proposed project would not involve activities that would result in air quality impacts, noise pollution, light pollution, odor impacts or wastewater discharges. In addition, the proposed project would not involve any additional building construction at the Project Site and would therefore not result in increased stormwater runoff or potential flooding impacts. Lastly, any solid waste would be placed in appropriate containers and picked up. Therefore, the proposed mixed-use development would not result in adverse impacts to any disadvantaged communities and no further analysis is warranted.

### 2.12.2 Conclusion

The Project Site is located within and proximate to disadvantaged communities. However, as discussed above, the Proposed Actions would not contribute to environmental burdens that disproportionately affect such communities. The Proposed Actions would not create or introduce a disproportionate pollution burden on DACs. Further, the residential, commercial and community facility uses will serve the local population, while maintaining compliance with environmental regulations and best practices. Accordingly, no further assessment is warranted.

**Figure 2.12-1: Disadvantaged Communities Map**




https://storymaps.arcgis.com/stories/7f0ffdde675e4e3788632c1b4cce6c0a

# Appendix A

## Agency Correspondence

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

# ENVIRONMENTAL REVIEW

**Project number:** DEPARTMENT OF CITY PLANNING / 23DCP139K
**Project:** 1720 ATLANTIC AVENUE REZONING
**Date Received:** 12/7/2023

**Properties with no Architectural or Archaeological significance:**

1) 1706 ATLANTIC AVENUE, BBL: 3013350028
2) 1708 ATLANTIC AVENUE, BBL: 3013350030
3) 1720 ATLANTIC AVENUE, BBL: 3013350035

LPC is in receipt of the EAS dated 12/5/23. The document appears acceptable for historic resources.

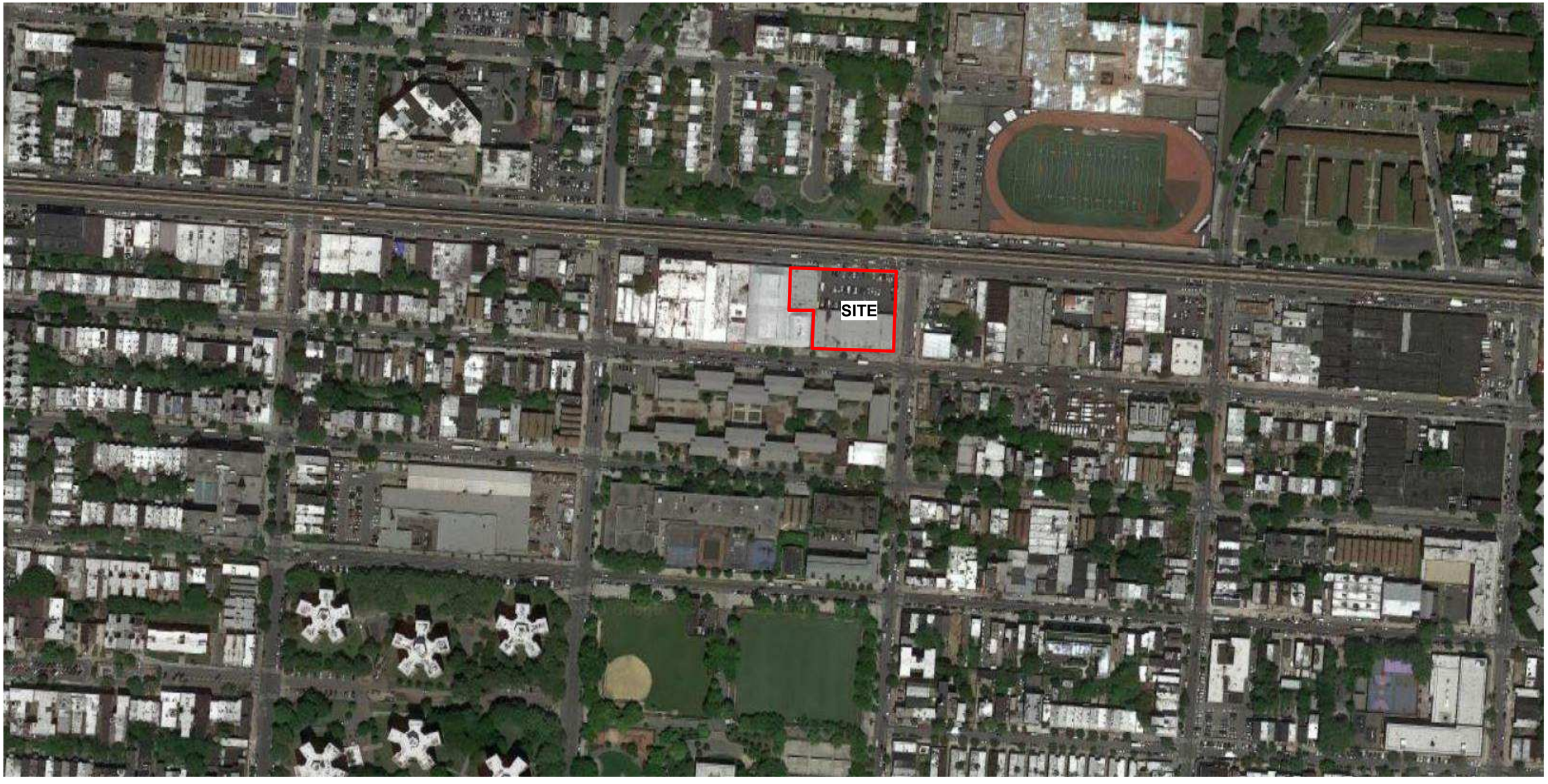
Gina Santucci 12/14/2023

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

**File Name:** 36008_FSO_GS_12142023.docx

# Appendix B

## Illustrative Architectural Drawings




IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

AREA PLAN
DATE: 01/31/2025
JOB NUMBER: 1980

A-0

| | | | | | |
|---|---|---|---|---|---|
| | **Location** | | | | **1720 Atlantic Avenue, Brooklyn NY 11213** |
| | **Block** | | | | **1335** |
| | **Lots** | | | | **35, 28, 30** |
| | **Zoning Map** | | | | **17a** |
| | **Zoning district** | | | | **Proposed C4-4D, R7A & C2-4** |
| | **Special district** | | | | **N/A** |
| | **Inclusionary Housing (Appendix F)** | | | | **MIH** |
| | **Transit Zone (Appendix I) Within** | | | | **Within the Outer Transit Zone** |
| | **Community District** | | | | **BK8** |
| | **Special Flood Hazard District ( Not a Flood Zone)** | | | | **3604970216F** |
| Section | **CEQR # (Appendix C)** | | | | **N/A** |
| | **Lot Area** | **C4-4D** | **R7A/C2-4** | **R7A** | **Total** |
| | Lot Dimensions | **270.00' x 100.00'** | **100.00' x 100.00'** | **110.00' x 100.00' IRR** | **270.00' x 210.00' IRR** |
| | Lot Area SF | **27,000.00** | **10,000.00** | **11,300.00** | **48,300.00** |
| | **Use** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Proposed** |
| **ZR22-00** | Use Groups | I-X | I-X | I - IV | **II, III, IV,& VI** |
| **ZR32-00** | Use Groups | | | N/A | |
| | **Bulk** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Existing/ Proposed** |
| | **FAR** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Existing/ Proposed** |
| **ZR35-23**<br>**ZR34-112** | Residential Bulk Equivalent from C4-4D = R8A | | | | |
| **ZR35-31**<br>**ZR23-22** | Residential FAR (MIH) | 7.20 | 5.01 | 5.01 | **4.77** |
| | Allowable Residential SF (MIH) | 194,400.00 | 50,100.00 | 56,613.00 | |
| | **Total Residential SF** | | | **301,113.00** | **230,388.50** |
| **ZR33-121** | Community Facility FAR | 6.50 | 4.00 | 4.00 | **0.41** |
| **ZR33-123** | Max Allowable Community Facility SF | 175,500.00 | 40,000.00 | 45,200.00 | |
| **ZR24-11** | **Total Community Facility SF** | | | **260,700.00** | **19,909.66** |
| **ZR33-122** | Commercial FAR | 3.40 | 2.00 | | **1.04** |
| | Max Allowable Commercial SF | 91,800.00 | 20,000.00 | N/A | |
| | **Total Commercial SF** | | **111,800.00** | | **50,397.00** |
| | **Maximum Lot Coverage** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Proposed** |
| **ZR23-362** | Residential Corner Lot Coverage % ( 100%) | 100.00% | 100.00% | 100.00% | |
| | Max Residential Interior Lot Coverage SF | 10,000.00 | 10,000.00 | 11,300.00 | |
| | Residential Interior Lot Coverage % | 80.00% | 80.00% | 80.00% | |
| | Max Residential Interior Lot Coverage SF | 13,600.00 | 0.00 | 9,040.00 | |
| | Total Allowable Lot Coverage SF | 23,600.00 | 10,000.00 | 20,340.00 | |
| | **Proposed Lot Coverage** | **18,120.00** | **8,400.00** | **6,600.00** | **33,120.00** |
| | **Density Regulation** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Proposed** |
| **ZR35-40** | The maximum number of dwelling units on a zoning lot shall equal the maximum residential floor area permitted for the zoning lot. | | | | |
| **ZR23-52** | Density Factor | 680 | 680 | 680 | |
| | Allowable Residential DU | 285.88 | 73.68 | 83.25 | |
| | Total allowable residential DU | | | **442.81** | |
| | **Proposed Residential Units** | **#REF!** | **#REF!** | **#REF!** | **300.00** |
| | Proposed Affordable Units 25% | #REF! | #REF! | #REF! | |
| | Proposed Market Rate Units 75% | #REF! | #REF! | #REF! | |
| | **Yard Regulations** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Proposed** |
| **ZR35-52**<br>**ZR23-335** | Side Yard - Residential / Commercial / Community Facility | | | 0'-0" or a Minimum of 5'-0" if provided. | **0'-0"** |
| **ZR23-342** | Rear Yard - Residential | | | 30'-0" | **35'-0" (minimum)** |
| **ZR33-26** | Rear Yard - Commercial / Community Facility | | 20'-0" | | **0'-0"** |
| **ZR33-301**<br>**ZR23-343(b)** | Rear Yard - Within 100'-0" of a corner | | 0'-0" | | **0'-0"** |
| **ZR33-302**<br>**ZR23-343(c)** | Rear Yard - Along the short dimension of the block: whenever a front lot line of a zoning lot coincides with all or part of a street line measuring less than 230 feet in length between two intersecting streets, no rear yard shall be required within 100 feet of such front lot line. | | 0'-0" | N/A | **0-0"'** |
| **ZR33-23(b)(3)** | Permitted Obstruction in Rear Yard: Any building or portion of a building used for any permitted use other than residences, and provided that the height of such building shall not exceed one story, nor in any event 23 feet above curb level. | | | | **N/A** |
| | **Height/Setback** | **Required / Permitted** | **Required / Permitted** | **Required / Permitted** | **Proposed** |
| **ZR23-432**<br>**ZR35-632** | Min Base Height | 60'-0" | 40'-0" | 40'-0" | **86'-0" Base height in C4-4D** |
| | Max Base Height | 105'-0" | 85'-0" | 85'-0" | **48'-0" - 75'-0" Base Height in R7A** |
| | Max Building Height | 145'-0" | 115'-0" | 115'-0" | **140'-0" in C4-4D**<br>**108'-0" in R7A** |
| | Min Req Setback Beyond Max Base Height - Wide Street | 10'-0" | 10'-0" | 10'-0" | **10'-0"** |
| | Min Req Setback Beyond Max Base Height - Narrow Street | 15'-0" | 15'-0" | 15'-0" | **15'-0"** |

| | | | | | |
|---|---|---|---|---|---|
| | **Street Wall Location** | | | **Required / Permitted** | **Proposed** |
| **ZR35-631**<br>**ZR23-431** | Street Wall Percentage Based Rule | | | 70% if the aggregate street wall shall be located within 8'-0" of the street line. | **Complies** |
| | **Court Regulations** | | | **Required / Permitted** | **Proposed** |
| **ZR23-353** | Outer Courts | | | 20'-0" or more in width can extend to any depth up to 75'-0".<br>30'-0" or more in width above 75'-0". | **Complies** |
| **ZR23-352** | Inner Court | | | Below 75'-0" Not Less than 800 SF, with a minimum dimension of 20'-0"<br>Above 75'-0" Not Less than 1,200 SF, with a minimum dimension of 30'-0" | **Complies**<br>**80'-0" x 210'-0" IRR, 14,700 SF** |
| | **Parking Requirement** | | **Required** | **Required** | **Required** | **Proposed** |
| **ZR25-222** | Parking Requirement - Outer Transit Zone - Residential | | | | | |
| | Required Parking for Standard Dwelling Units | | 12.00% | 15.00% | 15.00% | |
| | Total Standard Dwelling Unit Parking | | 19 | 5 | | |
| | Required parking for Affordable Units | | 0.00% | 0.00% | 0.00% | |
| | Total Affordable Dwelling Unit Parking | | 0 | 0 | 0 | |
| | Maximum Waiver of Residential Parking Spaces | | 30.00 | 15.00 | 15.00 | |
| | Waiver of Parking Spaces for lots smaller than 10,000 SF | | N/A | N/A | N/A | |
| **ZR36-21** | Commercial or Community Facility Parking | | Depend on Use | Depend on Use | | |
| **ZR36-232** | Waiver of Commercial / Community Facility Parking Spaces. | | Less than 40 spaces can be waived | Less than 40 spaces can be waived | N/A | **Complies** |
| | **Bicycle Enclosed Parking Requirement** | | | **Required** | | **Proposed** |
| **ZR25-811** | Residential | | | 1 per 2 dwelling units | | **Complies** |
| **ZR36-711** | Commercial and Community Facility | | | Depend on Use | | **Complies** |
| | **Notes** | | | | | |
| | 1 | Lot area based on the on-line digital tax map | | | | |
| | 2 | The information contained in the above report is the opinion of IMC Architecture DPC's interpretation of the various NYC construction codes and laws referenced therein. It is also based on the information that you have provided. As this opinion is only advisory, the final decision is the responsibility of the designated authority charged with the administration and the enforcement of said codes. | | | | |

| Floor | Elev | Residential Gross Area | Community Facilty Gross Area | Accessory Parking | Commercial Gross Area | Total Gross Area | QH & MH Deductions Res | QH & MH Deduction CF | MH Deduction Commercial | Residential ZFA | Total Residential FAR | Community Facilty ZFA | Total Community Facilty FAR | Commercial ZFA | Total Commercial FAR | Total Zoning FA | Total Zoning FAR | Res 0 BR | Res 1 BR | Res 2BR | Res 3 BR | Total DU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | -10 | 3,843.85 | 0.00 | 42,496.15 | 0.00 | **46,140.00** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 | 0 | 0 | 0 |
| 1 | 0.0 | 3,707.09 | 772.08 | 10,139.17 | 31,521.66 | **46,140.00** | 296.57 | 61.77 | 3,152.17 | 3,410.52 | 0.07 | 710.31 | 0.01 | 28,369.49 | 0.59 | 32,490.33 | 0.67 | 0 | 0 | 0 | 0 | 0 |
| 2 | 15.0 | 796.13 | 20,868.86 | 0.00 | 24,475.01 | **46,140.00** | 63.69 | 1,669.51 | 2,447.50 | 732.44 | 0.02 | 19,199.35 | 0.40 | 22,027.51 | 0.46 | 41,959.30 | 0.87 | 0 | 0 | 0 | 0 | 0 |
| 3 | 30.0 | 31,777.97 | 0.00 | 0.00 | 0.00 | **31,777.97** | 2,860.02 | 0.00 | 0.00 | 28,917.95 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 | 28,917.95 | 0.60 | 5 | 17 | 16 | 3 | 41 |
| 4 | 39.0 | 33,120.00 | 0.00 | 0.00 | 0.00 | **33,120.00** | 2,980.80 | 0.00 | 0.00 | 30,139.20 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 | 30,139.20 | 0.62 | 5 | 14 | 18 | 3 | 40 |
| 5 | 48.0 | 31,320.00 | 0.00 | 0.00 | 0.00 | **31,320.00** | 2,818.80 | 0.00 | 0.00 | 28,501.20 | 0.59 | 0.00 | 0.00 | 0.00 | 0.00 | 28,501.20 | 0.59 | 6 | 14 | 17 | 2 | 39 |
| 6 | 57.0 | 30,870.00 | 0.00 | 0.00 | 0.00 | **30,870.00** | 2,778.30 | 0.00 | 0.00 | 28,091.70 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 28,091.70 | 0.58 | 5 | 14 | 16 | 3 | 38 |
| 7 | 66.0 | 30,420.00 | 0.00 | 0.00 | 0.00 | **30,420.00** | 2,737.80 | 0.00 | 0.00 | 27,682.20 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 27,682.20 | 0.57 | 7 | 14 | 14 | 3 | 38 |
| 8 | 75.0 | 28,020.00 | 0.00 | 0.00 | 0.00 | **28,020.00** | 2,521.80 | 0.00 | 0.00 | 25,498.20 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 25,498.20 | 0.53 | 6 | 11 | 14 | 3 | 34 |
| 9 | 86.0 | 22,506.67 | 0.00 | 0.00 | 0.00 | **22,506.67** | 2,025.60 | 0.00 | 0.00 | 20,481.07 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 | 20,481.07 | 0.42 | 4 | 8 | 12 | 2 | 26 |
| 10 | 97.0 | 12,606.67 | 0.00 | 0.00 | 0.00 | **12,606.67** | 1,134.60 | 0.00 | 0.00 | 11,472.07 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 11,472.07 | 0.24 | 2 | 5 | 6 | 1 | 14 |
| 11 | 108.0 | 9,940.00 | 0.00 | 0.00 | 0.00 | **9,940.00** | 894.60 | 0.00 | 0.00 | 9,045.40 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 9,045.40 | 0.19 | 1 | 2 | 5 | 3 | 11 |
| 12 | 119.0 | 9,940.00 | 0.00 | 0.00 | 0.00 | **9,940.00** | 894.60 | 0.00 | 0.00 | 9,045.40 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 9,045.40 | 0.19 | 2 | 6 | 4 | 0 | 12 |
| 13 | 130.0 | 7,190.00 | 0.00 | 0.00 | 0.00 | **7,190.00** | 647.10 | 0.00 | 0.00 | 6,542.90 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 6,542.90 | 0.14 | 0 | 2 | 2 | 3 | 7 |
| Roof / Bulkhead | 140.0 | 910.16 | 0.00 | 0.00 | 0.00 | **910.16** | 81.91 | 0.00 | 0.00 | 828.25 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 828.25 | 0.02 | 0 | 0 | 0 | 0 | 0 |
| | | **256,768.54** | **21,640.94** | **52,635.32** | **55,996.67** | **387,041.47** | **22,736.19** | **1,731.28** | **5,599.67** | **230,388.50** | **4.77** | **19,909.66** | **0.41** | **50,397.00** | **1.04** | **300,695.17** | **6.23** | **43** | **107** | **124** | **26** | **300** |
| | | | | | | | | | | | | | | | | | | 14.3% | 35.7% | 41.3% | 8.7% | 100.0% |
| | | | | | | | | | | | | | | | | | | **MIH Affordable Units** | | | | |
| | | | | | | | | | | | | | | | | | | **7.00** | **40.00** | **35.00** | **2.00** | **84.00** |
| | | | | | | | | | | | | | | | | | | 16.28% | 37.38% | 28.23% | 7.69% | 28.00% |

Quality Housing & Mechanical deductions each include 0.09% of floor area.

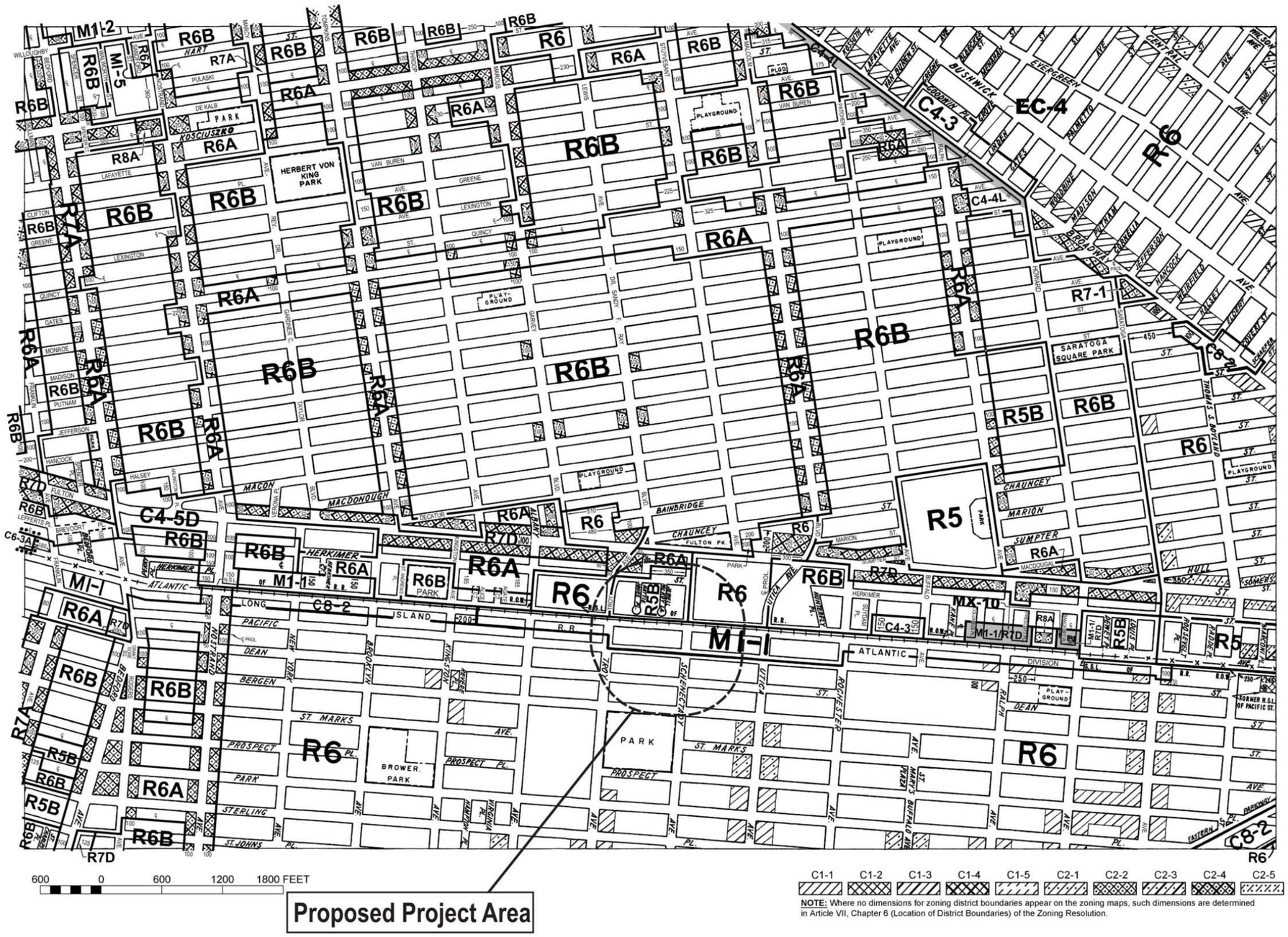

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ZONING ANALYSIS
DATE: 01/31/2025
JOB NUMBER: 1980

A-1




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.

# 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:**

11-23-2021 C 210276 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**

| | | |
|---|---|---|
| 12d | 13b | 13d |
| 16c | **17a** | 17c |
| 16d | 17b | 17d |

N

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ZONING MAP **17a**

**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.

IMC ARCHITECTURE

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ZONING MAP
DATE: 01/31/2025
JOB NUMBER: 1980

A-2

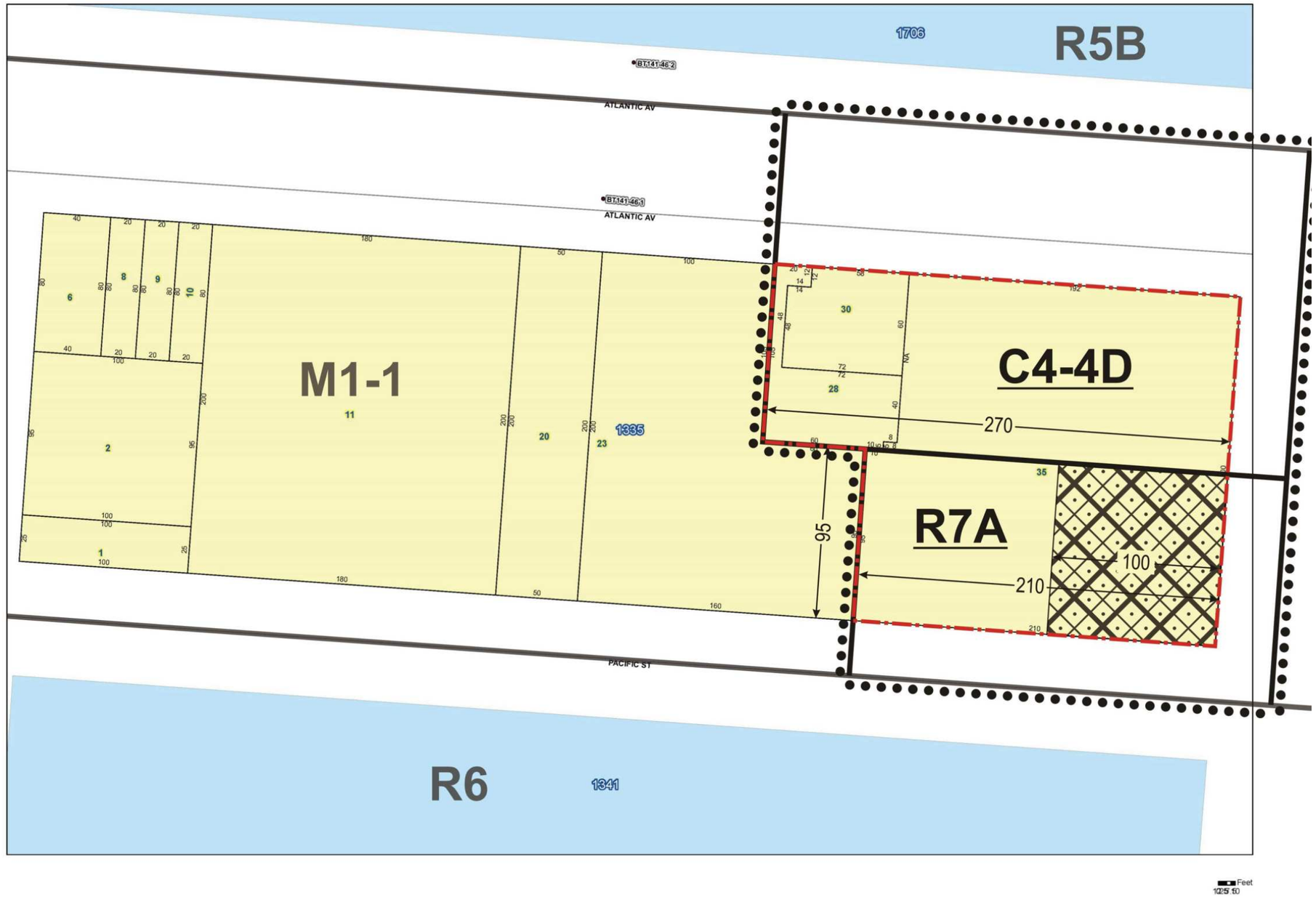
# 1720 Atlantic Avenue, Brooklyn

FINANCE NEW • YORK
MARTHA E. STARK
COMMISSIONER

**NYC Digital Tax Map**

Effective Date : 12-04-2008 15:47:31
End Date : Current

Brooklyn Block: 1335




**Legend**

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon
- Development Site
- Area Proposed to be Rezoned
- Existing Zoning District Line
- Proposed Zoning District Line
- M1-1 Existing Zoning District
- C4-4D Proposed Zoning District
- R7A Proposed Zoning District
- Proposed C2-4 Overlay


**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

TAX MAP
DATE: 01/31/2025
JOB NUMBER: 1980

A-3

# 1720 Atlantic Ave Area Map

## Project

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

## Zoning

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

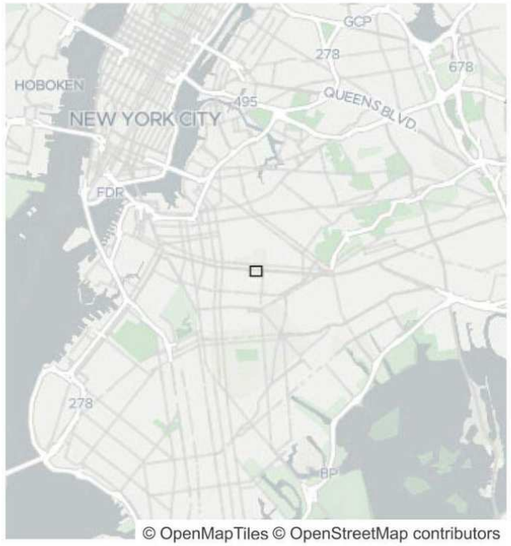
## Land Use

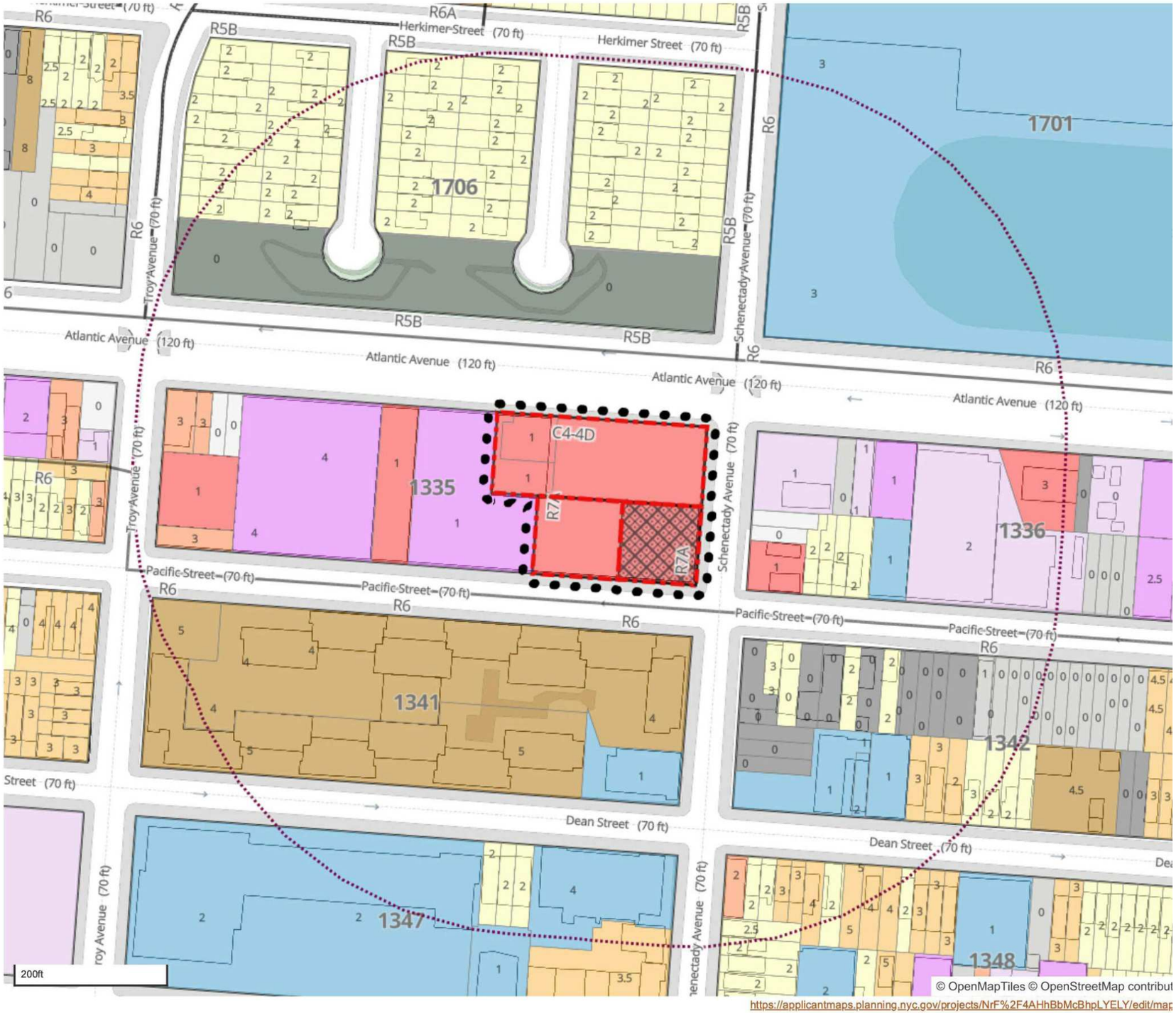
- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Instiitiutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

## Transportation

- Subway Stop
- Subway Entrance

**Map Created:** Apr 16, 2020, 8:12pm
**Data Sources:** layers-api.planninglabs.nyc/v1/sources
pluto MapPLUTO™ 20v2, Bytes of the Big Apple (March 2020); zoning-districts (March 2020); digital-citymap (6 April 2018); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (Dec 2019)





**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

LAND USE MAP
DATE: 01/31/2025
JOB NUMBER: 1980

A-4



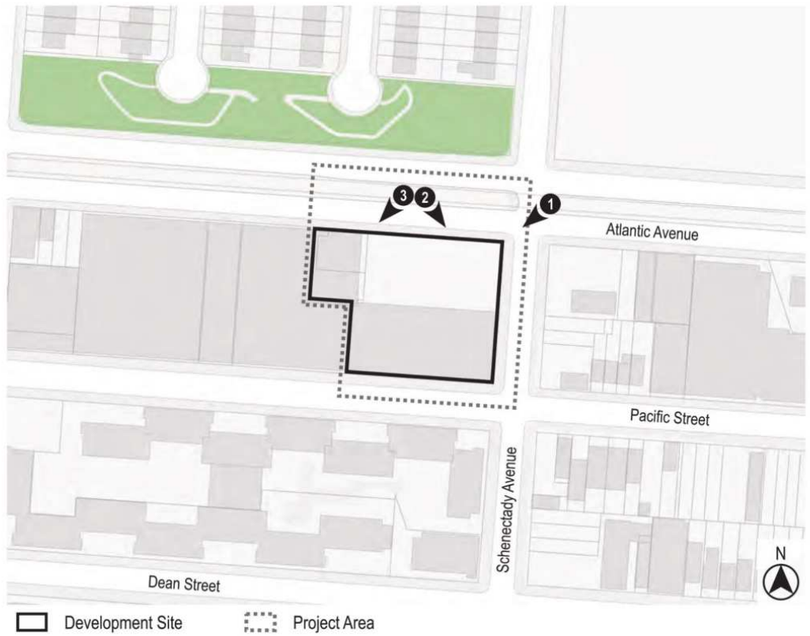

1. View of the Development Site facing southwest from the intersection of Atlantic Avenue and Schenectady Avenue.




2. View of the Development Site facing southeast from Atlantic Avenue.




3. View of the Development Site facing southwest from Atlantic Avenue.




Urban Cartographics
Photographs Taken on January 20, 2022



**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

SITE PHOTOS
DATE: 01/31/2025
JOB NUMBER: 1980

A-5



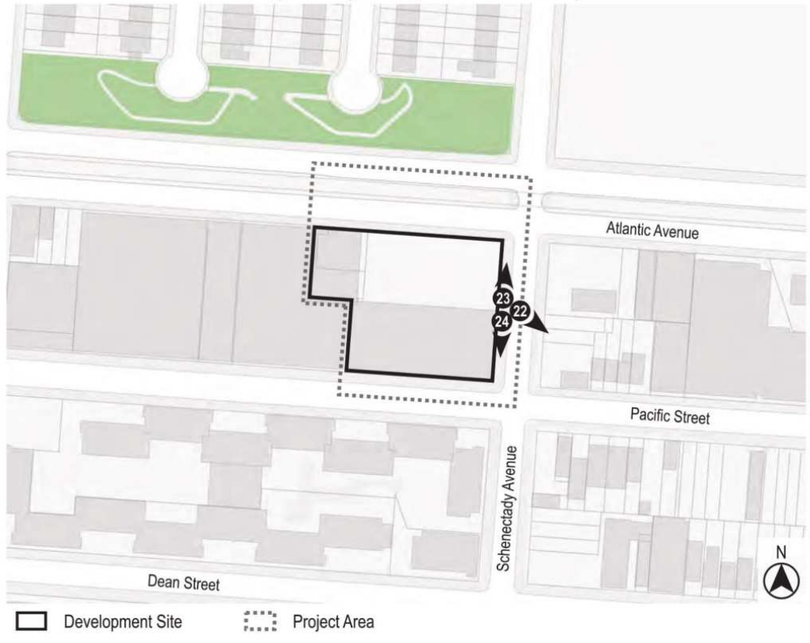

22. View of the east side of Schenectady Avenue facing southeast from the Development Site.




23. View of the sidewalk along the west side of Schenectady Avenue facing north (Development Site at left).




24. View of the sidewalk along the west side of Schenectady Avenue facing south (Development Site at right).




**1720 Atlantic Avenue, Brooklyn**



Urban Cartographics
Photographs Taken on January 20, 2022

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

SITE PHOTOS
DATE: 01/31/2025
JOB NUMBER: 1980

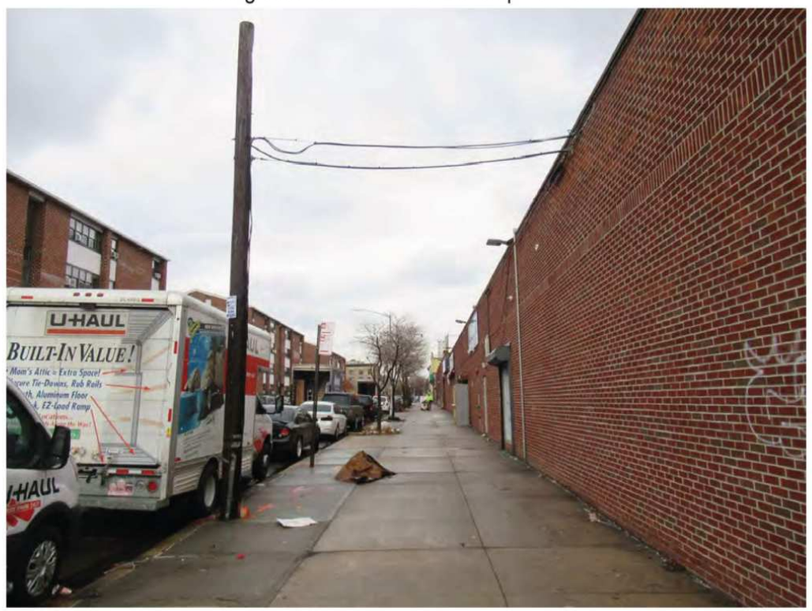
A-6



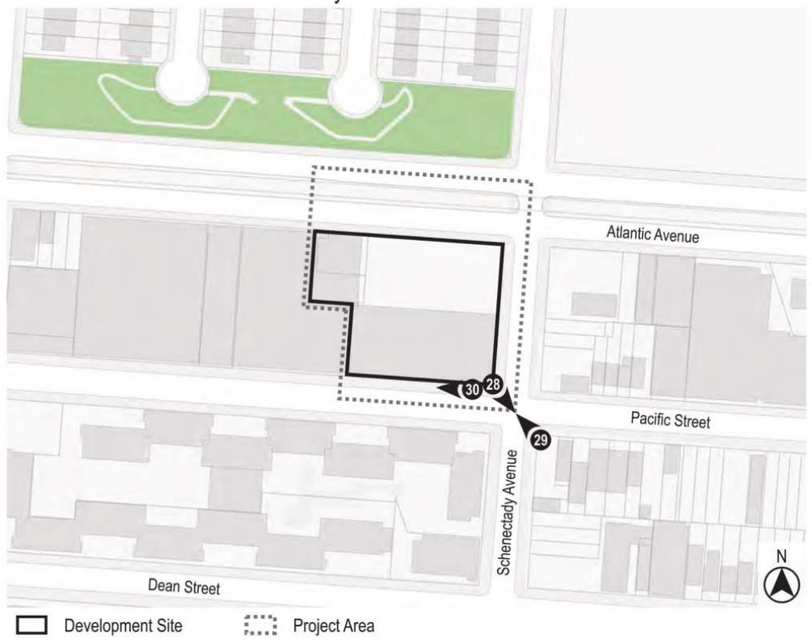
28. View of the intersection of Schenectady Avenue and Pacific Street facing southeast from the Development Site.




29. View of the Development Site facing northwest from the intersection of Schenectady Avenue and Pacific Street.




30. View of the sidewalk along the north side of Pacific Street facing west from Schenectady Avenue (Development Site at right).




Urban Cartographics
Photographs Taken on January 20, 2022

**1720 Atlantic Avenue, Brooklyn**



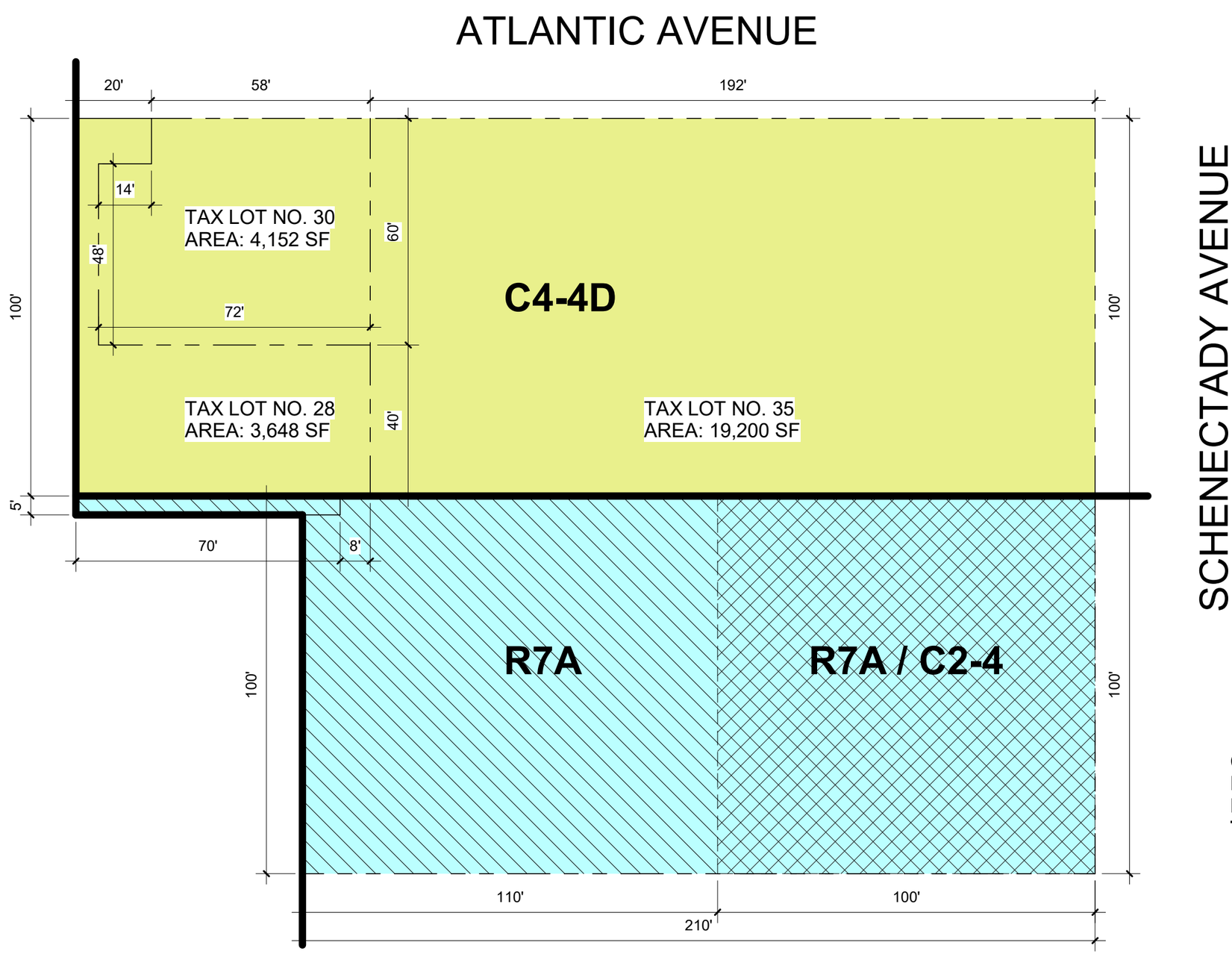
**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

SITE PHOTOS
DATE: 01/31/2025
JOB NUMBER: 1980

A-7




C4-4D LOT AREA: 27,000 SF
R7A/C2-4 LOT AREA: 10,000 SF
R7A: 11,300 SF
**TOTAL LOT AREA: 48,300 SF**

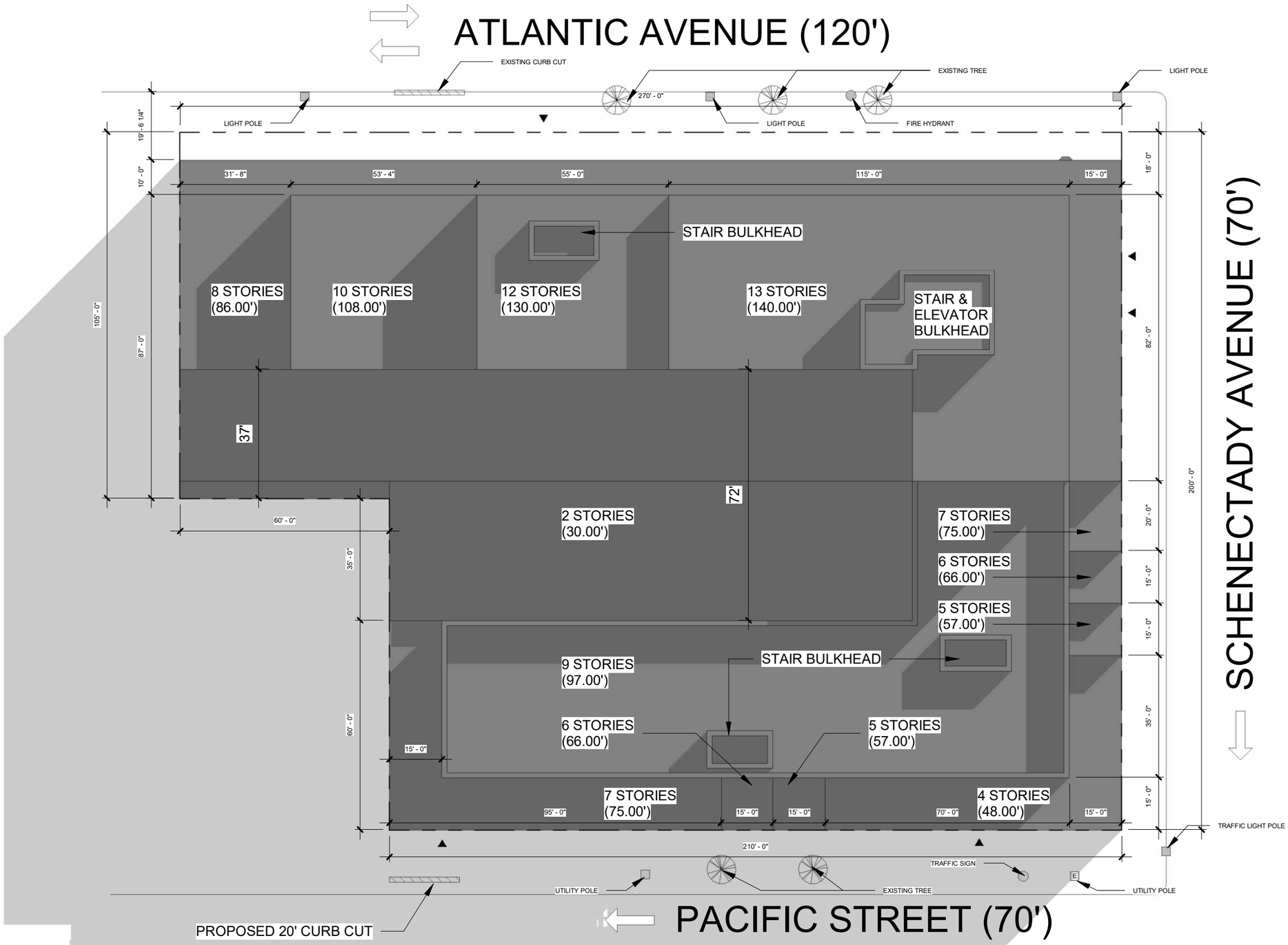
**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

PLOT PLAN
DATE: 01/31/2025
JOB NUMBER: 1980

A-8




1 SITE PLAN
1" = 30'-0"

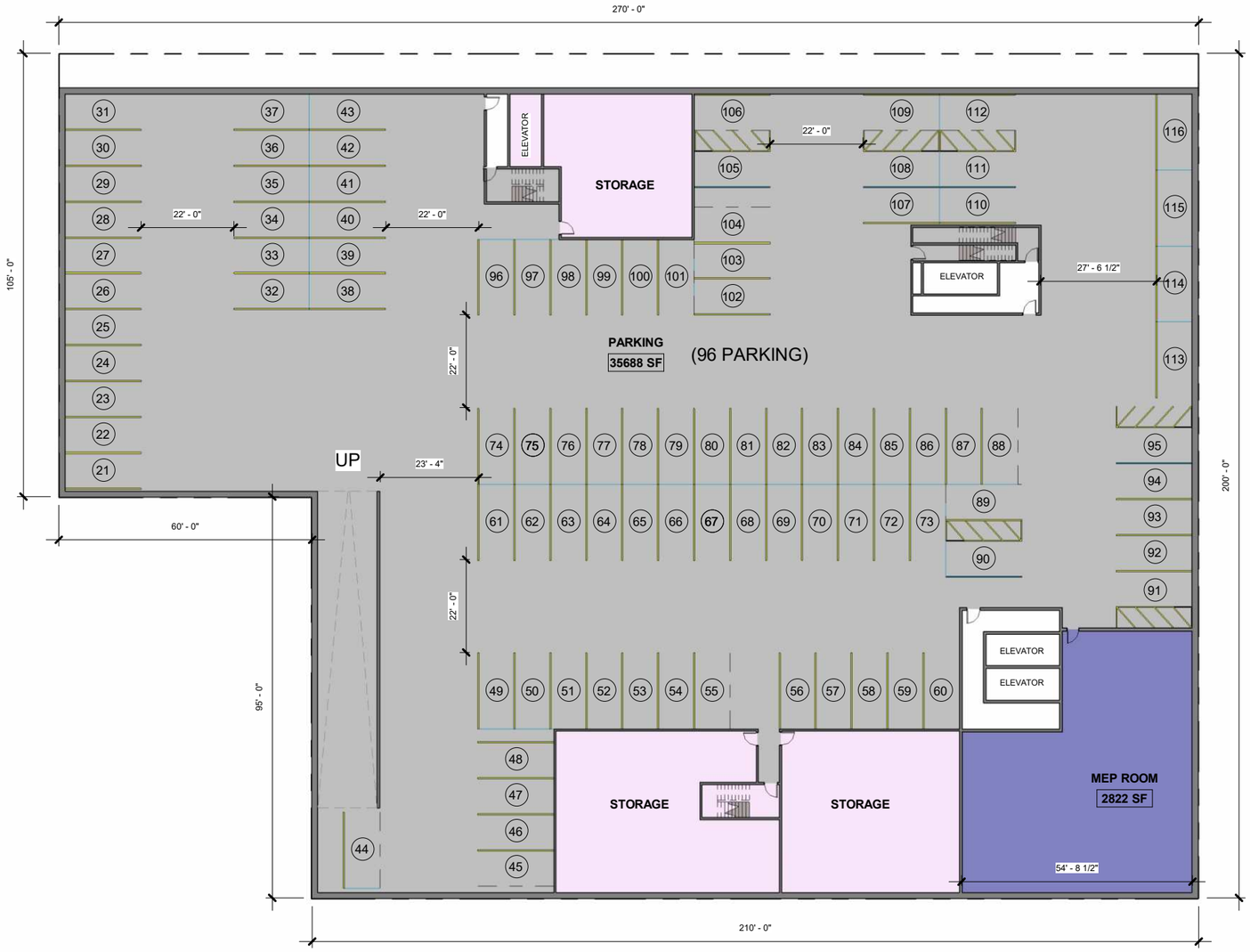
IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

SITE PLAN
DATE: 01/31/2025
JOB NUMBER: 1980

A-9




| Gross Area (Zone) - Cellar | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| Cellar | C4-4D | 24840 SF |
| Cellar | R7A | 11300 SF |
| Cellar | R7A/C2-4(1) | 10000 SF |
| Grand total | | 46140 SF |

Room Legend

- MEP ROOM
- PARKING
- STORAGE

1 Cellar
1/32" = 1'-0"


IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

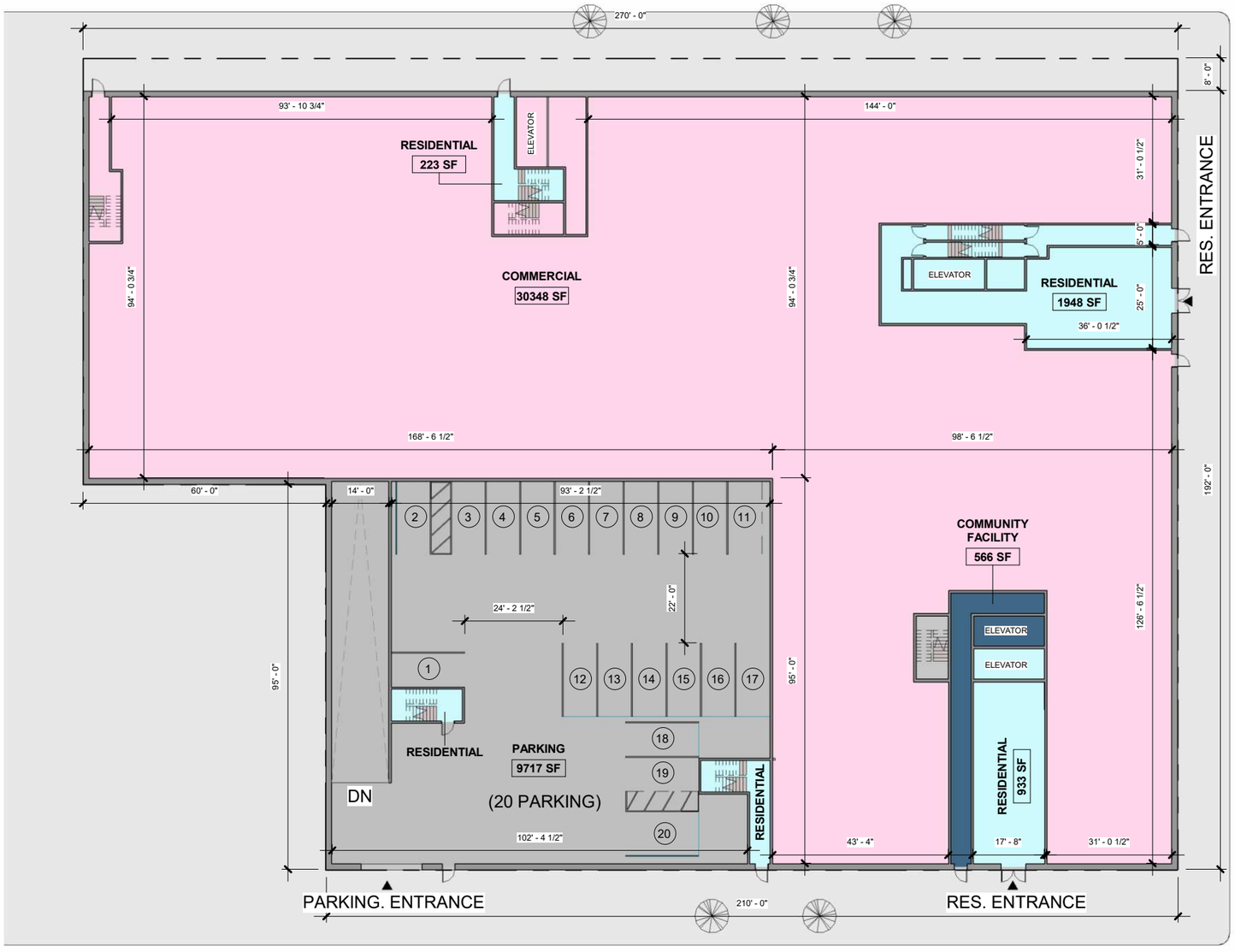

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

CELLAR FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-10

ATLANTIC AVENUE




SCHENECTADT AVENUE

PACIFIC STREET

| Gross Area (Zone) - 1st Floor | | |
|---|---|---|
| zeze | Mass: Type | Floor Area |
| 1st Floor | C4-4D | 24840 SF |
| 1st Floor | R7A | 11300 SF |
| 1st Floor | R7A/C2-4(1) | 10000 SF |
| Grand total | | 46140 SF |

Room Legend

- COMMERCIAL
- COMMUNITY FACILITY
- PARKING
- RESIDENTIAL

1 1st Floor
1/32" = 1'-0"

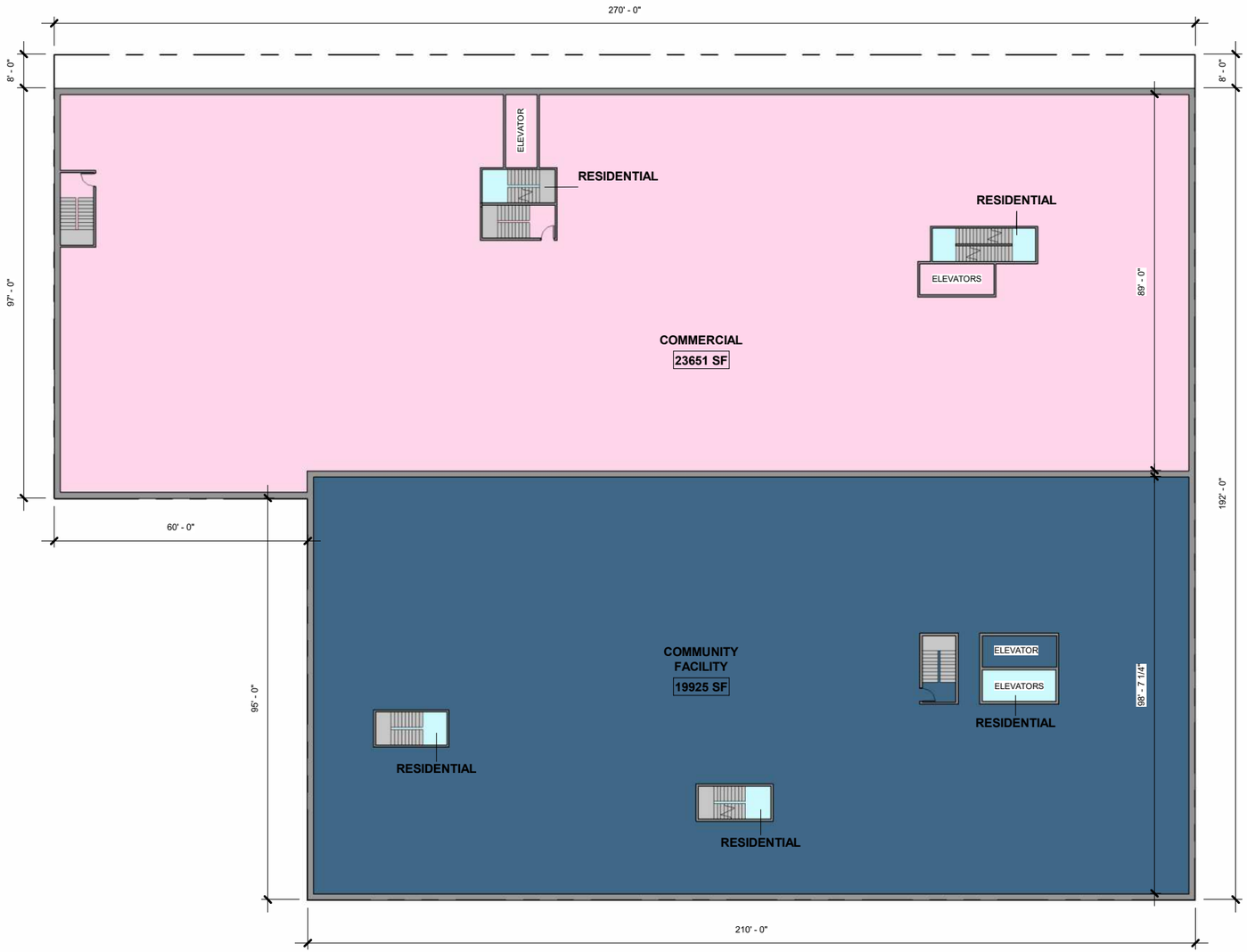

IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

1ST FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-11




| Gross Area (Zone) - 2nd Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 2nd Floor | C4-4D | 24840 SF |
| 2nd Floor | R7A | 11300 SF |
| 2nd Floor | R7A/C2-4(1) | 10000 SF |
| Grand total | | 46140 SF |

Room Legend

- COMMERCIAL
- COMMUNITY FACILITY
- RESIDENTIAL

1 2nd Floor
1/32" = 1'-0"

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

2ND FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-12




1 3rd Floor
1" = 30'-0"

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Gross Area (Zone) - 3rd Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 3rd Floor | C4-4D | 18120 SF |
| 3rd Floor | R7A | 6600 SF |
| 3rd Floor | R7A/C2-4(1) | 8400 SF |
| Grand total | | 33120 SF |

| Unit Mix - 3rd Floor | |
|---|---|
| **Level** | **Name** |
| 3rd Floor | 1BR |
| 3rd Floor | 2BR |
| 3rd Floor | 3BR |
| 3rd Floor | STUDIO |

**1BR**

**1BR: 17**

**2BR**

**2BR: 16**

**3BR**

**3BR: 3**

**STUDIO**

**STUDIO: 5**

**Grand total: 41**


IMC ARCHITECTURE

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

3RD FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-13




1 4th Floor
1" = 30'-0"

| Gross Area (Zone) - 4th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 4th Floor | C4-4D | 18120 SF |
| 4th Floor | R7A | 6600 SF |
| 4th Floor | R7A/C2-4(1) | 8400 SF |
| Grand total | | 33120 SF |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Unit Mix - 4th... | |
|---|---|
| **Level** | **Name** |
| 4th Floor | 1BR |
| 4th Floor | 2BR |
| 4th Floor | 3BR |
| 4th Floor | STUDIO |

**1BR: 14**

**2BR: 18**

**3BR: 3**

**STUDIO: 5**

**Grand total: 40**

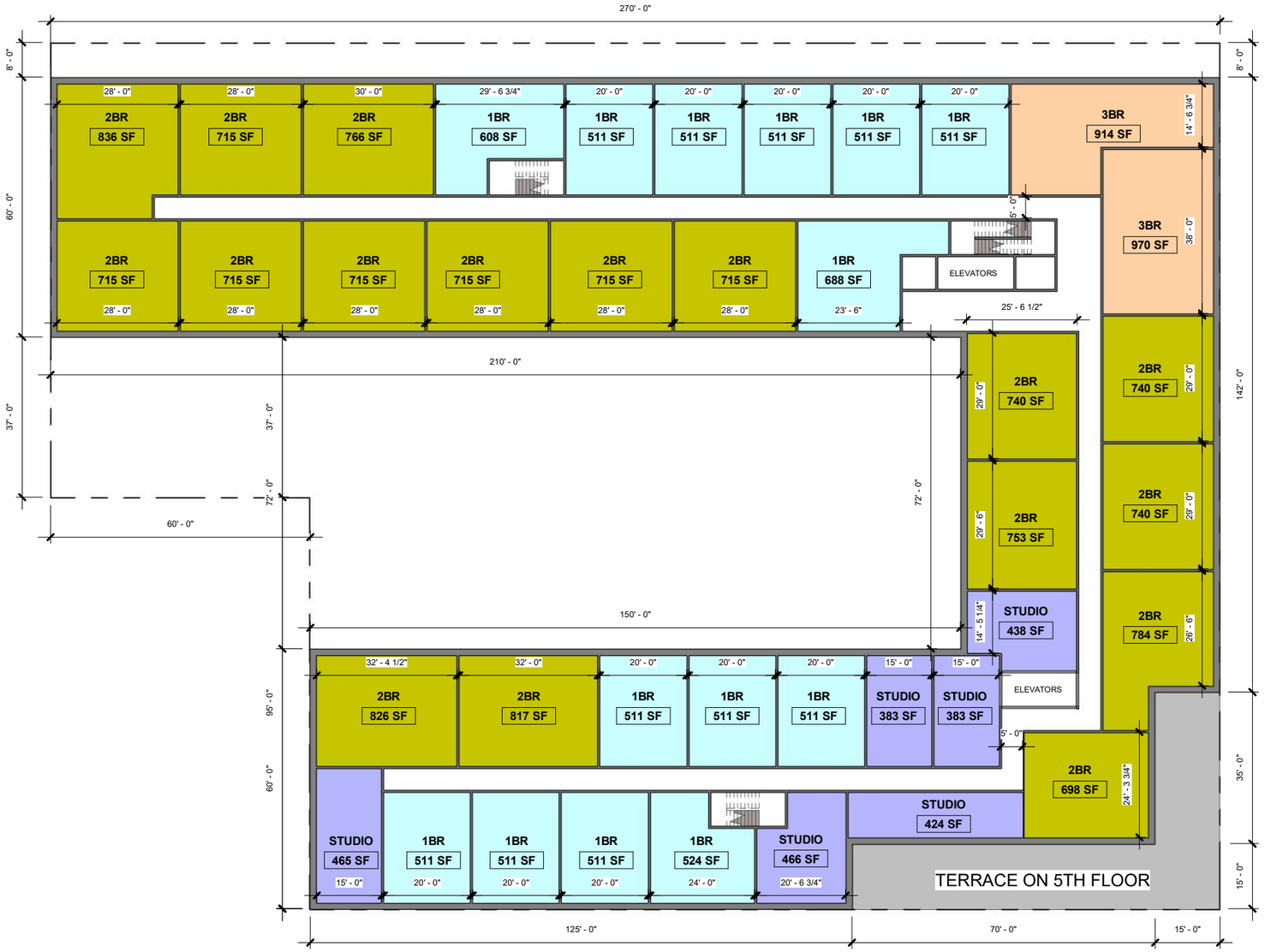
IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

4TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-14




1 5th Floor
1" = 30'-0"

| Gross Area (Zone) - 5th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 5th Floor | C4-4D | 18120 SF |
| 5th Floor | R7A | 6600 SF |
| 5th Floor | R7A/C2-4(1) | 6600 SF |
| Grand total | | 31320 SF |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Unit Mix - 5th Floor | |
|---|---|
| **Level** | **Name** |
| **1BR** | |
| 5th Floor | 1BR |
| **1BR: 14** | |
| **2BR** | |
| 5th Floor | 2BR |
| **2BR: 17** | |
| **3BR** | |
| 5th Floor | 3BR |
| **3BR: 2** | |
| **STUDIO** | |
| 5th Floor | STUDIO |
| **STUDIO: 6** | |
| **Grand total: 39** | |

IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

5TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-15




Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Gross Area (Zone) - 6th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 6th Floor | C4-4D | 18120.00 SF |
| 6th Floor | R7A | 6600.00 SF |
| 6th Floor | R7A/C2-4(1) | 6150.00 SF |
| Grand total | | 30870.00 SF |

| Unit Mix - 6th Floor | |
|---|---|
| **Level** | **Name** |

**1BR**

| | |
|---|---|
| 6th Floor | 1BR |

**1BR: 14**

**2BR**

| | |
|---|---|
| 6th Floor | 2BR |

**2BR: 16**

**3BR**

| | |
|---|---|
| 6th Floor | 3BR |

**3BR: 3**

**STUDIO**

| | |
|---|---|
| 6th Floor | STUDIO |

**STUDIO: 5**

**Grand total: 38**

1 6th Floor
1" = 30'-0"


IMC ARCHITECTURE DPC
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# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

6TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-16




1 7th Floor
1" = 30'-0"

| Gross Area (Zone) - 7th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 7th Floor | C4-4D | 18120.00 SF |
| 7th Floor | R7A | 6375.00 SF |
| 7th Floor | R7A/C2-4(1) | 5925.00 SF |
| Grand total | | 30420.00 SF |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Unit Mix - 7th Floor | |
|---|---|
| **Level** | **Name** |

**1BR**

| | |
|---|---|
| 7th Floor | 1BR |

1BR: 14

**2BR**

| | |
|---|---|
| 7th Floor | 2BR |

2BR: 14

**3BR**

| | |
|---|---|
| 7th Floor | 3BR |

3BR: 3

**STUDIO**

| | |
|---|---|
| 7th Floor | STUDIO |

STUDIO: 7

Grand total: 38

IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

7TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-17




1 8th Floor
1" = 30'-0"

| Gross Area (Zone) - 8th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 8th Floor | C4-4D | 18120.00 SF |
| 8th Floor | R7A | 4275.00 SF |
| 8th Floor | R7A/C2-4(1) | 5625.00 SF |
| Grand total | | 28020.00 SF |

| Unit Mix - 8th Floor | |
|---|---|
| **Level** | **Name** |
| **1BR** | |
| 8th Floor | 1BR |
| **1BR: 11** | |
| **2BR** | |
| 8th Floor | 2BR |
| **2BR: 14** | |
| **3BR** | |
| 8th Floor | 3BR |
| **3BR: 3** | |
| **STUDIO** | |
| 8th Floor | STUDIO |
| **STUDIO: 6** | |
| **Grand total: 34** | |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO


**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

8TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-18




1 9th Floor
1" = 30'-0"

| Gross Area (Zone) - 9th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 9th Floor | C4-4D | 12606.67 SF |
| 9th Floor | R7A | 4275.00 SF |
| 9th Floor | R7A/C2-4(1) | 5625.00 SF |
| **Grand total** | | **22506.67 SF** |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Unit Mix - 9th Floor | |
|---|---|
| **Level** | **Name** |
| **1BR** | |
| 9th Floor | 1BR |
| **1BR: 8** | |
| **2BR** | |
| 9th Floor | 2BR |
| **2BR: 12** | |
| **3BR** | |
| 9th Floor | 3BR |
| **3BR: 2** | |
| **STUDIO** | |
| 9th Floor | STUDIO |
| **STUDIO: 4** | |
| **Grand total: 26** | |

IMC ARCHITECTURE DPC
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BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

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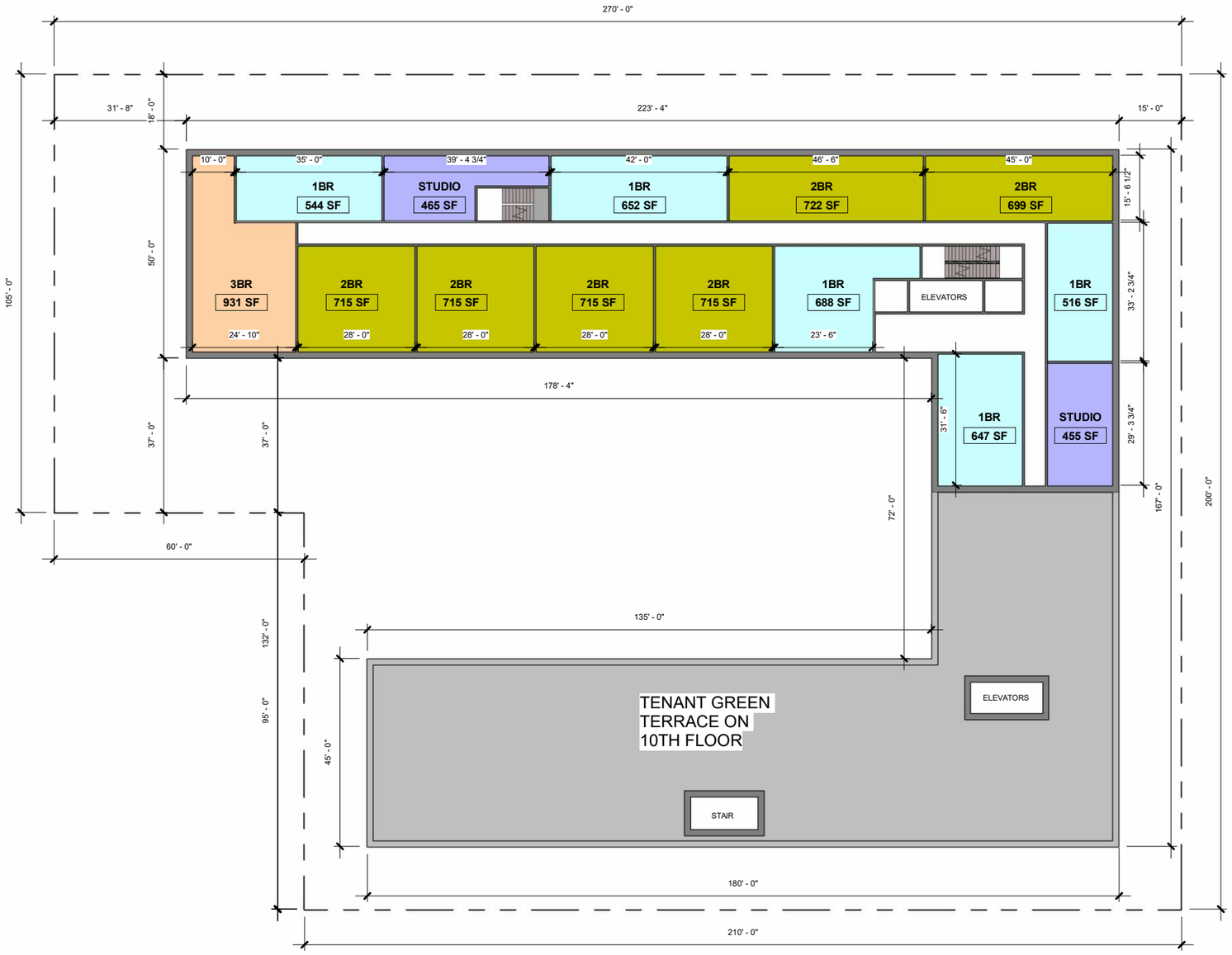
9TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-19




| Gross Area (Zone) - 10th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| **10th Floor** | **C4-4D** | **12606.67 SF** |
| **Grand total** | | **12606.67 SF** |

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Unit Mix - 10th Floor | |
|---|---|
| **Level** | **Name** |

**1BR**

| | |
|---|---|
| **10th Floor** | **1BR** |

**1BR: 5**

**2BR**

| | |
|---|---|
| **10th Floor** | **2BR** |

**2BR: 6**

**3BR**

| | |
|---|---|
| **10th Floor** | **3BR** |

**3BR: 1**

**STUDIO**

| | |
|---|---|
| **10th Floor** | **STUDIO** |

**STUDIO: 2**

**Grand total: 14**

1 10th Floor
1" = 30'-0"

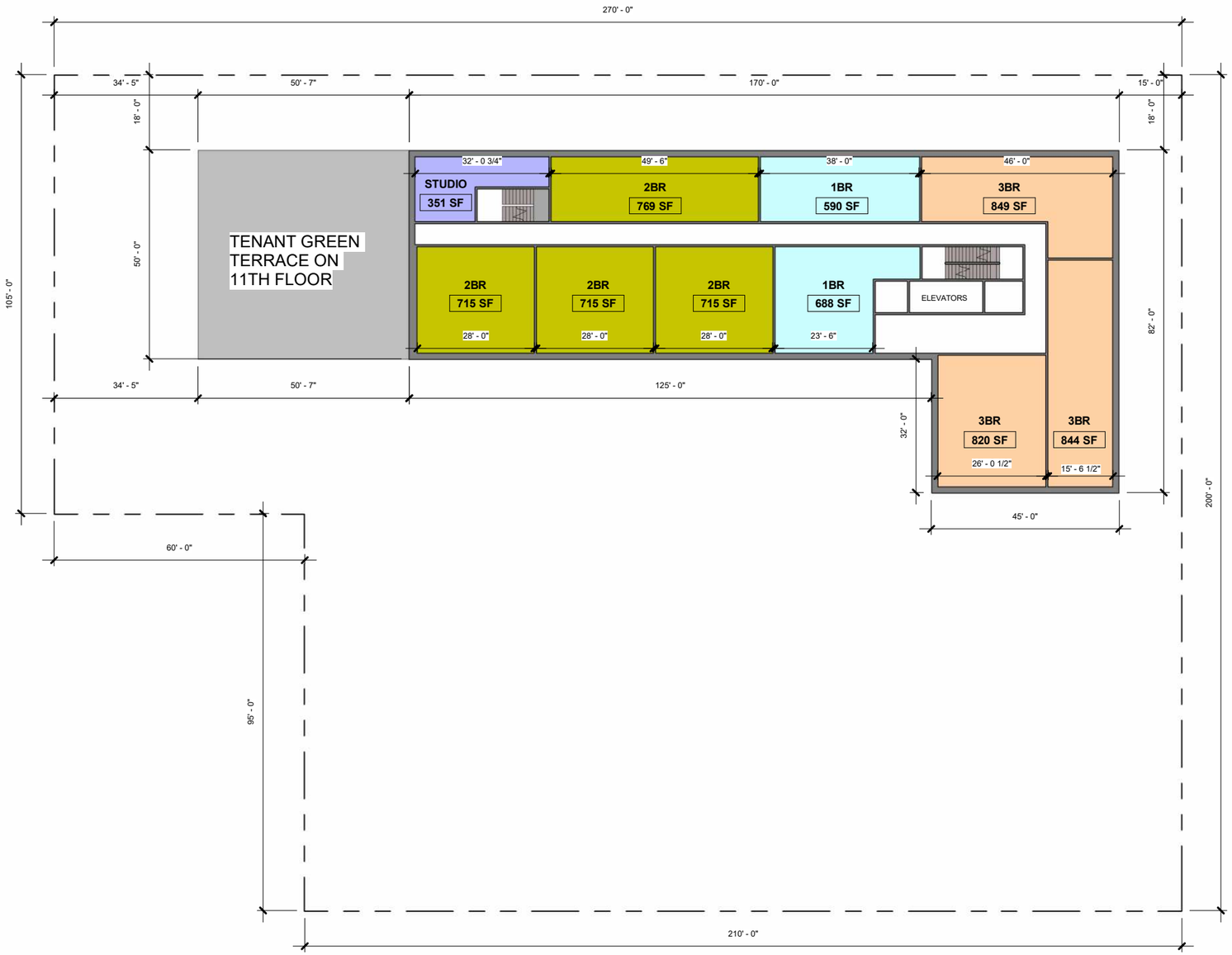
**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

10TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-20




Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

| Gross Area (Zone) - 11th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| **11th Floor** | **C4-4D** | **9940.00 SF** |
| **Grand total** | | **9940.00 SF** |

| Unit Mix - 11th Floor | |
|---|---|
| **Level** | **Name** |

**1BR**

| | |
|---|---|
| **11th Floor** | **1BR** |

**1BR: 2**

**2BR**

| | |
|---|---|
| **11th Floor** | **2BR** |

**2BR: 5**

**3BR**

| | |
|---|---|
| **11th Floor** | **3BR** |

**3BR: 3**

**STUDIO**

| | |
|---|---|
| **11th Floor** | **STUDIO** |

**STUDIO: 1**

**Grand total: 11**

1 11th Floor
1" = 30'-0"

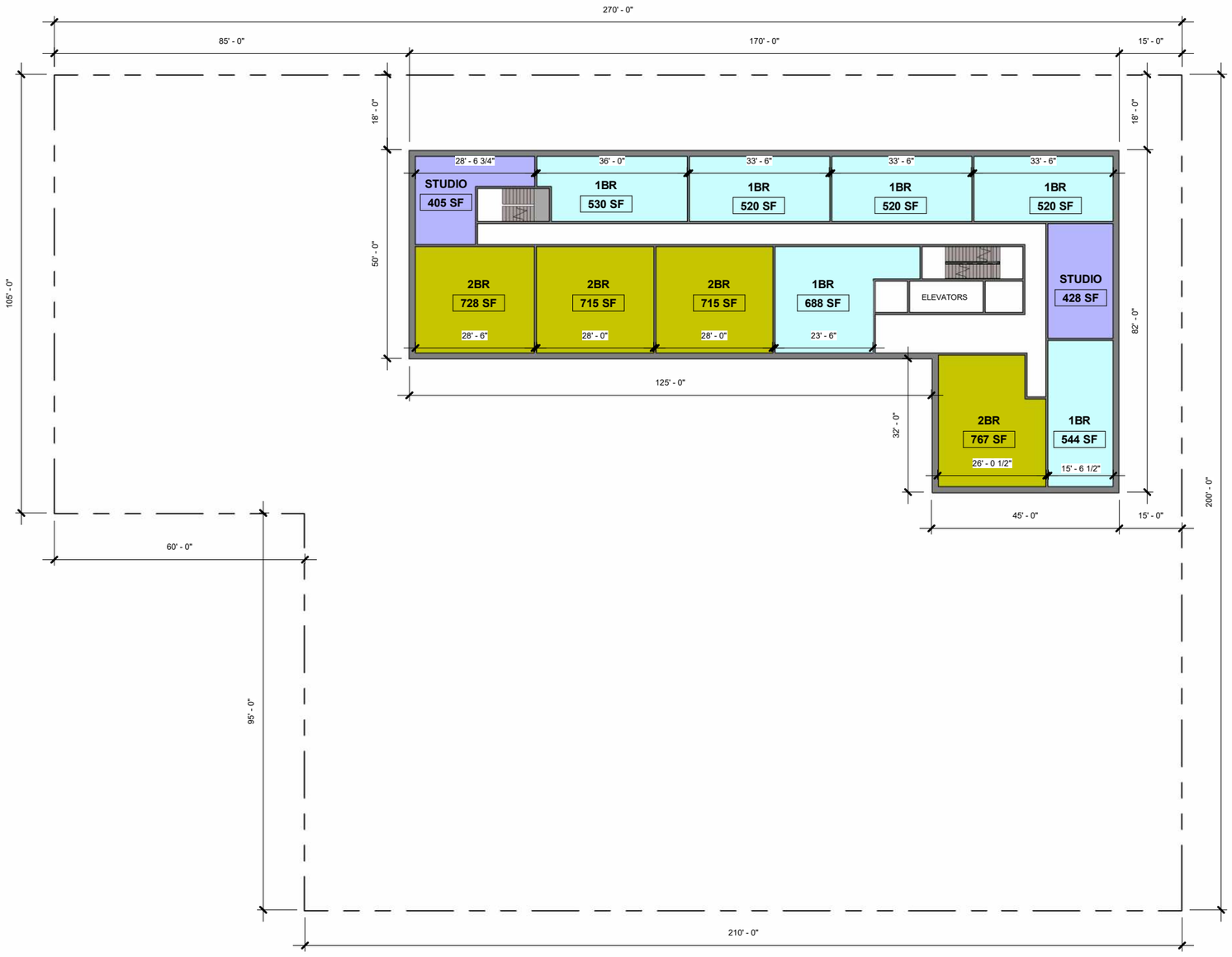
**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

11TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-21




Room Legend

- 1BR
- 2BR
- STUDIO

| Gross Area (Zone) - 12th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| 12th Floor | C4-4D | 9940.00 SF |
| Grand total | | 9940.00 SF |

| Unit Mix - 12th Floor | |
|---|---|
| **Level** | **Name** |

**1BR**

| | |
|---|---|
| 12th Floor | 1BR |

**1BR: 6**

**2BR**

| | |
|---|---|
| 12th Floor | 2BR |

**2BR: 4**

**STUDIO**

| | |
|---|---|
| 12th Floor | STUDIO |

**STUDIO: 2**

**Grand total: 12**

1 12th Floor
1" = 30'-0"


IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
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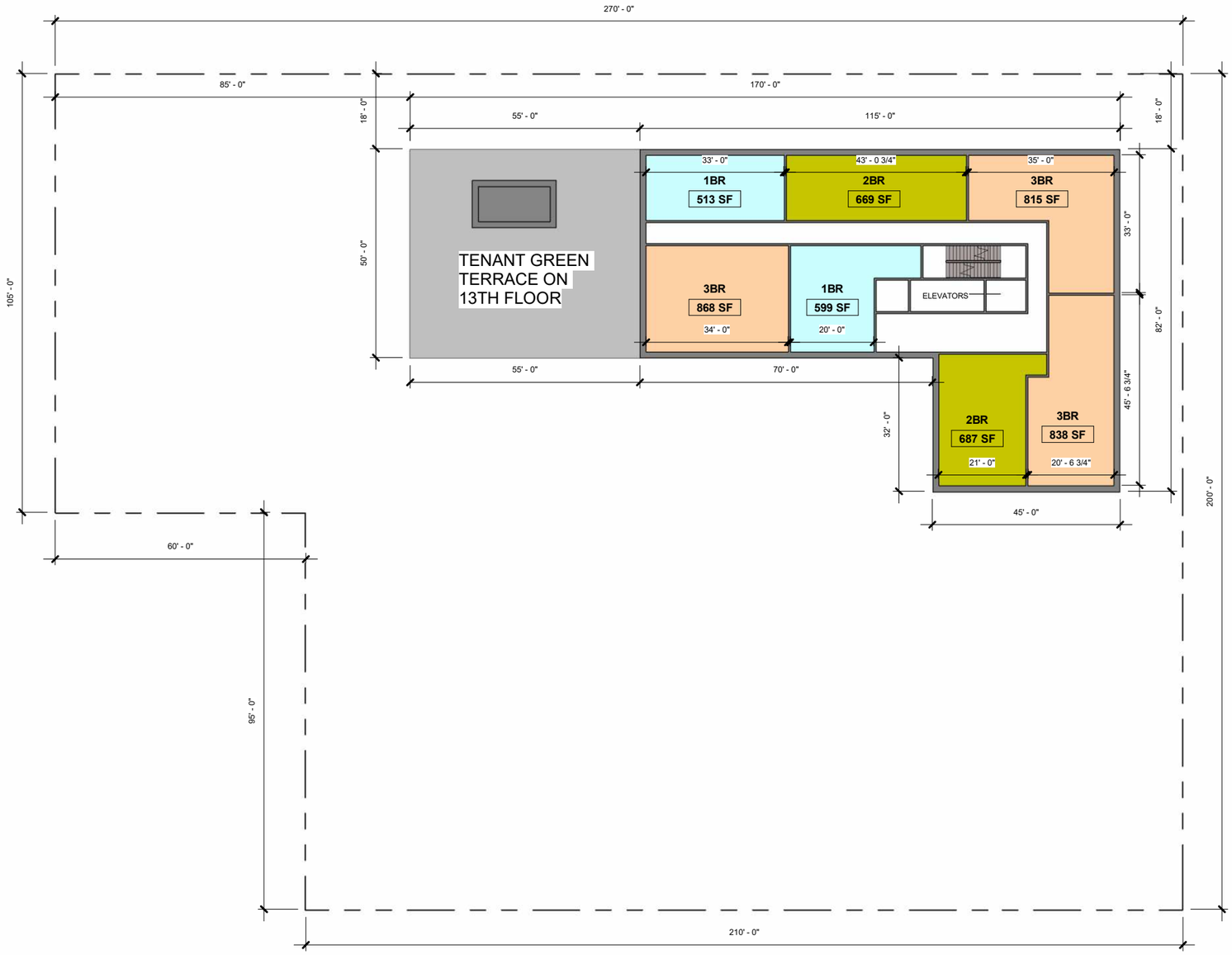
# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

12TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-22




| Gross Area (Zone) - 13th Floor | | |
|---|---|---|
| **Level** | **Mass: Type** | **Floor Area** |
| **13th Floor** | **C4-4D** | **7190.00 SF** |
| **Grand total** | | **7190.00 SF** |

| Unit Mix - 13th Floor | |
|---|---|
| **Level** | **Name** |
| **13th Floor** | **1BR** |
| **1BR: 2** | |
| **13th Floor** | **2BR** |
| **2BR: 2** | |
| **13th Floor** | **3BR** |
| **3BR: 3** | |
| **Grand total: 7** | |

Room Legend

- 1BR
- 2BR
- 3BR

1 13th Floor
1" = 30'-0"

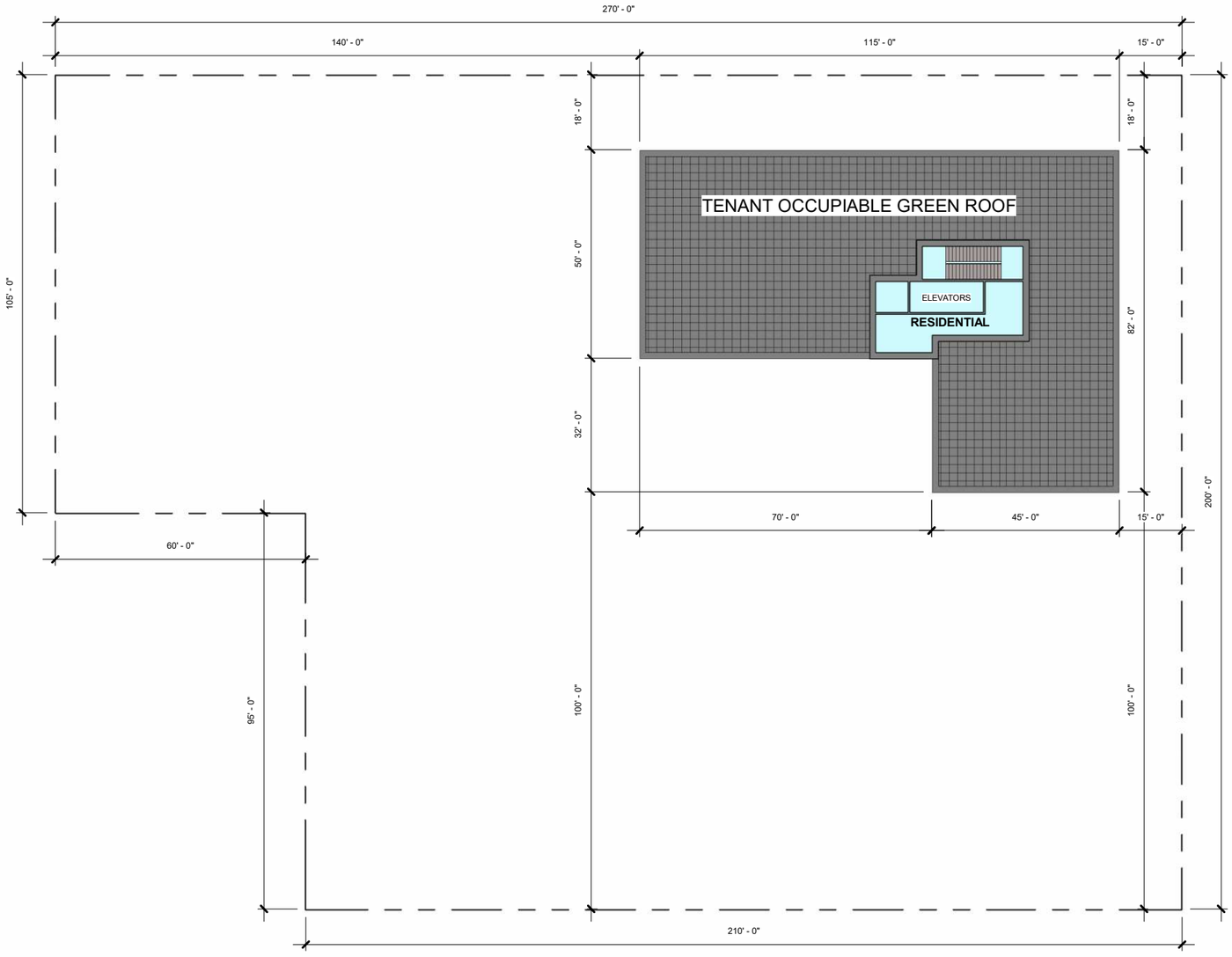
**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

13TH FLOOR
DATE: 01/31/2025
JOB NUMBER: 1980

A-23




Room Legend

RESIDENTIAL

1 ROOF
1/32" = 1'-0"

IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ROOF
DATE: 01/31/2025
JOB NUMBER: 1980

A-24

## BUILDING AREA LEGEND

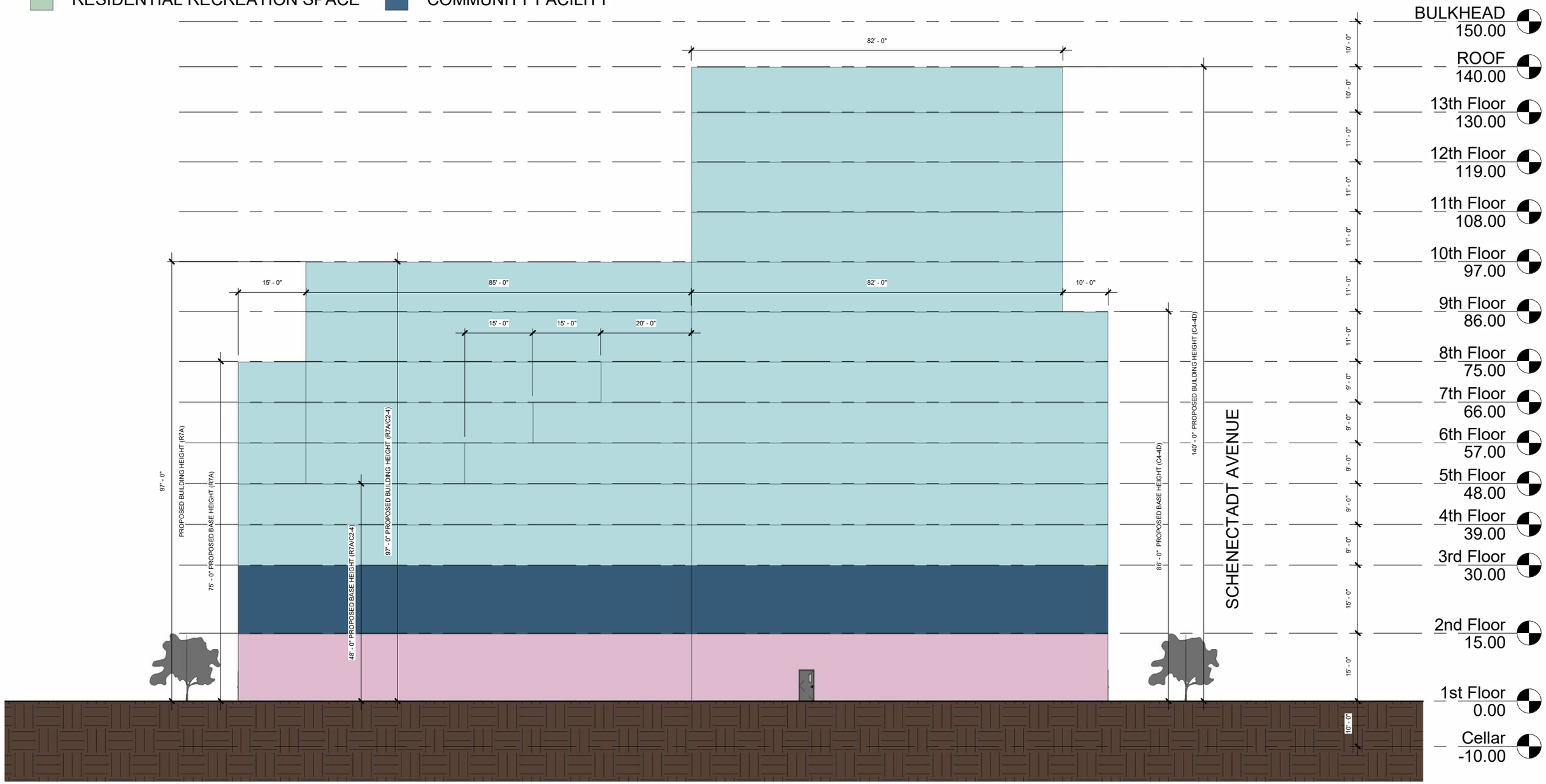
RESIDENTIAL DWELLING UNIT

COMMERCIAL

ACCESSORY PARKING

RESIDENTIAL RECREATION SPACE

COMMUNITY FACILITY




1 Elevation - East
3/64" = 1'-0"


IMC ARCHITECTURE DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

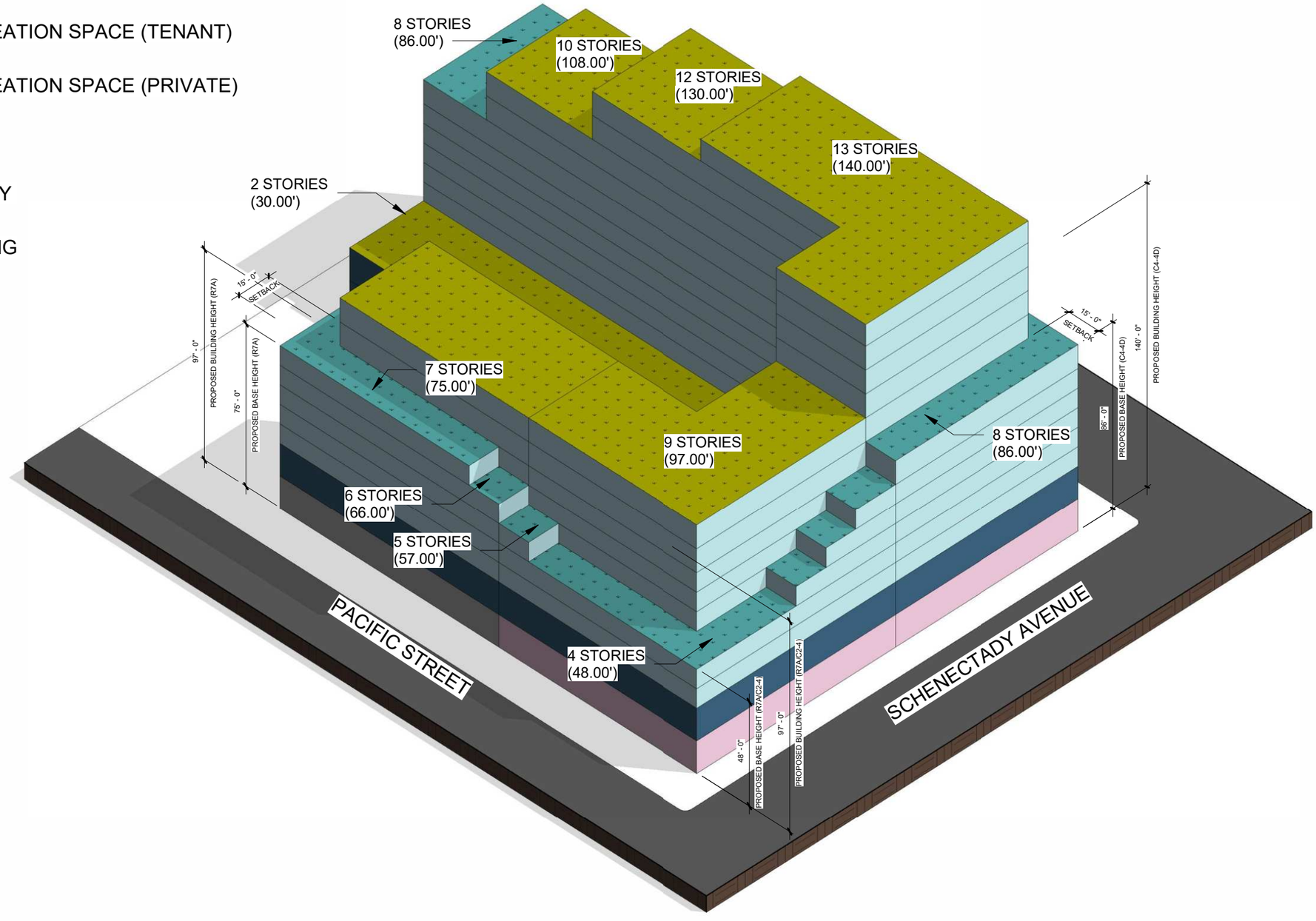
1720 Atlantic Ave
Brooklyn, NY 11213

ZONING BULK ELEVATION
DATE: 01/31/2025
JOB NUMBER: 1980

A-25

**BUILDING AREA LEGEND**

- RESIDENTIAL DWELLING UNIT
- RESIDENTIAL RECREATION SPACE (TENANT)
- RESIDENTIAL RECREATION SPACE (PRIVATE)
- COMMERCIAL
- COMMUNITY FACILITY
- ACCESSORY PARKING




1 Massing Diagram (60')


**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232


# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ZONING BULK
DATE: 01/31/2025
JOB NUMBER: 1980

A-26

| Gross Building Area - Residential | | | |
|---|---|---|---|
| **Level** | **Area Group** | **Name** | **Area** |
| Cellar | ACCESSARY PARKING | 1 | 42,496.15 SF |
| Cellar | RESIDENTIAL | 1 | 3,643.85 SF |
| | | | 46,140.00 SF |
| 1st Floor | ACCESSARY PARKING | 1 | 10,139.17 SF |
| 1st Floor | COMMERCIAL | 1 | 31,521.66 SF |
| 1st Floor | COMMUNITY FACILITY | 1 | 772.08 SF |
| 1st Floor | RESIDENTIAL | 1 | 252.15 SF |
| 1st Floor | RESIDENTIAL | 2 | 150.70 SF |
| 1st Floor | RESIDENTIAL | 3 | 990.63 SF |
| 1st Floor | RESIDENTIAL | 4 | 2,062.35 SF |
| 1st Floor | RESIDENTIAL | 5 | 251.26 SF |
| | | | 46,140.00 SF |
| 2nd Floor | COMMERCIAL | 1 | 24,475.01 SF |
| 2nd Floor | COMMUNITY FACILITY | 1 | 20,868.86 SF |
| 2nd Floor | RESIDENTIAL | 1 | 147.22 SF |
| 2nd Floor | RESIDENTIAL | 2 | 352.50 SF |
| 2nd Floor | RESIDENTIAL | 3 | 149.19 SF |
| 2nd Floor | RESIDENTIAL | 4 | 147.22 SF |
| | | | 46,140.00 SF |
| 3rd Floor | RESIDENTIAL | 1 | 31,777.97 SF |
| | | | 31,777.97 SF |
| 4th Floor | RESIDENTIAL | 1 | 33,120.00 SF |
| | | | 33,120.00 SF |
| 5th Floor | RESIDENTIAL | 1 | 31,320.00 SF |
| | | | 31,320.00 SF |
| 6th Floor | RESIDENTIAL | 1 | 30,870.00 SF |
| | | | 30,870.00 SF |
| 7th Floor | RESIDENTIAL | 1 | 30,420.00 SF |
| | | | 30,420.00 SF |
| 8th Floor | RESIDENTIAL | 1 | 28,020.00 SF |
| | | | 28,020.00 SF |
| 9th Floor | RESIDENTIAL | 1 | 22,506.67 SF |
| | | | 22,506.67 SF |
| 10th Floor | RESIDENTIAL | 1 | 12,606.67 SF |
| | | | 12,606.67 SF |
| 11th Floor | RESIDENTIAL | 1 | 9,940.00 SF |
| | | | 9,940.00 SF |
| 12th Floor | RESIDENTIAL | 1 | 9,940.00 SF |
| | | | 9,940.00 SF |
| 13th Floor | RESIDENTIAL | 1 | 7,190.00 SF |
| | | | 7,190.00 SF |
| ROOF | RESIDENTIAL | 1 | 910.16 SF |
| | | | 910.16 SF |
| Grand total: 28 | | | 387,041.46 SF |

**IMC ARCHITECTURE** DPC
254 36TH ST, SUITE C663
BROOKLYN, NY 11232

# 1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

BUILDING GROSS AREA
DATE: 01/31/2025
JOB NUMBER: 1980

# Appendix C

## Phase I ESA

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

NYC Office
15 Ocean Avenue, Suite 2B
Brooklyn, New York 11225
T (718) 636-0800 ; F (718) 636-0900

Long Island Office
77 Arkay Drive, Suite K
Hauppauge, New York 11788
T (631) 462-5866 ; F (631) 462-5877

WWW.HYDROTECHENVIRONMENTAL.COM

# Phase I Environmental Site Assessment Report

**1720 Atlantic Avenue**
**Brooklyn, NY**




**Prepared For:**

**Cheyenne Realty**
**15 Ocean Avenue**
**Brooklyn, NY 11225**

**September 9, 2020**

**HydroTech Job No. 200039**

**Phase I Environmental Site Assessment Report**

**1720 Atlantic Avenue, Brooklyn, NY**

**September 9, 2020**

HydroTech Environmental Engineering and Geology, DPC appreciates the opportunity to work for Cheyenne Realty at the property located at 1720 Atlantic Avenue in Brooklyn, New York.

Should you require any additional information or have any comments regarding the contents of this report, please feel free to contact our office at your convenience.

We declare that, to the best of my professional knowledge and belief, HydroTech personnel meet the definition of an environmental professional as defined in §312.10 of 40 C.F.R. Part 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

Very Truly Yours,

**HydroTech Environmental Engineering and Geology, DPC**

**Prepared By:**

X_____

Ruijie Xu

Project Manager




**Approved By:**

X_____

Mark E. Robbins, PG

Principal

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## 1.0 EXECUTIVE SUMMARY

HydroTech Environmental Engineering and Geology, DPC. (HydroTech) has performed a Phase I Environmental Site Assessment (Phase I ESA) at the Subject Property located at 1720 Atlantic Avenue, Brooklyn, New York. The Phase I ESA was performed to meet or surpass the American Standard of Testing Materials Standard for Phase I Environmental Site Assessments E 1527-13. The purpose of the assessment was to characterize the environmental quality of the Subject Property through the identification of Recognized Environmental Conditions. All work was performed under the supervision of a HydroTech Project Manager and under the guidance of a HydroTech geologist.

The results of the Phase I Environmental Site Assessment are contained in this report. The Phase I ESA has identified the following Recognized Environmental Conditions:

- The presence of active Spill #9402692 at adjacent site (§5.0)
- The suspect presence of an adverse impact to groundwater beneath the Site from adjacent gasoline station (§5.0, 6.0)
- The presence of a Potential Vapor Encroachment Condition at the Subject Property (§5.0)

The following Non-Scope Consideration was identified:

- The presence of LIRR aboveground rail within 200 feet from the Subject Property (§7.0)

No effort has been made to perform any investigation beyond what is included in this Report. The observations and conclusions included herein summarize the results of the Phase I Environmental Site Assessment up to the date of the fieldwork and the date of this Report.

The following sections provide the details and specific information pertaining to the various components of the Phase I Environmental Site Assessment.

## 2.0 INTRODUCTION & SCOPE OF WORK

### 2.1 Introduction

HydroTech Environmental Engineering and Geology, DPC (HydroTech, HTE, the "*Preparer*") has been retained by Cheyenne Realty (the "*User*") to perform a Phase I Environmental Site Assessment (ESA, Assessment) at the property located at 1720 Atlantic Avenue in Brooklyn, New York. The User is a current owner for the property. The Phase I was prepared for due diligence purposes as part of CEQR Environment Assessment process. The property will hereafter be referred to as the "*Subject Property*".

The purpose of a Phase I Assessment is to characterize the environmental quality of the Subject Property through the determination of the presence of Recognized Environmental Conditions (RECs). As defined by the American Society of Testing and Materials (ASTM), a REC is, "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." (ASTM E 1527-13, §1.1.1). As defined by the ASTM, a Controlled Recognized Environmental Condition (CREC) is, "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls." (ASTM E 1527-13, §3.2.18). As defined by the American Society of Testing and Materials (ASTM), a HREC is, "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls" (ASTM E 1527-13, §3.2.42). Adjacent and surrounding sites are evaluated as part of a Phase I Assessment with regards to conditions that may indicate a high probability of the migration of hazardous substances or petroleum products to a property. As defined by ASTM, migrate/migration is, "the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." (ASTM E 1527-13, §3.2.56).

To this end, HydroTech has collected information through several sources including, but not limited to a property and neighborhood inspection by trained environmental personnel, a review of historical and current information collected from various federal, state, county and municipal agencies and personal interviews with Site representatives. Recommendations are offered where prudent. Firms subcontracted by HydroTech and the User may have collected some information used in this report. Some or all the Assessment has been performed or supervised by environmental professionals as required by 40 C.F.R. Part 310. The procurement of Title and Judicial Records for Environmental Liens and/or Activity and Use Limitations ("AULs") by HTE is beyond the scope of this practice (ASTM E 1527-13) and investigation.

**2.2 Scope of Work**

The general activities of the Phase I Assessment included the performance of the following tasks:

1. A detailed inspection of the Site and its general vicinity.
2. A review of all reasonably ascertainable regulatory agency documents.
3. A neighborhood hazardous waste survey utilizing Federal and State databases.
4. A review and evaluation of reasonably ascertainable geologic and hydrogeologic reference materials.
5. Interviews with representatives of the Site.
6. The preparation of a Phase I Environmental Site Assessment Report.

The Phase I ESA was performed in accordance with ASTM E 1527 except where noted in Section 2.3 and HydroTech's Proposal dated June 8, 2020. As required by ASTM, the User has supplied information that has been relied upon by HydroTech in the rendering of findings, conclusions, and opinions, except where indicated in Section 2.3 or elsewhere in the report.

**2.3 Limitations and Exceptions & Data Gaps**

In addition to those items outlined by ASTM E 1527, asbestos, radon, lead-based paint, radon, wetlands, and lead in water were also considered in the scope of work. While this Phase I Assessment provides information with respect to both asbestos and lead-based paint, the presence of these materials can only be confirmed through the collection and analysis of bulk samples.

This report is not intended to serve as a full or complete asbestos survey or lead-based paint survey. These surveys are commonly performed for building demolition/ renovation or the recognition/identification of any building materials that may contain asbestos or lead-based paint and it is recommended that they are performed prior to any such work.

Business Environmental Risks have not been considered and are not included in the scope of work. This Phase I Assessment is not intended to address the soil/groundwater quality at the Subject Property for general Site characterization or waste disposal purposes. This Phase I Assessment is not intended to evaluate the fair market price of the property if it is not affected by hazardous or petroleum products.

Portions of this report have been prepared utilizing information provided by third-party sources or the user. As such, HydroTech relies upon these sources and has recorded findings, conclusions, and opinions based upon this information. HydroTech cannot attest to the accuracy of this information but where possible had attempted to verify the information.

This Phase I ESA Report is not intended to serve or be construed as a regulatory compliance report for the property. No legal opinions are provided with this report.

It should be noted that the United States Environmental Protection Agency (USEPA) has determined in their final ruling (40 C.F.R. Part 312, Standards and Practices for All Appropriate Inquires) of December 30, 2013 that "persons conducting all appropriate inquiries may use the procedures included in the ASTM E 1527-13 standard to comply with today's final rule." Therefore, while all appropriate inquiry could be considered satisfied as this ESA was prepared in exceedance(s) of the ASTM E 1527-13 standard, persons attempting to utilize this ESA while seeking one of the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA's) Limited Liability Protections (LLPs) must note that; a) they will not maintain CERCLA liability protections unless they also comply with all of the continuing obligations established under the statute that is beyond the scope of this practice (ASTM E 1527-13) and investigation; and b) in order to qualify for one of the CERCLA LLPs, the person commissioning the Phase I Environmental Site Assessment must have provided site-specific information (if available) to HydroTech before the date of this ESA, otherwise a determination could be made that all appropriate inquiry is not complete.

As defined by ASTM, a Data Gap is defined as an inability to obtain information during the Phase I process, as required under the Standard, despite a good faith effort by the Environmental Professional to obtain this information. The Phase I ESA report must contain information pertaining to Data Gap(s) and evaluate their relative significance.

The following table provides a breakdown of the Data Gap(s) encountered and their relative significance.

| **Data Gap** | **Significance** |
|---|---|
| Site History – not conducted to the time of first development and/or 5-year intervals. | Low – unlikely to alter conclusions due to findings of other resource(s). |
| No environmental lien provided. | Low – unlikely to alter conclusions due to findings of other resource(s). |
| Municipal Records – FOIAs not returned as of the date of the report. | Unknown – Any FOIA responses that alter the conclusions of the report will be provided upon receipt. |
| No access to a crawl space/partial basement | Low – unlikely to alter conclusions due to findings of other resource(s). |

Due to other historical information obtained over the course of this investigation, HydroTech does not consider these data failures/data gaps significant, as they appear unlikely to have affected potential Recognized Environmental Conditions at the Subject Property.

## 3.0 SUBJECT PROPERTY DESCRIPTION

### 3.1 Subject Property Vicinity

The Subject Property is located on the west side of Schenectady Avenue between Atlantic Avenue to the north and Pacific Street to the south, in the borough of Brooklyn New York. The borough of Brooklyn is situated in the eastern portion of New York City.

The vicinity of the Subject Property consists of commercial and residential properties. The ground surfaces in the vicinity of the Site consist of concrete and landscaped areas.

### 3.2 Subject Property Description

The Subject Property is identified as 1720 Atlantic Avenue, Brooklyn, NY. The Subject Property consists of three tax lots (Block 1335, Lots 28, 30 and 35) with a total area of 47,850 square feet. The Site is developded with 1-story shopping center in the southern half of Lot 35 and entire Lot 28 and Lot 30 and outdoor parking in the northern half of Lot 35. The current tenants consist of Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gem Pawnbrokers and Checks Cashed. The building in the southern portion has a full basement divided into several spaces utilized as storage/mechanical space for each commercial tenant. The building in the northwestern portion has a partial basement underneath the northern portion and may have a crawl space/partial basement underneath the central portion, which couldn't be confirmed due to lack of access.

Each commercial tenant has their own gas-fired/electrical heating system. The utility meters are located in the basement. Electricity, water and gas services enter the property underground via Atlantic Avenue to the north and Schenectady Avenue to the east. **Appendix A** provides photographs of the Subject Property.

Access to the Subject Property is via Atlantic Avenue to the north and Schenectady Avenue to the east. The topography of the Subject Property and its vicinity is generally even. **Figure 1** provides a Site Plan.

### 3.3 Adjacent Land Use

The Subject Property is located in a residential and commercial area. The following properties were identified immediately adjacent to the Subject Property:

| Direction | Adjacent Parcel | Surrounding Parcels |
|---|---|---|
| North | Long Island Rail Road (Aboveground railroad) and Atlantic Avenue throughout; Harmony Park | Residential/ Commercial/Recreational/Manufacturing |
| South | Pacific Street throughout; 4-story residential building | |
| East | Schenectady Avenue throughout; Gas station (Shell); 1-story vacant commercial building | |
| West | 1-story manufacturing building | |

HydroTech does not believe that the present uses of any adjacent properties identified above should impact upon the environmental quality of the Subject Property. The impact of the eastern property operated as a gas station will be further evaluated in Section 5.0.

HydroTech does not believe that any of the surrounding parcels should impact upon the environmental quality of the Subject Property.

**3.4 Proximity to Environmentally Sensitive Areas**

The results of the Site inspection and an evaluation of the United States Geological Survey (USGS) 7.5 Minute Topographic Map containing the properties indicate that there are six (6) sensitive receptors within 0.125 miles radius of the Subject Property: Arthur Gorham, Young Ones Day Care, Brooklyn Kindergarten Society, Good Hepherd Services, PS 243 and Interfaith Medical Center. HydroTech does not believe that the Subject Property should adversely impact upon the sensitive receptors.

**3.5 Environmental Setting**

The Site is located in the northern portion of Brooklyn, New York. The elevation of the Subject Property is approximately 65 feet above mean sea level (USGS 7.5-Minute Brooklyn, New York Quadrangle, 2013).

Brooklyn, New York is located in the western portion of Long Island. Long Island consists of a wedge-shaped mass of unconsolidated deposits that overlie an ancient basement rock.

The thickness of these deposits ranges from approximately 100 feet on the Island's north shore to approximately 2,000 feet in some portions of the south shore. These deposits contain groundwater that is the sole source of drinking water for the Island's over 3.1 million residents.

The major landforms of Long Island of importance to the hydrologic system are the moraines and outwash plains, which originated from glacial activity. The moraines represent the farthest extent of the glacial advances. The moraines consist of till, which is a poorly sorted mixture of sand, silt, clay, gravel, and boulders. The till is poor to moderately permeable in most areas. Outwash plains are located to the south of the moraines. The outwash plains were formed by the action of glacial meltwater streams, which eroded the headland material of the moraines and laid down deposits of well-sorted sands, silts, and gravels. These outwash deposits have a moderate to high permeability.

The **Upper Glacial Aquifer** is the uppermost hydrogeologic unit. This aquifer encompasses the moraine and outwash deposits, in addition to some localized lacustrine, marine and reworked materials. A relatively high horizontal hydraulic conductivity and a low vertical hydraulic conductivity characterize the outwash plain portion of this unit. Since the water table is situated in the Upper Glacial Aquifer.

The **Magothy Formation** directly underlies the Upper Glacial Aquifer in the vicinity of the site. This formation is a Cretaceous coastal-shelf deposit, which consists principally of layers of sand and gravel with some interbedded clay. This formation ranges from moderate to highly permeable. A clay layer in some parts of Long Island confines the uppermost portion of the aquifer. The Magothy is Long Island's principal aquifer for public water supply. The United States Environmental Protection Agency (USEPA) has classified the Long Island aquifer system as a sole source aquifer.

The **Raritan Formation** is the deepest unit and rests directly above the bedrock units. This formation is comprised of a sand member (**Lloyd Aquifer**) and a clay member (**Raritan Clay**). The Lloyd sand extends southward from Flushing Bay to the Atlantic Ocean. The thickness of the sand member ranges in depth from 200 to 800 feet below sea level and increases in thickness to the southeast. The clay member acts as an aquitard confining the lower Lloyd aquifer between the clay and the underlying bedrock.

Long Island has a humid, temperate climate that is strongly influenced by the Long Island Sound and the Atlantic Ocean. These bodies of water temper extremes of heat in summer and cold in winters. Climate affects the formation of soil through its influence on chemical, biological and physical processes. The amount and content of rainwater, as it percolates through the soil, chemically alter the composition of the soils. Chemical and biological processes are also affected by temperature changes. The physical weathering of the soil and rocks is affected by freezing.

The soils of Long Island are relatively young, having developed since the last recession of glaciation approximately 25,000 years ago. Over thousands of years, the minerals in the bedrock debris slowly decayed and disintegrated, providing the necessary substrate to support biological activity. Rock-forming minerals such as feldspars and micas, that are rich in potassium and aluminum, release their important elements as they are converted to clays. Soils formed in glacial drift are commonly known as loam, a mixture of sand, silt, and clay.

The soils of Long Island formed three distinct soil horizons or zones on glacial deposits. The lowest horizon, designated as the C-horizon, is similar in composition to the transported glacial rock debris. The B-horizon is above the C-horizon and consists of sediments that have been considerably altered from their C-horizon source. Vadose zone water percolates through the B-horizon, carrying compounds of clay, iron, aluminum oxides, carbonates, and humic acid. These materials are redeposited within the lower portions of the B-horizon and form the zone of accumulation. The zone of accumulation may also be the zone of groundwater saturation.

The zone of leaching is found in the A-horizon, which is the upper, organic-rich and life-sustaining layer with abundant roots and organic matter at the surface. The A-horizon is distinct from the underlying B & C-horizons because it is darker and more friable.

Differentiation in soil horizons is the result of various soil-forming processes such as the physical breakdown of particles, the leaching of salts, the accumulation of organic matter and the chemical weathering of primary minerals. The chemical weathering of

primary minerals occurs through processes such as chelation, the formation of silicate clay minerals and the translocation of silicate clay minerals by percolating water from one horizon to another and the accumulation of iron.

According to the USGS Groundwater Conditions on Long Island, New York 2006 Potentiometric Surface Map, the regional groundwater flow direction in the vicinity of the Site is presumed to be toward the northwest in the direction of the East River. According to the USGS Long Island Depth to Water View (2013), the depth to water in the immediate vicinity of the Site is between 51 and 75 feet.

## 4.0 HISTORICAL USE

### 4.1 Sanborn Maps

Sanborn Fire Rate Insurance Maps for the Subject Property and its vicinity dated 1888, 1908, 1932, 1951, 1963, 1965, 1978 – 1980, 1982, 1987 – 1989, 1991 – 1994 and 2001 – 2007 were obtained from EDR and evaluated in order to establish the history of the Site. **Appendix B** provides a copy of the Sanborn Fire Rate Insurance Maps:

| Date | Subject Property Shown As | Surrounding area |
|---|---|---|
| 1888 | Three (3) lots addressed as 1706-1718 Atlantic Avenue, 1734 Atlantic Avenue (a.k.a. 1711-1723 Pacific Street and 54-72 Schenectady Avenue) and 1709 Pacific Street.<br><br>1706-1718 Atlantic Avenue: Vacant<br><br>1734 Atlantic Avenue: Operated as "The Brooklyn Mill & Lumber Co." with a 1-story storage building, a 2-story lumber building and a 3-story building with 1-story boiler room in the southern portion. Two horizontal steam boilers are observed in the boiler room. A small room inside the 3-story building is marked as "Shear & Dry Painting".<br><br>1709 Pacific Street: a 2-story dwelling in the northwest and a 1-story stable in the southeast. | Commercial, residential |
| 1908 | Three (3) lots addressed as 1706-1718 Atlantic Avenue, 1720-1734 Atlantic Avenue (a.k.a. 1711-1725 Pacific Street and 54-72 Schenectady Avenue) and 1705-1709 Pacific Street.<br><br>Entire site is operated as "Wichert Gardner & Shoe Factory"with a 3-story, a 4-story and a 5-story factory buildings connected to each other and several 1-story and 2-story extensions for packaging, auto house, coal shed, boiler room, nickle plating. Four horizontal steam boilers were noted in the boiler room in mid-eastern portion.<br><br>The western portion of 1706-1718 Atlantic Avenue is vacant.<br><br>The third floor of the 5-story in the northern portion of 1720-1734 Atlantic Avenue is operated by "Dudley & Co.". | |

| | | |
|---|---|---|
| 1932, 1951, 1963, 1965, 1978, 1980 | Same address and similar building layout and usage as in 1908. The Site is no longer operated by "Wichert Gardner & Shoe Factory". Starting from at least 1963, the majority of the Site is used for steel storage and steel door manufacturing. The vacant portion in 1706-1718 Atlantic Avenue is developed with a 1-story building for printing (1932), clothing manufacturing (1951) and machine shop (1963) and a 3-story building operated as "Raydn Mill" (1932) and as fire door manufacturing (1951). The steam boilers are no longer noted. | Commercial, residential, garage, vacant<br><br>1670-1676 Pacific Street (a.k.a. 74-80 Schenectady Avenue): Filling Station and Auto Laundry (1932 - 1965) |
| 1982, 1987–1989, 1991–1994, 2001 | One (1) vacant lot addressed as 1706-1734 Atlantic Avenue (a.k.a. 1705-1725 Pacific Street and 54-72 Schenectady Avenue). | Commercial, residential, garage<br><br>1736-1744 Atlantive Avenue (a.k.a. 59-63 Schenectady Avenue): Filling Station (1987 - 2007) |
| 2002 - 2007 | One (1) lot addressed as 1706-1734 Atlantic Avenue (a.k.a. 1705-1725 Pacific Street and 54-72 Schenectady Avenue). Northwestern and southern portion are developed with a 1-story commercial building. The remaining portion in the north is vacant in 2002 and then utilized for parking. | |

**4.2 City Directory Search**

In order to further assess the property's history, available City Directory files were obtained from EDR for review. The City Directories document in known occupants of specific properties and sorted by individual addresses. **Appendix C** provides a copy of the City Directory Search.

The following provides a listing of all documented usages of all the address for the Subject Property.

| **Date** | **Use of Subject Property** | **Surrounding Property Use** |
|---|---|---|
| 1928 | The Bigger Press; Progressive Knitting Works; Progressive Rayon Fabric, Thermal Syndicate LTD; Wichert Inc. Shoes; Linden C A Intr Dectr | Commercial, residential |
| 1934 | Bigger Press Inc The (NY) WM C Bigger Pres Jesse H Bigger Sec Printers; Automotive Camp Mtr Corp Nicholas F Ryder Pres Mrs Eva F Ryder Sec-Treas H; Knitting Co Inc Harry Rubenstcin Pres Knit Gds Mfrs; Hudson Gosale Porter Mizrabi Shoe Reprs R; Nelson Jas Lab R; Residential | |

| Date | Use of Subject Property | Surrounding Property Use |
|---|---|---|
| 1940 | Independent Fireproof Door Co.; Rosen & Rosen Store Fixts; Rubinger Knitting Mills; Biltwell Steel Prods Corp. | |
| 1945 | Mar Lou Knitting Mills; Advance Rayon Fabrics Co.; Advance Mills; JM March Co. Inc.; Animate Toy Co.; Ancira Lock & Seal; Woodhaven Metal Stamping Co. Inc.; Waterbury S&Son Co. Shoe Mfrs; Norma Footwear Co.; M&M Elbow Corp.; Goldberg & Smith; Fitrite Elbow Gorp; Bklyn Hndkrchf Co; Residential | |
| 1949 | Suva Mfg Co. Inc.; Independent Fireproof Door Co. Inc.; Biltwell Steel Prods Corp; Animate Toy Co; Ancira Lock & Seal; JM Mach Co. Inc.; Norma Footwear Corp; Koslow Carton Co; Fitrite Elbow Corp; Cosmos Footwear Corp; Bklyn Hndkrchf Co; | |
| 1960 | Small Stuff Togs Inc.; Independent Fireproof Door Co. Inc.; Cru-Cut Knitwear Corp; Bilt-Rite Steel Buck Corp; Bass & Gray; Abbey Sportswr; Pioneer Sportswr Inc.; Sylu Knitg Mills Inc; Tavin & Ehrenberg Knitng Mills; Star Clothing Co Inc; Rako Elec Mfg Co; Plisco WM B Molds; Olis Knitng Mills Inc; Metalectrics Inc; Kal Mfg Corp; Goldberg & Smith; Cosmos Footwear Corp; Brooklyn Hndkrchf Co; Residential; Pee Wee Molding Corp; Jacor Inc; Harris Prods Co; Flair Mfg Corp | |
| 1965 | Small Stuff Togs Inc; Independent Fireproof Door Co Inc; Bilt Rite Steel Buck Corp; Pee Wee Molding Corp; Fine Bros Corp | |
| 1970 | Small Stuff Togs Inc., Independent Fireproof Door Co Inc; Gale Fashns Inc; Bilt Rite Steel Buck Corp; Bass & Gray; Abbey Sportswr; Fine Bros Corp | |
| 1973 | Ken Wire & Metal Prods; Fine Bros Corp | |
| 1976 | Jassen Geo Inc.; Sylu Knitg Mills Inc.; Weinberg Louis P Atty; Tavin Knitg Mills Inc; Olis Knitg Mills Inc; Goldberg & Smith; Bklyn Hndkrchf Co Main Ofc & Fcty; Fine Bros Corp | |
| 1980 | Sylu Knitg Mills Inc | |
| 2004 | P&P Drugs Inc; Franchise Development Assoc; Elestronic Mall Inc; U Rove Check Cashing; Atlantic Florist; Ahmad Edalmnsora; LA Moda Furniture Inc | |
| 2005 | Atlantic Pharmacies; Ahmad Edalmrnsora; Ninety Nine Atlantic Corp; A&E Stores Inc | |

| Date | Use of Subject Property | Surrounding Property Use |
|---|---|---|
| 2009 | Unknown occupant; Atlantic Pharmacy; Philannryan Inc; Franchise Development Associates Inc; Ahmad Edalmrnsora; Electronic Mall Inc; U Rove Check Cashing Inc; LA Moda Furniture Inc; B&S Stores; A&E Stores Inc; 99 Atlantic Corp | |
| 2014 | Unknown occupant; Atlantic Pharmacy; Golden Krust; Ahmad Edalmrnsora; Checks & More; Locksmith in Brooklyn; LA Moda Furniture; Dunkin Donuts; Beauty & More; Aarons Furniture; A&E Stores Inc | |
| 2017 | Atlantic Pharmacies; Golden Krust; Ahmad Edalmrnsora; Checks & More; Electric Mall; Gem Pawnbrokers; Locksmith in Brooklyn; Lamoda Furniture; Dunkin Donuts; Dollar Tree; Beauty & More; Aarons Furniture | |

**4.3 Previous Studies**

HydroTech requested copies of any available historical environmental reports associated with the Subject Property. No environmental reports were available for review.

**4.4 Current/Previous Owners**

According to the property listing on file with the NYC Automated City Register Information System (ACRIS) database and the New York City Department of City Planning, the following provides a list of historical owners of the Site:

| Year | Name of Previous Owner(s) at Lot 28 |
|---|---|
| 1978 | Louis P. Weinberg; Paul S. Weinberg; Katz Helen; St. German of Alaska Eastern Orthodox Catholic Church; Dorothy A. Smith; Hownde Realty Corp.; Thompson Allie Mae |
| 1979 | Commissioner of Finance of The City of New York |
| 1985 | City of New York; Charles Gardyn |
| 1998 | Charles Gardyn; Bermuda Realty LLC |
| 2005 | Bermuda Realty LLC; Bermuda Realty No. 2 LLC |
| **Year** | **Name of Previous Owner(s) at Lot 30 and Lot 35** |
| 2005 | Bermuda Realty LLC; Bermuda Realty No. 2 LLC |

**4.5 Historic Aerials**

Publicly available historical aerial photographs for the Subject Property and its vicinity dated 1954, 1966, 1980, 1994, 2004, 2008, 2009, 2011-2013 and 2015 were reviewed and evaluated. The photo from 1994 was not clear to identify the structure on the Subject Property. The following summary provides a summary of this evaluation.

| Date | Subject Property Shown As | Surrounding area |
|---|---|---|
| 1954, 1966, 1980 | Three buildings are located on the Subject Property. | Developed with commercial/residential structures |
| 2004, 2008, 2009, 2011-2013, 2015 | Two buildings are located in the northwestern and southern portion of the Subject Property. The remaining northern portion is used for parking. | |

**4.6 Historical Use Summary**

Based on a review of available information provided and/or obtained for the Subject Property as of the date of this ESA, it appears that the Subject Property was developed prior to 1888 with several buildings occupying most of the Site and operated as "The Brooklyn Mill and Lumber Co". A small portion in the southwestern portion was developed with dwelling and stable. The Site was further developed in early 1900s and operated as "Wichert Gardner Shoe Factory". Two buildings were constructed in the northwestern portion of the Site prior to 1930s and utilized for printing, mill, machine shop, fire door manufacturing, clothing manufacturing. Starting from at least 1963, the majority of the Site is used for steel storage and steel door manufacturing. In 1982, the Sanborn Map indicated all the structures on Site were demolished. The Site had remained vacant and undeveloped until 2002 when the northwestern and southern portions of the Site were developed with a 1-story commercial building. The vacant portion in the north has been utilized for parking since 2003. None of the historic use of the Subject Property should be a concern.

According to Sanborn Map records, two (2) horizontal steam boilers were observed in the mid-eastern portion in 1888 and four (4) horizontal steam boilers were observed in the similar area in 1908 after the Site is redeveloped. No fuel storage tanks were noted in any Sanborn Maps.

A review of the available records, including the Sanborn Maps, City Directory, Historic Aerials, and ACRIS records, indicates that the historic uses of the surrounding properties consisted of mostly commercial and residential uses. The southern property at 1670-1676 Pacific Street (a.k.a. 74-80 Schenectady Avenue) is located over 90 feet from the Subject Property and upgradient, which was operated as a filling station and auto laundry between 1932 and 1965 as noted on Sanborn Maps. The eastern property at 1736-1744 Atlantive Avenue (a.k.a. 59-63 Schenectady Avenue) is located over 90 feet from the Subject Property and crossgradient, which has been operated as Filling Station between 1987 and 2007 as noted on Sanborn Maps. As observed during site inspection, this adjacent site is still operated as filling station (Shell). These sites will be further evaluated in Section 5.0.

## 5.0 RECORDS REVIEW

### 5.1 Environmental Databases

Federal, State, Local and Tribal hazardous waste databases were reviewed with respect to the Subject Property and surrounding properties. ASTM E 1527 specifies the search area for each database. In addition, all orphan sites (those without adequate information for mapping purposes) listed in the database search were also reviewed, evaluated and incorporated (as needed). **Appendix D** provides a copy of the Database Search Results. The following databases, with the appropriate search radius, were reviewed:

| **ASTM Standard Environmental Record Source** | **Minimum Search Distance (MSD)** | **Number of Mapped Sites within MSD** | **Number of Orphan Sites** |
|---|---|---|---|
| 1. NPL (Superfund)<br>*National Priorities List* | 1.0 Mile | 0 | 0 |
| 2. Delisted NPL Site<br>*Delisted National Priorities List Site* | 0.5 Mile | 0 | 0 |
| 3. SEMS (Former CERCLIS)<br>*Superfund Enterprise Management System* | 0.5 Mile | 1 | 0 |
| 4. SEMS-ARCHIVE (Former CERCLIS-NFRAP) *SEMS Archive* | 0.5 Mile | 0 | 0 |
| 5. RCRA-TSD CORRACTS<br>*Resource Conservation & Recovery T/S/D Facility Subject to Corrective Action* | 1.0 Mile | 0 | 0 |
| 6. RCRA-TSD<br>*Resource Conservation & Recovery T/S/D Facility (Non-Corrective Action)* | 0.5 Mile | 0 | 0 |
| 7. RCRA-LG<br>*Resource Conservation & Recovery Large Quantity Generator* | Site & Adjoining | 0 | 0 |
| 8. RCRA-SG<br>*Resource Conservation & Recovery Small Quantity Generator* | Site & Adjoining | 0 | 0 |
| 9. ERNS<br>*Emergency Response Notification System* | Property Only | 0 | 0 |
| 10. Local / State / Tribal UST, PBS<br>*Registered Storage Tanks* | Site & Adjoining | 0 | 0 |
| 11. Local / State / Tribal LTANKS<br>*Leaking Underground Storage Tanks* | 0.5 Mile | 43 | 0 |
| 12. State Spill Incidents<br>*NYSDEC Spill Sites* | 0.125 Mile | 17 | 0 |

| | | | |
|---|---|---|---|
| 13. Local / State / Tribal SWF<br>*Solid Waste Facility / Landfill* | 0.5 Mile | 0 | 0 |
| 14. Local / State / Tribal CERCLIS<br>*Inactive Hazardous Waste Disposal Site* | 0.5 Mile | 0 | 0 |
| 15. Inst. / Engineering Controls<br>*Registry of Institutional/ Engineering Controls* | Property Only | 0 | 0 |
| 16. Voluntary Cleanup Program Sites<br>*Local / State / Tribal VCP Sites* | 0.5 Mile | 3 | 0 |
| 17. Brownfield Sites<br>*Local / State / Tribal Brownfield Sites* | 0.5 Mile | 1 | 0 |
| 18. Non-ASTM Record Source(s) | Not Applicable | No MSD has been established by ASTM for these sources. | |

A review and evaluation of the above Federal and State/Tribal/Local Databases indicate that the Subject Property is not identified in any of their databases.

One (1) site is listed in the Superfund Enterprise Management System (SEMS) database located within a ½-mile radius of the Subject Property. The site is located over 1,200 feet to the east-southeast and crossgradient of the Subject Property. Due to its proximity to the Subject Property and related location to the groundwater flow direction, this site should not be a concern.

Forty-three (43) sites are listed on the Leaking Underground Storage Tanks (LTANKs) database, within a 0.5-mile radius of the Subject Property. The adjacent LTANK site is identified as Atlantic Schenectady at 1740 Atlantic Avenue, which is located over 90 feet to the east-northeast and crossgradient of the Subject Property. The Site has been operated as gas station as noted in Section 4.0. Four (4) spills are listed in the LTANK records and are identified as following:

- Spill #0007587 was reported on September 27, 2000 when semi-volatile organic compounds (SVOCs) were identified in the analytical results of endpoint samples for removal of one 550-gallon and one 1,000-gallon waste oil USTs. The spill was determined to be investigated and remediated under Spill #9402692 and closed on February 24, 2004.
- Spill #0313509 was reported on March 9, 2004 due to a tank test failure. The spill was closed on July 7, 2004 after the tank was retested and passed.
- Spill #8605149 was reported on November 2, 1986 when pressure loss was observed at two 4,000-gallon gasoline tanks with no product release. The spill was closed the same day.
- Spill #9402692 was reported on May 24, 1994 when free product was found in multiple monitoring wells during an investigation. Periodic monitoring and sampling had been performed throughout the years. Soil Vapor Extraction (SVE)

system was installed and operated to remediate the contamination. However, it was proved not efficient as expected as the soil at the Site is too compacted. Therefore, a multi-phase extraction (total fluid pumps) system was proposed to remove the free phase product and a high vacuum SVE was proposed to address the dissolved petroleum contamination and approved by NYSDEC in 2016. No further information was provided regarding to spill closure. Due to the current regulatory status, the presence of an active spill should be considered a REC.

The site is also listed in the NY Spills database with following spills:

- Spill #0313485 was reported on March 9, 2004 due to line test failure. All product was contained in a double wall lined pipe. Replacement was performed and the spill was closed on October 18, 2004.
- Spill #1200181 was reported on November 18, 2011 when two flex hose from dispensers were found leaking. The hose was replaced. As soil below the dispensers were impacted, the spill was consolidated with spill #9402692 and closed on April 6, 2012.

Based upon the records from EDR Hist Auto database, the property at 1740 Atlantic Avenue has been operated as following:

Gasoline Service Stations:

- SAF-MAR Service Inc. in 1977 – 1982;
- Ellis Petro Corp. in 1986 – 1988;
- Bronco Gas Inc. in 1991 – 1996;
- Arminda Service in 1996 – 1999.

General Automotive Repair Shop/Automotive Repair Shop, NEC:

- Kings Amoco Repair Service Inc. in 1987 – 1989;
- Zulu Auto Repair Serv Inc. in 1988 – 1990;
- 1740 Auto Service Inc. in 1991 – 1995;
- Arminda Service Station Inc. in 2000 – 2014.

Forty-one (41) LTANK sites have been cleaned up to the satisfaction of the NYSDEC and are considered closed; one (1) LTANK site is currently active. The active LTANK site is identified as Dept of Sanitation at 1760 Atlantic Avenue, which is over 300 feet to the east and crossgradient of the Subject Property. Two (2) spills are listed in the LTANK records. Spill #9300017 was reported on April 1, 1993 when 50 gallons of diesel were spilled onto the pavement due to tank overfill. The spill was cleaned up with speedi-dri to the satisfaction of NYSDEC and closed on December 30, 2002. Spill #0002025 was reported on May 17, 2000 when gross soil contamination were observed in the vicinity of the sealed fill ports and piping of a hoist oil tank. Remediation including soil excavation and installation/operation of Soil Vapor Extraction (SVE) system were performed since 2014. Periodic monitoring and sampling has been continuously performed to address off-site plume related to the former fill port.

None of the these LTANK sites should impact upon the environmental quality of the Subject Property due to various factors such as their location relative to the groundwater flow direction, their current regulatory status, the nature of the spills and/or their proximity.

Seventeen (17) sites are listed in the New York Spills database within a 0.125-mile radius of the Subject Property. Six (6) sites are located in the adjacent properties and are identified as following:

- MH 71430 at Pacific St/Schenectady Ave, which is located over 40 feet to the southeast and upgradient of Subject Property. Spill #0206401 was reported on September 20, 2002 when 1 quart of unknown oil were spilled on 2 gallons of water. The spill was cleaned up to the satisfaction of the NYSDEC and closed on November 27, 2002.
- Schenectady Ave and Atlantic Avenue, which is located over 60 feet to the northeast and crossgradient of the Subject Property. Spill #9809732 was reported on November 3, 1998 when approximately 10 gallons of unknown oil was found in the transformer vault. The spill was cleaned up to the satisfaction of the NYSDEC and closed on November 4, 2002.
- Con Ed Manhole 2372 at Schenectady Avenue/Atlantic Avenue, which is located over 40 feet to the northeast and crossgradient of the Subject Property. Spill #0400864 was reported on April 25, 2004 when approximately 2 gallons of petroleum were spilled onto 300 gallons of water. Spill was cleaned up to the satisfaction of the NYSDEC and closed on July 19, 2004.
- Manhole 302 at Schenectady Ave/Atlantic Avenue, which is located over 40 feet to the northeast and crossgradient of the Subject Property. Spill #9813026 was reported on January 23, 1999 when approximately 1 gallon of unknown petroleum was contained inside a manhole. Spill was cleaned up to the satisfaction of the NYSDEC and closed on October 18, 2002.
- Atlantic Schenectady at 1740 Atlantic Avenue, which is discussed above.
- Shell Gas Station at 1746 Atlantic Ave, which is located over 170 feet to the east and crossgradient of the Subject Property. Spill #0603361 was reported on June 27, 2006 due to line test failure and no release was identified. Spill was cleaned up to the satisfaction of the NYSDEC and closed on August 8, 2006.

Ten (10) sites have been cleaned up to the satisfaction of NYSDEC and closed; the remaining one (1) site is currently active. The active site is identified as Brooklyn North 08 DOS - DDC at 1755 Pacific Street, which is located over 350 feet to the east-southeast and crossgradient of the Subject Property. The following spills are listed in the records associated with this site:

- Spill #0005325 was reported on August 3, 2000 as contamination was identified during excavation around fill port piping of a waste oil tank. Petroleum impact was also identified in the groundwater during further investigation. SVE and Groundwater Extraction (GWET) system had been actively operated as part of the remediation and the GWET was shut down in 2006. Spill closure is pending addressing the off-site plume related to the former fill port.

- Spill #9610332 was reported on November 18, 1996 when approximately 3 yards of contaminated soil were identified during tank upgrade. The spill was consolidated with spill #9703288 and closed on March 2, 2005.
- Spill #9703288 was reported on June 16, 1997 related to suspect underground tank leak. Based upon periodic groundwater sampling results from March 2019, no significant impact was observed in groundwater any more and the spill was closed on August 5, 2019.

None of the spill sites should be considered a REC due to various factors such as their location relative to the groundwater flow direction, their current regulatory status, the nature of the spills and/or their proximity.

Three (3) sites are listed in Voluntary Cleanup Program (VCP) database located within a ½-mile radius of Subject Property. All sites are located over 1,700 feet to the northwest/west-northwest and crossgradient of the Subject Property. Due to their proximity to the Subject Property and relative location to the groundwater flow direction, these sites should not be a concern.

One (1) site is listed in Brownfield Cleanup Program (BCP) database located within a ½-mile radius of Subject Property. The site is located over 1,700 feet to east-southeast and crossgradient of the Subject Property. Due to its proximity to the Subject Property and relative location to the groundwater flow direction, the site should not be a concern.

A vapor encroachment screening consisting of a Tier 1 evaluation of potential Vapor Encroachment Conditions (PVEC) was performed in accordance with ASTM E2600-10. A Tier 1 evaluation determines the presence or likely presence of a PVEC based upon Federal, State and Local database search results and includes an evaluation of distance, depth to water, potential migration pathways, groundwater flow direction, hydraulic barriers, soil characteristics and other factors impacting soil vapor migration. The results of the Tier 1 evaluation indicate that the historic/current operation as gas station at eastern-adjacent property present PVEC at the Subject Property.

None of the remaining properties identified in the databases, including Orphan Sites, should impact upon the environmental quality of the Subject Property.

**5.2 Municipal Records**

FOIA requests were issued to the following municipal agencies with respect to the Subject Property. All reasonably ascertainable municipal records are provided with this report. **Appendix E** provides copies of the municipal documents.

- New York City Department of City Planning
- New York City Department of Building
- New York City Department of Housing Preservation and Development
- New York City Department of Health
- New York City Bureau of Fire Department
- New York State Department of Environmental Conservation
- New York City Department of Environmental Protection

*New York City Department of City Planning*

A FOIA request was submitted to the New York City Zoning Department. The Tax Map revealed that the Subject Property consists of three (3) lots, which are identified as the following:

- Block 1335, Lot 35 — 1716 – 1734 Atlantic Avenue, Brooklyn, NY 11213; 1705 – 1725 Pacific Street, Brooklyn, NY 11213; 54 – 72 Schenectady Avenue, Brooklyn, NY 11213
- Block 1335, Lot 30 — 1708 Atlantic Avenue, Brooklyn, NY 11213
- Block 1335, Lot 28 — 1706 Atlantic Avenue, Brooklyn, NY 11213; 1734 Atlantic Avenue, Brooklyn, NY 11213

The New York City Zoning Department indicated that the Subject Property is zoned for M1-1. The Subject Property is not listed as a local landmark in Brooklyn.

*New York City Department of Building*

All obtainable FOIA documents were obtained via a written request or other means. A FOIA request was submitted to the New York City Department of Building (NYCDOB).

The NYCDOB file for the Subject Property, lists 8 complaints (none open), 5 DOB violations (1 open), 10 ECB violations (3 open), 45 job/filings and 29 actions. The open DOB violation is related to violation without work permit. The open ECB violations are related to unapproved/unsafe/unsuitable electrical equipment or wiring in use and electric work without a permit. The jobs/filings are related to erection of an illuminated accessory business sign on wall, erection of an non-illuminated accessory business sign on wall, new & relocated sprinkler head, interior work, installation new fire suppression system, illuminate non-advertising accessory sign on ground struction, non-illuminated non-advertising accessory sign, interior partitions on the first floor, renovation of an existing store and new building. The actions are related to alteration, building notice, Certificate of Occupancy (CO), new building, sprinklers, plumbing slip, special report, demolition permit signed off, oil burner application and plumbing repair slip. The oil burner application was filed in 1904 with no further information. There are no Cos available on the DOB's website. There's no boiler record or elevator record available on DOB's website. The buildings at the Subject Property are classided as "K6-Store Building" by Department of Finance.

*New York City Department of Housing Preservation and Development*

A FOIA request was submitted to the New York City Department of Housing Preservation and Development (NYCHPD). The NYCHPD indicated that there is no open violations listed for the Subject Property.

*New York City Department of Health*

A FOIA request was submitted to the New York City Department of Health (NYCDOH). As of the date of this report, the NYCDOH has not provided any information pertaining

to our FOIA request. Any information provided by the NYCDOH will be provided as soon as it has been received and evaluated.

*New York City Bureau of Fire Prevention*

A FOIA request was submitted to the New York City Bureau of Fire Prevention (NYCBFP). As of the date of this report, the NYCBFP has not responded to our search request. Any information provided by the NYCBFP will be provided as soon as it has been received and evaluated.

*New York State Department of Environmental Conservation*

A FOIA request was submitted to the New York State Department of Environmental Conservation (NYSDEC). As of the date of this report, the NYSDEC has not responded to our search request. Any information provided by the NYSDEC will be provided as soon as it has been received and evaluated. The Subject Property is not listed in NYSDEC Petroleum Bulk Storage (PBS) database or any NYSDEC remedial programs database including the Spill Response Program (SRP) database, State Superfund Program (SSF) database, Voluntary Cleanup Program (VCP) database, Brownfield Clean-up Program (BCP) database or Environmental Remediation Program (ERP) database.

*New York City Department of Environmental Protection*

A FOIA request was submitted to the New York City Department of Environmental Protection (NYCDEP). As of the date of this report, the NYCDEP has not responded to our search request. Any information provided by the NYCDEP will be provided as soon as it has been received and evaluated.

**6.0 SITE RECONNAISSANCE**

Ms. Ruijie Xu of HydroTech performed the site reconnaissance portion of the Phase I Assessment on July 8, 2020. The weather during the inspection was sunny and approximately 85 degrees Fahrenheit.

HydroTech inspected all accessible portions of the Subject Property except a suspect crawl space/partial basement in the northwestern portion, which was not accessible during the inspection. The following pertinent information was obtained during the Subject Property Reconnaissance:

1. Industrial Processes

   No evidence of historical or current industrial processes was observed at the Subject Property.

2. Drum Storage Areas

   No current or former drum storage areas were observed at the Subject Property.

3. Storage Tanks

   No visual evidence of current underground storage tanks (USTs) or ASTs was identified at the Subject Property.

   No evidence of former USTs/ASTs was identified at the Subject Property.

4. Subsurface Drainage Structures/Drains/Sumps

   One (1) drywell was observed in the northeastern corner of the parking lot. The bottom of the drain was dry and contains crushed stones with no stains or odor.

   No other subsurface drainage structures, such as dry wells, leaching pools or cesspools were observed at the Subject Property. No evidence of former subsurface drainage structures was observed at the Subject Property.

   No evidence of current or former septic/wastewater/stormwater discharge systems was identified at the Subject Property.

   No evidence of current or former floor drains was identified at the Subject Property.

   No evidence of sump pumps was identified at the Subject Property.

5. PCB-Containing Equipment

   No suspect PCB-containing equipment was identified at the Subject Property.

6. Monitoring / Potable Water Wells

   Three (3) monitoring wells with 5-inch manhole covers were identified on the sidewalk around the Site including two (2) in the northwest along Atlantic Avenue and one (1) in the mid-east along Schenectady Avenue. The client is not able to

provide further information for these wells. The presence of monitoring wells are typically related to previous/ongoing investigation or monitoring activities and might be indicative of potential impact in groundwater, which should be considered a REC.

Multiple monitoring wells with manhole covers ranging from 5-inch to 12-inch were observed in the filling station at the eastern adjacent property. Based upon the spill records discussed in Section 5.1, these monitoring wells should be related to the historic/ongoing monitoring activities for several spills. The presence of monitoring wells at the adjacent property and Subject Property should be indicative of suspect impact in groundwater from eastern adjacent property, which should be considered a REC.

No potable wells were identified at Subject Property or the adjacent properties.

7. Pits, Ponds, or Lagoons

   No waste disposal pits, ponds or lagoons were observed at the Subject Property. No evidence of former pits, ponds, pools of liquid or lagoons was observed at the Subject Property.

8. Staining/Stressed Vegetation

   No stains noticed at the Subject Property.

   No evidence of stressed vegetation was observed at the Subject Property.

9. Fill / Land Disposal / Solid Waste

   No visual areas of fill or evidence of land disposal of solid waste material(s) were observed at the Subject Property.

10. Engineering Controls

    No engineering controls were noted at the Subject Property.

11. Odors/Air Emissions

    No odors indicative of a petroleum, chemical or hazardous substance spill or release were identified at the Subject Property. No evidence of air emissions or air emission equipment was identified at the Subject Property.

12. Hazardous Substance / Petroleum Containers

    No evidence of suspect hazardous substance or other petroleum containers were identified at the Subject Property.

**7.0 NON-SCOPE CONSIDERATIONS**

The following non-scope considerations were evaluated:

1. Suspect Asbestos-Containing Materials

   No visual evidence of suspect asbestos-containing materials were identified at the Subject Property.

2. Suspect Lead-Based Paint

   Visual evidence of peeling paint was identified on the bathroom wall of the drug store in the mid-western portion of the Site. Due to the age of the building, this peeling paint may not contain lead.

3. Lead in Water

   The City of New York is provided with potable water from a series of reservoirs located to the north and northwest of the city. The City of New York is responsible for maintaining the quality of this potable water. The Subject Property is served by public water.

4. Mold

   No suspect mold growth was identified at the Subject Property.

5. Wetlands

   No evidence of wetlands or wetlands growth is identified at the Subject Property. The location of the Subject Property and its vicinity do not appear in the USA National Wetlands Inventory.

6. Radon

   USEPA's recommended action level is 4 picocuries/liter and the average radon gas concentrations predicted in the Brooklyn area is 1.3 picocuries/liter. Since Brooklyn is located in a Low Radon Potential area, radon gas should not represent a potential environmental concern that would warrant the sampling for radon gas at the Subject Property.

7. NYC MTA

   According to the OASISnyc.net, there are no MTA tunnels or els within 200 feet of the Subject Property boundaries. Long Island Rail Road (LIRR) aboveground rail is located less than 50 feet from the northern boundary of the Subject Property along Atlantic Avenue.

8. NYC "E" Designation

   NYC City Environmental Quality Review (CEQR) assigns an "E" Designation to properties that may have development issues related to Hazardous Materials, Noise

or Air Quality. The assignment of an "E" Designation to a property requires developers to obtain signoff from the NYC Office of Environmental Remediation.

The Subject Property is not listed as an "E" Designation site.

## 8.0 CLIENT / USER-PROVIDED INFORMATION & INTERVIEWS

### 8.1 Client / User-Provided Information

During the course of the Phase I Assessment, the Client/User Questionnaire is required to provide specific information. The following provides a breakdown of this information.

1. The Client/User provided no records to HydroTech's request for information associated with Environmental Liens or Activity and Use Limitations against the property that may have been filed or listed under federal, tribal, state or local law.

2. The Client/User reported no specialized or actual knowledge or experience related to potential Recognized Environmental Conditions at the Subject Property or nearby properties.

3. The Client/User did not respond to HydroTech's request for information regarding the relationship of the purchase price of the property to a fair market value, specifically if it has been adjusted due to the known or potential presence of on-site contamination.

4. Other than provided in Section 8.2, the Client/User reported no commonly known information or information within the local community regarding past use(s) of the property (including the storage and/or release of chemicals, hazardous substances, petroleum products, etc.) that could have affected the environmental integrity of the subject site.

5. The Client/User could not confirm whether no environmental contamination or cleanups have occurred at the property in the past.

6. HydroTech had sent out questionnaire to the client (the current owner). At the time of this report, no completed questionnaire is provided.

### 8.2 Interviews

During the course of the Phase I Assessment, interviews were conducted with key site personnel with respect to the operation and history of the Subject Property.

Joey M. Bawabeh – *Owner's representative*

The following information was provided:

- Mr. Bawabeh was not aware of any presence of tanks and was not aware of presence/usage of any petroleum-powered equipment on Site.
- Mr. Bawabeh was not aware of any historic release of petroleum-related and/or hazardous product on Site.
- Mr. Bawabeh was aware of any previous investigation.

*Occupants and/or Operators*

No other occupants and/or operators were identified and/or available to be interviewed during the course of this Assessment.

*Past Owners and/or Occupants*

No past owners and/or occupants were identified and/or available to be interviewed during the course of this Assessment.

The interviews did not reveal the presence of any potential Recognized Environmental Conditions in connection with the Subject Property and did not provide any additional information with respect to the environmental integrity of the Subject Property, that was not obtained from other sources over the course of this investigation.

In addition, although an interview with the former owner(s) or occupant(s) or operator(s) was not possible as none were provided to HydroTech as of the date of this ESA, we do not believe that any such owner(s) would have additional material information regarding the potential for contamination at the property that was not obtained from other sources over the course of this investigation.

## 9.0 CONCLUSIONS

HydroTech has performed a Phase I Environmental Site Assessment at the Subject Property and has revealed the following Recognized Environmental Conditions:

- The presence of active Spill #9402692 at adjacent site (§5.0)
- The suspect presence of an adverse impact to groundwater beneath the Site from adjacent gasoline station (§5.0, 6.0)
- The presence of a Potential Vapor Encroachment Condition at the Subject Property (§5.0)

The following Non-Scope Consideration was identified:

- The presence of LIRR aboveground rail within 200 feet from the Subject Property (§7.0)

## 10.0 CREDENTIALS & DECLARATION

### 10.1 Credentials

In accordance with ASTM E 1527, the credentials of those personnel directly involved with the production of this report are provided with this report. **Appendix F** provides a copy of the personnel credentials.

### 10.2 Environmental Professional Declaration

We declare that to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in 40 C.F.R. Part 312. We have the specific qualifications based on education, training, and experience to access a property of the nature, history, and setting of the Subject Property. Only where indicated we have developed and performed the AAIs in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

**11.0 REFERENCES**

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## 12.0 EXCLUSIONS & DISCLAIMERS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. No warranty, expressed or implied, is made whatsoever in connection with this report.

In preparing this report, HydroTech Environmental Engineering and Geology, DPC. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to HydroTech Environmental Engineering and Geology, DPC. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, HydroTech Environmental Engineering and Geology, DPC. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a Subject Property (ASTM E 1527-13 Section 4.5.1). The intent of an environmental site assessment is to reduce but not eliminate uncertainty regarding the presence of potential RECs within reasonable limits of both time and cost.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to a non-hazardous or hazardous material, in that portion of the subject property or structure. In addition, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floors, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

HydroTech Environmental Engineering and Geology, DPC. did not perform testing or analyses to determine the presence or concentration of asbestos or lead-based paint at the Subject Property or in the environment of the subject property under the scope of the services performed.

Any water level reading made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory has conducted such analyses, HydroTech Environmental Engineering and Geology, DPC

has relied upon the data provided and has not conducted an independent evaluation of the reliability of the data.

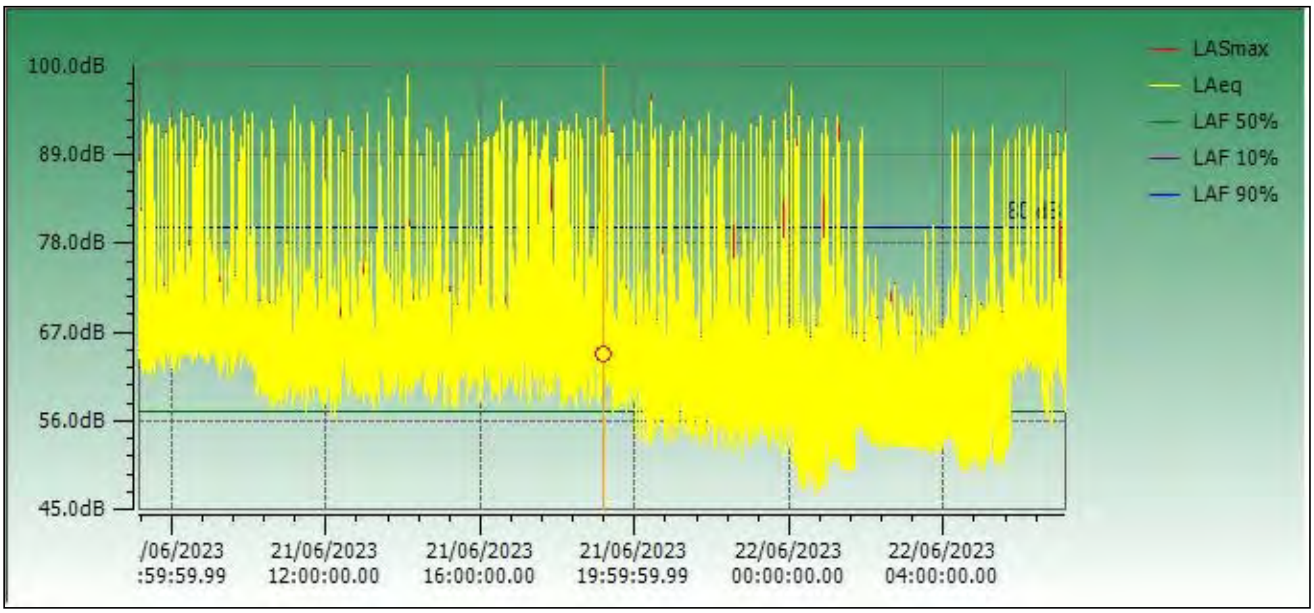
The conclusions contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly. If in the opinion of the Client/User or any third-party claiming reliance on this report, that HydroTech was negligent or in breach of contract, such aforementioned parties shall have 6 months from the date of HydroTech's visit to make a claim.

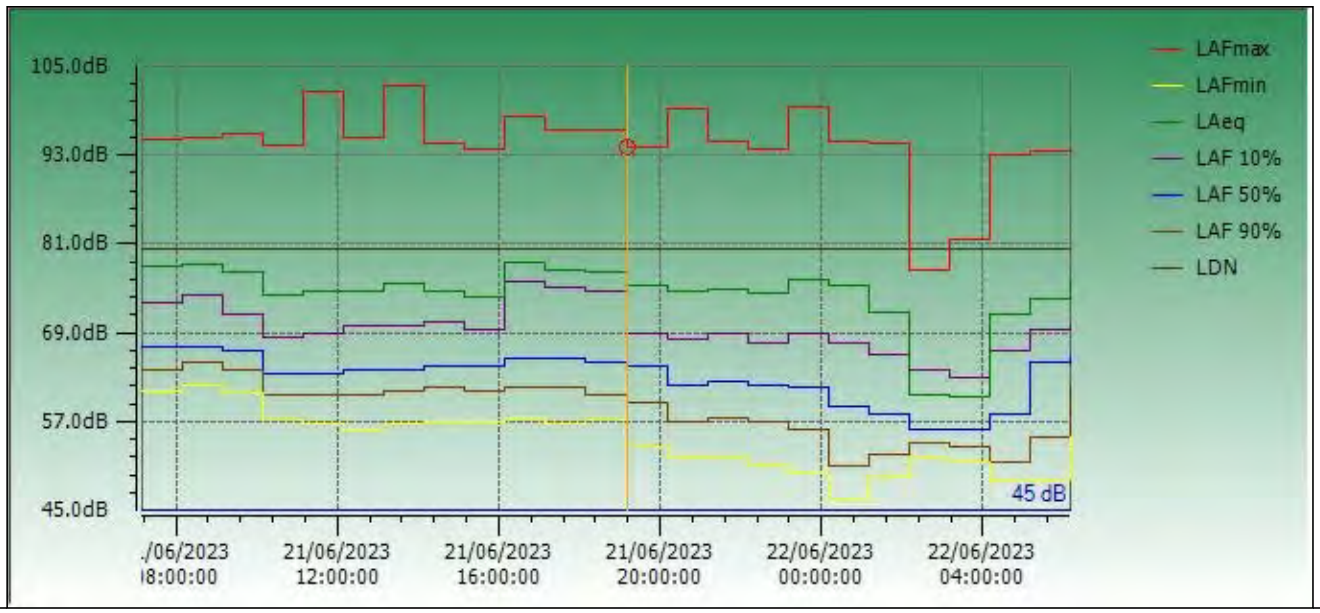
This report was prepared solely for the use of the Client/User and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold HydroTech harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

# Appendix D

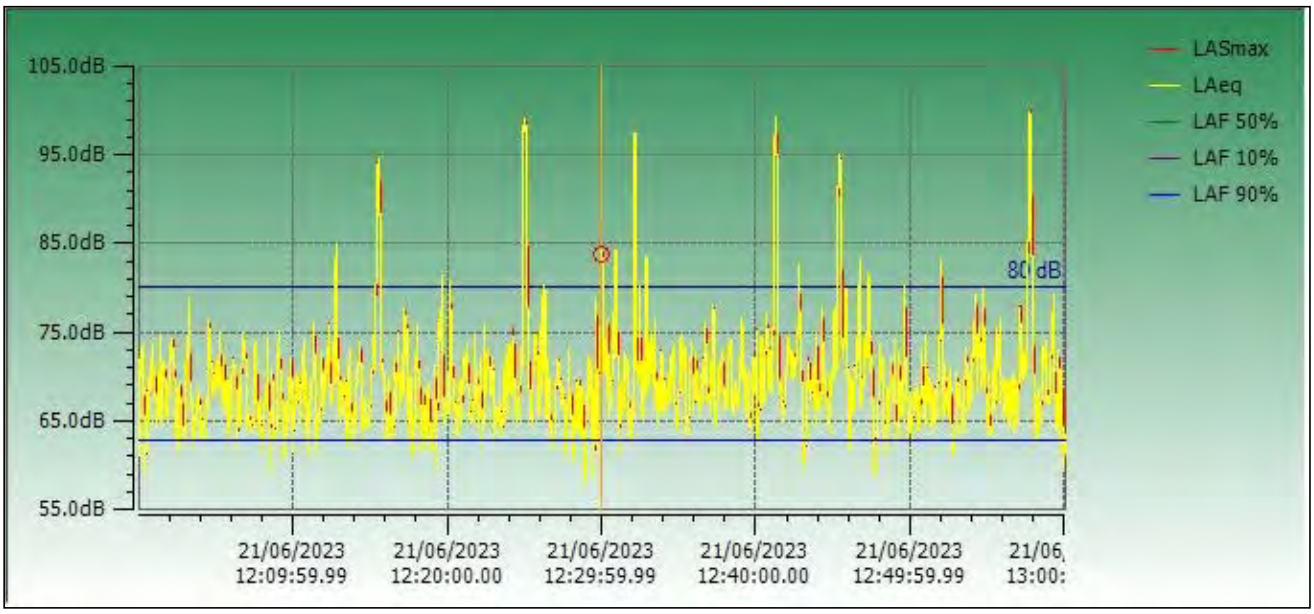
## Noise Backup Data

| | |
|---|---|
| **Instrument Model** | **CEL-633C** |
| Serial Number | 1488256 |
| Start Date & Time | 6/21/2023 7:09:47 AM |
| End Date & Time | 6/22/2023 7:09:47 AM |
| Duration | 24:00:00 HH:MM:SS |
| Pause Duration | 00:00:00 HH:MM:SS |
| Calibration (Before) Date | 6/21/2023 7:08:09 AM |
| Calibration (After) Date | 6/22/2023 12:45:15 PM |
| LASmax | 102.4 dB |
| LASmin | 46.5 dB |
| LAeq | 75.4 dB |
| LAS 10% | N/A |
| LAS 50% | N/A |
| LAS 90% | N/A |
| LDN | 80.2 |
| Result | Period |

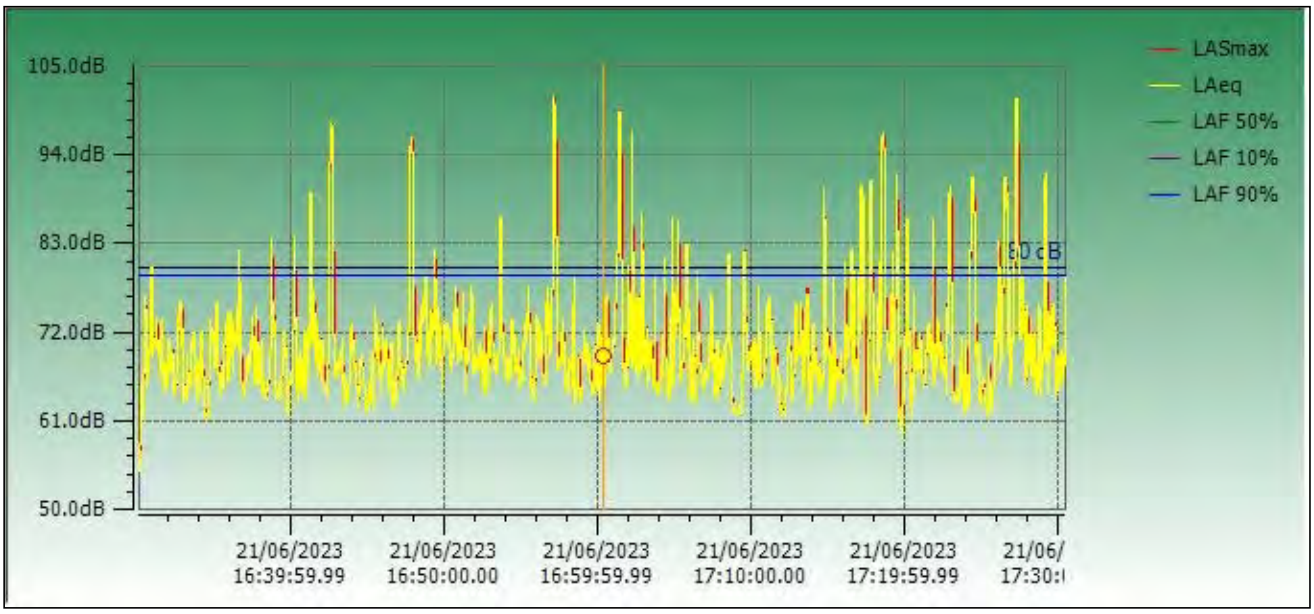


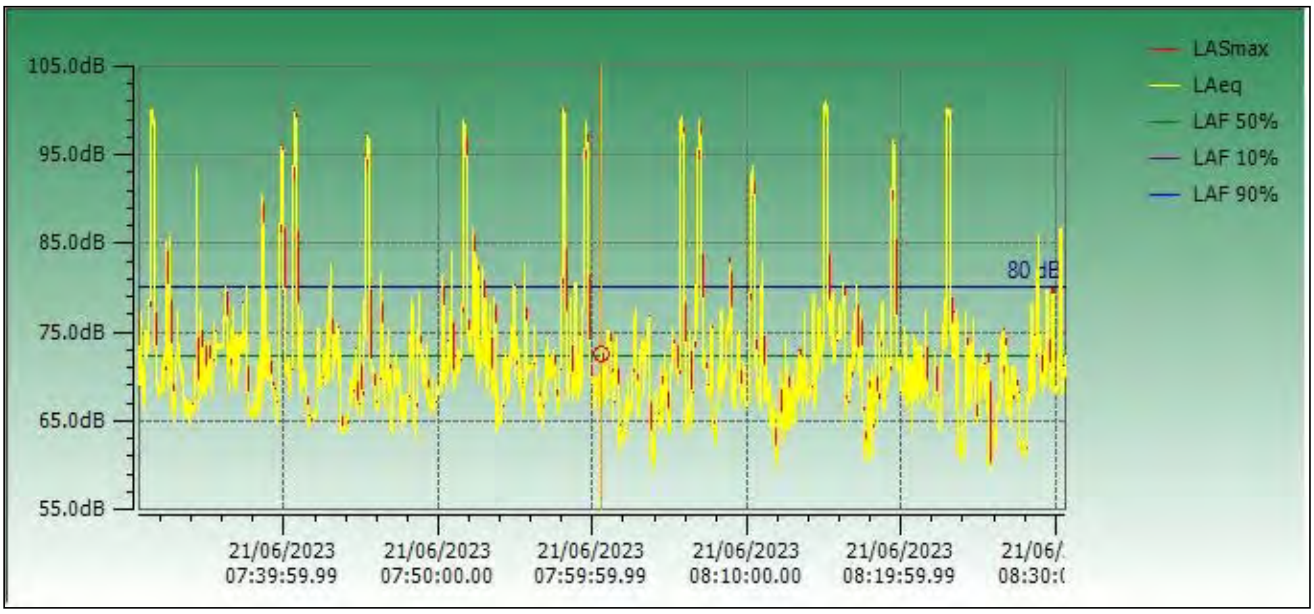
| | |
|---|---|
| **Instrument Model** | **CEL-633C** |
| Serial Number | 1274486 |
| Start Date & Time | 6/21/2023 12:00:02 PM |
| End Date & Time | 6/21/2023 1:00:04 PM |
| Duration | 01:00:02 HH:MM:SS |
| Pause Duration | 115:12:43 HH:MM:SS |
| Calibration (Before) Date | 6/21/2023 11:59:10 AM |
| Calibration (After) Date | 6/21/2023 1:24:04 PM |
| LASmax | 104.1 dB |
| LASmin | 56.7 dB |
| LAeq | 79.8 dB |
| LAS 10% | 74 dB |
| LAS 50% | 68.5 dB |
| LAS 90% | 64 dB |
| LDN | 0 |
| Result | Cumulative |



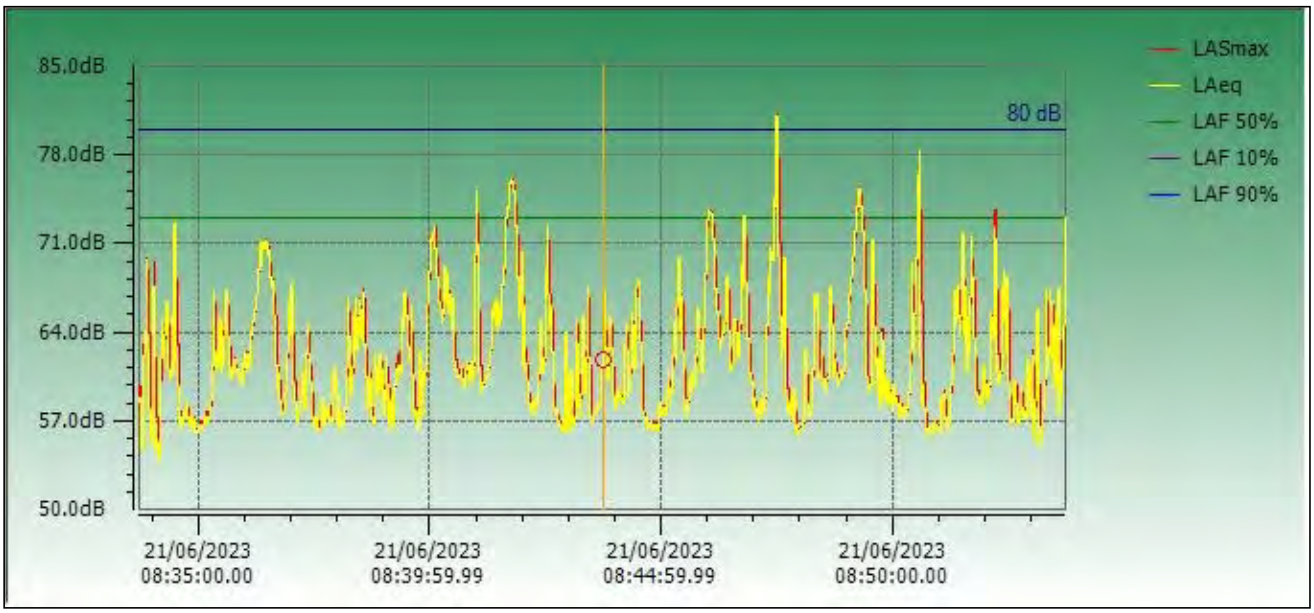
| Instrument Model | CEL-633C | | |
|---|---|---|---|
| Serial Number | 1274486 | LASmin | 54.1 dB |
| Start Date & Time | 6/21/2023 4:30:05 PM | LAeq | 81.9 dB |
| End Date & Time | 6/21/2023 5:30:29 PM | LAS 10% | 77 dB |
| Duration | 01:00:24 HH:MM:SS | LAS 50% | 69 dB |
| Pause Duration | 60:05:18 HH:MM:SS | LAS 90% | 64.5 dB |
| Calibration (Before) Date | 6/21/2023 4:29:43 PM | LDN | 0 |
| Calibration (After) Date | 6/21/2023 5:53:45 PM | Result | Cumulative |
| LASmax | 102.9 dB | | |



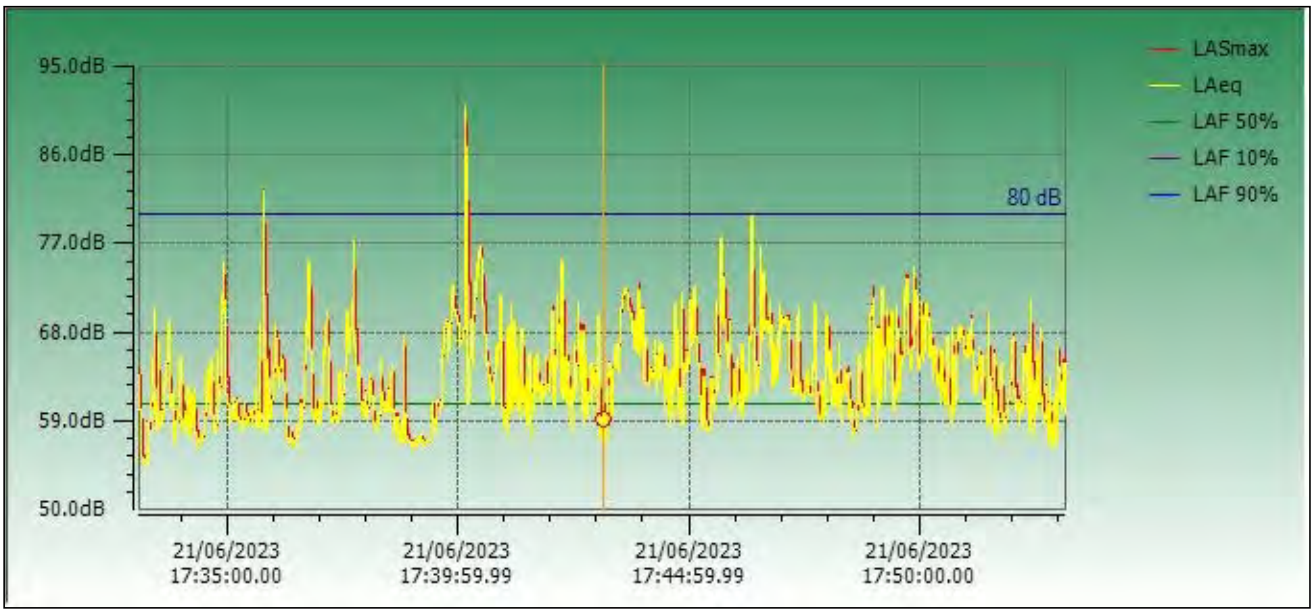
| Instrument Model | CEL-633C | | |
|---|---|---|---|
| Serial Number | 1274486 | LASmin | 58.7 dB |
| Start Date & Time | 6/21/2023 7:30:37 AM | LAeq | 84.3 dB |
| End Date & Time | 6/21/2023 8:30:39 AM | LAS 10% | 78 dB |
| Duration | 01:00:02 HH:MM:SS | LAS 50% | 70 dB |
| Pause Duration | 00:00:00 HH:MM:SS | LAS 90% | 65.5 dB |
| Calibration (Before) Date | 6/21/2023 7:25:12 AM | LDN | 0 |
| Calibration (After) Date | 6/21/2023 8:53:56 AM | Result | Cumulative |
| LASmax | 102.5 dB | | |



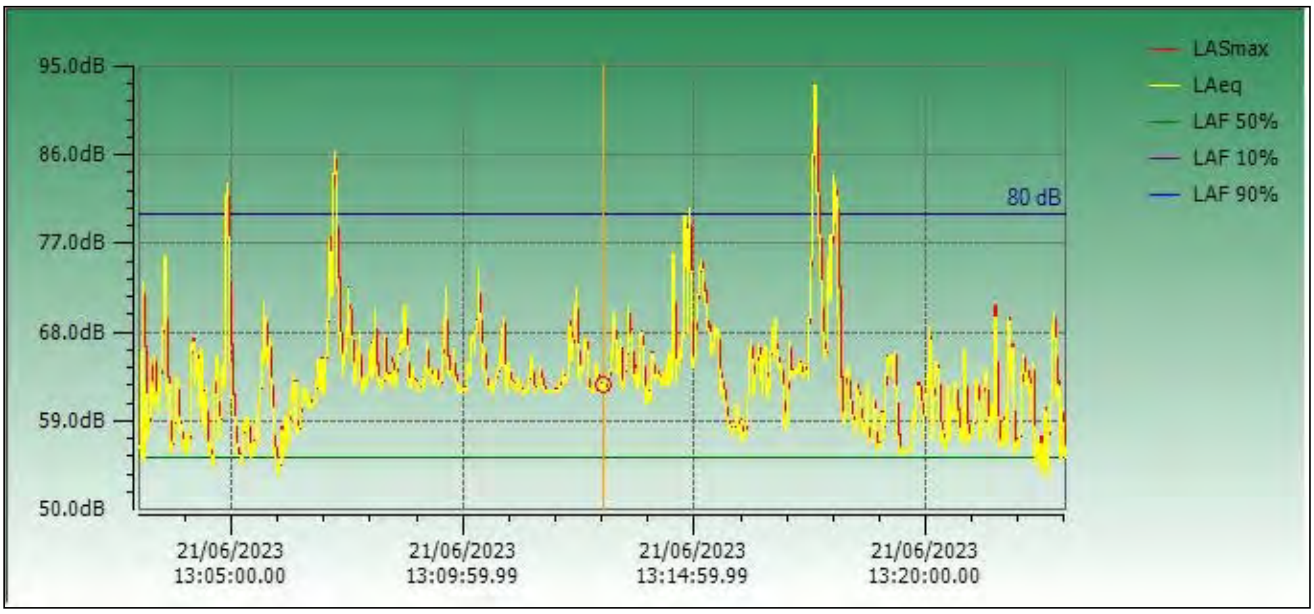
| Instrument Model | CEL-633C | | |
|---|---|---|---|
| Serial Number | 1274486 | LASmin | 53.3 dB |
| Start Date & Time | 6/21/2023 8:33:43 AM | LAeq | 65.2 dB |
| End Date & Time | 6/21/2023 8:53:44 AM | LAS 10% | 68.5 dB |
| Duration | 00:20:01 HH:MM:SS | LAS 50% | 61 dB |
| Pause Duration | 00:00:00 HH:MM:SS | LAS 90% | 57 dB |
| Calibration (Before) Date | 6/21/2023 7:25:12 AM | LDN | 0 |
| Calibration (After) Date | 6/21/2023 8:53:56 AM | Result | Cumulative |
| LASmax | 83.1 dB | | |



| Instrument Model | CEL-633C | | |
|---|---|---|---|
| Serial Number | 1274486 | LASmin | 53.3 dB |
| Start Date & Time | 6/21/2023 5:33:06 PM | LAeq | 67.5 dB |
| End Date & Time | 6/21/2023 5:53:10 PM | LAS10% | 69.5 dB |
| Duration | 00:20:04 HH:MM:SS | LAS 50% | 63 dB |
| Pause Duration | 00:00:00 HH:MM:SS | LAS 90% | 58.5 dB |
| Calibration (Before) Date | 6/21/2023 4:29:43 PM | LDN | 0 |
| Calibration (After) Date | 6/21/2023 5:53:45 PM | Result | Cumulative |
| LASmax | 95.2 dB | | |



| | |
|---|---|
| **Instrument Model** | **CEL-633C** |
| Serial Number | 1274486 |
| Start Date & Time | 6/21/2023 1:03:00 PM |
| End Date & Time | 6/21/2023 1:23:01 PM |
| Duration | 00:20:01 HH:MM:SS |
| Pause Duration | 00:00:00 HH:MM:SS |
| Calibration (Before) Date | 6/21/2023 11:59:10 AM |
| Calibration (After) Date | 6/21/2023 1:24:04 PM |
| LASmax | 95 dB |
| LASmin | 52.3 dB |
| LAeq | 69.6 dB |
| LAS 10% | 68.5 dB |
| LAS 50% | 63 dB |
| LAS 90% | 57.5 dB |
| LDN | 0 |
| Result | Cumulative |





equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Northern NJ
500 International Drive
Suite 150
Mount Olive, NJ 07828

Manhattan
104 West 29th Street
10th Floor
New York, NY 10001

**Noise Assignment Field Sheet**

Name of Project: 1720 Atlantic Avenue 12.0077598

Project Address: 1720 Atlantic Avenue Brooklyn, New York

Date(s) of Field Work: 4/18 – 4/19 2023

Personnel: Christian DiGennaro

Project Specific Scope of Work:

1 x 1-hour readings reading AM, Midday, PM
1 x rooftop 24-hour reading
1 x 20-minute reading AM, Midday, PM (location 3)

Bring Ladder

Site Contact – Soly Bawabeh 717-703-8441

**I. Start of Noise Monitoring Day**

Departure Time: 5:00 Arrival Time: 6:45

Weather Conditions (temp, wind speed, precipitation): Sunny, low wind, 60-75's

Meter Type: Casella Meter Serial #: 148825 6 Meter Location: 1 (rooftop)

Meter Type: Casella Meter Serial #: 274486 Meter Location: 2+3

Meter Type: _____ Meter Serial #: _____ Meter Location: _____

*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 3574248 Meters used on: 148825 6

Calibrator Serial #: 1090999 Meters used on: 274486

Calibrator Serial #: _____ Meters used on: _____

Were Photos Taken of Each Location? (Y) / N *Discuss specific photo instructions w/ Project Manager

*On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.*

**II. Morning Session 7:30 AM – 9:00 AM**

Before Measurement:

Meter Serial #: 1488256 Time: 7:08 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: 1274486 Time: 7:25 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 9:04 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

| Location # | Start Time | End Time | |
|---|---|---|---|
| 1 | 7:09 | | |
| 2 | 7:30 | 8:30 | 78 |
| 3 | 8:33 | 9:03 | 68.5 |

*If more locations are needed for a project use a second Field Sheet

| Location # | Car | SUV | Medium Truck | Heavy Truck | Bus | Train |
|---|---|---|---|---|---|---|
| 2 | 375 | 435 | 20 | 15 | 32 | 13 |
| 3 | 22 | 24 | 5 | 0 | 1 | — |
| | | | | | | |

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc): 7:33 – 7:34 : mower

*Please place noise meters in their respective cases between sessions to avoid damage.*

**III. Midday 12:00 PM – 1:30 PM**

Before Measurement:

Meter Serial #: 1274486 Time: 11:59 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 13:24 Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

| Location # | Start Time | End Time | |
|---|---|---|---|
| 2 | 12:00 | 13:00 | 74 |
| 3 | 13:03 | 13:23 | 68.5 |
| | | | |

*If more locations are needed for a project use a second Field Sheet

| Location # | Car | SUV | Medium Truck | Heavy Truck | Bus | Train |
|---|---|---|---|---|---|---|
| 2 | 309 | 390 | 22 | 7 | 22 | 9 |
| 3 | 18 | 20 | 3 | 0 | 1 | – |
| | | | | | | |

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

*Please place noise meters in their respective cases between sessions to avoid damage.*

**IV. Evening Session 4:30 PM – 6:00 PM**

Before Measurement:

Meter Serial #: 1274486 Time: 16:29 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 17:53 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

| Location # | Start Time | End Time |
|---|---|---|
| 2 | 16:30 | 17:30 |
| 3 | 17:33 | 17:53 |
| | | |

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*If more locations are needed for a project use a second Field Sheet

| Location # | Car | SUV | Medium Truck | Heavy Truck | Bus | Train |
|---|---|---|---|---|---|---|
| 2 | 902 | 427 | 19 | 12 | 37 | 12 |
| 3 | 27 | 20 | 6 | 1 | 0 | — |
| | | | | | | |

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

**Please place noise meters in their respective cases between sessions to avoid damage.*

**V. End of Noise Monitoring Day**

- Please return all noise meters to their cases.
- Do not return dead batteries to the cases, throw them out.
- Did you take photos? (Y) / N
- Did you complete the site sketch? Y / N
- If a meter(s) was rented, please scan in calibration documents.

Anything of note/concern for the day: _____

_____

_____

Departure Time: _____ Arrival Time: _____

Total Time to Be Billed: 15