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

Myrtle Avenue/Sanford Avenue Zoning Map & Text Amendment

723-733 Myrtle Avenue
Brooklyn, NY

Prepared for:
JMS Realty Corporation
462 Willoughby Avenue
Brooklyn, NY 11205

Prepared by:
AECOM USA, Inc.
125 Broad Street
New York, NY 10004

CEQR No. 16DCP177K

AECOM Project No. 60432864

June, 2017

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* 723-733 Myrtle Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
16DCP177K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
170025ZMK, N170026ZRK	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			JMS Realty Corporation		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin			Richard Lobel		
ADDRESS 120 Broadway			ADDRESS 18 East 41st Street, 5th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10016
TELEPHONE (212) 720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE (212) 725-2727	EMAIL rlobel@sheldonlobelpc.com	

5. *Project Description*

The Applicant, JMS Realty Corporation, is proposing a zoning map change in Brooklyn Community District 3 (CD 3). This proposal would rezone an area that includes 22 tax lots among three blocks from M1-1 and M1-2 zoning districts to an R7D/C2-4 zoning district and an R6A/C2-4 zoning district. The applicant intends to develop an eight-story mixed-use residential, commercial and community facility building on a development site that includes five tax lots within the Project Area (Block 1736; Lots 35, 37, 137, 38, and 39). The proposed development would have a maximum residential floor area of approximately 53,611 zoning square feet (zsf), approximately 14,670 zsf of community facility floor area and approximately 13,670 zsf of commercial floor area.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 3	STREET ADDRESS 723-733 Myrtle Avenue
TAX BLOCK(S) AND LOT(S) - Proposed Development site: Block 1736, Lots 35, 37, 137, 38 and 39. Rezoning area: Block 1736, Lots 34, 35, 37, 137, 38, 39, 43, 44; - Block 1737, Lots 35 (portion of 35 up to north boundary of lot 40 of block 1737 and extending to Nostrand Ave), 40-42, 45 - Block 1753, Lots 21-28, 30		ZIP CODE 11205

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The rezoning area includes the Myrtle Avenue-fronting portions of blocks 1736, 1737, 1752 and 1753, which are bound by Walworth Street to the west and Nostrand Avenue to the east.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1/M1-2	ZONING SECTIONAL MAP NUMBER 13b

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

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

☐ CITY MAP AMENDMENT	☐ ZONING CERTIFICATION	☐ CONCESSION
☒ ZONING MAP AMENDMENT	☐ ZONING AUTHORIZATION	☐ UDAAP
☒ ZONING TEXT AMENDMENT	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE

☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☐ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)
Total directly affected area (sq. ft.): Approx. 68,618 (rezoning area) Waterbody area (sq. ft) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): Approx. 68,618 Other, describe (sq. ft.): N/A

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): Approx 233,196 (89,157 gsf on the Applicant's site; combined 144,039 gsf on projected development sites)
NUMBER OF BUILDINGS: 8
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Projeted Site 1- 89,157 , Projected Site 2 - 97,175; Projected Site 3- 19,915; Projected Site 4- 26,949
HEIGHT OF EACH BUILDING (ft.): Max. 115 with MIH guidelines NUMBER OF STORIES OF EACH BUILDING: 10

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: 14,670
The total square feet non-applicant owned area: 53,948

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: Approx 14,670 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: Approx 14,670 sq. ft. (width x length)

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

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	166,827	25,721	41,858	0

Type (*e.g.,* retail, office, school)	195 units	Local retail & office	TBD	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: Approx.421 NUMBER OF ADDITIONAL WORKERS: Approx. 210

Provide a brief explanation of how these numbers were determined: Avg. HH occupnacy in CD Appx. 0.04 employees / DU; 3 employees /1,000 gsf of retail floor area; 3 employees/1,000 gsf of community facility floor area

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

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

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

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): Build Year for the proposed project is 2020 but the analysis year for the EAS will be 2023 given the Ptojected Development on non-applicant owned sites

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 18

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

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

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

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional	☒	☐

	YES	NO
residents or 500 additional employees?		
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: There were two conditions, one was a 1906 fuel oil application for 729 Myrtle Ave and an autobody repair shop was located north of the project - downstream in 1935. Both of these conditions were deemed to distant to have a likely impact to the site.	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒

	YES	NO
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. The supplemental report provides a preliminary neighborhood character analysis.		
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	DATE
Max Meltzer, AECOM	June 1st, 2017

SIGNATURE 

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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, EARD	NYC Department of City Planning
NAME	DATE
Olga Abinader	June 2, 2017

SIGNATURE



AECOM Environment

Prepared for:
JMS Realty Corp.
462 Willoughby Avenue
Brooklyn, NY, 11205

Prepared by:
AECOM
125 Broad Street
New York, NY 10004

AECOM No. 60432864

Myrtle Avenue Zoning Map & Text Amendment

Supplemental Studies to the Environmental Assessment Statement

June, 2017

Proposed Development Site:

723-733 Myrtle Avenue
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1.0 PROJECT DESCIRPTION

I. INTRODUCTION

The Applicant, JMS Realty Corp. (the "Applicant") proposes a zoning map amendment and a zoning text amendment to rezone portions of Brooklyn Blocks 1736, 1737, and 1753 from M1-1 and M1-2 zoning districts to an R7D/C2-4 zoning district on portions of Blocks 1736 and 1737 and an R6A/C2-4 zoning district on a portion of Brooklyn Block 1753 to facilitate the construction of an eight story mixed building with approximately 13,670 sq. ft. of commercial floor area, approximately 14,670 sq. ft. of community facility floor area, and approximately 53,611 sq. ft. of residential floor area. The commercial use would be located on the ground floor with community facility use on the second floor. The residential use on the third to eighth floors would consist of approximately 75 dwelling units. A 68-space accessory parking garage would be located in the cellar with an associated new curb cut located on Myrtle Avenue, 50 ft. from the intersection of Walworth Street. The proposed building would have a total floor area of 81,951 sq. ft. and a total FAR of 5.58, with a building height of approximately 90 feet. The building will have 30-foot and 40-foot rear yards above the second floor. The Applicant plans to pursue MIH Option 1 and provide 25 percent of the residential floor area as affordable housing at an average of 60 percent of the Area Median Income ("AMI") (with a minimum of 10 percent at 40 percent AMI), resulting in approximately 19 permanently affordable units. (See **Figure A** and **Appendix 1**)
.

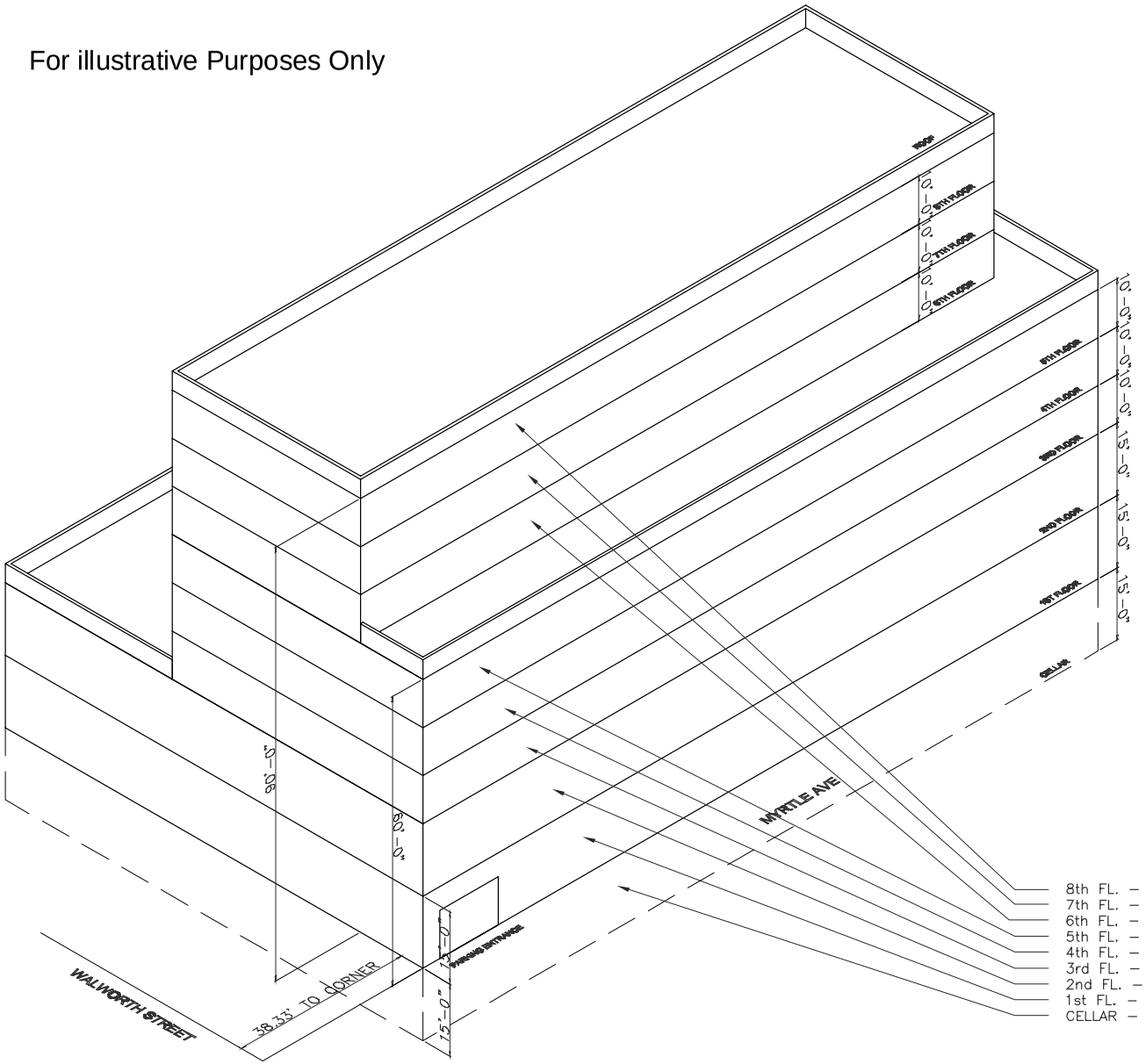
The proposed project area consists of portions of two blocks fronting the north side of Myrtle Avenue between Walworth Street and Nostrand Avenue (Blocks 1736 and 1737) and one block front on the south side of Myrtle Avenue between Sanford Street and Nostrand Avenue (Block 1753) (collectively the "Project Area"). The Applicant proposes to map an R7D/C2-4 zoning district on the north side of Myrtle Avenue, which is currently zoned M1-1, and an R6A/C2-4 zoning district on the south side of Myrtle Avenue, which is currently zoned M1-2. The proposed text amendment of Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 3, Brooklyn would establish the Project Area as a Mandatory Inclusionary Housing ("MIH") Area. The proposed text amendment would require the Applicant to develop the Development Site in accordance with the MIH program. Pursuant to the MIH program, a percentage of the new dwelling units in the proposed development must be affordable units, resulting in an affordable housing set-aside for either 25 percent of the residential floor area at an average of 60 percent of AMI (Option 1) or 30 percent of the residential floor area at an average of 80 percent AMI (Option 2). The Applicant proposes mapping both MIH Option 1 and Option 2 within the Project Area to provide maximum flexibility for non-Applicant controlled properties. The Applicant selects Option 1 for the Development Site, which would result in approximately 19 affordable units at an average of 60 percent AMI. The proposed affordable housing set asides ensure that the development within the Project Area would address the need for housing at low-income levels.

The proposed development site contains five contiguous tax lots with approximately 14,670 square feet of combined lot area. The five lots are all currently unimproved and presently used for vehicle parking and storage. In absence of the proposed actions, under the No-Action scenario, under the No-Action scenario, it is assumed that the project site would continue to be occupied by this use.

In addition to the applicant controlled lots (Block 1736, Lots 35, 37, 137, 38, and 39 the rezoning boundary would include Block 1736, Lots, 34, 43, and p/o 44, Block 1737, p/o Lot 35, p/o Lot 40, p/o Lot 41, 42, and p/o Lot 45, and Block 1753 Lot 21, p/o Lots 22-27, Lot 28, and p/o Lot 30.

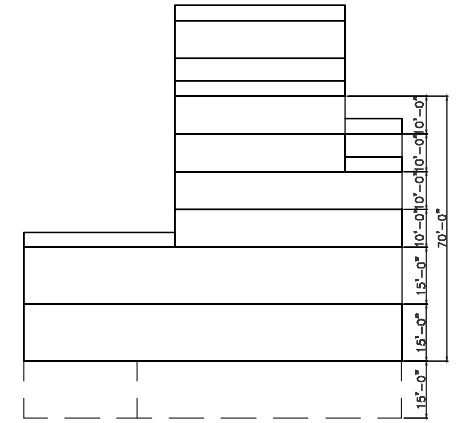
This EAS studies the potential for individual and cumulative environmental impacts related to the proposed action occurring in a study area of approximately 400 feet around the project area. This study area is generally bound by Willoughby Avenue to the south, the mid-block point between Nostrand and Marcy Avenues to the east, the mid-block point between Bedford Avenue and Spencer Street to the west, and about 220 feet south of Park Avenue to the north.

For illustrative Purposes Only



SOUTH WEST AXONOMETRIC

NOT TO SCALE



WEST MASSING ELEVATION

NOT TO SCALE

8th FL. – RESIDENTIAL	FA:	7,835.00SF
7th FL. – RESIDENTIAL	FA:	7,835.00SF
6th FL. – RESIDENTIAL	FA:	7,835.00SF
5th FL. – RESIDENTIAL	FA:	9,702.00SF
4th FL. – RESIDENTIAL	FA:	9,702.00SF
3rd FL. – RESIDENTIAL	FA:	9,702.00SF
2nd FL. – COMMUNITY FACILITY	FA:	14,670.00SF
1st FL. – COMMERCIAL	FA:	14,670.00SF
CELLAR – GROUP PARKING	FA:	14,670.00SF

Figure A

ARCHITECTURE | PLANNING

Valentino Pompeo Architect, PC

437 Bayou 120th Street Belle Harbor, New York 11694
p/718-854-8558 f/ 718-634-8821

No.	Date	Issues and Revisions	By
1	02/09/09	ZONING ANALYSIS	RG
2	09/24/14	ZONING ANALYSIS	RG
3	09/30/14	ZONING ANALYSIS REVISIONS	RG
4	11/18/14	ZONING ANALYSIS REVISIONS	RG

Project:

JMS REALTY @ MYRTLE AVE

723-733 MYRTLE AVE, BROOKLYN, NY, 11205

Description:

ZONING ANALYSIS

Registration and Signature

Date:	02/05/09
Project No:	09006
Scale:	1/8"=1'-0"
Drawn by:	RG

Z-002.00

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I. BACKGROUND AND EXISTING CONDITIONS

1.1 Description of the Proposed Project Area

The project area is located within the Bedford-Stuyvesant neighborhood of Brooklyn, and consists of the portions of three tax blocks. On Block 1736, the project area includes Lots 35, 37, 137, 38, 39 43, and p/o 44. On Block 1737, the project area would include p/o Lot 35, Lot 34, p/o Lot 40, p/o Lot 41, 42, and p/o Lot 45. On Block 1753, the project area includes Lot 21, p/o Lots 22-27, Lot 28, and p/o Lot 30. The projected mixed residential, commercial and community facility development would occur on Block 1736, Lots 35, 37, 137, 38, and 39

The proposed project site is at 723-733 Myrtle Avenue (Block 1736, Lots 35, 37, 137, 38, and 39). The five contiguous tax lots have approximately 14,670 square feet of combined lot area. The five lots are all currently unimproved and presently used for vehicle parking and storage with frontage on Myrtle Avenue.

The project area is bound by Willoughby Avenue to the south, the mid-block point between Nostrand and Marcy Avenues to the east, the mid-block point between Bedford Avenue and Spencer Street to the west, and about 220 feet south of Park Avenue to the north. The project area extends from Myrtle Avenue by approximately 100 feet to both the north and south.

The project site is located within an existing M1-1 zoning district and M1-2 zoning district. , which permit a maximum Floor Area Ratio (FAR) of 1.0 in M1-1 zoning districts and an FAR of 2.0 in M1-2 zoning districts UG's 4-14, 16, and 17. Each lot's existing conditions are as follows:

Block 1736, Lots 35, 37, 137, 38 and 39 (the proposed Development Site) consists of five contiguous tax lots with approximately 14,670 sq. ft. of combined lot area. The proposed Development Site is unimproved and presently used for vehicle parking and storage.

Block 1736, Lot 34 is an approximately 1,500 sq. ft. lot improved with a one-story warehouse with an FAR of approximately 1.0.

Block 1736, Lot 43 is an approximately 1,833 sq. ft. lot improved with a two-story mixed-use 1.0 FAR building with ground floor commercial use and one dwelling unit on the second floor.

Block 1736, Lot 44 is an approximately 2,020 sq. ft. lot improved with a four-story mixed-use 2.97 FAR building with ground floor commercial use and eight dwelling units on the upper floors.

Block 1737, Lot 35 is an approximately 15,775 sq. ft. lot improved with a one-story 0.63 FAR building with a Use Group ("UG") 16 enclosed building materials wholesaler.

Block 1737, Lot 40 is an approximately 2,155 sq. ft. lot improved with a three-story mixed-use 1.76 FAR building with ground floor commercial use and four dwelling units on the upper floors.

Block 1737, Lot 41 is an approximately 3,233 sq. ft. lot that is unimproved and classified as vacant land.

Block 1737, Lot 42 is an approximately 4,375 sq. ft. lot improved with a two-story mixed-use 0.58 FAR building with ground floor commercial use and one dwelling unit on the second floor.

Block 1737, Lot 45 is an approximately 1,000 sq. ft. lot improved with a two-story 2.16 FAR residential building containing two dwelling units.

Block 1753, Lot 21 is an approximately 2,283 sq. ft. lot improved with a four-story mixed residential and commercial 2.85 FAR building. The ground floor contains a UG 16 glass and mirror shop and there are six dwelling units on the upper floors.

Block 1753, Lot 22 is an approximately 3,308 sq. ft. lot improved with a three-story 1.17 FAR mixed residential and commercial building. The ground floor contains a UG 6 laundromat and there are two dwelling units on the upper floors.

Block 1753, Lot 23 is an approximately 2,796 sq. ft. lot improved with a four-story 1.21 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors..

Block 1753, Lot 24 is an approximately 2,796 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 25 is an approximately 2,330 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 26 is an approximately 2,330 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 27 is an approximately 2,330 sq. ft. lot improved with a three-story 1.0 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 28 is an approximately 1,493 sq. ft. lot improved with a three-story 2.26 FAR mixed residential and commercial building. The ground floor is occupied with a UG 6 liquor store, and there are two dwelling units on the upper floors.

Block 1753, Lot 30 is an approximately 3,167 sq. ft. lot improved with three structures: a three-story mixed residential and commercial building with a UG 6 food store with 2 dwelling units on the second and third floors; a one-story UG 6 barber shop; and a one-story UG 6 retail tool rental store. The total FAR on the lot is 1.59.

The combined dimensions of the proposed development site are approximately 160 feet by 100 feet. The project site has a flat topography and is paved.

Surrounding Area

The Project Area is located in the Bedford-Stuyvesant neighborhood in the Borough of Brooklyn within Community District 3. The Project Area is near the borders of Community District 1, which has a district boundary running along Flushing Avenue, and Community District 2, which has a district boundary running along Classon Avenue. Myrtle Avenue, a wide street at 75-ft., is the area's most significant east-west commercial street, with medium and high-density apartment buildings, including New York City Housing Authority ("NYCHA") developments, and significant ground floor retail activity. Bedford Avenue and Nostrand Avenue, both wide streets at 80-ft., are respectively northbound and southbound transit corridors, well-served by bus lines.

Existing Land Uses

The existing land uses in the surrounding area are a mix of warehouse/distribution, commercial, community facility, and conforming and non-conforming residential uses.

Prevailing Built Form

The prevailing built form of the area is a mix of mid-rise, mostly contextual-type residential buildings, and a mix of low- and mid-rise commercial buildings. Adjoining the Development Site on Block 1736 to the west are two-story and four-story mixed-use buildings with ground floor commercial uses built to the street

line. To the east across Sanford Street on Block 1737, there are two- and three-story mixed residential and commercial buildings with a vacant lot used for parking between them, and a one-story warehouse building all built to the street line. Across Myrtle Avenue to the south from the Development site on Block 1752 are two- and three-story mixed residential and a two-story residential building, and a parking lot occupying the remainder of the block. To the south and east of the Development Site on Block 1753 there are three- and four-story brick mixed residential and commercial buildings built to the street line.

Existing Zoning Districts

The existing zoning districts in the surrounding area include residential, commercial, and manufacturing designations.

M1-1

There is an M1-1 zoning district mapped within the Project Area that extends south from Park Avenue to Myrtle Avenue and from Spencer Street to the west to Nostrand Avenue to the east. The existing M1-1 zoning district permits light industrial uses, such as woodworking shops, repair shops, wholesale service, storage facilities, limited community facility uses, and commercial uses. The maximum FAR for permitted manufacturing and commercial uses within the M1-1 district is 1.0 and 2.4 for permitted community facility uses. The predominant uses in this area are industrial-related and public institutions and community facilities.

M1-2

There is an M1-2 zoning district mapped within the Project Area that extends south from Myrtle Avenue to Willoughby Avenue and from Bedford Avenue to the west to Nostrand Avenue to the east. There is also an M1-2 zoning district to the north of the Project Area that extends south from Flushing Avenue to Park Avenue, generally from Cumberland Avenue to the west to Franklin Avenue and Skillman Street to the east. The M1-2 zoning district permits light manufacturing, commercial and limited community facility uses. The maximum FAR for permitted manufacturing and commercial uses within the M1-2 district is 2.0 and 4.8 for community facility uses. In the M1-2 district north of Park Avenue the predominant land use is industrial-related. The predominant uses in the M1-2 district south of Myrtle Avenue are industrial-related and residential. The Van Blarcom Closures, Inc. ("VBC") facility is located to the south of the Project Area at 156 Sanford Street. The VBC facility consists of five buildings occupying the entire southern portion of Block 1752 (Lots 1, 7, 9, 11, 13, 22, and 35) and a portion of Block 1753 (Lots 4, 55, and 56). VBC manufactures and distributes closures and specialty dispensing and medical devices.

R6A.M1-2

There is an MX-4 zoning district with an M1-2/R6A designation located to the north and east of the Project Area extending south from Flushing Avenue to Myrtle Avenue, generally bounded by Franklin Avenue and Spencer Avenue. The MX-4 zoning district permits residential, commercial, and light manufacturing uses with a maximum FAR of 3.6 under the Inclusionary Housing ("IH") program. Above a base height of 40 to 60 feet (65 feet with IH), the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 70 feet (75 feet with IH). The predominant land use is in the MX-4 district is residential. Additionally, the MX-4 district is Special Mixed Use District 4.

R6

Mapped to the north and east of the Project Area, there is an R6 zoning district that extends south from Flushing Avenue to Myrtle Avenue and from Nostrand Avenue to the west and Marcy Avenue to the east. R6 districts allow all housing types at a maximum FAR of up to 2.43 is allowed for residential uses and up to 4.8 FAR is allowed for buildings containing community facility uses. R6 is a height factor district where residential and community facility uses are

permitted with no fixed height limits and building envelopes are regulated by a sky exposure plane and open space ratio after a maximum base height of 60 feet. Residential development under the optional Quality Housing Program has a maximum FAR of 2.2 on narrow streets with a 55-foot building height limit and a maximum of 3.0 FAR on wide streets with a height limit of 70 feet. Off-street parking is required for 70 percent of the dwelling units. This requirement is lowered to 50 percent of the units if the lot area is less than 10,000 square feet or if Quality Housing provisions are used. In R6 districts, if fewer than five spaces are required, the off-street parking requirement is waived. The predominant land use in the R6 district is residential. The NYCHA Marcy Houses are located within the R6 zoning district. The Marcy Houses, consisting of twenty-seven, six-story buildings on approximately 28.5-acres, are bordered by Flushing, Marcy, Nostrand and Myrtle Avenues. According to NYCHA, there are 1,717 apartments and 4,382 residents in the Marcy Houses. In addition, Marcy Playground, maintained by the NYC Department of Parks and Recreation is located on Myrtle Avenue between Nostrand Avenue and Marcy Avenue. The playground includes benches, game tables, a baseball diamond, spray showers, playground equipment, and basketball courts.

R7A/C2-4

There is an R7A/C2-4 zoning district mapped to the west of the Project Area along Myrtle Avenue generally between Bedford Avenue and Washington Park. The R7A zoning district permits a maximum FAR of 4.0 or 4.6 under the IH program. Above a base height of 40 to 65 feet (75 feet with IH), the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 80 feet (up to 95 feet with IH). The predominant land use in the R7A/C2-4 district is mixed residential and commercial. In R7A zoning districts, parking is required for 50 percent of market rate dwelling units, but only 30 percent of market rate dwelling units if the zoning lot is 10,000 square feet or less.

R6A

There is an R6A zoning district mapped to the east and south of the Project Area generally along Nostrand Avenue from 100 ft. south of Myrtle Avenue to Macon Street. Portions of this district are mapped with C2-4 commercial overlays. The R6A zoning district permits a maximum FAR of 3.0 or 3.6 under the IH program. Above a base height of 40 to 60 feet (65 feet with IH), the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 70 feet (up to 85 feet with IH). The predominant land use in the R6A district is residential. In R6A zoning districts, parking is required for 50 percent of market rate dwelling units.

R6B

There are R6B zoning districts mapped to the southwest and southeast of the Project Area. To the southwest, there is an R6B zoning district mapped generally from Willoughby Avenue to just north of Dekalb Avenue and extending east from 100 ft. east of Bedford Avenue to Walworth Street. To the southwest, there is an R6B zoning district mapped generally from 100 ft. south of Myrtle Avenue to 100 ft. north of Dekalb Avenue and extending east generally between Nostrand Avenue and Marcy Avenue (with the exception of certain blockfronts mapped with R6A and R7A districts with C2-4 overlays). The R6B zoning district permits residential and community facility uses with a maximum FAR of 2.2 under the IH program. Above a base height of 30 to 40 feet, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 50 feet. The predominant land use in the R6B district is residential.

M1-5

There is an M1-5 zoning district mapped to the south of the Project Area generally between Willoughby Avenue to the north and Dekalb Avenue to the south, and between Walworth and Sanford Streets in the northern portion of the district and Spencer Street and Nostrand Avenue in

the southern portion of the district. The M1-5 zoning district permits an FAR up to 5.0 and building height and setbacks are controlled by a sky exposure plane. The predominant land use in the M1-5 district is industrial-related. There is a Home Depot home improvement warehouse store located within the M1-5 zoning district at 230 Nostrand Avenue (Block 1764 Lots 1, 3, 20, 24, 29) with a 225-space accessory parking lot.

Public Transit

The Project Area is within the Transit Zone and there are multiple public transit options including MTA subway and bus service. The B54 line runs east/west along Myrtle Avenue. The B44 line at Flushing Avenue and Nostrand Avenue provides additional north/south bus service. In addition, the Myrtle-Willoughby MTA subway station with G line service is located at the intersection of Myrtle Avenue and Marcy Avenue, one block east of the Project Area.

Other Zoning Designations

There are Inclusionary Housing Designated Areas ("IHDA") mapped near the Project Area. To the east of the Project Area, an IHDA is mapped generally along Myrtle Avenue from Nostrand Avenue to Marcus Garvey Boulevard to the east, and along Marcy Avenue from Stockton Street to just north of Lafayette Avenue. To the west of the Project Area, an IHDA is mapped generally along Myrtle Avenue from Bedford Avenue to Classon Avenue, and extending further west to Washington Park. To the south of the Project Area, an IHDA is mapped generally along Bedford Avenue to Quincy Street, and portions of Classon Avenue, Kent Avenue, and Dekalb Avenue.

The Project Area is also located within a FRESH Program area that provides zoning and discretionary tax incentives.

1.2 Required Approvals and Proposed Actions

The proposed zoning map amendment is a discretionary public action, which is subject to the City Environmental Quality Review (CEQR) as an Unlisted action. Through CEQR, agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The proposed zoning map and text amendments are also discretionary public actions, which are subject to public comment under the Uniform Land Use Review Procedure (ULURP). The ULURP process was established to assure adequate opportunity for public review of proposed actions. ULURP dictates that every project be presented at four levels: the Community Board; the Borough President; the City Planning Commission; and, in some cases the City Council. The procedures mandate time limits for each stage to ensure a maximum review period of seven months.

The applicant is proposing a zoning map amendment to rezone portions of Brooklyn Blocks 1736, 1737, and 1753 from M1-1 and M1-2 zoning districts to an R7D/C2-4 zoning district on portions of Blocks 1736 and 1737 and an R6A/C2-4 zoning district on portions of Block 1753. On Block 1736, the project area includes Lots 34, 35, 37, 137, 38, 39 43, and p/o 44. On Block 1737, the project area would include p/o Lot 35, p/o Lot 40, p/o Lot 41, 42, and p/o Lot 45. On Block 1753, the project area includes Lot 21, p/o Lots 22-27, Lot 28, and p/o Lot 30. Table 1.0-1 below compares the existing and proposed zoning.

This RWCDS memo assumes the applicant would build in conformance with the Mandatory Inclusionary Housing (MIH) standards that are part of the *Housing New York* plan. The MIH standards would result in more affordable housing that is responsive to the needs of each neighborhood, with a set of income mix options that is achieved through zoning. Under this proposal, the applicant may choose to allocate either 20 percent of the total floor area to residents with incomes averaging 60 percent of the area median income (AMI) or 30 percent at an average of 80 percent AMI. In an R7D district, a total FAR of 5.6 is allowed under MIH, with an increase in building height to 115 feet under MIH.

Table 1.0-1 Comparison and Existing and Proposed Zoning

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)*	Maximum Heights
M1-1	Light Manufacturing UGs 4-14, 16, 17	1.0 FAR – Manufacturing 1.0 FAR – Commercial 2.4 FAR – Community Facility	Required, Varies by Use	Varies by use
M1-2	Light Manufacturing UGs 4-14, 16, 17	2.0 FAR – Manufacturing 2.0 FAR – Commercial 4.8 FAR – Community Facility	Required, Varies by Use	Varies by use
R7D	Residential UGs 1-4	4.2 FAR – Residential (QH) 5.6 FAR – Residential (Inclusionary housing) 4.2 FAR – Community Facility FAR	50 percent of dwelling units (waived if 5 or fewer spaces required) 30% if zoning lot is 10,00 square feet or less; waived if 15 or fewer spaces required	115 Feet
R6A	Residential UGs 1-4	3.0 FAR –Residential (QH) 3.6 FAR –Residential (Inclusionary Housing) 3.0 FAR – Community Facility	50% of market-rate dwelling units; Waived if 5 of fewer spaces required	85 Feet
C2-4 Commercial Overlay	Local service UGs 1-9, 14	2.0 FAR –Commercial with R6-R10 Various FAR – Community Facility	Varies by Use	Varies

*****MIH units do not require parking if located in the Transit Zone, defined in Appendix I of the zoning resolution.

The applicant is also proposing a zoning text amendment to map an Mandatory Inclusionary Housing designated area over the project area. The applicant has chosen MIH option 1 which requires at least 25 percent of residential floor area be available at 60 percent AMI.

A zoning text amendment to Section Appendix F of the *Zoning Resolution of the City of New York* is required to designate the project site as an MIH Area. The proposed zoning text amendment to Appendix F would designate the project site as an MIH Area subject to the affordability requirements of Option 1 of the MIH Program. If the designation of the project site is approved pursuant to this ULURP application, the permanent affordable housing would be required on the project site in accordance with the requirements of Option 1 of the MIH Program. Option 1 requires that at least 25 percent of the residential floor area to be reserved for residents with incomes averaging 60 percent AMI, with at least 10 percent required at 40 percent AMI. Option 2 requires that 30 percent of the residential floor area be reserved for residents with incomes averaging 80 percent AMI.

1.3 Purpose and Need For Propsed Actions

The proposed actions are intended to facilitate a new eight-story mixed residential, commercial, and community facility building with approximately 75 dwelling at 727-737 Myrtle Avenue (Block 1736, Lots 35, 37, 137, 38, and 39).

The proposed zoning map amendment would promote the development of a new mixed-use medium density building at the Development Site, including affordable housing, in an under-utilized M1-1 zoned area where new residential development is not permitted. Along Myrtle Avenue, the existing M1-1 and M1-2 zoning districts within the Project Area are characterized by predominately residential development and vacant sites with open uses and parking. The proposed new R7D/C2-4 and R6A/C2-4 zoning districts

would allow for residential development compatible with the existing land use patterns and zoning in the area. The proposed rezoning would benefit the community by activating the unimproved Development Site with new mixed-use development to replace the existing parking and storage use.
The increase in density to the proposed R7D/C2-4 district would facilitate the development of greatly needed housing, including affordable housing in Community District 3. At this density, the Applicant would be able to construct a mixed residential, commercial, and community facility building with approximately 75 units, of which approximately 19 would be permanently affordable at low-income levels under MIH Option 1. The proposed R7D/C2-4 zoning district would promote the development of underused sites and strengthen the commercial character of Myrtle Avenue with both the addition of new commercial space and new residential consumers. In addition, the proposed R6A/C2-4 zoning district would bring an entire block front consisting of non-conforming residential uses into conformance. New residential development would address the City's growing need for additional housing and help reknit the urban fabric along Myrtle Avenue.

The City has confirmed the appropriateness of R7D zoning near transit in the 2012 Bedford-Stuyvesant North Rezoning (C 120294 ZMK) mapped immediately to the east along Myrtle Avenue. The proposed zoning map amendment is consistent with the City's policy goals outlined in the 2012 Bedford-Stuyvesant North Rezoning by providing opportunities for housing development, including affordable housing, and strengthening Myrtle Avenue as a retail and service corridor. The proposed rezoning responds to the increased demand for new housing by permitting mixed development on Myrtle Avenue pursuant to the same bulk regulations approved in the Bedford-Stuyvesant North Rezoning. The proposed extension of the R7D/C2-4 zoning district from Nostrand Avenue directly to the east of the Project Area creates consistency with the existing zoning along Myrtle Avenue. The proposed actions would activate and enliven Myrtle Avenue and benefit businesses and the community by creating a more engaging experience for pedestrians. New commercial and community facility uses would enhance the existing character of Myrtle Avenue, which is now disrupted by unbuilt sites.

The purpose of the zoning map amendment and zoning text amendment are discussed below.

Zoning Map and Text Amendments

Under the current M1-1 zoning, the project site is restricted to light industrial use (UG 17), general services (UG 16), commercial uses (UG 5-14), and limited to a total FAR of 1.0 or 2.4 for specific community facilities uses (UG4). The proposed zoning map amendment, which would establish the R7D/C2-4 District over the proposed development site and would allow the applicant to develop residential use up to the max FAR of 5.6 with Mandatory Inclusionary Housing, and would therefore allow the applicant to develop a residential floor area of 81,552 zoning square feet. Approximately 52,712 zsf of residential floor space, 14,170 zsf of commercial floor space, and 14,670 zsf of community facility floor space would be developed in the proposed building, representing a combined total FAR of 5.6, which is permitted in an R7D/C2-4 District. This development would not be permitted in an M1-1 zoning district as residential uses are forbidden in manufacturing districts.

In addition, the proposed R6A/C2-4 zoning district would bring an entire block front consisting of non-conforming residential uses into conformance and would better reflect the built form. New residential development would address the City's growing need for additional housing and help reknit the urban fabric along Myrtle Avenue. R6A zoning districts allow 3.0 residential FAR or 3.6 FAR residential under the Inclusionary Housing program, and a 3.0 Community Facility FAR of 3.0.

A zoning text amendment to Section Appendix F of the *Zoning Resolution of the City of New York* is required to designate the project site as an MIH Area. The proposed zoning text amendment to Appendix F would designate the project site as an MIH Area subject to the affordability requirements of Option 1 of the MIH Program.

MIH Rationale

Consistent with Mayor's Housing New York initiative to create or preserve 200,000 units of affordable housing, mapping MIH would require permanent affordability for a portion of new residential development within the project area

1.4 Description of the Proposed Development

The proposed eight-story mixed building would contain approximately 13,670 sq. ft. of commercial floor area, approximately 14,670 sq. ft. of community facility floor area, and approximately 53,611 sq. ft. of residential floor area. The commercial use would be located on the ground floor with community facility use on the second floor. The residential use on the third to eighth floors would consist of approximately 75 dwelling units. A 68-space accessory parking garage would be located in the cellar with an associated new curb cut located on Myrtle Avenue, 50 ft. from the intersection of Walworth Street. The proposed building would have a total floor area of 81,951 sq. ft. and a total FAR of 5.58, with a building height of approximately 90 feet. The building will have 30-foot and 40-foot rear yards above the second floor. The Applicant plans to pursue MIH Option 1 and provide 25 percent of the residential floor area as affordable housing at an average of 60 percent of the Area Median Income ("AMI") (with a minimum of 10 percent at 40 percent AMI), resulting in approximately 19 permanently affordable units.

1.5 Build Year for Analysis

It is assumed for the purposes of this analysis that given the time for environmental review, approval, ULURP, and construction, that a build year of 2020 is appropriate for the proposed project. Pending the approval of the proposed action, it is assumed that projected development site's (Non-applicant sites) would be developed within five years of approval of the proposed action, with a build year of 2023 being appropriate for analysis purposes.

1.6 Reasonable Worst Case Development Scenario

Future No-Action Scenario

The proposed development site is located in the Bedford-Stuyvesant neighborhood of Brooklyn, which is densely developed. No significant new construction was observed within 400 feet of the proposed development site, although several vacant lots are present.

There are no other discretionary actions being sought related to the proposed project. The proposed development site has a combined lot area of 14,670 SF and is currently vacant and unimproved. In the future without the proposed action, it is assumed that the existing 14,670 combined lot would continue to operate in its current form has an unimproved space used for parking and storage. Additionally, all other affected lots are expected to remain in the existing condition

Therefore, if the mapping of the requested R7D/C2-4 and R6A/C2-4 districts and inclusionary housing designated status is not granted, the existing conditions would continue in the No-Action Scenario.

Future With-Action Scenario

The Future With-Action condition under a Reasonable Worst Case Scenario requires identification of the type, location, and extent of development anticipated as a result of the proposed action along with any potential impacts that may arise from that future development. As directed by CEQR, this analysis requires that the With-Action Condition to be considered a scenario that maximizes the permitted FAR allowed under the proposed rezoning. Under the With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-1 district to an R7D district with a C2-4 commercial overlay, and would change the existing M1-2 district to an R6A district with a C2-4 commercial overlay,

which would facilitate the Applicant's proposed development (Block 1736, Lots 35, 27, 137, 38, and 39) of an eight story mixed building with approximately 13,670 sq. ft. of commercial floor area, approximately 14,670 sq. ft. of community facility floor area, and approximately 53,611 sq. ft. of residential floor area. The commercial use would be located on the ground floor with community facility use on the second floor. The residential use on the third to eighth floors would consist of approximately 75 dwelling units. A 68-space accessory parking garage would be located in the cellar with an associated new curb cut located on Myrtle Avenue, 50 ft. from the intersection of Walworth Street. The proposed building would have a total floor area of 81,951 sq. ft. and a total FAR of 5.58, with a building height of approximately 90 feet.

In addition, pursuant to revised MIH guidance, the With-Action scenario will analyze 30% of units affordable at an average of 80% AMI with 20% of units affordable below 80% AMI.

In this case, the With-Action Scenario differs from the applicant's proposed development. Under the With-Action Scenario, it is assumed that Block 1736, Lots 35, 37, 137, 38, and 39 would be developed to the maximum FAR of 5.6. Additionally, the mapping of a C2-4 commercial overlay over the rezoning area is assumed to induce a possible ground-floor commercial use over the proposed development site. On a combined 14,670 square-foot lot, the applicants proposed action would result in approximately 82,152 zoning square feet (90,367 gross square feet) of total floor area of which, 14,670 zsf (16,137 gsf) would be community facility floor area, and 67,482 zsf (74,230 gsf) would be residential floor area. It is assumed the building would be built to the maximum allowable height of 115 feet with a qualifying ground floor within an R7D district. Assuming, 850 square feet per dwelling unit, it is assumed that 87 residential units would be constructed on this site. It is assumed that 17 units will be affordable at or below 80 percent AMI and that 26 units will be affordable at an average of 80 percent AMI. Therefore, 30 parking spaces would be required for the buildings approximately 61 market-rate residential units.
As previously mentioned, the applicant's proposed development program on Projected Site 1 calls for only 52,712 zsf of residential floor area, resulting in the creation of 75 dwelling units, of which 19 would be affordable. The applicant's site also has programmed 14,670 zsf of community facility floor area and 14,170 zsf of commercial floor area as well as a 68-space accessory parking garage in the cellar.

To determine those sites that are likely to be induced to develop under the proposed rezoning, the remaining projected development sites within the proposed project area were divided into two categories - projected development sites and potential development sites. Projected development sites are considered more likely to be developed within analysis period (build year 2023) because of their size (they are either large lots or contiguous small lots in common ownership that together comprise a large site). Potential development sites are less likely to be developed within the analysis period because they are not entirely under common ownership, have an irregular shape or have some combination of these features.

Based on these criteria, Block 1737, Lot 35, Block 1737 Lot 41, and Block 1737, Lot 42, have been identified as projected development sites. Block 1753, Lots 21 and 22, and Block 1753, Lots 28 and 30 have been identified as potential development sites. To present a conservative assessment, the With-Action scenario assumes that these sites would be constructed to the maximum floor area allowed under MIH regulations for an R7D and R6A zoning district where appropriate. The With Action scenario assumes that 20% of residential units will be affordable at or below 80% AMI and 30% of residential units will be affordable at an average of 80% AMI. Table 1.7-1 below shows Future With-Action development scenarios.

Projected Development Site 1 (Applicant Site)

Block 1736, Lots 35, 37, 137, 38, and 39 –Assessment

Under the With-Action Scenario, it is assumed that Block 1736, Lots 35, 37, 137, 38, and 39 would be developed to the maximum FAR of 5.6. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a possible ground-floor commercial use over the proposed development site.

On a combined 14,670 square-foot lot, the applicants proposed action would result in approximately 82,152 zoning square feet (90,367 gross square feet) of total floor area of which, 14,670 zsf (16,137 gsf) would be community facility floor area, and 67,482 zsf (74,230 gsf) would be residential floor area. It is assumed the building would be built to the maximum allowable height of 115 feet with a qualifying ground floor within an R7D district. Assuming, 850 square feet per dwelling unit, it is assumed that 87 residential units would be constructed on this site. It is assumed that 17 units will be affordable at or below 80 percent AMI and that 26 units will be affordable at an average of 80 percent AMI. Therefore, 30 parking spaces would be required for the buildings approximately 61 market-rate residential units.

Projected Development Site 2: Block 1737 Lot 35 –Assessment

Under the With-Action Scenario, it is assumed that Block 1737, Lot 35 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the projected development site. On a 15,775 square-foot lot, it is assumed that the proposed action would result in approximately 15,775 zoning square feet (17,353 gsf) of ground floor commercial floor area, 15,775 zoning square feet (17,353 gsf) of community facility floor area (medical office) and 56,790 zoning square feet (62,469 gsf) of residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 73 residential units would be constructed on-site, of which, 14 affordable units would be available at or below 80 percent AMI and that 22 units would be available at an average of 80 percent AMI. Therefore, 22 units would be waived from parking requirements. It is assumed that 19 parking spaces would be provided for Projected Development Site 2.

Projected Development Site 3: Block 1737 Lot 41 –Assessment

Under the With-Action Scenario, it is assumed that Block 1737, Lot 41 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the projected development site. On a 3,233 square-foot lot, it is assumed that the proposed action would result in approximately 3,233 zoning square feet (3,556 gsf) of commercial floor area, 3,233 zoning square feet (3,556 gsf) of community facility floor area and 11,639 zoning square feet (12,803 gsf) residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 15 residential units would be constructed on-site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately four affordable units with incomes averaging 80 percent of the area median income (AMI) and 3 units available below 80 percent AMI. No parking would be required per R7D guidelines.

Projected Development Site 4: Block 1737 Lot 42 –Assessment

Under the With-Action Scenario, it is assumed that Block 1737, Lot 42 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the proposed development site. On a 4,375 square-foot lot, it is assumed that the proposed action would result in approximately 4,375 zoning square feet (4,812 gsf) of commercial floor area, 4,375 zoning square feet (4,812 gsf) of community facility floor area and 15,750 zoning square feet (17,325 gsf) of residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 20 residential units would be constructed on-site. Under the 30 percent MIH option, the

proposed rezoning would result in the creation of approximately five affordable units with incomes averaging 80 percent of the area median income (AMI) and 4 affordable below 80 percent AMI. No parking would be required per R7D guidelines.

Potential Development Sites

Potential development sites are less likely to be developed within the analysis period because they are not entirely under common ownership, have an irregular shape, serve as an important community purpose, have been recently developed, or some combination of these features.

Potential Site 1- Block 1753, Lots 21 and 22 –Assessment

Under the With-Action Scenario, Block 1753, Lots 21 and 22 have the potential to be developed, though the sites are not under common ownership and therefore less likely to be developed than the projected development sites described above. It is assumed that Block 1753, Lots 21 and 22 would be developed to the maximum FAR of 3.6 pursuant to an R6A zoning district. Additionally, the mapping of a C2-4 commercial overlay over the project area has the potential to induce a ground-floor commercial use over the potential development site. On a 5,591 square-foot combined lot, the proposed action may result in approximately 5,591 zoning square feet of commercial floor area (6,150 gsf), 5,591 zoning square feet of community facility floor area (6,150 gsf) and 8,946 zoning square feet of residential floor area (9,840 gsf). It is also assumed that the building would be constructed to the maximum allowable height, which is 85 feet with a qualifying ground floor in an R6A district. Estimating approximately 850 square feet per dwelling unit, it is assumed 10 residential units may be constructed on-site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately three affordable units with incomes averaging 80 percent of the area median income (AMI). Parking would not be required per R6A zoning district guidelines.

Potential Site 2- Block 1753, Lots 28 and 30 –Assessment

Under the With-Action Scenario, Block 1753, Lots 28 and 30 have the potential to be developed, though the sites are not under common ownership and therefore less likely to be developed than the projected development sites described above. It is assumed that Block 1753, Lots 28 and 30 would be developed to the maximum FAR of 3.6 pursuant to an R6A zoning district. Additionally, the mapping of a C2-4 commercial overlay over the project area has the potential to induce a ground-floor commercial use over the potential development site. On a 4,660 square-foot combined lot, the proposed action may result in approximately 4,660 zoning square feet of commercial floor area (5,126 gsf), 4,660 zoning square feet of community facility floor area (5,126 gsf) and 7,456 zoning square feet of residential floor area (8,201 gsf). It is also assumed that the building would be constructed to the maximum allowable height, which is 85 feet with a qualifying ground floor in an R6A district. Estimating approximately 850 square feet per dwelling unit, it is assumed 9 residential units may be constructed on-site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately two affordable units with incomes averaging 80 percent of the area median income (AMI). Parking would not be required per R6A zoning district guidelines.

Sites Where Development Would Not Be Induced or Precluded by the Proposed Action

The following are a list of those sites which, based upon analysis following guidance in Chapter 2, Section 410 of the *CEQR Technical Manual,* were screened out of the RWCDS as not meeting the thresholds for projected development site consideration.

- Block 1736, Lot 34
- Block 1737, Lot 45
- Block 1736, Lots 43 & 44
- Block 1737, Lot 40

- Block 1753, Lots 23-27

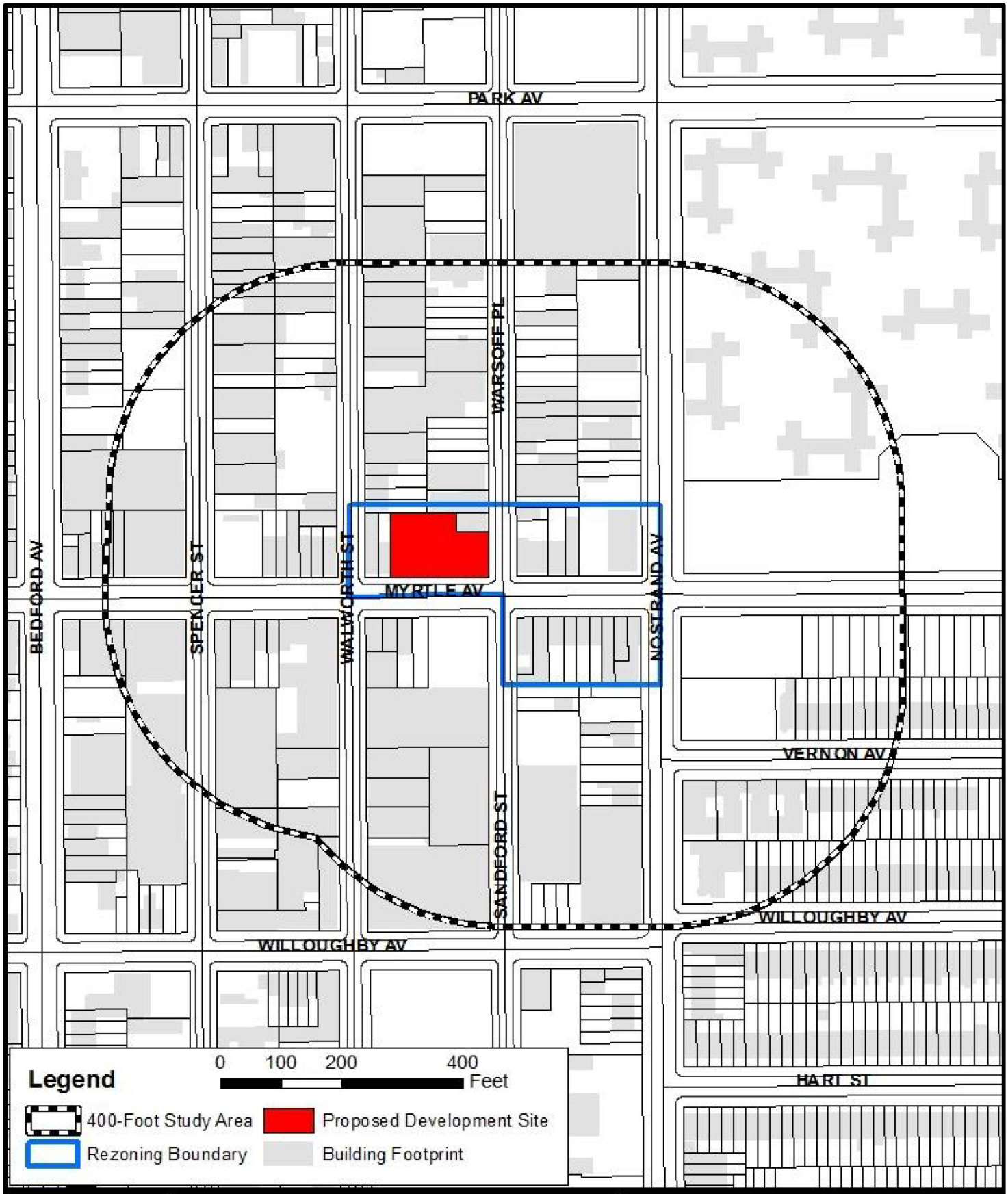
1.7 Required Approvals

The applicant requires zoning map and text amendments, as well as public financing approval, to implement the proposed project. The proposed zoning map and text amendments are discretionary public actions that are subject to both the Uniform Land Use Review Procedure (ULURP) and CEQR; the requested public funding is a discretionary public action that is subject to CEQR.

The City's ULURP process, mandated by Sections 197-c and 197-d of the New York City Charter, is designed to allow public review of ULURP applications at four levels: Community Board, Borough President, the New York City Planning Commission (CPC), and the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of approximately seven months. The process begins with certification by the Department of City Planning (DCP) that the ULURP application is complete. The application is then referred to the relevant Community Board (in this case Queens Community Board 2). The Community Board has up to 60 days to review and discuss the proposal, hold a public hearing, and adopt an advisory resolution on the ULURP application. The Borough President then has up to 30 days to review the application. CPC then has up to 60 days, during which time a public hearing is help on the ULURP application. If CPC approved, the application is then forwarded to the City Council, which has 50 days to review the ULURP application.

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

- *Establish a Lead Agency*. Under CEQR, the "lead agency" the public entity conducting environmental review. The environmental review for the proposed action is a coordinated review, with DCP serving as the lead agency for this project, and HPD as an involved agency under CEQR.
- *Environmental Review and Determination of Significance*. The lead agency will determine whether the proposed actions may have a significant impact on the environmental. To do so, an EAS must be prepared. This EAS will be reviewed by the lead agency, which will determine if the proposed actions and development would result in any significant adverse impacts on the environment.

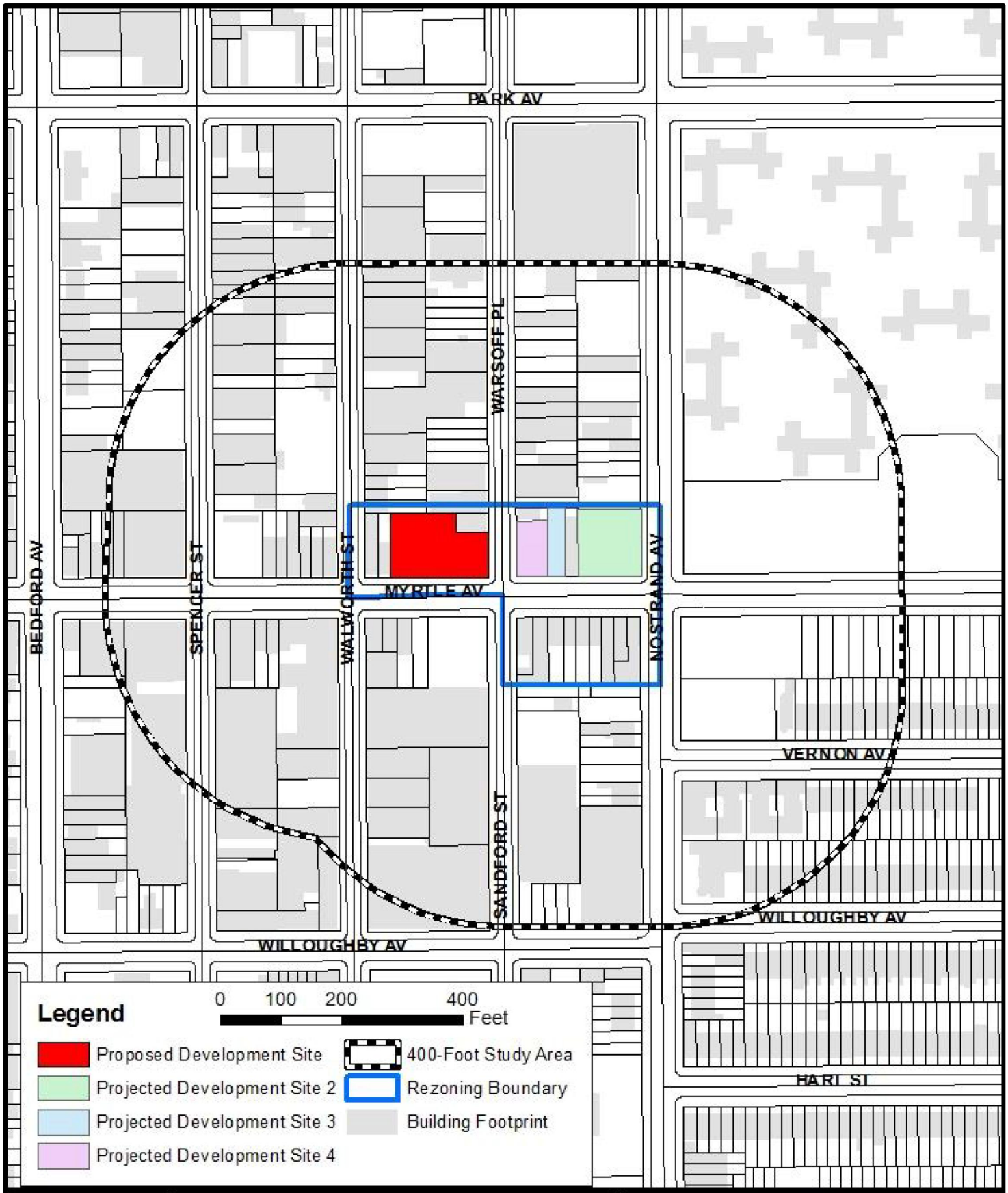


AECOM

Environmental Assessment Statement
Myrtle Avenue Rezoning
Bedford-Stuyvesant, Brooklyn, NY

N

Project Site Location
Figure 1-1



AECOM

Environmental Assessment Statement
Myrtle Avenue Rezoning
Bedford-Stuyvesant, Brooklyn, NY

N

Project Site Location and Projected Sites

Figure 1-1a



Legend

REZONING AREA

PROPOSED DEVELOPMENT SITE

N

AECOM

Environmental Assessment Statement
Myrtle Avenue Rezoning
Bedford-Stuyvesant, Brooklyn, NY

Tax Map

Figure 1-2



1. View of Myrtle Avenue facing southeast from the Site.



2. View of Myrtle Avenue facing northeast from Sandford Street.



3. View of Sandford Street facing south from Myrtle Avenue.





4. View of the sidewalk along the south side of Myrtle Avenue facing east from Sandford Street.



5. View of the side of Nostrand Avenue facing southeast from Myrtle Avenue.



6. View of Myrtle Avenue facing west from Nostrand Avenue.





7. View of the side of Nostrand Avenue facing northeast from Myrtle Avenue.

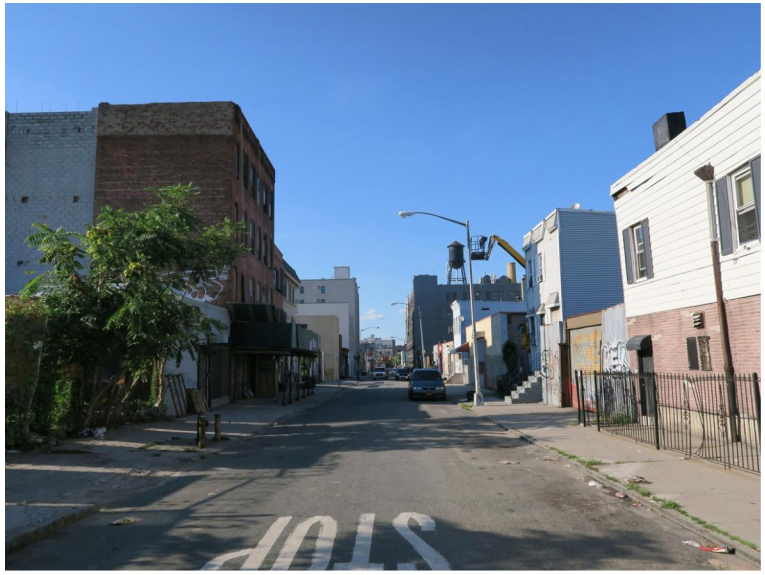


8. View of the side of Myrtle Avenue facing southwest from Nostrand Avenue.



9. View of the sidewalk along the north side of Myrtle Avenue facing west.





10. View of Sandford Street facing north from Myrtle Avenue (Site at left).



11. View of the Site facing northwest from Sandford Street.



12. View of the sidewalk along the west side of Sandford Street facing north (Site at left).





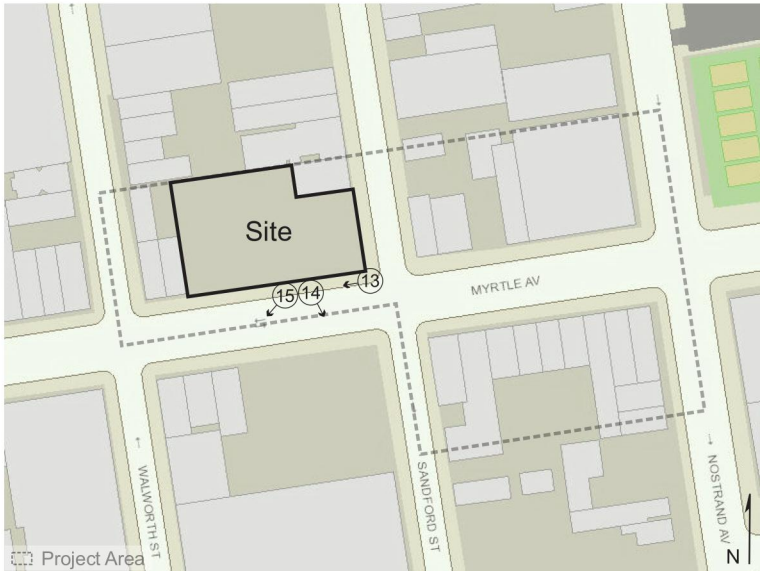
13. View of the sidewalk along the north side of Myrtle Avenue facing west (Site at right).



14. View of the side of Myrtle Avenue facing south from the Site.



15. View of the side of Myrtle Avenue facing southwest from the Site.





16. View of Walworth Street facing north from Myrtle Avenue.



17. View of the sidewalk along the north side of Myrtle Avenue facing east.



18. View of Myrtle Avenue facing east from Walworth Street (Site at left).





19. View of Walworth Street facing south from Myrtle Avenue.



20. View of the Site facing northeast from Myrtle Avenue.



21. View of the sidewalk along the south side of Myrtle Avenue facing east (Site at left).





22. View of the Site facing north from Myrtle Avenue.



23. View of the Site facing northwest from Myrtle Avenue.



24. View of the Site facing northwest from Myrtle Avenue.



Table 1.7-1 Projected Development Under the Proposed Rezoning

Block	Lot	Lot Area	Existing Zoning	Existing FAR	Proposed Zoning	Projected Res. zsf	Projected Com Fac. zsf	Projected Comm. zsf	Projected FAR	DUs (Assume 850 gsf)
1736	35, 37, 137, 38, and 39	14,670	M1-1	0	R7D/C2-4	67,482	14,670	0	5.6	87
1737	35	15,775	M1-1	.63	R7D/C2-4	56,790	15,775	15,775	5.6	73
1737	41	3,233	M1-1	0	R7D/C2-4	11,639	3,233	3,233	5.6	15
1737	42	4,375	M1-1	.58	R7D/C2-4	15,750	4,375	4,375	5.6	20
Total						151,661	38,053	**23,383**		***195***

2.0 ENVIRONMENTAL REVIEW

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

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

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

In the following technical sections, where a preliminary or more detailed assessment was necessary, the discussion is divided into Existing Conditions, the Future No-Action Conditions (the Future Without the Proposed Action), and the Future With-Action Conditions (the Future With the Proposed Action).

2.1 LAND USE, ZONING AND PUBLIC POLICY

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the surrounding area. Land use, zoning and public policy are described in detail below.

2.1.1 Land Use

The *CEQR Technical Manual* defines land use as the activity that is occurring on the land and within the structures that occupy it. Types of land use can include single- and multi-family residential, commercial (retail and office), community facility/institutional and industrial/manufacturing uses, as well as vacant land and public parks (open recreational space). The 2014 *CEQR Technical Manual* recommends that a proposed action be assessed in relation to land use, zoning, and public policy. For each of these areas, a determination is made of the potential for significant impact by the proposed action. If the action does have a potentially significant impact, appropriate analytical steps are taken to evaluate the nature of the impact, possible alternatives and possible mitigation.

Existing Conditions

The *CEQR Technical Manual* recommends a land use; zoning and public policy study area extending 400 feet from the site of a proposed action. This study area is generally bound by Willoughby Avenue to the south, the quarterpoint between Nostrand and Marcy Avenues to the east, the midpoint between Bedford

Avenue and Spencer Street to the west, and the midpoint between Park and Myrtle Avenue to the north. The project site is located in the Bedford-Stuyvesant neighborhood of Brooklyn (**Figure 1.1**).

A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of each project site and study area. The existing land uses in the area immediately surrounding the project area are a mix of warehouse/distribution, commercial, industrial, community facility, mixed-used, and residential uses. The commercial uses comprise of restaurant supplies, auto-oriented commercial and some local retail. The prevailing built form of the area is a mix of low to mid-rise non-residential buildings and three-to four-story residential buildings. There are also several vacant lots scattered throughout.

The proposed project area consists of the applicant controlled lots (Block 1736, Lots 35, 37, 137, 38, and 39) as well as Block 1736, Lots, 34, 43, and p/o 44, Block 1737, p/o Lot 35, p/o Lot 40, p/o Lot 41, 42, and p/o Lot 45, and Block 1753 Lot 21, p/o Lots 22-27, Lot 28, and p/o Lot 30.
The properties within the proposed project area are used as follows**:**

Block 1736, Lots 35, 37, 137, 38 and 39 (the proposed Development Site) consists of five contiguous tax lots with approximately 14,670 sq. ft. of combined lot area. The proposed Development Site is unimproved and presently used for vehicle parking and storage.

Block 1736, Lot 34 is an approximately 1,500 sq. ft. lot improved with a one-story warehouse with an FAR of approximately 1.0.

Block 1736, Lot 43 is an approximately 1,833 sq. ft. lot improved with a two-story mixed-use 1.0 FAR building with ground floor commercial use and one dwelling unit on the second floor.

Block 1736, Lot 44 is an approximately 2,020 sq. ft. lot improved with a four-story mixed-use 2.97 FAR building with ground floor commercial use and eight dwelling units on the upper floors.

Block 1737, Lot 35 is an approximately 15,775 sq. ft. lot improved with a one-story 0.63 FAR building with a Use Group ("UG") 16 enclosed building materials wholesaler.

Block 1737, Lot 40 is an approximately 2,155 sq. ft. lot improved with a three-story mixed-use 1.76 FAR building with ground floor commercial use and four dwelling units on the upper floors.

Block 1737, Lot 41 is an approximately 3,233 sq. ft. lot that is unimproved and classified as vacant land.

Block 1737, Lot 42 is an approximately 4,375 sq. ft. lot improved with a two-story mixed-use 0.58 FAR building with ground floor commercial use and one dwelling unit on the second floor.

Block 1737, Lot 45 is an approximately 1,000 sq. ft. lot improved with a two-story 2.16 FAR residential building containing two dwelling units.

Block 1753, Lot 21 is an approximately 2,283 sq. ft. lot improved with a four-story mixed residential and commercial 2.85 FAR building. The ground floor contains a UG 16 glass and mirror shop and there are six dwelling units on the upper floors.

Block 1753, Lot 22 is an approximately 3,308 sq. ft. lot improved with a three-story 1.17 FAR mixed residential and commercial building. The ground floor contains a UG 6 laundromat and there are two dwelling units on the upper floors.

Block 1753, Lot 23 is an approximately 2,796 sq. ft. lot improved with a four-story 1.21 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors..

Block 1753, Lot 24 is an approximately 2,796 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 25 is an approximately 2,330 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 26 is an approximately 2,330 sq. ft. lot improved with a three-story 1.16 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

Block 1753, Lot 27 is an approximately 2,330 sq. ft. lot improved with a three-story 1.0 FAR mixed-use building with ground floor commercial use and two dwelling units on the upper floors.

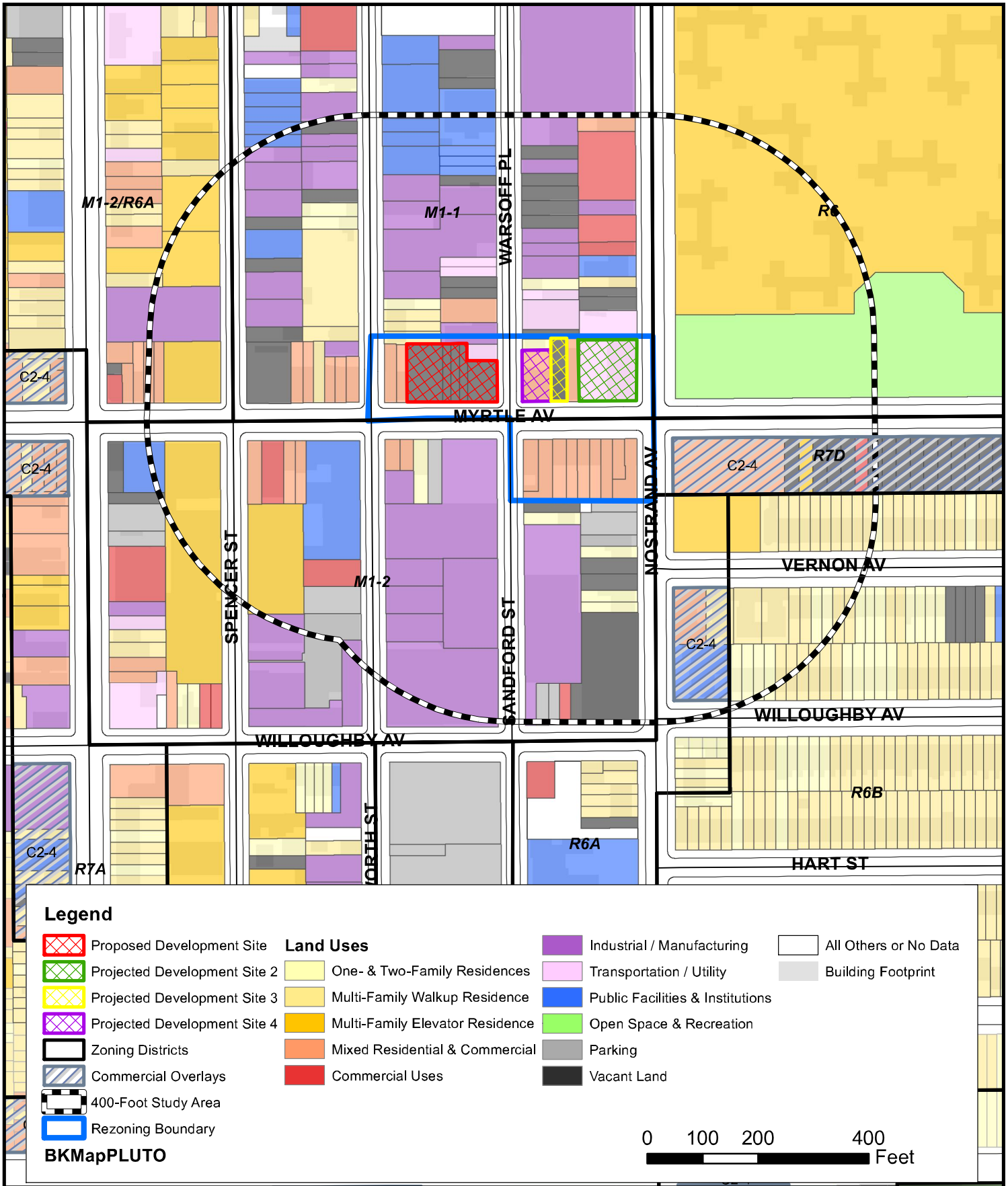
Block 1753, Lot 28 is an approximately 1,493 sq. ft. lot improved with a three-story 2.26 FAR mixed residential and commercial building. The ground floor is occupied with a UG 6 liquor store, and there are two dwelling units on the upper floors.

Block 1753, Lot 30 is an approximately 3,167 sq. ft. lot improved with three structures: a three-story mixed residential and commercial building with a UG 6 food store with 2 dwelling units on the second and third floors; a one-story UG 6 barber shop; and a one-story UG 6 retail tool rental store. The total FAR on the lot is 1.59.

The southern portion of the study area is developed by mainly industrial use buildings between Walworth and Sanford Streets, with additional industrial use buildings on the eastern side of Sanford and the western side of Walworth. Southwest of the proposed project area, the western side of Walworth Street is also developed with a large public facility, and a smaller commercial building and parking lot. Further west of Walworth, Spencer Street is developed with multi-family elevator residences, as well as commercial and mixed-used residential and commercial buildings. Southeast of the proposed project area, the lots between Sanford Street and Nostrand Avenue contain mostly parking with a few one & two family residences, a commercial use building, a transportation/utility use, and vacant land. Further east, both sides of Vernon Avenue are developed with single to multi-family residences, as well as mixed-used buildings and vacant lots. The United Grand Chapter public auditorium is located on the northeast corner of Nostrand and Willoughby Avenues.

The northern portion of the study area contains mostly industrial use lots and vacant land. There are mixed-used residential and commercial buildings along both sides of Myrtle Avenue, which are improved by single- to multi- family residences further north along Walworth and Sanford Streets. There are several public institutions scattered throughout, including a Jewish school on Sanford Street. There are also a few commercial use buildings on the west side of Nostrand Avenue. The northeast corner of the study area is dominated by the Marcy Houses – a public housing complex and Marcy Playground, located west of Nostrand Avenue and north of Myrtle Avenue.

The general mix of land uses observed in the project study area generally reflects the distribution of land uses observed throughout Brooklyn Community District (CD) 3, which are summarized below in **Table 2.1-1.** The most prominent land use within Brooklyn CD 3 is multi-family residences, followed by one and two-family residences and community facilities/institutional uses.



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Land Use Map

Figure 2.1-1

Table 2.1-1 2014 Land Use Distribution - Brooklyn Community District 2

LAND USES	PERCENT OF TOTAL
Residential Uses	
1-2 Family	8.2
Multi-Family	23.3
Mixed Residential/Commercial	8.9
Subtotal of Residential Uses	*40.4*
Non-Residential Uses	
Commercial/Office	8.0
Industrial	4.1
Transportation/Utility	18.0
Institutions	14.7
Open Space/Recreation	8.7
Parking Facilities	2.7
Vacant Land	3.1
Miscellaneous	0.4
Subtotal of Non-Residential Uses	*59.7*
TOTAL	**100.0**

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

Future No-Action Scenario

The proposed development sites are located in the Bedford-Stuyvesant neighborhood of Brooklyn, which is densely developed. East of Nostrand Avenue, the south side of Myrtle Avenue has recently been constructed with a six-story mixed residential and commercial building containing 72 residential units, which illustrates the development trend from manufacturing to residential uses in the immediate vicinity of the proposed project area. No additional significant new construction was observed within 600 feet of the project area, although several vacant lots are present.

In the future without the proposed action, it is presumed that no additional floor area or changes in use would occur at any site within the proposed rezoning boundaries. Therefore, for the purposes of this memorandum, it is assumed that conditions in the Future No-Action scenario would be consistent with conditions, as they currently exist on the parcels listed above.

Future With-Action Scenario

Under the With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-1 district to an R7D district with a C2-4 commercial overlay, and would change the existing M1-2 district to an R6A district with a C2-4 commercial overlay, which would facilitate the Applicant's proposed development (Block 1736, Lots 35, 27, 137, 38, and 39) of an eight-story mixed residential, commercial, and community facility building with approximately 75 dwelling units, 25 percent of which would be classified as affordable. The applicant also proposes the building include 14,170 zsf of commercial floor space, and 14,670 zsf of community facility floor space.

In this case, the With-Action Scenario differs from the applicant's proposed development. Under the With-Action Scenario, it is assumed that Block 1736, Lots 35, 37, 137, 38, and 39 would be

developed to the maximum FAR of 5.6. Additionally, the mapping of a C2-4 commercial overlay over the rezoning area is assumed to induce a possible ground-floor commercial use over the proposed development site. On a combined 14,670 square-foot lot, the applicants proposed action would result in approximately 82,152 zoning square feet (90,367 gross square feet) of total floor area of which, 14,670 zsf (16,137 gsf) would be community facility floor area, and 67,482 zsf (74,230 gsf) would be residential floor area. It is assumed the building would be built to the maximum allowable height of 115 feet with a qualifying ground floor within an R7D district. Assuming, 850 square feet per dwelling unit, it is assumed that 87 residential units would be constructed on this site. It is assumed that 17 units will be affordable at or below 80 percent AMI and that 26 units will be affordable at an average of 80 percent AMI. Therefore, 30 parking spaces would be required for the buildings approximately 61 market-rate residential units.

As previously mentioned, the applicant's proposed development program on Projected Site 1 calls for only 52,712 zsf of residential floor area, resulting in the creation of 75 dwelling units, of which 19 would be affordable. The applicant's site also has programmed 14,670 zsf of community facility floor area and 14,170 zsf of commercial floor area as well as a 68-space accessory parking garage in the cellar.

Furthermore, in the interest of a conservative analysis, it is assumed that the remaining parcels of land in the project area that have been identified as projected would be developed to the maximum allowable FAR and height in their respeictive zoning districts. Those sites would be developed under in the Future With-Action Scenario as follows:

Projected Development Site 2: Block 1737 Lot 35

Under the With-Action Scenario, it is assumed that Block 1737, Lot 35 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the projected development site. On a 15,775 square-foot lot, it is assumed that the proposed action would result in approximately 15,775 zoning square feet (17,353 gsf) of ground floor commercial floor area, 15,775 zoning square feet (17,353 gsf) of community facility floor area (medical office) and 56,790 zoning square feet (62,469 gsf) of residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 73 residential units would be constructed on-site, of which, 14 affordable units would be available at or below 80 percent AMI and that 22 units would be available at an average of 80 percent AMI. Therefore, 22 units would be waived from parking requirements. It is assumed that 19 parking spaces would be provided for Projected Development Site 2.

Projected Development Site 3: Block 1737 Lot 41

Under the With-Action Scenario, it is assumed that Block 1737, Lot 41 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the projected development site. On a 3,233 square-foot lot, it is assumed that the proposed action would result in approximately 3,233 zoning square feet (3,556 gsf) of commercial floor area, 3,233 zoning square feet (3,556 gsf) of community facility floor area and 11,639 zoning square feet (12,803 gsf) residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 15 residential units would be constructed on-site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately four affordable units with incomes averaging 80 percent of the area median income (AMI) and 3 units available below 80 percent AMI. No parking would be required per R7D guidelines.

Projected Development Site 4: Block 1737 Lot 42

Under the With-Action Scenario, it is assumed that Block 1737, Lot 42 would be developed to the maximum FAR of 5.6, pursuant to ZQA/MIH. Additionally, the mapping of a C2-4 commercial overlay over the project area is assumed to induce a ground-floor commercial use over the proposed development site. On a 4,375 square-foot lot, it is assumed that the proposed action would result in approximately 4,375 zoning square feet (4,812 gsf) of commercial floor area, 4,375 zoning square feet (4,812 gsf) of community facility floor area and 15,750 zoning square feet (17,325 gsf) of residential floor area. It is also assumed that the building would be constructed to the maximum allowable height, which is 115 feet with a qualifying ground floor in an R7D district. Estimating approximately 850 square feet per dwelling unit, it is assumed 20 residential units would be constructed on-site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately five affordable units with incomes averaging 80 percent of the area median income (AMI) and 4 affordable below 80 percent AMI. No parking would be required per R7D guidelines.

2.1.2 Zoning

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

Existing Conditions

Zoning designations within and around the study area are depicted in **Figure 2.1-2**, while **Table 2.1-2** summarizes use, floor area and parking requirements for the zoning districts in the study area.

The project area and majority of the study area are located within an M1-1 zoning district to the north of Myrtle Avenue and an M1-2 zoning district to the south. The M1 district is a light-performance and low-density manufacturing zoning district in which Use Groups 4 to 14, 16 and 17 are allowed. Light industries typically found such zoning districts include woodworking shops, auto shops and wholesale service and storage facilities. Offices and most retail uses are also permitted, as are certain community facilities as-of-right or by special permit. M1 districts permit an FAR for manufacturing and commercial uses of up to 1.0, and an FAR for community facilities up to a 2.4.

West of Bedford Avenue and north of Myrtle Avenue, a portion of the 400-foot study area is zoned R6A. The R6A district is a medium-density contextual residential district that mandates the Quality Housing Program for new residential buildings. The Quality Housing Program establishes bulk regulations that set height limits and allow high lot coverage buildings that are set at or near the street line. Quality Housing buildings must also have amenities related to the planting of trees, landscaping and recreation space. R6A zoning districts permit a maximum Floor Area Ratio (FAR) of 3.0 for residences and community facilities. The base height of a building before a 10-foot setback is between 40 and 60 feet, with a maximum building height of 70 feet. All open areas between the street wall and front lot line must be planted.

An additional portion of the study area east of Nostrand Avenue and south of Myrtle Avenue is zoned R6B, which often has traditional row-houses and attempts to preserve the scale and harmonious streetscape of neighborhoods. The FAR of 2.0 and the mandatory Quality Housing regulations also accommodate apartment buildings at a similar four- to five-story scale. The base height of a new building before setback must be between 30 and 40 feet, with a maximum height of 50 feet. The northeast portion of the study area is also mapped with an R6 zoning district. The contextual Quality Housing regulations, which are not mandatory in R6 districts, typically produce high lot coverage, six and seven-story apartment buildings, blending with existing buildings in many established neighborhoods. The maximum FAR in R6 districts is 2.43. The FAR can also be 3.0 with the optional Quality Housing Regulations. Above a base height of 40 to 65 feet, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 80 feet.

A small portion of the study area southeast of Myrtle and Nostrand Avenues is also zoned R6A and R7D, and contains a C2-4 commercial overlay. The C2-4 overlay district allows a wide range of uses, including neighborhood grocery stores, restaurants, beauty parlors, funeral homes and local repair shops. The maximum commercial FAR is 2.0 when mapped within R6-R10 zoning districts.

Table 2.1-2 Summary of Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
M1-1	Light Manufacturing UGs 4-14, 16, 17	1.0 FAR – Manufacturing 1.0 FAR – Commercial 2.4 FAR – Community Facility	Varies by Use
M1-2	Light Manufacturing UGs 4-14, 16, 17	1.0 FAR – Manufacturing 1.0 FAR – Commercial 2.4 FAR – Community Facility	Varies by Use
R6	Residential UGs 1-4	2.43 FAR – Residential 2.43 FAR – Community Facility	70 percent of dwelling units (waived if 5 or fewer spaces required)
R6A	Residential UGs 1-4	3.0 FAR – Residential 3.6 FAR – Residential (MIH) 3.0 FAR – Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required)
R6B	Residential UGs 1-4	2.0 – 2.2 FAR for Residential 2.0 FAR for Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required)
R7D	Residential UGs 1-4	4.2 FAR – Residential (QH) 5.6 FAR – Residential (Inclusionary housing) 4.2 FAR – Community Facility FAR	50 percent of dwelling units (waived if 5 or fewer spaces required)
C2-4	Commercial Overlay UGs 1-9 & 14	2.0 FAR – Commercial	Generally Not Required

Source: Zoning Handbook, New York City Department of City Planning, January 2006.

Future No-Action Scenario

In the future without the proposed action, zoning changes are not expected to occur on the project site or within the surrounding study area. No authorizations, certifications or other approvals would be sought from the CPC relating to the project site. Because the Applicant may not construct new residential square footage on the project site without the proposed zoning map and text amendments, it is assumed that the No-Action Scenario would remain consistent with existing conditions. Therefore, if the mapping of the requested R7D/C2-4 zoning district and inclusionary housing designated area are not granted, the existing conditions would continue in the future no-action scenario.

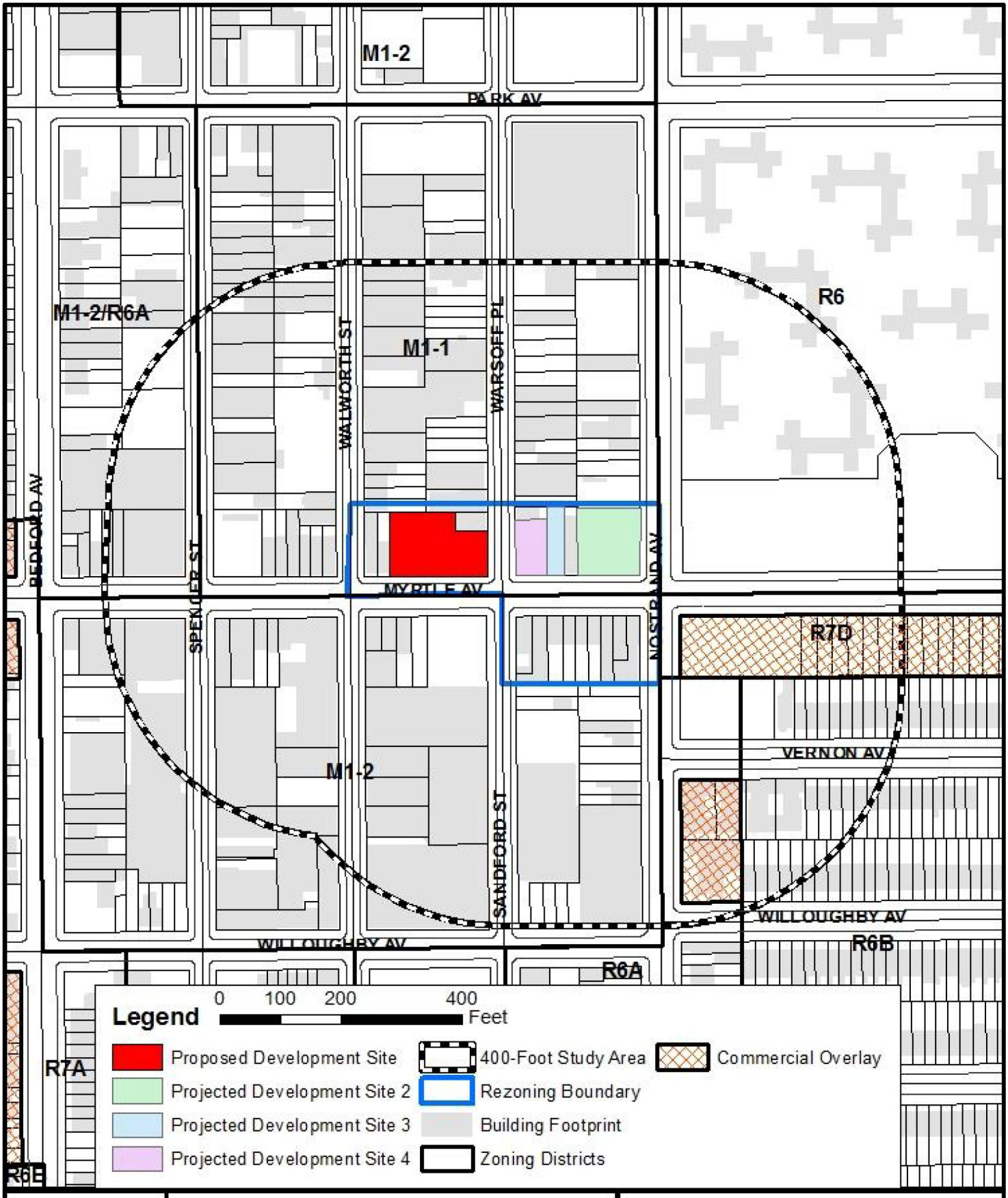
No rezoning actions are presently being contemplated by the NYC Department of City Planning (DCP), nor have any BSA variance applications been identified for the study area by the project build year of 2021.

Future With-Action Scenario

Under the With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-1 district to an R7D district with a C2-4 commercial overlay, and would change the existing M1-2 district to an R6A district with a C2-4 commercial overlay, which would facilitate the Applicant's proposed development on Block 1736, Lots 35, 27, 137, 38, and 39. The applicant is also proposing a zoning text amendment to map an Inclusionary Housing designated area over the project area

In order to present a conservative assessment, the With-Action scenario assumes that the proposed and projected development sites would be constructed to the maximum floor area allowable under ZQA/MIH regulations for R7D and R6A zoning districts, assuming an average of 20 percent affordable housing floor area at 80 percent AMI. Doing so would increase the maximum allowable FAR on the proposed

development site to 5.6 in an R7D district (site of proposed development) and 3.6 in an R6A district mapped within an inclusionary housing designated area. Absent the proposed action, the applicant would be unable to construct the proposed development under the existing floor area and lot coverage requirements of an M1-1 district. The zoning change would allow for the neighborhood and Myrtle Ave corridor to more effectively transition to the mixed-use residential space that it is fitfully developing toward and unify the primarily residential fabric that exists around the proposed project area. The proposed action would therefore not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties. Therefore, significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.



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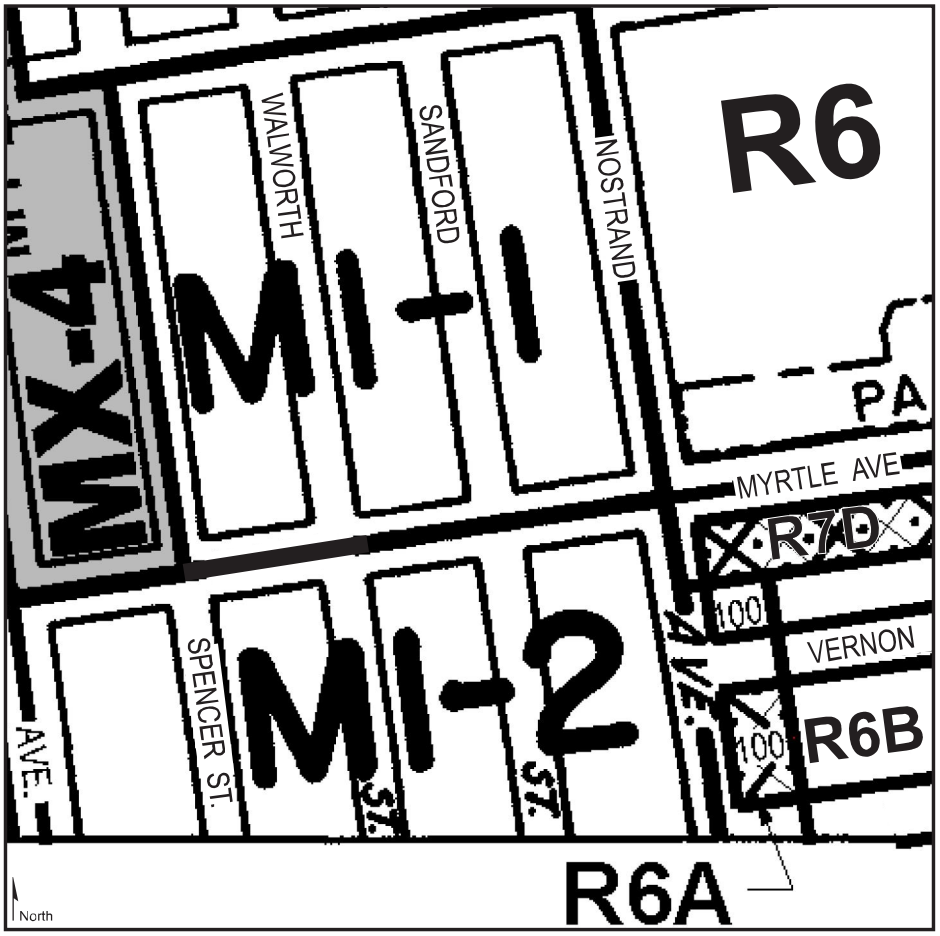
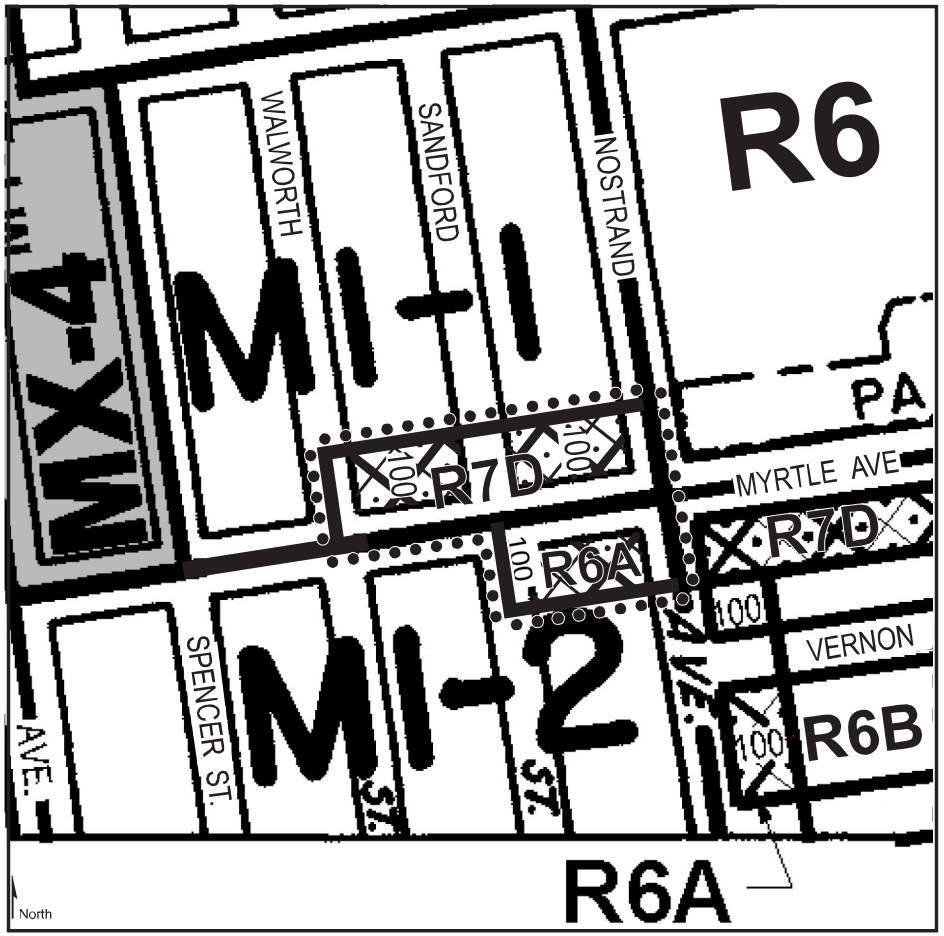
Zoning Map

Figure 2.1-2

Zoning Change Map



Current Zoning Map (13b)



Proposed Zoning Map (13b) - Project Area is outlined with dotted lines

Rezoning from M1-1 to R7D/C2-4
Rezoning from M1-2 to R6A/C2-4

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

Figure 2.1-3
Zoning Change Map

2.1.3 Public Policy

The project site is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law. The proposed action is also not a large publically sponsored project, and as such, consistency with the City's *PlaNYC 2030* for sustainability is not warranted. In addition, the project area is not located in the Coastal Management Zone; therefore a consistency review is not warranted.

Housing New York

Housing New York is a five-borough, ten year plan to address the City's affordable housing crisis. The plan outlines more than 50 initiatives to support Mayor Bill De Blasio administration's goal of building or preserving 200,000 high-quality affordable units. The plan seeks to reach this goal by achieving the following actions: Fostering diverse, livable neighborhoods; preserving the affordability and quality of the existing housing stock; building new affordable housing for all New Yorkers, Promoting homeless, senior, supportive and accessible housing; Refining City financing tools and expanding funding sources for affordable housing.

The proposed project would be consistent with the administration's new housing plan, known as Housing New York. Development on the project site would provide new affordable housing units, advancing the Mayor's goal of building and preserving 200,000 affordable units in New York City by 2024[5]. Therefore, there are no anticipated significant adverse impacts to public policy.

Waterfront Revitalization Program

The project area is not located within New York City's designated coastal zone and, as such, is not subject to review for its consistency with the City's Waterfront Revitalization Program (WRP).

2.2 COMMUNITY FACILITIES AND SERVICES

The *CEQR Technical Manual* defines community facilities and services as public or publicly funded schools, hospitals, libraries, day care centers and police and fire services. A community facilities analysis examines a proposed action's potential effect on the provision of services by those community facilities. Direct effects occur when a particular action physically alters or displaces a community facility; indirect effects result from increases in population, which creates additional demand on service delivery. While the applicant's site is presently occupied by a community center, a community facility use is proposed on the ground floor of this site. Therefore, this in-kind replacement assumes a direct community facility displacement would not occur due to the proposed action.

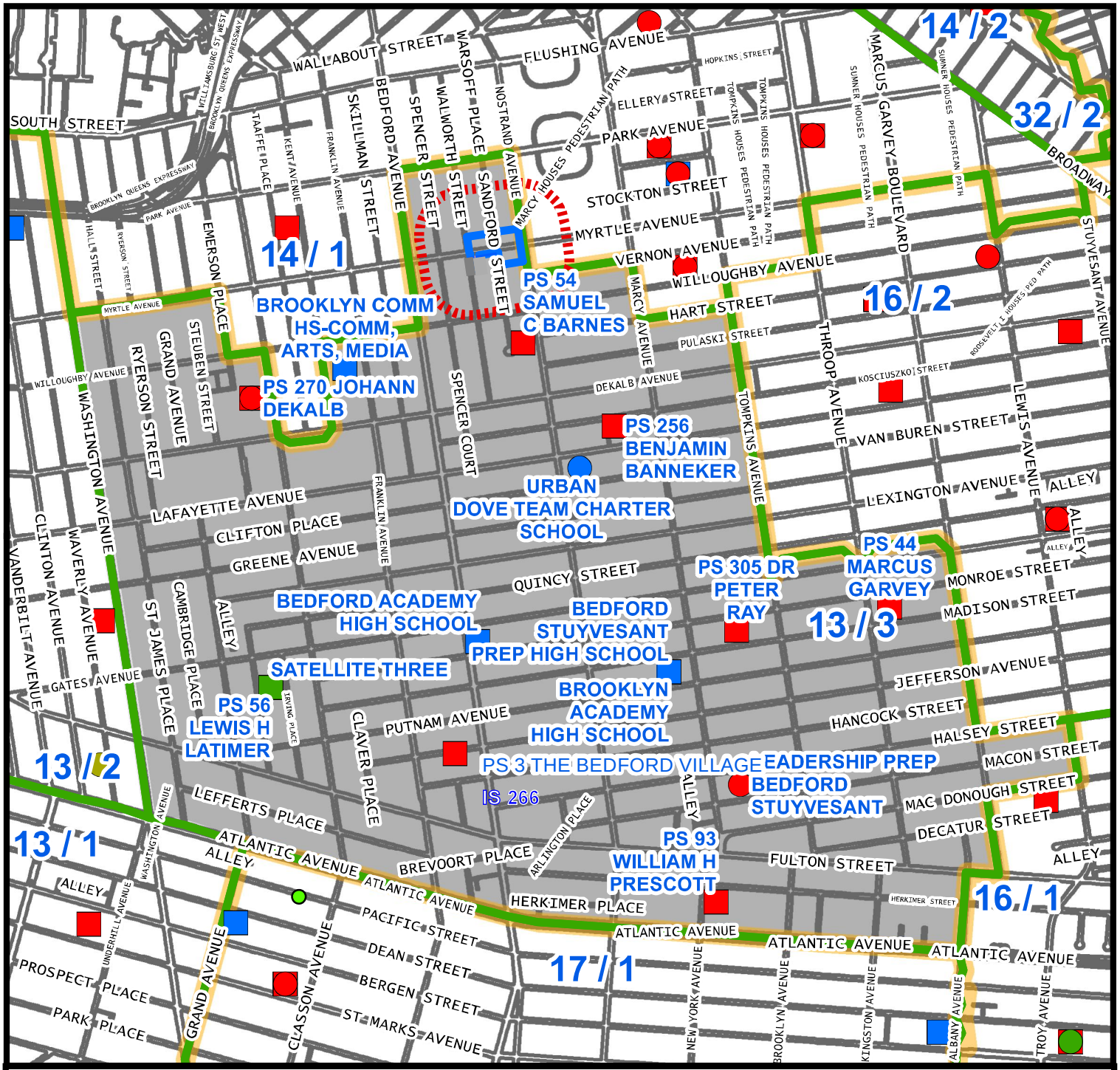
However, the *CEQR Technical Manual* (Table 6-1) provides thresholds for analyses of indirect effects. Based on these thresholds, the addition of 195 dwelling units—of which approximately 39 would be classified as affordable at an average of 80 percent AMI—does not require detailed analyses of hospitals, libraries, publicly funded day care centers, or police and fire services. However, the *CEQR Technical Manual* directs that if a proposed action could generate more than 50 public elementary and intermediate school students or 150 public high school students, a more detailed analysis is required. The proposed action is expected to generate approximately 52 public elementary and intermediate school students and 21 public high school students. Further analysis of the impacts of the proposed rezoning on public elementary and intermediate schools in this area is therefore warranted.

2.2.1 Public Schools

Existing Condition

Elementary and intermediate schools are located in geographically defined school districts, each divided into subdistricts for capital planning purposes. The proposed project area falls within Community School District (CSD) 13, subdistrict 3, as shown in **Figure 2.2-1**.

Tables 2.2-1 and **2.2-2** show those elementary and middle/intermediate schools within the study area, consisting of those elementary and middle/intermediate schools within CSD 13, Subdistrict 3. As of the 2015-2016 school year, the schools within the study area have an average utilization level of approximately 52 percent for elementary level schools with approximately 1,883 available elementary school seats, and an average utilization level of approximately 46 percent for middle/intermediate level schools with approximately 487 available intermediate school seats. As these figures demonstrate, the utilization rates for both public elementary and intermediate schools within the Subdistrict are collectively operating well below capacity.



Legend

0 550 1,100 2,200 3,300 Feet

School Type

- Elementary School - Public
- Elementary School - Public Charter
- High School - Public
- High School - Public Charter
- Intermediate/Junior High School - Public
- Intermediate/Junior High School - Public Charter
- Junior/Senior High School - Public
- Junior/Senior High School - Public Charter

- Rezoning Area
- Project Study Area
- SCA_CSD_SubDistrict
- NY School Districts
- SD_Sub District 3

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Public Schools in Vicinity of the Proposed Rezoning Area

Figure 2.2-1

Table 2.2-1 Public Elementary Schools within CSD 13, Subdistrict 3: Enrollment, Capacity and Utilization

Key	Facility Name	Facility Address	CSD / Subdistrict	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
1	P.S. 3	50 Jefferson Ave	13/3	450	843	393	53%
2	P.S. 44	432 Monroe St	13/3	223	367	144	61%
3	P.S. 54	195 Sanford St	13/3	241	554	313	44%
4	P.S. 56*	170 Gates Ave	13/3	200	546	346	37%
5	P.S. 93	31 New York Ave	13/3	305	337	32	91%
6	P.S. 256	114 Kosciusko St	13/3	291	646	355	45%
7	P.S. 270	241 Emerson Pl	13/3	139	214	75	65%
8	P.S. 305*	344 Monroe St	13/3	182	407	225	45%
			Total	**2,031**	**3,914**	**1,883**	**52%**

Source: NYC Department of Education, *Enrollment/Capacity/Utilization Report 2015-2016 School Year*
* - P.S. component of P.S./I.S. schools

Table 2.2-2 Public Intermediate Schools within CSD 13, Subdistrict 3: Enrollment, Capacity and Utilization

Key	Facility Name	Facility Address	CSD / Subdistrict	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
9	I.S. 103	170 Gates Ave	13/3	148	301	153	49%
10	I.S. 301*	344 Monroe St	13/3	96	281	185	34%
11	Knowledge & Power Prep VII	300 Willoughby Ave	13/3	49	132	83	37%
12	I.S. 266	31 New York Ave	13/3	130	196	66	66%
			Total	**423**	**910**	**487**	**46%**

Source: NYC Department of Education, *Enrollment/Capacity/Utilization Report 2015-2016 School Year*
* - I.S. component of P.S./I.S. schools

Future No-Action Condition

In the future without the proposed action, it is assumed that the existing parking lot operating the Proposed Development Site at Block 1736; Lots 35, 37,137, 38, and 39 would continue to operate under its present condition. According to the latest projections made available by the New York City Department of Education (DOE), elementary and intermediate enrollment in CSD 13 is expected to decrease by approximately 2.5 percent by 2023, down from its current levels[1]. Under the Future No-Action Condition, it is projected that public elementary schools within CSD 13, subdistrict 3 would be operate at 46 percent utilization, and public intermediate schools would operate at 46 percent utilization.

Future With-Action Condition

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

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

[1] The Grier Partnership. *Enrollment Projections 2012 to 2021: New York City Public Schools*

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

Under the proposed action, an additional 195 dwelling units are expected to be developed on the projected development sites by 2023. This would generate 56 elementary and 23 intermediate school students by the 2023 analysis year, as shown in **Tables 2.2-3** and **2.2-4**.

Table 2.2-3 Public School Students Generated by the Proposed Rezoning

	Project-generated DUs	P.S. Students	I.S. Students	Total P.S./I.S. Students
CSD 13 Subdistrict 3	195	56	23	79

Source: *CEQR Technical Manual,* 2014, Table 6-1a

Table 2.2-4 Projected Public Elementary School Enrollment, Capacity and Utilization in 2023 with the Proposed Action

	Future No-Action Projected Enrollment 2023	Students Generated by Proposed Action	Total Projected Enrollment 2023	Capacity	Seats Available	Utilization
CSD 13 Subdistrict 3	11,803	56	1,776	3,914	2,055	47%

Table 2.2-5 Projected Public Intermediate School Enrollment, Capacity and Utilization in 2023 with the Proposed Action

	Future No-Action Projected Enrollment 2023	Students Generated by Proposed Action	Total Projected Enrollment 2023	Capacity	Seats Available	Utilization
CSD 13 Subdistrict 3	418	23	441	910	469	49%

In the future with the proposed action, elementary schools in the study area are projected to have an average utilization level of approximately 45 percent. The addition of approximately 56 elementary school-aged students to the area, along with enrollment projections, would increase the utilization rate at by 1 percent for elementary schools. The collective utilization rate for the elementary schools in the study area would continue to be below 100 percent under the Future With-Action Condition.

In the future with the proposed action, intermediate schools in the study area are projected to have an average utilization level of approximately 59 percent. The addition of approximately 23 intermediate school-aged students to the area, along with enrollment projections, would increase the utilization rate at a change of approximately 3 percent. The collective utilization rate for the intermediate schools in the study area would continue to be well below 100 percent under the Future With-Action Condition.

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

2.3 OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. According to the *CEQR Technical Manual*, an analysis of open space is conducted to determine whether or not a proposed project would have a direct impact resulting from the elimination or alteration of open space and/or indirect impacts resulting from overtaxing available open space. An open space analysis focuses on officially designated existing or planned public open space. An open space assessment may be necessary if a project potentially has a direct or indirect effect on open space.

For the majority of new projects in New York City located in areas that are neither "underserved" or "well-served" area for open space, an open space assessment is generally conducted if the proposed project would generate more than 200 residents or 500 employees. The proposed action would potentially add up to approximately 449 residents in 195 units (based on an average of 2.3 persons per unit[1]), as well as approximately eight employees[2] to the neighborhood who would work in the buildings. In addition to these employees, the proposed project would include approximately 25,721 square feet of commercial floor area and 24,505 square feet of community facility uses which would generate 175 employees.,[3] Combining the total number of employees generated by this retail and community facility as well as residential oriented employees – the total of 183 new employees would still fall well below the 500 employee threshold for further study. As the number of new residents anticipated as a result of the proposed action is above the CEQR preliminary screening threshold level of 200 residents, a preliminary analysis of open space impacts due to new residents is warranted.

2.3.1 Preliminary Open Space Assessment

The open space study area includes all U.S. Census Tracts that have 50 percent or more of the tract within a half-mile radius of the project site, as shown in **Figure 2.4-1**, consisting of the following Census Tracts shown in **Table 2.3-1**. The project area is located within Brooklyn Census Tracts 241 and 1237, and the half-mile study area lies within Brooklyn Community Districts 1, 2 and 3.

Existing Conditions

According to 2010 U.S. Census population data that was compiled by the New York City Department of City Planning, there are a total of 63,679 residents in the study area, as shown in **Table 2.4-1**, per the 2010 U.S. Census. Assuming a standard background growth rate of 0.5 percent per year, the 2016 population is estimated to be approximately 65,613 residents. The study area contains a total of approximately 33.32 acres of publicly accessible open space (both active and passive), with the size of existing open space resources within this study area identified in **Table 2.4-2** and shown in **Figure 2.4-2**.

In accordance, with CEQR methodology, the assessment of open space resources in the study area focuses on the calculated open space ratio (OSR), or the ratio of the acres of open space per 1,000 persons. The existing OSR in the study area is approximately 0.51 acres per 1,000 residents, below the City's target OSR of 1.50 acres per 1,000 residents

Table 2.3-1 Census Tracts and Population in the Study Area

Census Tract Number	Population (2010 Census)	Population (2016 Projected)
193	5,628	5,799

1 Based on the average household size for Brooklyn Community District 3 per Dept. of City Planning Community Portal

2 Based on a standard average of 0.04 employees per dwelling unit of residential use (superintendents, doormen, handymen, porters, etc)

3 Based on a standard of 3 employees for 1000 SF of standard commercial retail, and 1 employee per 250 SF for community facility/office

233	5,061	5,215
235	3,928	4,047
241	2,229	2,297
243	3,786	3,901
251	3,816	3,932
253	2,754	2,838
255	5,102	5,257
257	2,131	2,196
259.01	2,010	2,071
259.02	3,419	3,523
261	4,917	5,066
507	2,288	2,358
531	7,027	7,240
537	3,575	3,684
1237	6,008	6,191
Total	**63,679**	**65,613**

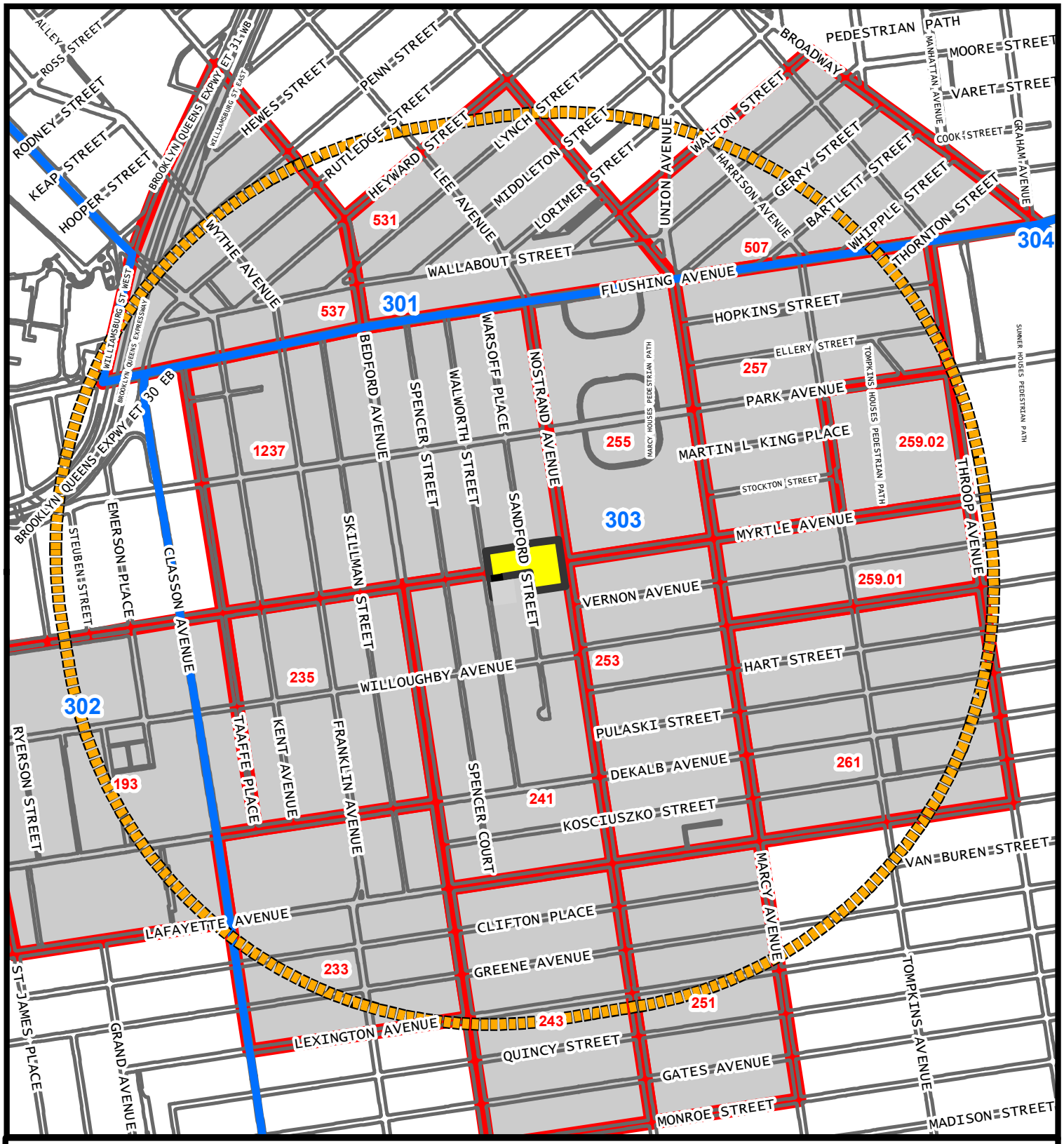
Source: New York City Department of City Planning.
Notes: Shaded row indicates census tract of the Project Area

Table 2.3-2 Open Space Resources in the Study Area

Key #	Open Space Name	Location	Acreage
1	Banneker Playground	Macy Ave. bet. Lafayette Ave. and Kosciuszko St.	1.67
2	Bartlett Playground	Whipple St., Bartlett St., between Throop Ave. and Flushing Ave.	0.92
3	Charlie's Place	Ellery St. at Delmonico Pl., Hopkinds St. bet. Tompkins Ave. and Throop Ave.	1.26
4	Classon Playground	Lafayette Ave. and Classon Ave.	1.34
5	Classon Playground	Kent Ave. to Flushing Ave., bet. Williamsburg St. W. and Classon Ave., at the BQE	2.98
6	Classon Triangle	Kent Ave., Classon Ave., Wallabout St.	0.21
7	Herbert Von King Park	Marcy Ave., Tompkins Ave., bet. Greene Ave. and Lafayette Ave.	7.82
8	Kosciuszko Pool	Marcy Ave. between Kosciuszko St. and Dekalb Ave.	2.39
9	Lafayette Gardens Playground	Lafayette Ave. and Franklin Ave.	0.70
10	Marcy Playground	Myrtle Ave. bet. Nostrand Ave. and Marcy Ave.	3.24
11	Middleton Playground	Lynch St., Middleton St. bet. Lee Ave. and Bedford Ave.	1.10
12	Pratt Playground	Willoughby Ave. between Stuben St. and Emerson Pl.	0.92
13	Star Spangled Playground	Franklin Ave. between Willoughby Ave. and Dekalb Ave.	1.69

14	Steuben Playground	Flushing Ave., Steuben St., Williamsburg Pl.	1.17
15	Stockton Playground	Park Ave., Martin Luther King Pl., Marcy Ave.	1.09
16	Sumner Playground	Throop Ave. between Myrtle Ave. and Park Ave.	1.97
17	Taaffe Playground	Taaffe Pl. bet. Park Ave. and Myrtle Ave.	1.84
18	Willoughby Playground	Tompkins Ave., Willoughby Ave., Vernon Ave.	0.91
		TOTAL	**33.22**

Source: Community District Profiles, NYC Department of City Planning; American Fact Finder.
Note: *- Represents partial area of open space within selected study area.



Legend

0 265 530 1,060 1,590 Feet

.5 Mile Open Space Study Area | Rezoning Area | Community District | Census Tracts in Study Area

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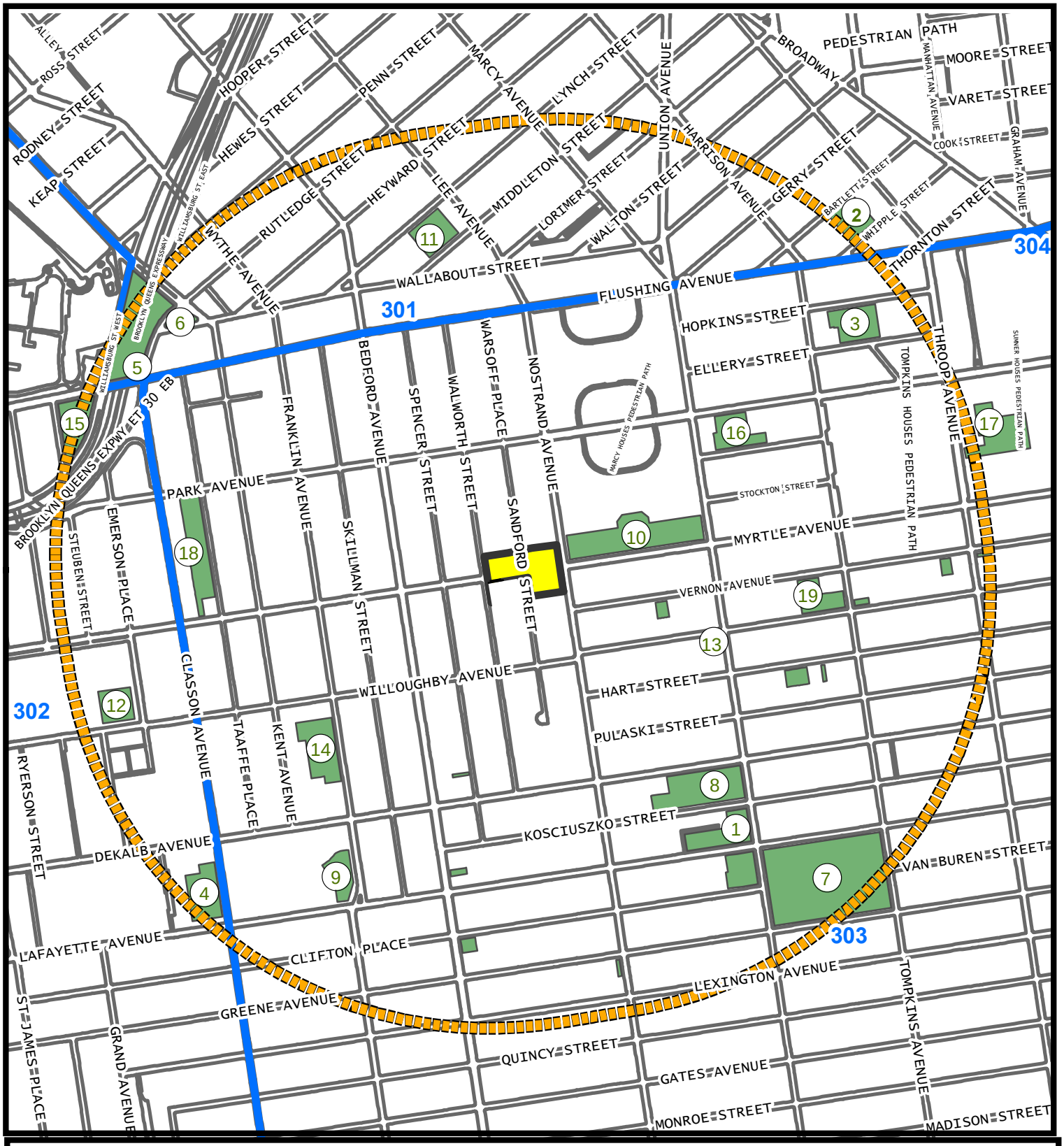
Open Space Study Area

Figure 2.3.1



Legend

0 325 650 1,300 1,950 Feet

.5 Mile Open Space Study Area | Rezoning Area | Community District | Open Space Resources in Study Area

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Open Space Resources

Figure 2.3.2

Banneker Playground
This playground is located at Macy Ave. between Lafayette Ave and Kosciuszko St. Banneker Playground is named in honor of Benjamin Banneker (1731-1806), a noted African-American writer and mathematician. This space includes safety surfacing, basketball courts, handball courts, and playgrounds. The space also includes a sculpture of a camel, and a decorative gate and is 1.67 acres.

Bartlett Playground
This playground is located at Whipple St. and Bartlett St. between Throop Ave. and Flushing Ave. Both this playground and the adjacent Bartlett Street are named in honor of Josiah Bartlett (1729-1795), signer of the Declaration of Independence and the first Governor of New Hampshire The playground features basketball and handball courts, play equipment with safety surfacing, a comfort station, spray showers, drinking fountains, benches, swings, and picnic tables. Today, the playground serves both as a memorial to a devoted patriot and a place of rest and recreation for people of all ages and is .92 acres.

Charlie's Place
This open space is 1.26 acres and is located at Ellery St., Delmonico Pl. and Hopkinds St. between Tompkins Ave. and Throop Ave. Charlie's Place honors Charles Lubin (1903-1988), one of the founders of Sara Lee. The space includes grassy areas, hopscotch squares, picnic tables, handball courts, playgrounds, and the Brooklyn Botanic Garden installed planting beds in the park for schoolchildren to use in their scientific studies.

Classon (Dekalb) Playground
Classon playground, also known as DeKalb Playground, is 1.34 acres and located at Lafayette Ave and Classon Ave. The playground takes its name from Revolutionary War hero General Baron Johann DeKalb (1721-1780), remembered as one of the most courageous and skilled of the many foreigners who embraced the cause of American liberty. The playground includes facilities such as basketball courts, handball courts, playgrounds and spray showers.

Classon Playground
Classon Playground is a 2.98 acre park located at Kent Ave. to Flushing Ave., between Williamsburg St. W. and Classon Ave., at the BQE. The playground features play equipment, handball courts, and a basketball court.

Classon Triangle
This .21 acre Triangular shaped plaza is located at Kent Ave., Classon Ave., and Wallabout St. It incorporates benches, grass, and trees.

Herbert Von King Park
Located in the heart of Brooklyn's Bedford-Stuyvesant neighborhood, Herbert Von King Park is a 7.82 acre town square with a storied history. Originally called Tompkins Park, Von King is one of the first parks in the history of Brooklyn, with a design submitted by Frederick Law Olmsted and Calvert Vaux. Von King Park features a Cultural Arts Center with facilities such as an indoor dance studio and an outdoor amphitheater. The park also features fitness equipment, baseball field, barbequing areas, dog-friendly areas, handball courts, playgrounds, bathrooms, and is a Wi-Fi Hot Spot.

Kosciuszko Pool
Kosciuszko Pool is a public outdoor pool located at Marcy Ave. between Kosciuszko St. and Dekalb Ave. and is 2.39 acres.

Lafayette Gardens Playground
This .7 acre playground is located at Lafayette Ave. and Franklin Ave. Lafayette Gardens is named in honor of the prominent French statesman and military leader Marie Joseph Paul Yves Roch Gilbert Du Montier Lafayette (1757-1834).The playground boasts two handball courts, a basketball half-court, timber-form play equipment, swings, a semi-circle sitting area with cobblestone ground, a spray shower, and several game tables.

Marcy Playground
This 3.24 acre park is located at Myrtle Ave. between Nostrand Ave. and Marcy Ave. It is names after William Learned Marcy (1786-1857) who was a lawyer, soldier, and statesman who made his mark in both local and national politics. The space includes playground areas, benches, game tables, baseball diamond, spray showers, play equipment with safety surfacing, basketball hoops, volleyball courts, handball courts, swings for tots and children, picnic tables, and the flagpole, with its monumental base and a yardarm.

Middleton Playground
This 1.10 playground is located at Lynch St. and Middleton St. between Lee Ave. and Bedford Ave. Middleton Playground, along with the adjacent street, honors Arthur Middleton (1742-1787), one of the signers of the Declaration of Independence. The playground features basketball courts, handball courts, play equipment with safety surfacing, swings, spray showers and a drinking fountain.

Pratt Playground
Pratt Playground is .92 acres and is located at Willoughby Ave. between Stuben St. and Emerson Pl. This park is named for Charles Pratt (1830-1891), philanthropist, businessman, and founder of the Pratt Institute. The park includes playground areas with swings, benches, spray showers, handball courts and bathrooms.

Star Spangled Playground
This playground is 1.69 acres and is located at Franklin Ave. between Willoughby Ave. and Dekalb Ave. The park features drinking fountains, basketball courts, handball courts, playgrounds, bathrooms, and spray showers.

Steuben Playground
This playground is 1.17 acres and is located at Flushing Ave., Steuben St., and Williamsburg Pl, north of the Brooklyn Queens Expressway. The park is named for Baron Friedrich Wilhelm Ludolf Gerhard Augustus von Steuben (1730-1794), a Prussian army officer and general in the American Revolution. The park incorporates landscaped open grass areas, handball courts, playgrounds, exercise equipment, concrete game tables, and two animal art sculptures of boars.

Stockton Playground
Stockton Playground is 1.09 acres and located at Park Ave., Martin Luther King Pl., and Marcy Ave. The playground features include handball courts, basketball courts, handball courts, bathrooms, fitness equipment, play equipment with safety surfacing, a spray shower, and a water fountain.

Sumner Playground
Sumner Playground is 1.97 acres, and is located at Throop Ave. between Myrtle Ave and Park Ave. The park features basketball and handball courts, benches, a kiddie pool, slides, and an asphalt play area.

Taaffe Playground
Taafle Playground is 1.84 acres, and is located at Taaffe Pl. between Park Ave. and Myrtle Ave. The name honors Monsignor Thomas Taaffe (1837-1920), pastor of St. Patrick's Roman Catholic Church in Brooklyn. The park features basketball courts, a soccer field, a handball court, a spray shower, swings, slides, drinking fountains, and other play equipment.

Willoughby Playground
This playground is across the street from the All People's Church of the Apostolic Faith Community Garden and is located on the corner of Tompkins Ave. and Willoughby Ave. This space includes safety surfacing, playgrounds, spray showers, handball courts, basketball courts, bathrooms, and a decorative gate, and is .91 acres

Future No-Action Conditions

In the future without the proposed action, the project site is not expected to undergo any changes or development. By the 2023 year, it is expected that the population in the surrounding area would continue to

grow by approximately 0.5 percent a year, representing a standard background growth rate. Thus the approximately 65,613 residents in the study area under 2016 conditions would grow to approximately 67,944 residents by 2023 under the Future No-Action Condition. Therefore, the existing OSR of 0.51 acres of open space per 1,000 residents calculated for the open space study area is expected to be reduced to approximately 0.49 acres of open space per 1,000 residents under the Future No-Action Condition, assuming that no additional open space resources are added to the area, as expected.

Future With-Action Conditions

Preliminary screening procedures from the *CEQR Technical Manual* indicate that impacts may occur if a project reduces the OSR by more than five percent. In areas that are lacking in open space resources, a reduction as small as one percent may be considered significant. Under the Future With-Action Condition, there would be an increase of up to 449 new residents, thereby increasing the study area population from approximately 67,944 residents under the Future No-Action Condition to 68,393 residents under the Future With-Action Condition. The resulting OSR would decrease from 0.488 acres per 1,000 residents under the Future No-Action Condition to 0.485 acres of open space per 1,000 persons under the Future With-Action Condition, a decrease of approximately 0.3 percent. The reduction in OSR related to the proposed action would be less than one percent. Therefore, no significant adverse impacts to open space resources as a result of the proposed action are expected and no further analysis is warranted.

Table 2.3-3 Build Year 2023 No-Action/With-Action Open Space Ratios

	No-Action 2023	With-Action 2023	Percent Change
Population	67,944	68,393	.03%
Open Space Ratio	.488	.485	

2.4 SHADOWS

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

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

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

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, contain no seating areas and no vegetation, no unusual or historic plantings, or contain only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the *CEQR Technical Manual*.

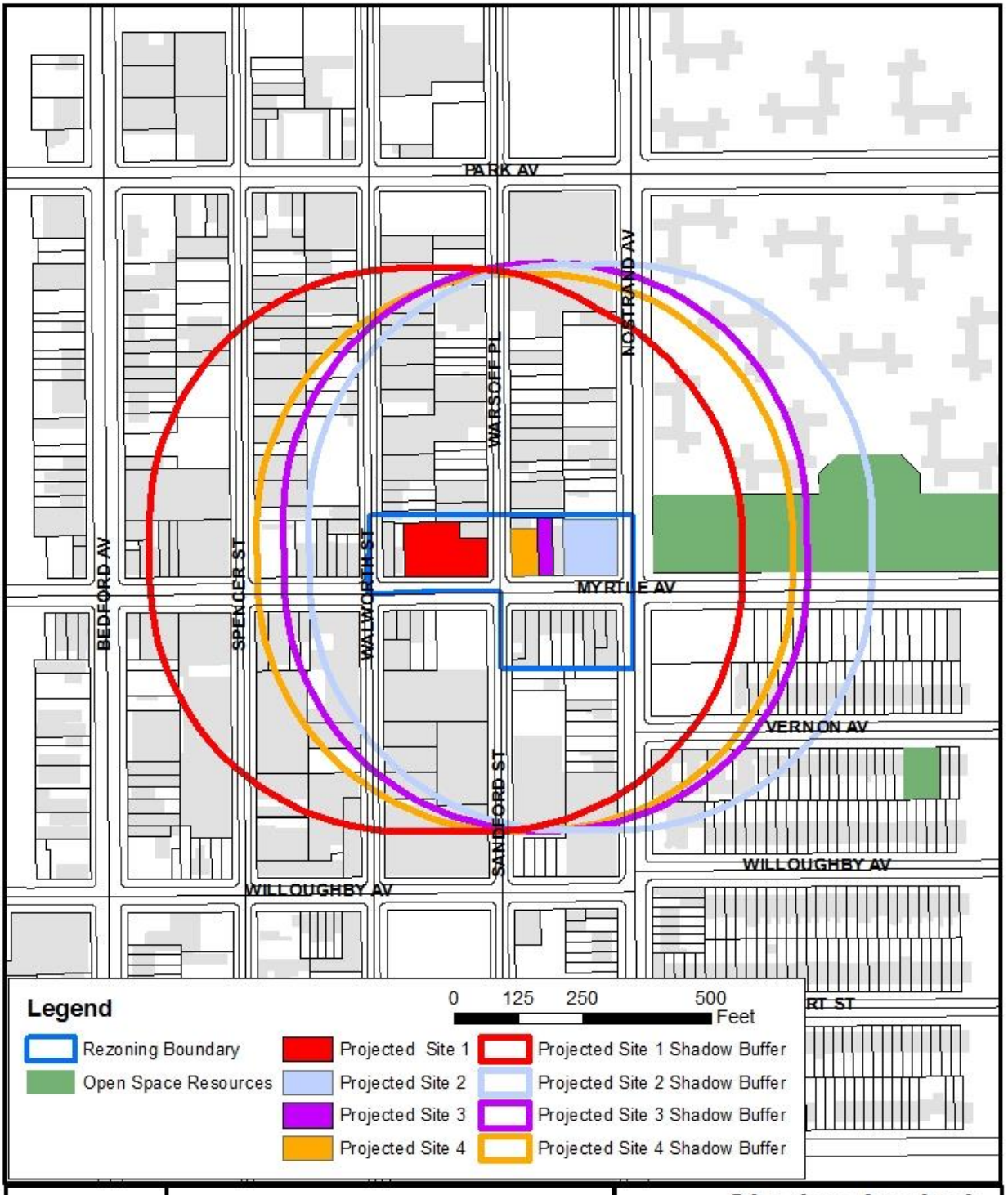
The proposed action would rezone portions of Blocks 1736, 1737 from an M1-1 District to an R7D/C2-4 District and a portion of Block 1753 from an M1-2 District to an R6A District to facilitate the construction of an eight-story mixed-use residential, commercial and community facility. Specifically, the Blocks and Lots proposed for rezoning include the proposed redevelopment site on Block 1736 (Lots 35, 37, 137, 38, and 39), as well as Block 1736, Lots 34, 43, and p/o 44. The project area would also include as well as the south end of Block 1737 (p/o Lot 35, Lot 34, p/o Lot 40, p/o Lot 41, lot 42 and p/o Lot 45), and the northern end of Block 1753 (Lots 21, p/o Lot 22-27, Lot 28, and p/o Lot 30). Of those Blocks and Lots proposed for rezoning, the following were projected in previous sections to be induced by the proposed rezoning and development on the subject property - Block 1737, Lot 35; Block 1737, Lot 41; Block 1737, Lot 42. The remaining Lots within the district proposed for rezoning do not meet the projected redevelopment criteria established by CEQR Technical Manual. The result of the proposed rezoning action would be to allow for a maximum height of 115 feet for development within the zoning district – subject to other related bulk restrictions for R7D/C2-4 District, and a maximum height of 85 feet for development within the R6A zoning district. The potential impact of the shadows cast from new development on potentially sensitive resources - such as those described above will be evaluated in the following section. The proposed project area is adjacent to Marcy Playground to the east of the projected Development Site on Block 1737, Lot 35 and two historic eligible but not listed resources are located to the south and southeast of the project area, USN 04701.000496: PS 54 (Samuel C. Barnes School) at 195 Sanford St, Brooklyn and USN 04701.017049 an apartment building at 441-511 Willoughby Ave, Brooklyn NY associated with the Cripplebush Road Historic District (this is actually not a listed historic district). Neither of the USN eligible properties are light sensitive land uses. In addition both of these sites are directly south of the project area and would not receive shadow from the proposed project area. No other potentially sensitive resources are located in the area

2.4.1 Preliminary Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis may be warranted in order to determine the extent and duration of the net incremental shadow resulting from the project. The effects of shadows on a sunlight-sensitive resource are site-specific; therefore, as directed in the *CEQR Technical Manual*, the screening assessment was performed for the relevant project site and projected development sites to determine whether they fall within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above. In order to determine this, a Tier 1 Screening Assessment was performed in accordance with the *CEQR Technical Manual*. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project(s) 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 2.5-1** was prepared placing, NYC Department of Parks Resources as well as Selected Facilities and Program Sites provided on NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT- GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. After this a buffer map was prepared to display the maximum possible shadow of 495 feet, which could cast from each projected development site in the

proposed project areas. This shadow cast was derived by multiplying 115 feet (the maximum possible height under R7D with MIH bonus) by 4.3 (the CEQR Technical Manual multiplier representing the maximum shadow cast from any object as being 4.3 times its height). The potentially impacted area of shadow from each projected site was then compared to those resources identified above to see if any fell within the shadow cast area.

Excluding the above non-sensitive historic eligible properties, it was determined that only one community resource, Marcy Playground, a community park directly east of the projected development site on Block 1737, Lot 35 could potentially be impacted by a shadow cast from projected development sites associated with the proposed rezoning. Although this resource is composed entirely of hard court basketball, tennis, and playground spaces and is also covered with a canopy of that already shades the site to some degree, further analysis will be performed to determine whether shadows will potentially adversely impact this park



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Myrtle Avenue Rezoning
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Shadow Analysis
Tier 1 Screening

Figure 2.4-1

Tier 2 Screening Assessment

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment should be performed. Because of the path 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 new development sites, 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.

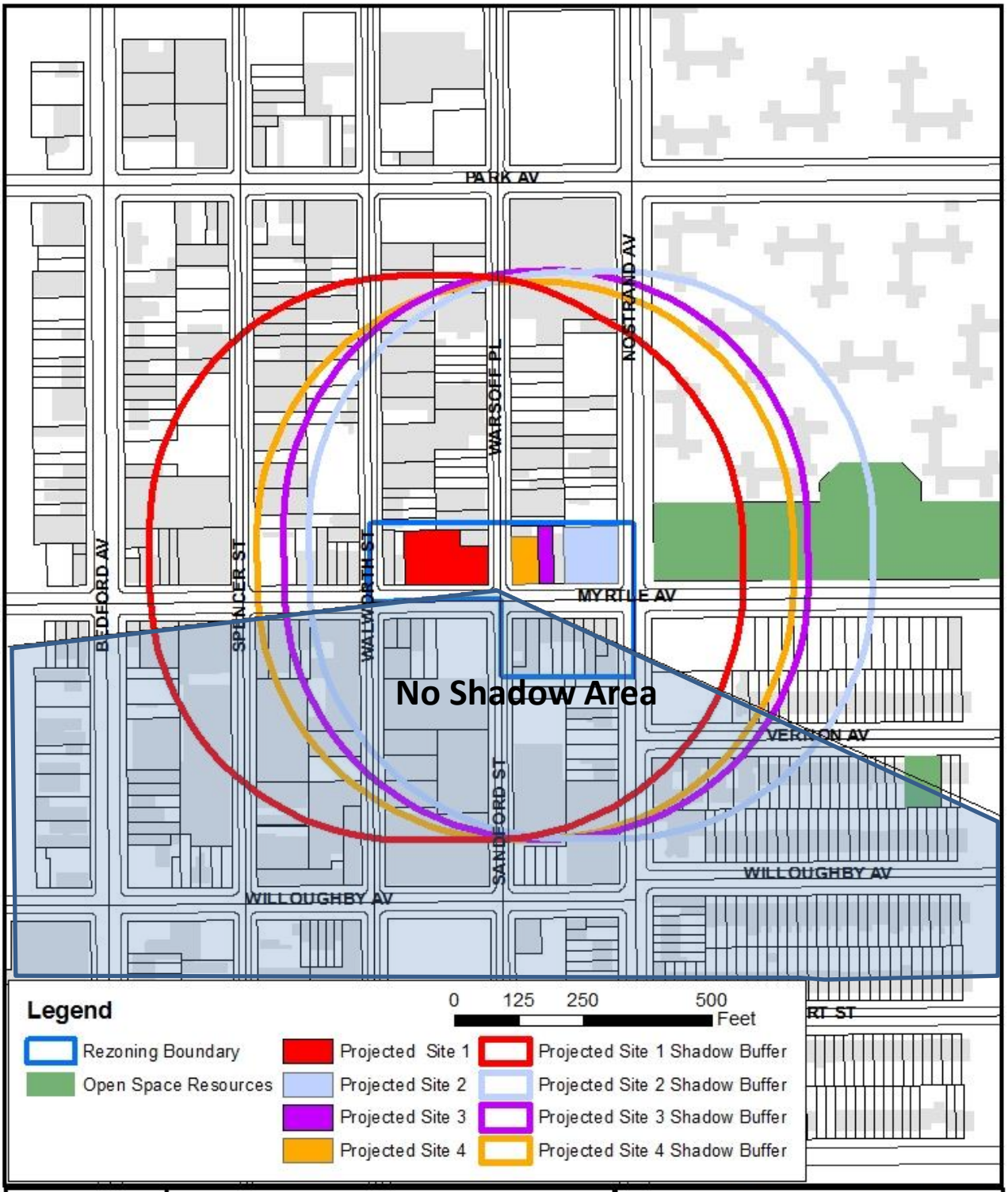
As shown in **Figure 2.5-2**, the Tier 2 screening assessment showed that Marcy Playground is the only open space resource located within the area that can be shaded by any of the potential shadows from project-generated development from the proposed rezoning.
Therefore further analysis is required for Marcy Playground to access the extent of the impact on shadows on this resource.

Tier 3 Screening Assessment

Based on the results of the Tier 2 screening assessment, a Tier 3 screening assessment should be performed if any portion of a sunlight-sensitive resource is within the area that could be shaded by the proposed project. 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, shadows 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 project site.

The *CEQR Technical Manual* states that for the New York City area, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month. Assessments of the incremental shadows cast during four representative dates were made in accordance with the *CEQR Technical Manual* to encompass a cold-weather month and months during the growing season. The four representative dates of the Tier 3 screening assessment are:

- December 21st
- March 21st
- May 6th
- June 21st



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Shadow Analysis
Tier 2 Screening
Figure 2.4-2

As shown in **Figure 2.4-3** through **Figure 2.4-6**, the Tier 3 screening assessment showed that project-generated shadows have the potential to reach the Marcy Playground on all four representative analysis days, and a detailed shadow analysis is warranted for December 21st, March 21st, May 6th, and June 21st. Based on the Tier 3 screening, detailed shadow study was performed for this resource for the four representative analysis dates.

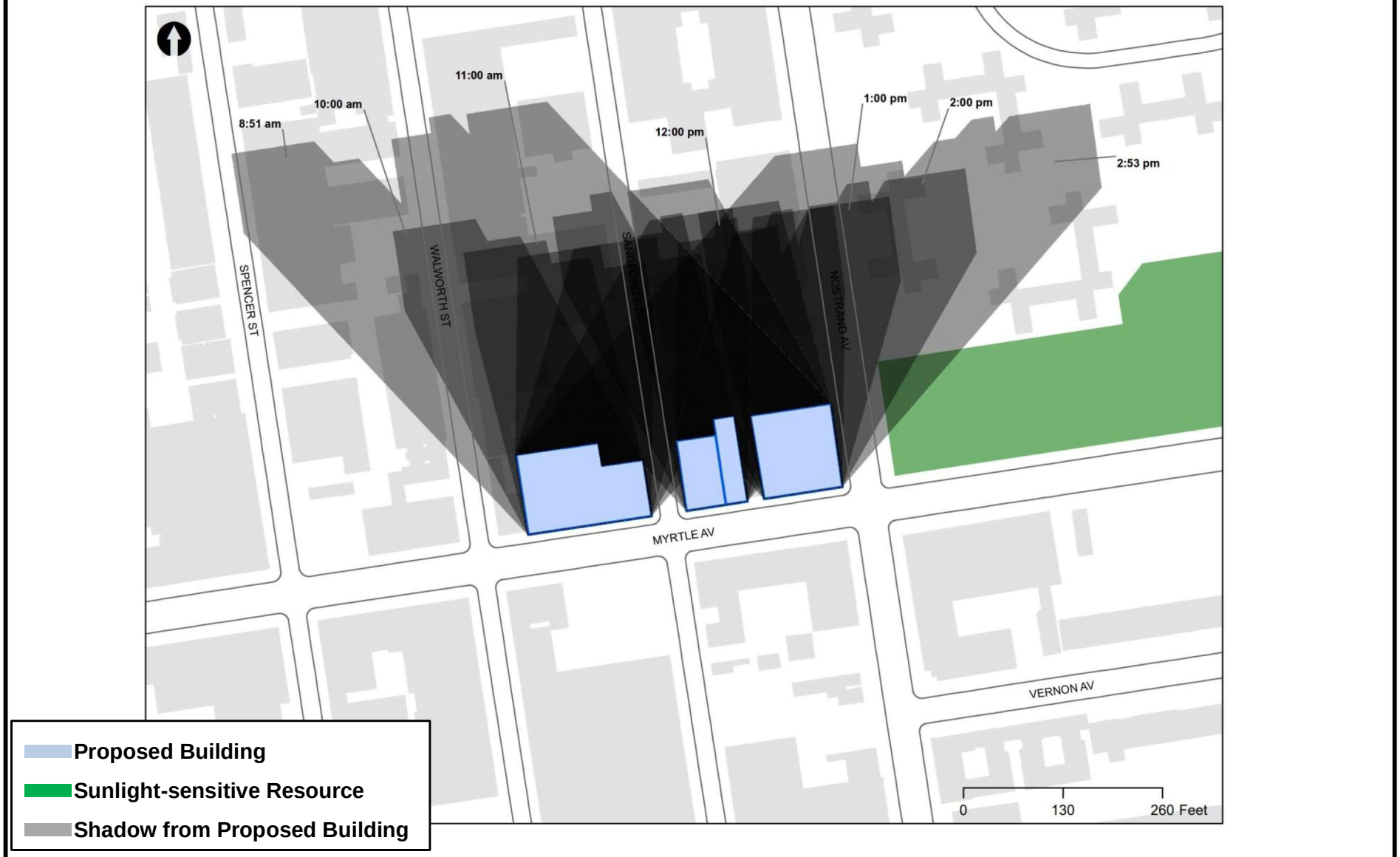
2.4.2 Detailed Shadow Analysis

The *CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on a sunlight-sensitive resource as a result of the proposed project. As previously discussed, Marcy Playground warrants a detailed shadows assessment based on the tier screening assessment. The results of the detailed shadow analyses on the identified resources of concern are summarized in **Table 2.4-1**.

Table 2.4-1 Detailed Shadow Analysis Summary

Analysis Date	December 21	March 21	May 6	June 21
Analysis Period	**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.**
Marcy Playground				
Shadows Enter/ Exit Time	12:27 p.m.- 2:53 p.m.	1:23 p.m. - 4:29 p.m.	1:37 p.m. - 5:18 p.m.	1:58 p.m. - 6:01 p.m.
Shadow Duration	2 h 26 min	3 h 6 min	3 h 41 min	4 h 03 min

Note: Daylight Saving Time not used/applied (per CEQR)



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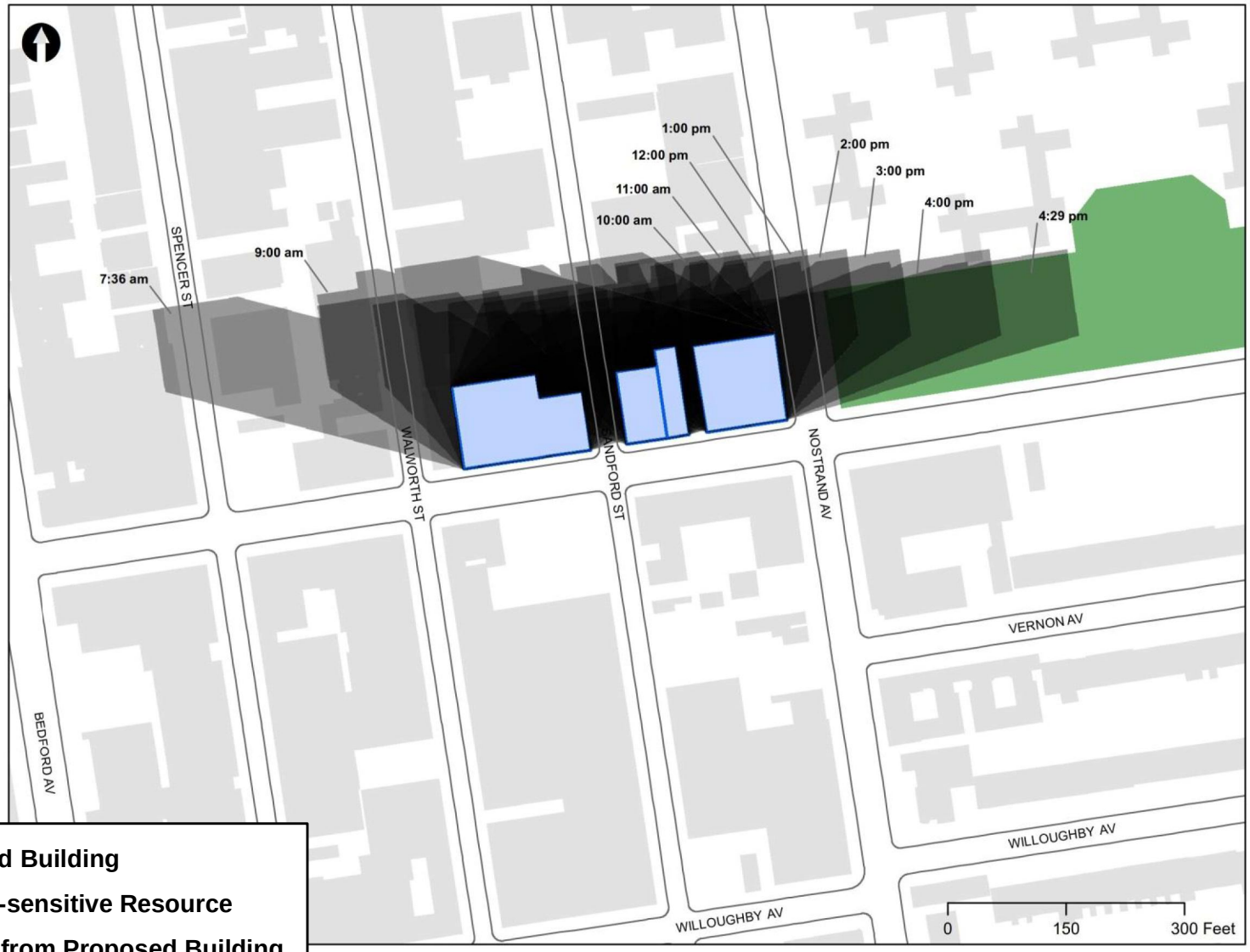
Tier 3 Shadow Analysis December 21st

Figure 2.4-3



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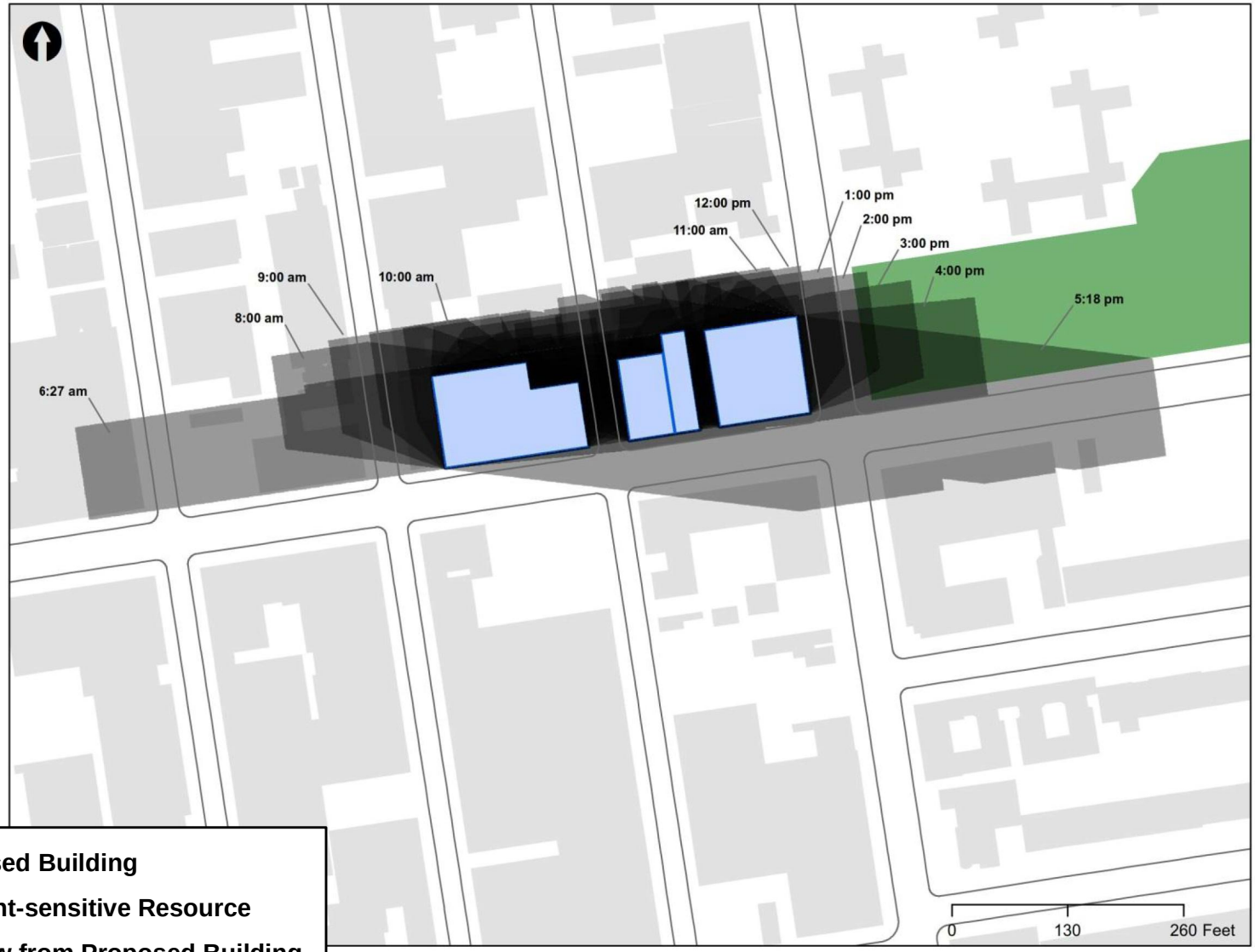
Tier 3 Shadow Analysis March 21st

Figure 2.4-4



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Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Tier 3 Shadow Analysis
May 21st

Figure 2.4-5



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Tier 3 Shadow Analysis June 21st

Figure 2.4-6

Marcy Playground Detailed Shadow Analysis

The Marcy Playground is due east of the project site, running along Myrtle Avenue between Nostrand and Marcy Ave's, and is approximately 800 feet long by 180 feet deep for a total area of approximately 140,000 SF. The park is almost entirely composed of hard court surfaces, with only a small planter located about 400 feet from the Nostrand and Myrtle intersection and at no time does this shadow impact the functioning of the park. In addition, the tree canopy that covers the entire site intercedes in the shadow cast from projected development sites by casting a shadow directly throughout the entire site for most of the day. Overall, only about ¼ of the playground is impacted under maximum seasonal shadow coverage. The entering and exiting shadows for Marcy Playground are shown on the Tier 3 screening assessment figures (see **Figure 2.4-3** through **Figure 2.4-6**). The following is an assessment of project-generated shadows on Marcy Playground for each of the representative analysis dates:

- On December 21st, the project-generated shadow from projected development site 8 would enter Marcy Park at 12:27 p.m. and remain on a small portion of the resource through the end of the analysis period at 2:53 p.m., for a total duration of approximately two hours and 26 minutes. The shadow cast on the Marcy Playground at 2:00 PM represents the maximum extent of the project-generated shadow on the resource. After this point, the shadow recedes off the Marcy Playground as shown in **Figures 2.4-7** and **2.4-8.**

- On March 21st, the project-generated shadow from projected development site 2 would enter Marcy Playground at 1:23 p.m., the beginning of the analysis period and exits the resource at 4:29 p.m. the end of the analysis period, for a total duration of approximately three hours and 6 minutes. The shadow cast on the Marcy Playground at the end of the analysis period represents the maximum extent of the project-generated shadow on the resource, as shown in **Figures 2.4-9** and **2.4-10.**

- On May 6th, the project-generated shadow from projected development site would enter Marcy Playground at 1:37 p.m. and remain on the resource through the end of the analysis period at 5:18 with a total duration of approximately 4 hours and 41 minutes. The shadow cast on Marcy Playground at 4:18 represents the maximum extent of the project-generated shadow on the resource. After this point, the shadow recedes off the Marcy Playground and ultimately exits the resource at 5:18 p.m., as shown in **Figures 2.4-11** and **2.4-12.**

- On June 21st, the project-generated shadow from projected development site 2 would enter the Marcy Playground at 1:58 p.m. and remain through the end of the analysis period at 6:01 p.m., for a total duration of approximately four hours and 3 minutes. The shadow cast on the Marcy Playground at 5 p.m. represents the maximum extent of the project-generated shadow on the resource. After this point, the shadow recedes off the Marcy Playground, as shown in **Figures 2.4-13** and **2.4-14.**



Proposed Building

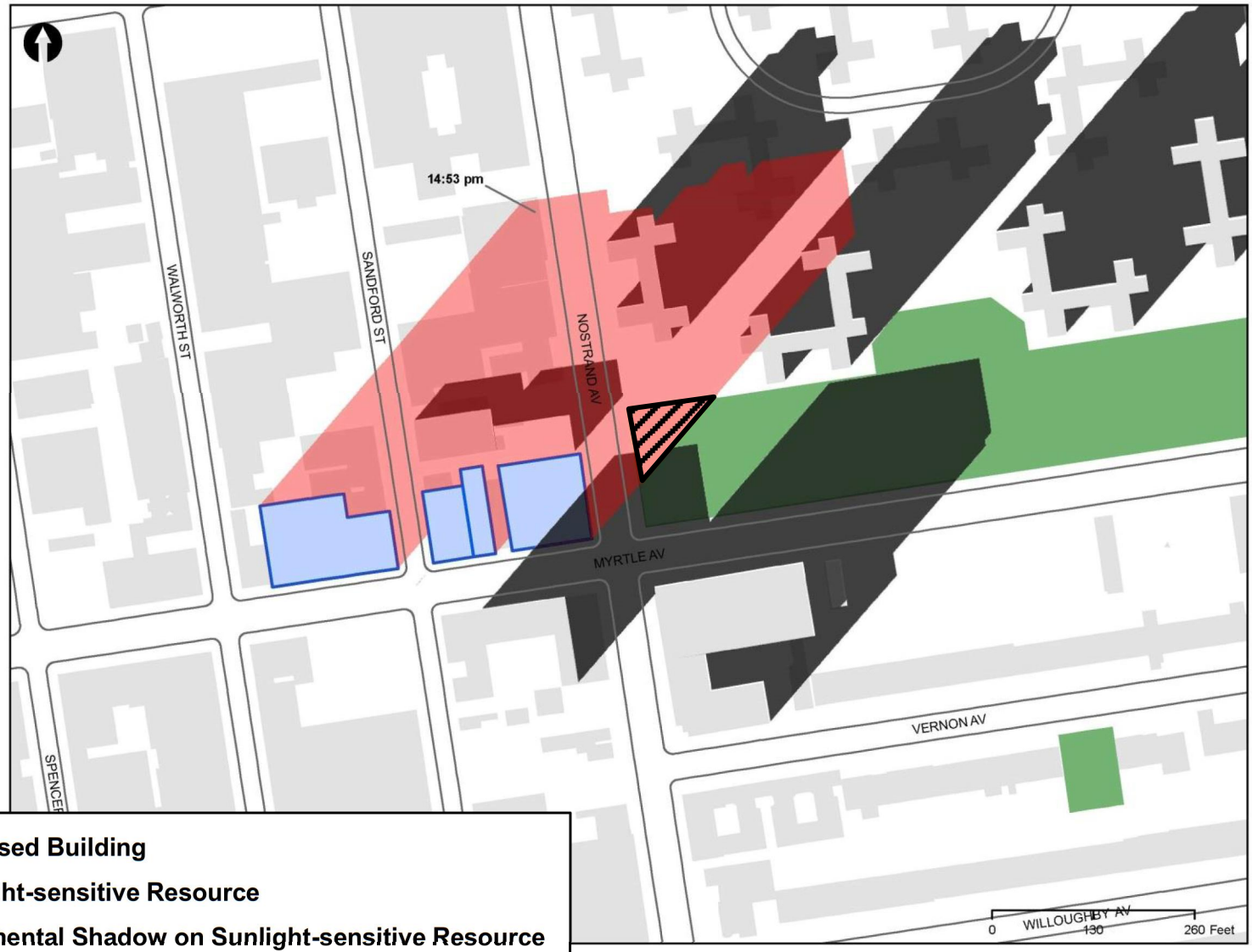
Sunlight-sensitive Resource

Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
December 21st, 12:27 P.M.
Figure 2.4-7



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
December 21st , 2:53 P.M.
Figure 2.4-8



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
March 21st , 1:23 P.M.

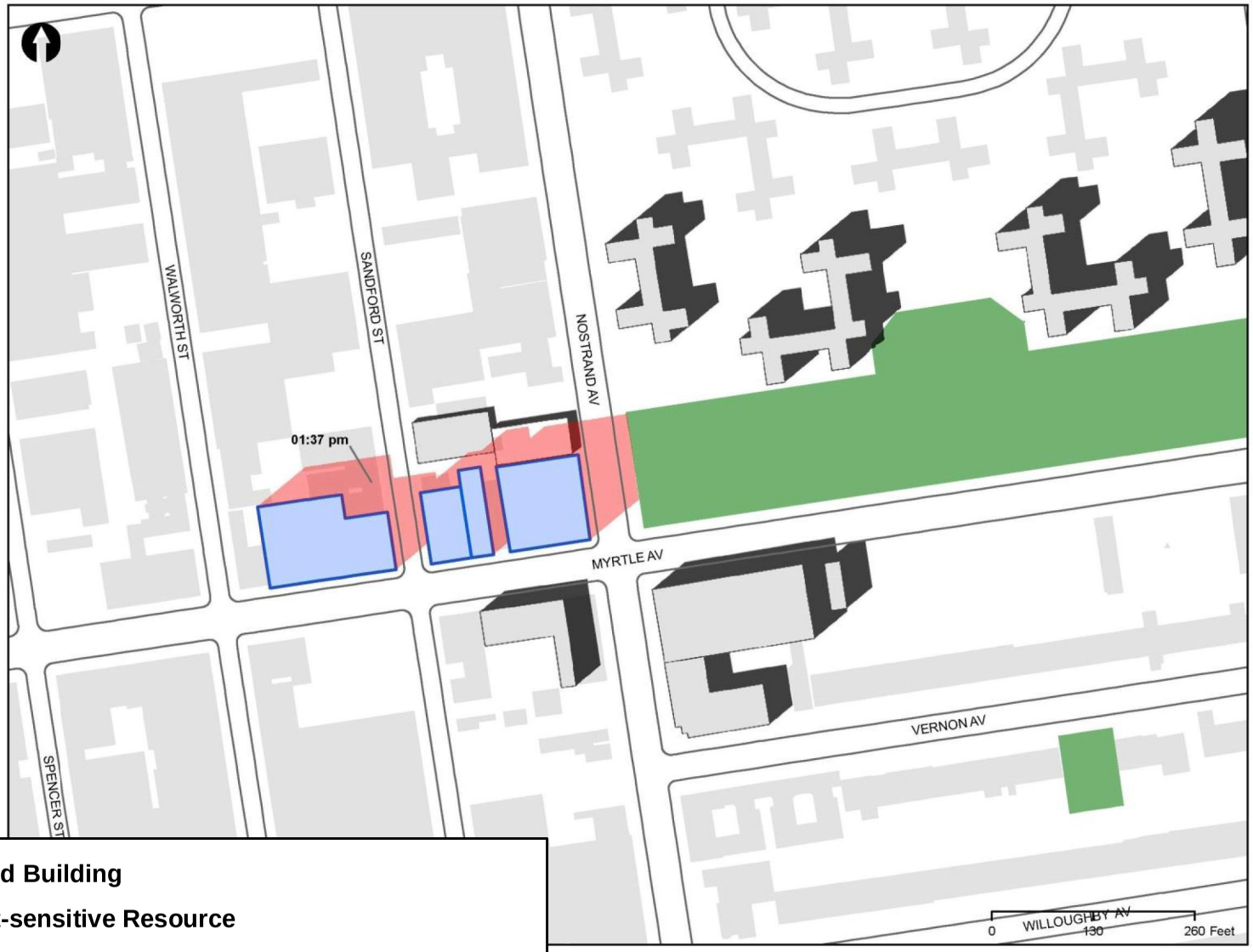
Figure 2.4-9



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
March 21st , 4:29 P.M.
Figure 2.4-10



Proposed Building

Sunlight-sensitive Resource

Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
May 6th , 1:37 PM

Figure 2.4-11



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
May 6th , 4:18 P.M.

Figure 2.4-12



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
June 21st, 1:58 P.M.

Figure 2.4-13



AECOM

Environmental Assessment Statement
723-733 Myrtle Avenue
Brooklyn, NY

Detailed Shadow Analysis
June 21st, 6:01 P.M.

Figure 2.4-14

Determination of Shadow Impact Significance.

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

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

As stated in the *CEQR Technical Manual*, in order 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.

Marcy Playground

At no time would the proposed development site cast a shadow on Marcy Playground, however projected development site 2 would. The shadow cast would not significant affect the very limited amount of vegetation on the playground and certainly is not substantial enough to impact survival of the tree canopy that covers the site, nor would it impact the utilization of the space. The resources would still receive over 4 hours per day of sunlight which is the CEQR Technical Manual minimum vegetation standard. The shadow from projected development site would not result in a substantial reduction in sunlight on Marcy Playground. While the shadow from projected development sites would reach the Marcy Playground on all four analysis dates, it would be relatively limited in duration during all representative analysis periods. The portion of the project-generated shadow that reaches the Marcy Playground covers only a small section compared to the overall size of entire playground. Further, this area is all covered with recreational hard courts that are not sensitive to sun exposure. In fact, during the summer years – the shade provided would likely encourage use of the courts, cooling their surface and enhancing the play

experience. Thus, the project-generated shadow that would be cast on Marcy Playground would not lead to a significant adverse shadow impact on this sunlight-sensitive resource.

Conclusion

While there would be new project-generated shadows on sunlight-sensitive resources from new development on the proposed project area, the duration and coverage of the new shadows would be limited and would not affect the vitality or usage of the sunlight-sensitive resources identified in the study area. Thus, significant adverse impacts from shadows would not result from the proposed action.

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.

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.

Architectural Resources

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the project site plus an approximately 400-foot radius around the proposed action area.

No properties within the proposed project area is a designated local or S/NR historic resource or property, nor is the area part of any designated historic district, however there are historic eligible resources in the study area.

In order to determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. Although no properties within the 400-foot radius study area were designated as historic landmarks or part of an historic district - the study boundary does overlap a small northwest edge of a National Historic Register Eligible District called the Cripplebush Road Historic District. Within this Historic Eligible District, the study boundary overlaps a few residential buildings identified as associated with this District. The properties are located at Willoughby Ave. between Nostrand Ave. and Marcy Ave. These designated off-site historic eligible resources are listed in **Table 2.6-1**.

As noted above, the proposed project area is situated to the northeast of the Cripplebush Road Historic District USN # 04701.017049 and associated buildings (USN # 04701.016382, USN # 04701.017053). The block bounded by Vernon Ave and Willoughby Ave and Nostrand and Marcy Ave's contains approximately 5 parcels associated with this District that are within 400 feet of Potential Development Site 2 on Block 1753, Lots 28 & 30. The Cripplebush Road Historic District is a district composed of approximately 150 buildings. The proposed project is within 400-feet of contributing buildings (USN # 04701.017053) – which includes an area of buildings from 441-511 Willoughby Avenue and a single building at 163 Nostrand Ave – denoted by USN # 04701.016382. The total district is composed of two blocks bounded by Nostrand Ave to the west, Marcy Ave to the east, Vernon to north and Hart to the South. The district itself is located south of 18th Century Cripplebush Road, which ran from the hamlet of Bedford to the hamlet of Cripplebush, crossing what is now block 1754. The district was built as a middle-

class residential neighborhood between 1855 and 1891. As noted in the resource evaluation by NYS Office of Parks, Recreation and Historic Preservation, the district's architectural significance lies in its presence as an intact enclave of residential brownstones in an eclectic but cohesive mixture of townhomes in the Italianate, Neo-Greco, Second Empire, and Romanesque Revival styles. The signature building in the area – is unique in the district, identified above as USN # 04701.017053, an 1890s freestanding, brick, Queen Anne mansion - located at the entry to the district at the northeast corner of Willoughby and Nostrand Avenues.

Table 2.6-1 Known Historic/Architectural Resources

RESOURCE / YEAR BUILT	ADDRESS / SITE PROXIMITY
Cripple Bush Road Building District - Eligible Historic District **USN # 04701.017049 / 1885-1890**	Study area overlaps with the northwest section of the District at Willoughby and Nostrand Ave's approximately 300 feet from the southeast edge of projected development site 8, Block 1753, Lots 28 & 30.
441-511 Willoughby Ave – residential structures associated with parent Eligible District - Cripplebush Road Historic District **USN # 04701.016382 / 1885-1890**	441-511 Willoughby Ave, Brooklyn NY, approximately 4 parcels on the north side of the Willoughby Ave at Willoughby and Nostrand Aves – approximately 325 and 350 feet southeast of projected development site 8, Block 1753, Lots 28 & 30.
163 Nostrand Ave, residential home associated with parent Eligible District - Cripplebush Road Historic District **USN # 04701.017053 / 1885-1890**	163 Nostrand Ave, Two story original single family home approximately 325 feet southeast of projected development site 8, Block 1753, Lots 38 & 30.

Source: cris.parks.ny.gov, 2016.

The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on July 18th, 2016 indicating that the projected development site and proposed project area parcels do not contain any known architectural or archeological significance (see **Appendix B**).

Under the proposed action, construction activities at the projected development site would not occur within 400-feet of the above identified known historic eligible resources. Further, this area has already experienced significant construction and demolition of historic listing eligible properties within the district – including a newly constructed apartment building directly across from the resources within the 400-foot study area. No construction at the potentially projected development sites will be within 325 feet of the above identified district and its associated structures. It is highly unlikely that any potential impacts would result from possible future construction related to the projected development site at block 1753, Lots 38 & 40 – which is over 325 away from the eligible district. However, there exists protocol to protect buildings in New York City from potential indirect damage caused by construction activities. All buildings are provided some protection from accidental damage through DOB controls that govern the protection of adjacent properties from construction activities under Building Code Section 27-166 (C26-112.4) For all construction work, this building code protects buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the requirements of Building Construction Subchapter 7 and Building Code Subchapters 11 and 19. Therefore, it is concluded that construction effects related to the proposed action would not lead to significant adverse impacts at these adjacent historic resources.

Cultural and Archaeological Resources

Unlike the architectural evaluation of a study area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells and privies. The *CEQR Technical Manual* 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.

A portion of the project area has been disturbed and is presently improved with a six-story residential building, while a portion of the project area that would be developed with the projected residential building contains a surface parking lot and vacant area. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on July 18, 2016 (see **Appendix B**). The LPC has indicated that no cultural resource, architectural or archaeological significance is associated with the proposed development site or projected development sites. Therefore, significant adverse impacts to archaeological resources are not expected as a result of the proposed action, and further analysis is not warranted.

2.6 URBAN DESIGN AND VISUAL RESOURCES

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings.

The *CEQR Technical Manual* notes an urban design assessment considers whether and how a project may change the experience of a pedestrian in the project area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment. In general, an assessment of urban design is needed when the project may have effects on one or more of the elements that contribute to the pedestrian experience (e.g., streets, buildings, visual resources, open space, natural features, wind, etc.). An urban design analysis is not warranted if a proposed project would be constructed within existing zoning envelops, and would not result in physical changes beyond the bulk and form permitted "as-of-right" with the zoning district.

As the proposed action would result in the construction a new building that is not allowed "as-of-right" per existing zoning, a preliminary analysis was conducted.

2.6.1 Preliminary Analysis

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

Existing Conditions

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

The architecture throughout the study area is eclectic, with no particular unity or style of form to unify the build environment. However, in this eclecticism – the current project area has the opportunity to tie together a quality mixed-use urban design environment and create a vibrant and walkable urban corridor. As noted in **Chapter 2.1-1**, a mix of uses characterizes the area; including mixed-use residential apartment buildings, multi-story/multi-family walk-ups, retail stores, light manufacturing, one-story commercial uses, parking lots and community facilities. Residences within the area are generally located within three to eight story multi-family buildings with FAR between 3 and 6. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement and directly abut the

sidewalk to create a continuous commercial and walking experience with the exception of parking lot voids such as the proposed development site. Buildings along the key Myrtle Avenue corridor and side streets, in addition to generally being built out to their lot lines, most all are attached to one another, as opposed to free-standing detached buildings.

The topography throughout the project area is flat. The streetscape along the project area is uneven – however a wide and continuous sidewalk is present throughout and the two blocks directly to the east and west of the project area have regular street trees of good quality and character as well as well-kept wide sidewalks. The general walking character of the Myrtle Avenue corridor is very good and the directly abutting sidewalk within the project area has quality healthy street trees that can be enhanced with grates and additional plantings during future build-out of the area. Just west of the project area between Nostrand and Marcy Avenues – a landscaped area abutting Marcy Playground contains well-kept street trees that maintain a continuous canopy along the corridor – creating a pleasant street experience for pedestrians. However, no other notable streetscape elements (e.g. benches) are located outside public parks within the study area.

The street hierarchy of the study area includes several different functional classifications. Myrtle and Nostrand Avenues are classified as Principal Arterial Roadways under the Surface Transportation Program, while Sanford and Walworth Streets are classified local roads. No natural features are located within the study area, however, and improved and active Marcy Playground, due west of the project area contains well-kept canopy of trees as well as highly maintained recreational facilities.

Future No-Action Condition

Under the Future No-Action Condition, significant changes to the study area are not expected by the final analysis year of 2023. It is expected – due to the current restrictions of the existing M1-1 and M1-2 zoning that little changes to the existing building environment or uses would change to any substantial degree - while tenants within area office, retail and other buildings may change, the overall use of these buildings within the study area would remain the same, and any physical changes to buildings in the study area would comply with designated zoning regulations and other surrounding districts. No significant changes to the area's urban character are anticipated. No changes to the area's views to the adjacent parks and open spaces are also expected.

Future With-Action Condition

According to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of an historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built rare or defining visual resource. Further conditions that merit consideration are when the project changes urban design features so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes, or if a project changes the scale of surrounding buildings so that the context changes.

According to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of an historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built rare or defining visual resource. Further conditions that merit consideration are when the

project changes urban design features so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes, or if a project changes the scale of surrounding buildings so that the context changes.

The proposed development site is presently used as a surface parking lot for commercial moving vehicles. The proposed development site has a lot area of 14,670 square feet. As noted in previous analysis – the three other projected development sites are currently a mix of three and four story non-conforming mixed use-commercial and residential buildings.

Under the Future With-Action Condition, the existing surface parking lot that occupies the proposed development site would be developed with an eight-story mixed-use building with a residential floor area of approximately 52,712 zoning square feet (zsf), approximately 14,670 zsf of community facility floor area and approximately 14,670 zsf of commercial floor area. This would represent a maximum floor area ratio (FAR) of 5.6, which is permitted in an R7D/C2-4 District. Under a reasonable worst case scenario analysis –, the site could be developed with approximately 14,670 zsf (16,137 gsf) of community facility floor area and 67,482 zsf (74,230 gsf) of residential floor area. It assumed under this scenario that 87 residential units would be constructed on-site. Under the Future With-Action Condition, the proposed rezoning would allow for the building of 115 feet and a maximum FAR of 5.6. A three-dimensional representation of an approximate building envelope allowed under a reasonable worst case development scenario for the proposed development site as well as projected development sites is overlaid a photograph of the street under existing conditions in **Figures 2.6.1** and **2.6.2**

This current section of Bedford Stuyvesant – centered on Myrtle Avenue, has seen slow and steady improvement over the last decade…however the current proposed project area centered on Myrtle between Walworth Street and Nostrand Avenue has presented a gap in unifying the redevelopment success of this area – the proposed rezoning should help to stimulate quality redevelopment, providing active commercial and affordable and active residential development that assists in creating a vibrant neighborhood environment that is presently occurring directly to the east and west of the proposed project area. In terms of aesthetics, while the proposed development would change views to the site as witnessed from pedestrians on Myrtle Avenue, Walworth Street, Sanford Street and Nostrand Avenue, significant adverse impacts to urban design and visual resources would not occur. There are currently no views of consequence to the project site or the projected development sites – in fact redevelopment would assist in visually improving this section of blocks between Walworth and Sanford Street. The proposed action would not result in any of the above conditions that would merit further detailed assessment of urban design and visual resources. The new building would not be out-of-context with the surrounding buildings within the study area. In fact several other mid and high-rise buildings are found on Myrtle Avenue to the east and west that rise to a heights of 70-90 feet and are similar in both bulk and uses proposed for the project area. The rest of the projected development sites 2 through 4 are all similar in nature to the proposed development site. In fact, the rezoning and subsequent build out of the projected development sites should assist in reinforcing and improving the current mixed-use street that has been evolving and improving over the last decade – centered on this area of Bedford-Stuyvesant and Myrtle Avenue specifically.

In addition, the proposed action would not alter or result in substantial changes to the built environment of the nearby eligible historic district, an edge of which is within 325-feet of the project site. Thus the proposed action would not affect the components of an historic building that contribute to the resource's historic significance. As the proposed action would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, and as the proposed action would not block any view corridors or views to/from any natural areas with rare or defining features, nor would the proposed action impact an historical or culturally sensitive community features, the proposed action is not expected to result in any significant adverse urban design or visual resource related impacts.

Figure 2.6-1
No-Action/With-Action

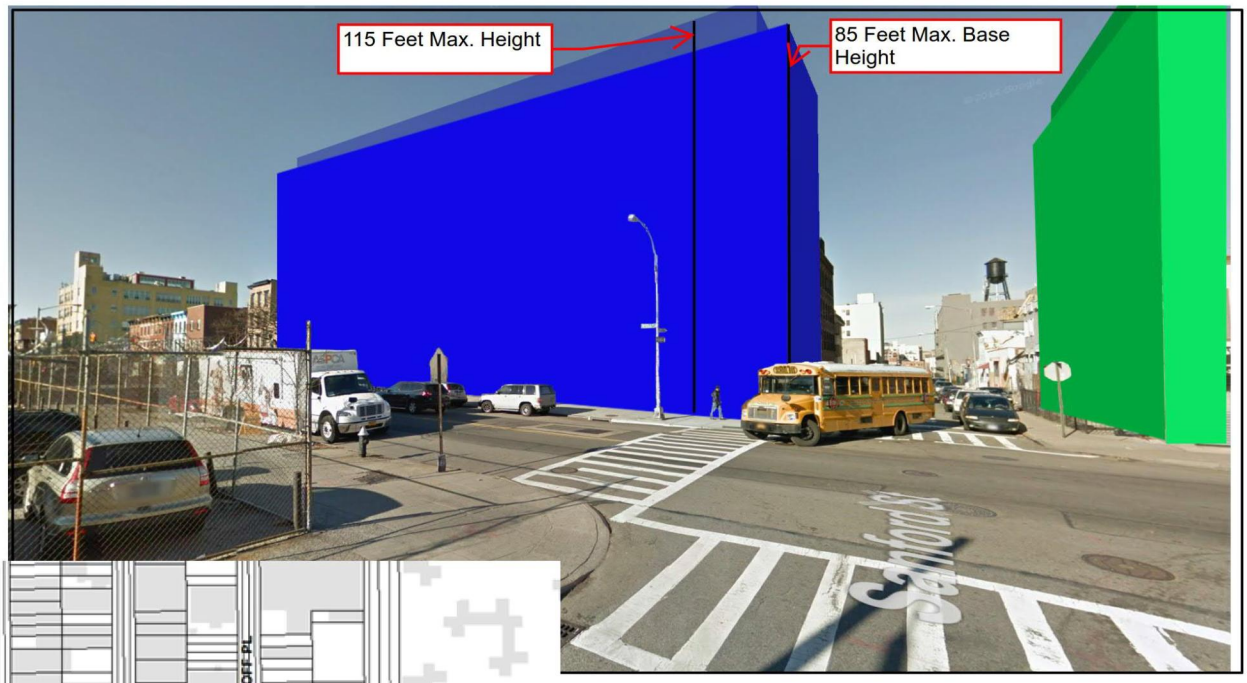
View of Projected Site 1 and Projected Site 4 from Myrtle Avenue and Sanford Street looking North

NO-ACTION



WITH-ACTION

View of Projected Sites 1 and 4



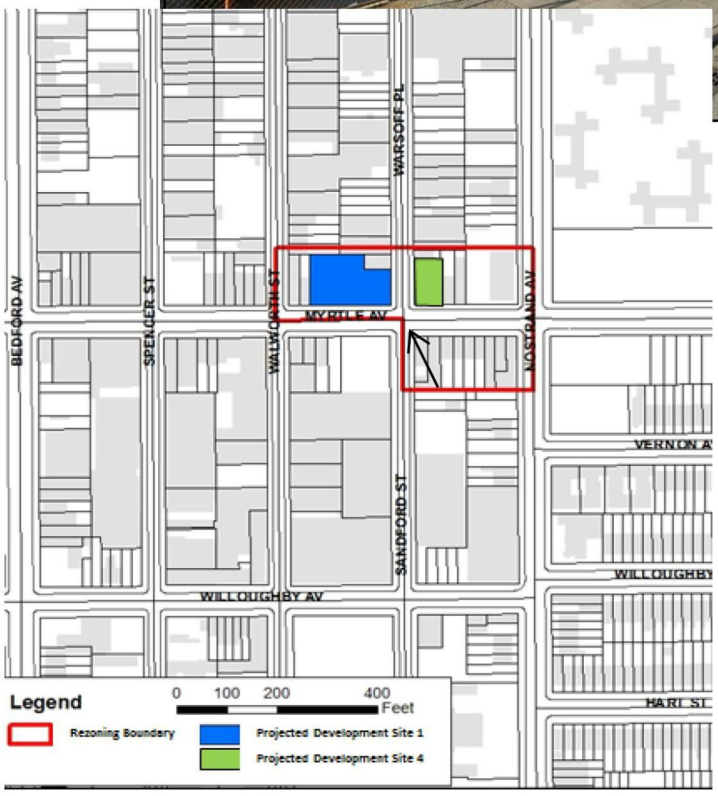


Figure 2.6-2
No-Action/With-Action

View of Myrtle Avenue Looking East from Walworth Street

NO-ACTION



WITH-ACTION

View of Projected Sites 1, 4, 3, and 2

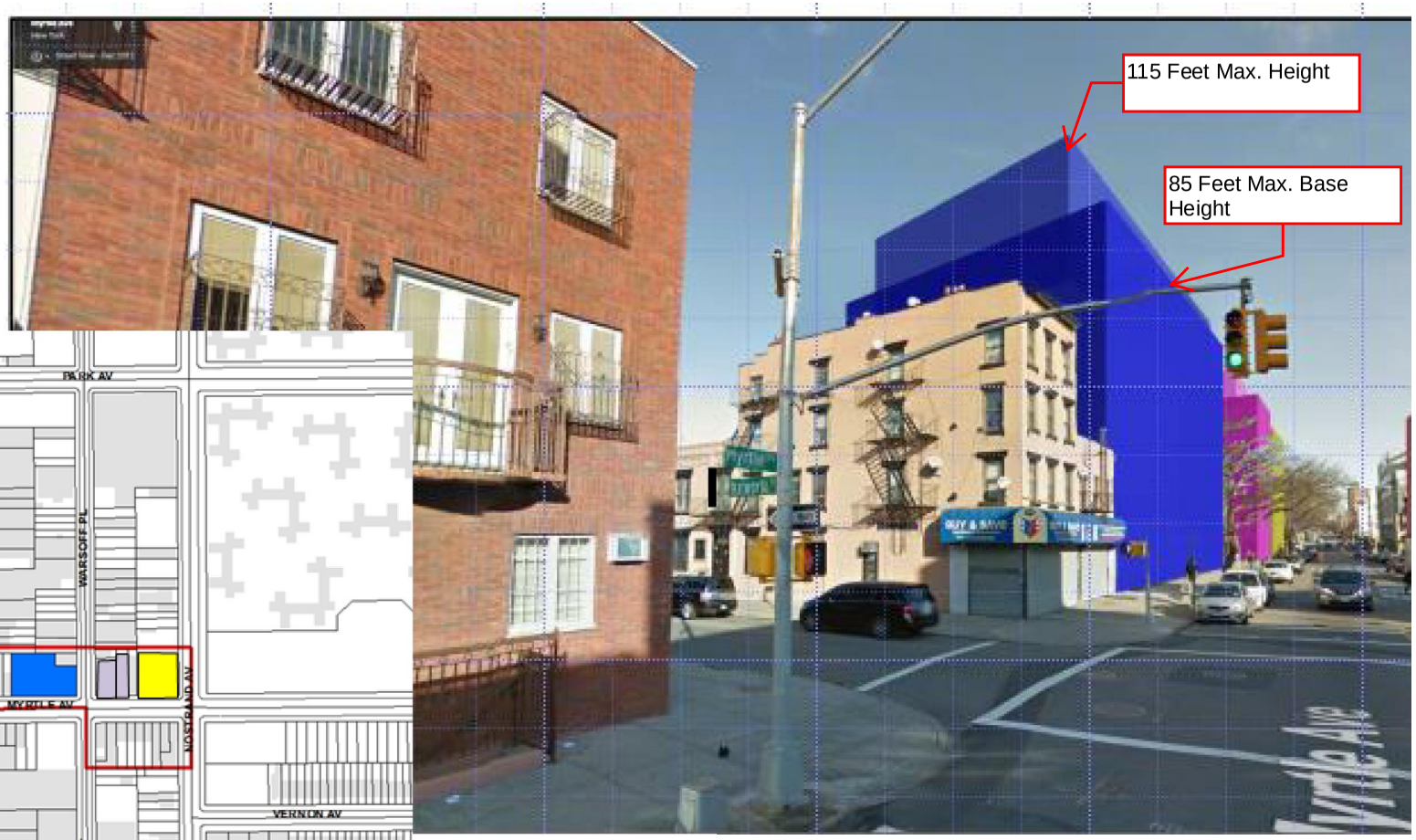


Figure 2.6-3
No-Action/With-Action

View of Myrtle Avenue Looking Northeast from Walworth Street

NO-ACTION



View of Projected Sites on north (left) side of Myrtle Avenue and Potential Sites on south side of Myrtle Avenue

WITH-ACTION

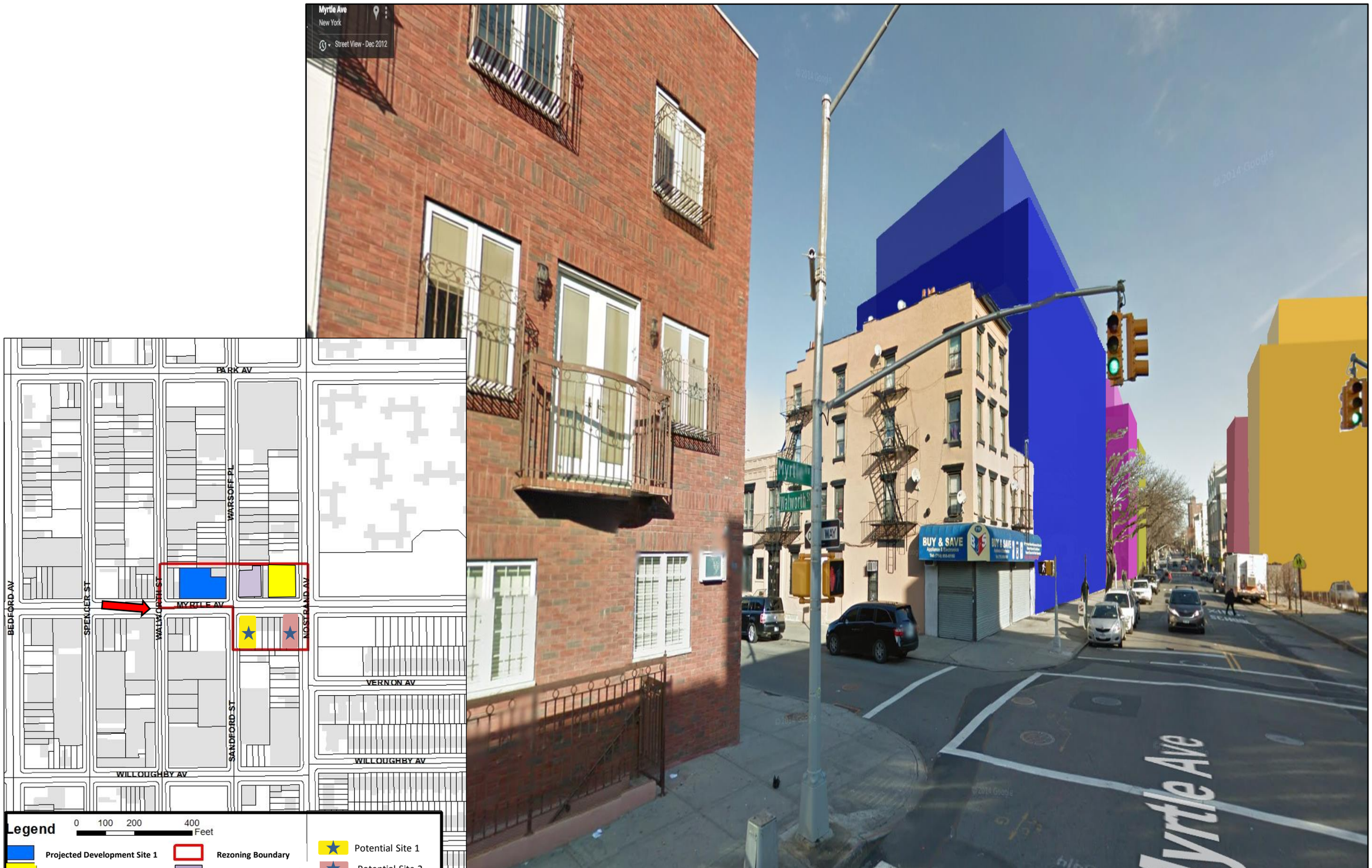


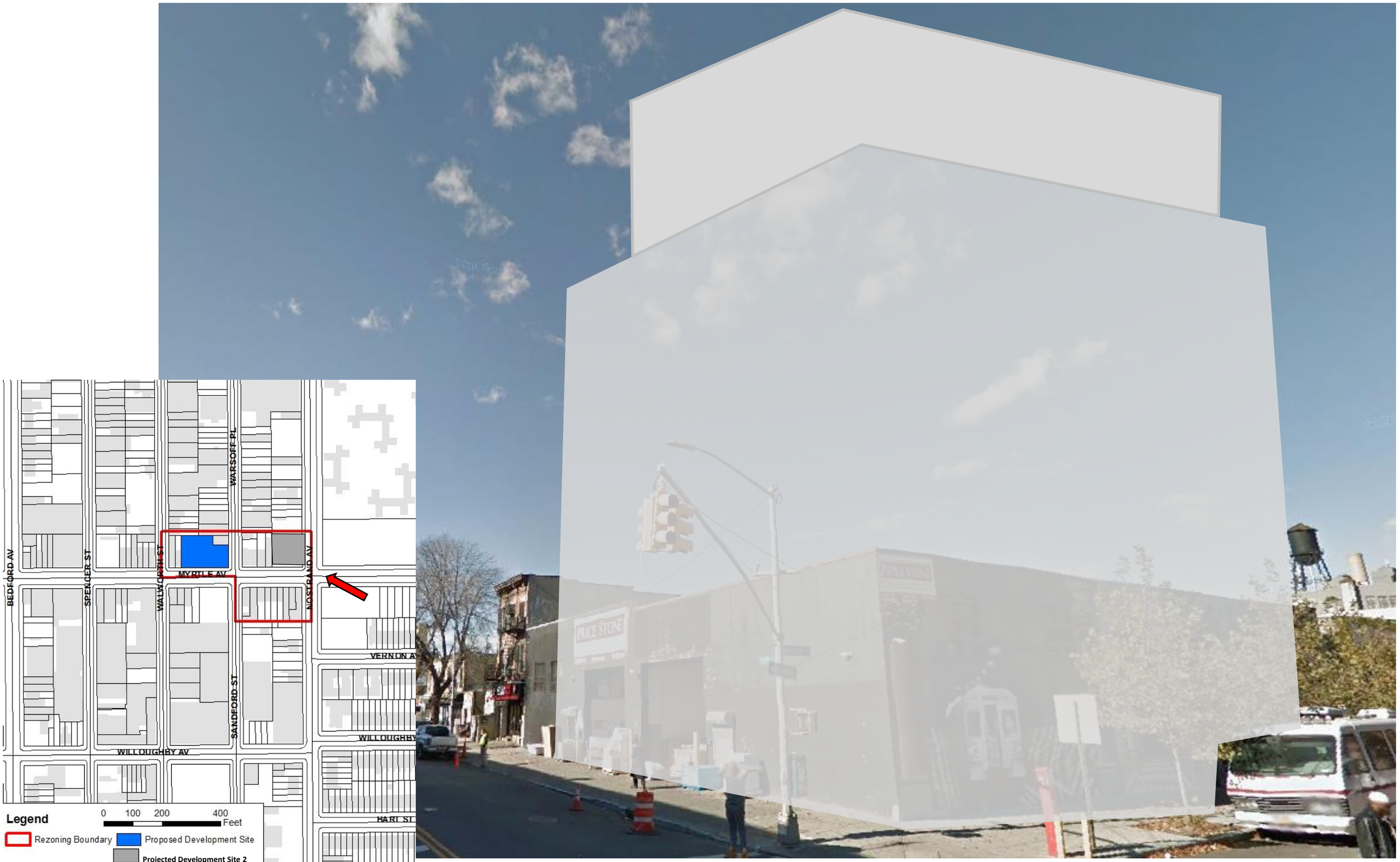
Figure 2.6-4
No-Action/With-Action
Close-Up View of Projected Site 2 at the corner of Marcy and Nostrand Avenues

No- Action



Close-Up View of Projected Site 2 at the corner of Marcy and Nostrand Avenues looking northwest on Marcy Avenue

With- Action



2.7 HAZARDOUS MATERIALS

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

The proposed development site is currently utilized as a commercial moving vehicle surface parking lot and has been for nearly 20 years. This lot would be demolished as part of the proposed project. As the lot proposed for development is located in a M1-1 district and sets among properties currently engaged in industrial and manufacturing uses, a further review of the proposed development site's potential for hazardous material contamination was conducted via a Phase 1 Environmental Site Assessment.

2.7.1 Summary of Phase I ESA

In March 2016, Singer Environmental Group performed a Phase 1 Environmental Site Assessment at the proposed development site (full report located in Appendices of this Supplemental Report to the EAS). The purpose of the ESA is to identify the presence of Recognized Environmental Conditions (RECs) that may be associated with the subject property, as defined by American Society of Testing Engineers (ASTM) E-1527-05. The Phase I ESA was conducted in general accordance with the scope and limitations of the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the "due diligence" regulations of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 9601 (35)(b) of the Superfund Amendments and Reauthorization Act. According to Sanborn History Maps, the subject property is depicted as stores from the 1900's to the 1950's, stores and dwellings in the 1960's, stores, public, residential, vacant in 1977, stores, residential, public, warehouse, vacant from 1979 to 1980, vacant from 1984 to 1989, parking in 1996. No Dry Cleaners is depicted on the Sanborn History Maps. According to Property Shark Phone Records Penske Truck Rental and PSTP Inc. were located at 723 Myrtle Avenue in 2010 and PSTP Inc. was located at 727 Myrtle Avenue in 2015. A City Directory Abstract search was conducted to determine the historical tenants. None of the tenants listed would be considered a historical recognized environmental condition (HREC).

This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

- A fuel oil application was filed in 1906 at 729 Myrtle Avenue. Any tank associated with the fuel oil application would have most likely been removed upon demolition of the former structure. The Phase I recommended no further action.

- According to Sanborn History Maps, an auto repair was located to the north of the subject property in 1935. No further action is recommended regarding the former auto repair due to the fact that (1) it has not occupied the premises in at least 70 years and (2) it slopes topographically down gradient ("away") from the subject property.

Through performance of this ESA, no other Recognized Environmental Conditions (RECs) were identified. (See **Appendix C**)

To preclude the potential for significant adverse impacts, an (E) Designation would be provided for all lots included in all projected and potential development sites, including the applicant site (Block 1736, Lots 35, 37, 137, 38, and 39), Projected Site 2 (Block 1737, Lot 35), Projected Site 3 (Bock 1737, Lot 41), Projected Site 4 (Block 1737 Lot 42), Potential Site 1 (Block 1753, Lots 21 and 22) and Potential Site 2 (Block 1753, Lots 28 and 30). E-433 has been assigned to this project. The text of the (E) designation for would be as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

With this (E) designation in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

2.7.2 Conclusions

The Phase I ESA found no evidence of RECs that merited further analysis, and through its historical analysis, no potentially hazardous former use was found that would merit further subsurface investigation, therefore this analysis of hazardous materials at the proposed development indicates that no significant impact would result from the development of the site related to such materials.

2.8 TRANSPORTATION

2.8.1 Introduction

According to the March 2014 *CEQR Technical Manual*, interrelationships between the key technical areas of the transportation system – Traffic, Parking, Transit, and Pedestrians – should be taken into account in any assessment. Furthermore, the individual technical areas should be separately assessed to determine whether a project has the potential to adversely and significantly affect a specific area of the transportation system. The *CEQR Technical Manual* states that a preliminary trip generation assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the 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
- 200 peak hour pedestrian trips.

The *CEQR Technical Manual* also states that if the threshold for traffic is not surpassed, it is likely that further parking assessment is also not needed.

2.8.2 Traffic

The preliminary screening thresholds in the *CEQR Technical Manual* suggest that any project which generates 50 or more peak hour incremental vehicle trips through a single intersection in any given peak hour is likely to warrant a detailed traffic operations analysis. Conversely, projects that are anticipated to generate fewer than 50 peak hour incremental vehicle trips through a single intersection generally do not warrant detailed traffic assessments, and potential traffic impacts are not expected.

Estimated Trip Generation Characteristics

In order to determine the number of trips generated by the proposed Action, trip generation estimates were prepared for each of the land uses proposed as part of the zoning amendment, namely residential, local retail, medical office and community facility uses. Under the proposed Action, there would be an incremental increase of approximately 179 new dwelling units, approximately 22,109 square feet of new local retail space, approximately 3,233 square feet of new medical office space and approximately 37,158 square feet of new community facility space on Blocks 1736 and 1737 (**Table 2.8-1**). Based on discussions with the New York City Department of City Planning (NYCDCP), 27 percent of the community facility space was assumed to be developed as medical office and the remaining was projected to be general community facility space.

Table 2.8-1: Summary of Development Densities under the Proposed Action Scenario

Block	No-Action				With-Action				Increments			
	DUs	Local Retail	Medical Office	Community Facility	DUs	Local Retail	Medical Office	Community Facility	DUs	Local Retail	Medical Office	Community Facility
1736	9	1,584	0	0	87	0	0	14,670	78	-1,584	0	14,670
1737	7	2,028	0	0	108	25,721	3,233	22,488	101	23,693	3,233	22,488
TOTALS =	**16**	**3,612**	**0**	**0**	**195**	**25,721**	**3,233**	**37,158**	**179**	**22,109**	**3,233**	**37,158**

The trip generation estimates were prepared using the following sources:

- *CEQR Technical Manual* (March 2014)
- Medical office travel demand factors provided by the New York City Department of Transportation (NYCDOT) in August 2016
- Bedford-Stuyvesant North Rezoning EAS
- Flushing Waterfront EA transportation planning factors
- East New York Rezoning EIS transportation planning factors
- American Community Survey (ACS) five-year census data (2006 to 2010), provided by DCP

Tables 2.8-2 and 2.8-3 show the estimated person-trips and vehicle-trips, respectively, for the proposed Action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, as well as the associated transportation planning assumptions. As shown in **Table 2.8-3,** the proposed Action is estimated to generate vehicle trips as follows:

- Weekday AM peak hour: 44 vehicle trips (19 inbound and 25 outbound)
- Weekday midday peak hour: 86 vehicle trips (45 inbound and 42 outbound)
- Weekday PM peak hour: 71 vehicle trips (36 inbound and 35 outbound)
- Saturday midday peak hour: 70 vehicle trips (35 inbound and 35 outbound)

Although the proposed Action is projected to generate a total of approximately 70 vehicle trips during the Saturday midday peak hour (exceeding the *CEQR* threshold), vehicular traffic along Myrtle Avenue in both directions is higher during the weekday midday peak hour than during the Saturday midday peak hour. Therefore, no Saturday midday peak hour traffic analysis is proposed because the weekday midday peak hours was determined to have a higher combination of both background traffic in the study area and project-generated traffic, resulting in the worst-case scenario for analysis purposes.

Vehicle Trip Distribution and Trip Assignments

The vehicle trip distribution pattern for the residential trips was developed based on ACS journey-to-work census data from 2006 to 2010 for tracts 235, 241, 253, 255 and 1237—which comprise the proposed rezoning blocks—provided by NYCDCP. The vehicle trip distribution pattern for local retail and community facility trips was based on the 2006 to 2010 ACS reverse journey-to-work census data for these same tracts, provided by NYCDCP. **Figures 2.8-1 and 2.8-2** illustrate these trip distribution patterns.

Based on the estimated vehicle trip generation shown in **Table 2.8-3**, and the estimated trip distribution patterns shown in **Figures 2.8-1 and 2.8-2**, traffic assignments were prepared for the weekday AM, midday, and PM peak hours. **Figures 2.8-3, 2.8-4, and 2.8-5** show the resulting assignments of the incremental Action-generated turning movement volumes during the weekday AM, midday, and PM peak hours, respectively.

Table 2.8-2: Estimated Person-Trip Generation Characteristics

Block 1736

Land Use	Size	Weekday Daily Person-Trip Rate	Saturday Daily Person-Trip Rate	Temporal Distribution (%)				Estimated Person-Trips			
				Weekday AM	Weekday MD	Weekday PM	Saturday MD	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Residential	78 units	8.075 trips per DU	9.6 trips per DU	10.0%	5.0%	11.0%	8.0%	63	31	69	60
Local Retail	-1,584 SF	205 trips per 1,000 sq. ft.	240 trips per 1,000 sq. ft.	3.0%	19.0%	10.0%	10.0%	-10	-62	-32	-38
Medical Office	0 SF	127 trips per 1,000 sf	127 trips per 1,000 sf	4.0%	11.0%	12.0%	11.0%	0	0	0	0
Community Center	14,670 SF	44.7 per 1,000 sf	26.1 per 1,000 sf	4.0%	9.0%	5.0%	9.0%	26	59	33	34
							TOTAL PERSON-TRIPS =	79	29	70	56

Block 1737

Land Use	Size	Weekday Daily Person-Trip Rate	Saturday Daily Person-Trip Rate	Temporal Distribution (%)				Estimated Person-Trips			
				Weekday AM	Weekday MD	Weekday PM	Saturday MD	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Residential	101 units	8.075 trips per DU	9.6 trips per DU	10.0%	5.0%	11.0%	8.0%	82	41	90	78
Local Retail	23,693 SF	205 trips per 1,000 sq. ft.	240 trips per 1,000 sq. ft.	3.0%	19.0%	10.0%	10.0%	146	923	486	569
Medical Office	3,233 SF	127 trips per 1,000 sf	127 trips per 1,000 sf	4.0%	11.0%	12.0%	11.0%	16	45	49	45
Community Center	22,488 SF	44.7 per 1,000 sf	26.1 per 1,000 sf	4.0%	9.0%	5.0%	9.0%	40	90	50	53
							TOTAL PERSON-TRIPS =	284	1,099	675	744

Residential trip rates and temporal distributions based on Residential (3 or more floors) from *CEQR Technical Manual* (Table 16-2).
Local Retail trip rates and temporal distributions based on Local Retail from *CEQR Technical Manual* (Table 16-2).
Medical Office trip rates and temporal distributions based on NYCDOT travel demand factors received in August 2016.
Community Center trip rates and temporal distribution based on Health Club from *CEQR Technical Manual* (Table 16-2) and Community Center from *East New York Rezoning EIS* transportation planning factors.

Table 2.8-3: Estimated Vehicle-Trip Generation Characteristics

Block 1736

Land Use	Size	Estimated Vehicle-Trips											
		Weekday AM			Weekday MD			Weekday PM			Saturday MD		
		Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	78	10	2	7	5	2	2	10	6	4	9	4	4
Local Retail	-1,584	-1	0	0	-3	-2	-2	-2	-1	-1	-2	-1	-1
Linked-Trip / Pass-by Trip		*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
Net New Trips =		0	0	0	-3	-1	-1	-1	-1	-1	-2	-1	-1
Medical Office	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Center	14,670	5	3	2	10	5	4	5	2	4	5	3	3
TOTAL =		**14**	**5**	**9**	**12**	**7**	**6**	**14**	**7**	**7**	**13**	**6**	**6**

Block 1737

Land Use	Size	Estimated Vehicle-Trips											
		Weekday AM			Weekday MD			Weekday PM			Saturday MD		
		Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	101	12	3	10	6	3	3	13	8	5	11	6	6
Local Retail	23,693	9	4	4	52	26	26	27	13	13	31	16	16
Linked-Trip / Pass-by Trip		*-2*	*-1*	*-1*	*-13*	*-6*	*-6*	*-7*	*-3*	*-3*	*-8*	*-4*	*-4*
Net New Trips =		6	3	3	38	19	19	20	10	10	23	12	12
Medical Office	3,233	5	5	1	15	8	7	16	8	8	15	8	7
Community Center	22,488	7	4	3	15	8	7	8	2	6	8	4	4
TOTAL =		**31**	**15**	**16**	**74**	**38**	**36**	**57**	**28**	**29**	**58**	**29**	**29**
GRAND TOTAL=		**44**	**19**	**25**	**86**	**45**	**42**	**71**	**36**	**35**	**70**	**35**	**35**

Residential mode split and auto occupancy (1.17) based on census JTW data for tracts 235, 241, 253, 255, 1237. Taxi occupancy = 1.40 based on *Bedford-Stuyvesant North Rezoning EAS*.

Residential In/Out directional distributions (AM: 20/80, MD: 50/50, PM: 65/35, SAT: 50/50) based on *Bedford-Stuyvesant North Rezoning EAS*.

Local Retail mode split, auto occupancy (1.65), and taxi occupancy (1.40) based on *Bedford-Stuyvesant North Rezoning EAS*.

Local Retail In/Out directional distributions (AM: 50/50, MD: 50/50, PM: 50/50, SAT: 50/50) based on *Bedford-Stuyvesant North Rezoning EAS*.

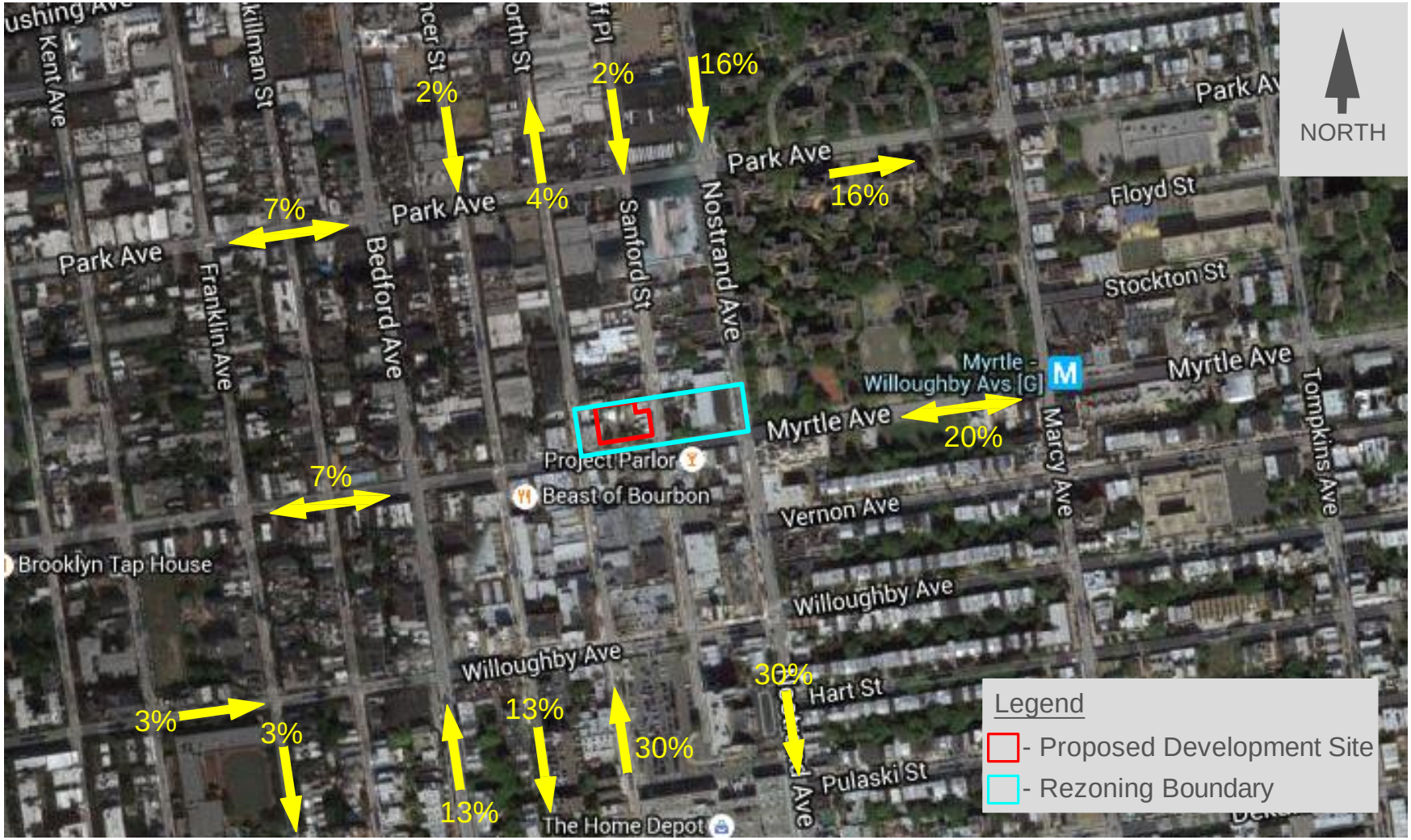
Linked-Trip / Pass-by Trip Reduction credit of 25% as per *CEQR Technical Manual*.

Medical Office mode split, auto occupancy (1.5) based on NYCDOT travel demand factors received in August 2016. Taxi occupancy (1.40) based on *Bedford-Stuyvesant North Rezoning EAS*.

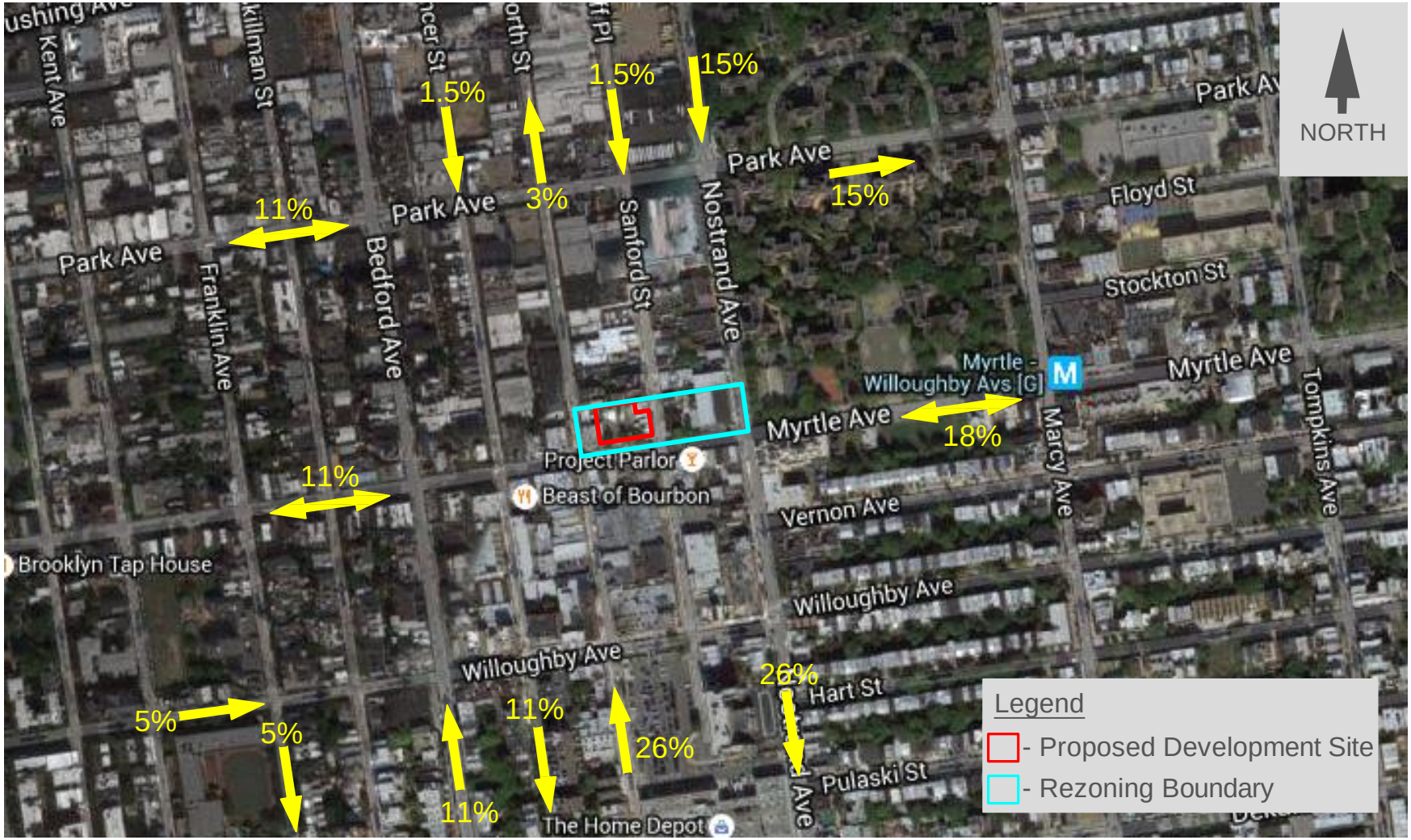
Medical Office In/Out directional distributions (AM: 89/11, MD: 51/49, PM: 48/52, SAT: 51/49) based on NYCDOT travel demand factors received in August 2016.

Community Center mode split, auto occupancy (1.40) and taxi occupancy (1.40) based on *Flushing West Rezoning EIS* transportation planning factors.

Community Center In/Out directional distributions (AM: 61/39, MD: 55/45, PM: 29/71, SAT: 49/51) based on *Flushing West Rezoning EIS* transportation planning factors.



AECOM	Myrtle Avenue Rezoning Brooklyn, NY	Estimated Residential Vehicle Trips Distribution Pattern Figure 2.8-1

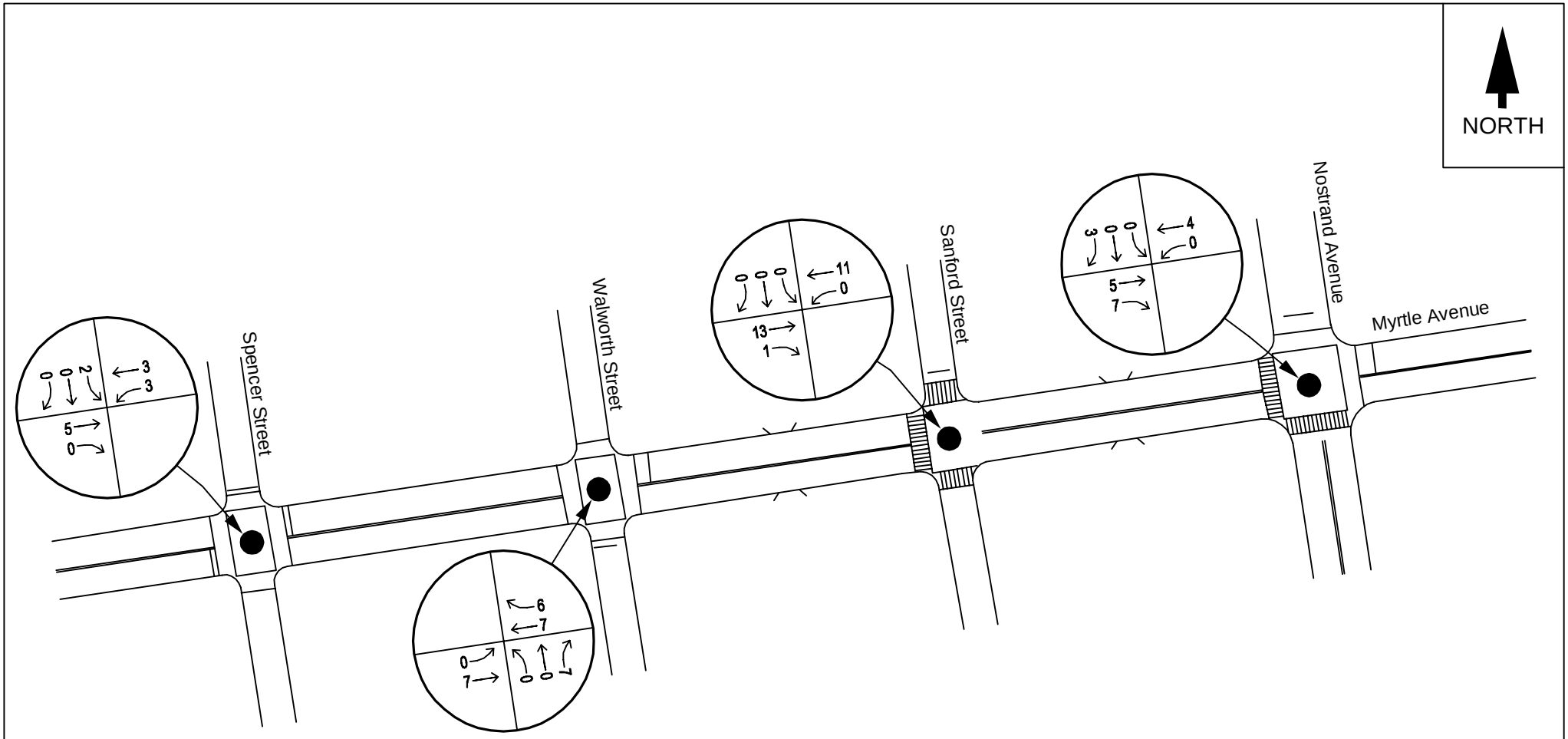


AECOM

Myrtle Avenue Rezoning
Brooklyn, NY

Estimated Local Retail and Community Facility Trips Distribution Pattern

Figure 2.8-2



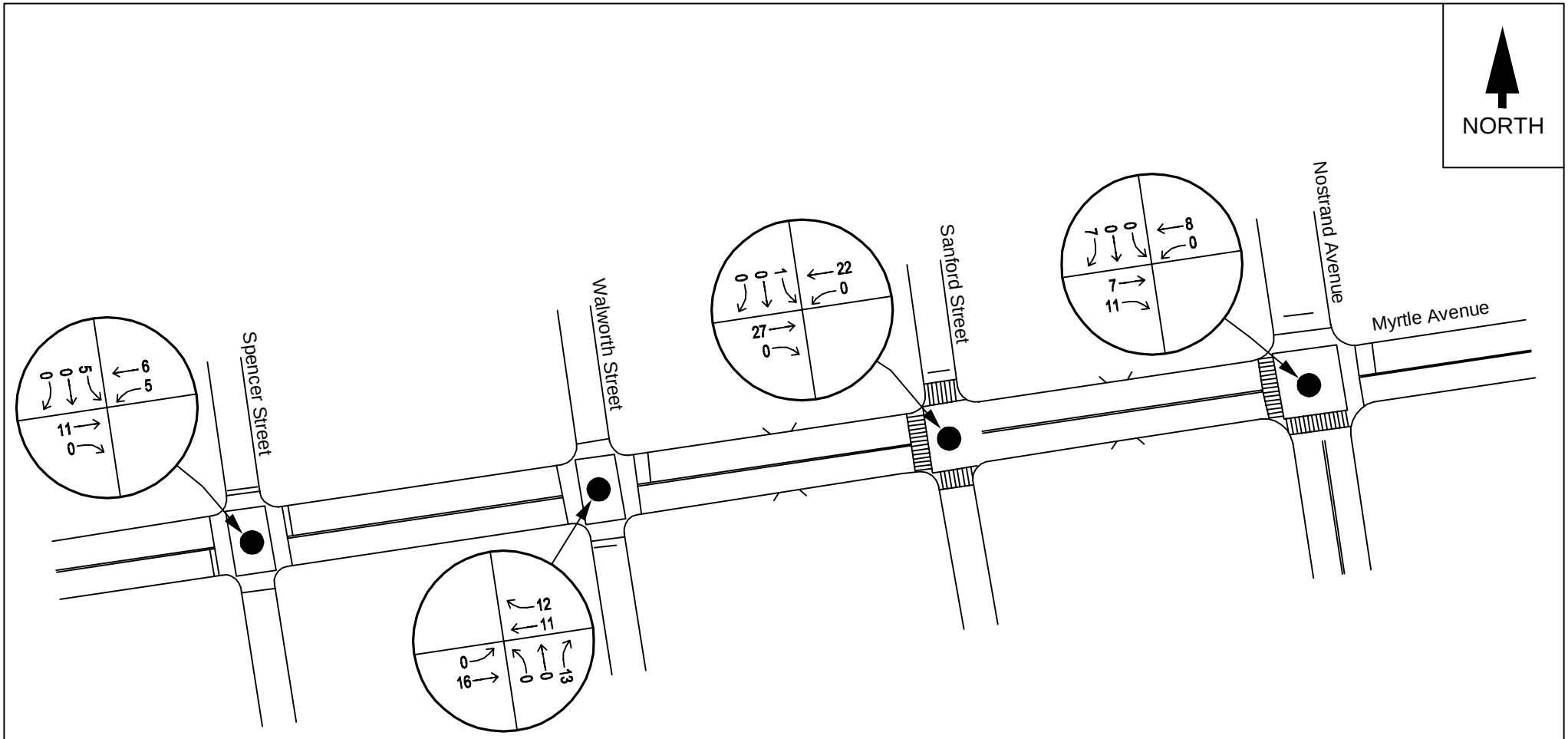
Note: All trips rounded to the nearest one (1) vehicle.

AECOM

Myrtle Avenue Rezoning
Brooklyn, NY

Project-Generated Traffic Volumes
Weekday AM Peak Hour

Figure 2.8-3



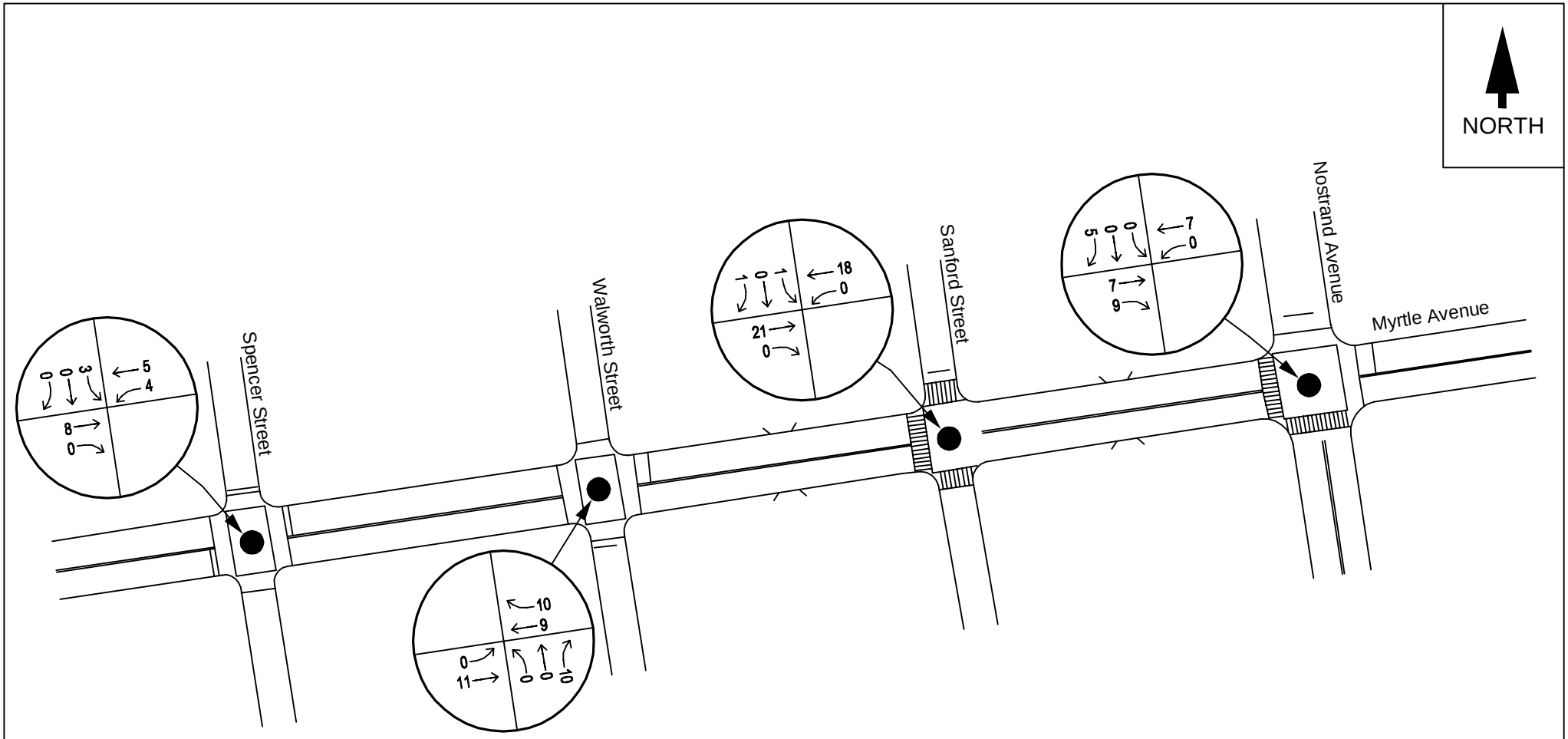
Note: All trips rounded to the nearest one (1) vehicle.

AECOM

Myrtle Avenue Rezoning
Brooklyn, NY

Project-Generated Traffic Volumes
Weekday Midday Peak Hour

Figure 2.8-4



Note: All trips rounded to the nearest one (1) vehicle.

AECOM

Myrtle Avenue Rezoning
Brooklyn, NY

Project-Generated Traffic Volumes
Weekday PM Peak Hour

Figure 2.8-5

As shown in **Figures 2.8-3 through 2.8-5** the results of the trip assignments indicate that more than 50 vehicle trips are projected to be generated through one (1) key intersections at the weekday midday peak hour only, as a result of the Proposed Action:

- Walworth Street/Myrtle Avenue

Although the proposed Action is projected to generate a total of approximately more than 50 vehicle trips during the weekday midday, weekday PM and Saturday midday peak hours, when assigned to the roadway network, only one intersection (Myrtle Avenue/Walworth Street) was projected to have an increase of 52 vehicle trips, which was projected to occur during the weekday midday peak hour. Since this estimated trip generation exceeds the threshold by only two vehicles, and given the typical daily variation in traffic volumes of approximately five to ten percent, no further analysis of this intersection was deemed necessary.

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2.8.3 Pedestrians

The March 2014 *CEQR Technical Manual* indicates that a detailed pedestrian analysis be performed for projects that are likely to generate 200 or more incremental pedestrian trips during any peak hour on any one pedestrian element (i.e., a crosswalk, street corner, or sidewalk). As shown in **Table 2.8-4**, the proposed project is projected to generate more than 200 combined new pedestrian trips (i.e., the combined total of subway, bus, and walk trips) during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours (316 trips, 884 trips, 584 trips, and 628 trips, respectively).

Table 2.8-4: Estimated Pedestrian-Trip Generation Characteristics

Block 1736

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Walk			Walk			Walk			Walk		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	13	3	10	6	3	3	14	9	5	12	6	6
Local Retail	-7	-3	-3	-43	-22	-22	-23	-11	-11	-27	-13	-13
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*11*	*5*	*5*	*6*	*3*	*3*	*7*	*3*	*3*
Net New Trips =	-7	-3	-3	-32	-16	-16	-17	-9	-9	-20	-10	-10
Medical Office	0	0	0	0	0	0	0	0	0	0	0	0
Community Center	18	11	7	41	23	19	23	7	16	24	12	12
TOTAL =	**24**	**10**	**14**	**15**	**10**	**6**	**20**	**7**	**13**	**16**	**8**	**8**

Block 1737

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Walk			Walk			Walk			Walk		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	16	3	13	8	4	4	18	12	6	16	8	8
Local Retail	102	51	51	646	323	323	340	170	170	398	199	199
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*-161*	*-81*	*-81*	*-85*	*-42*	*-42*	*-100*	*-50*	*-50*
Net New Trips =	102	51	51	484	242	242	255	127	127	299	149	149
Medical Office	2	1	0	5	2	2	5	2	3	5	2	2
Community Center	28	17	11	63	35	28	35	10	25	37	18	19
TOTAL =	**148**	**73**	**75**	**561**	**283**	**277**	**313**	**152**	**161**	**356**	**177**	**178**

TOTAL WALK TRIPS =	**172**	**83**	**89**	**576**	**293**	**283**	**333**	**159**	**174**	**372**	**185**	**186**
TOTAL TRIPS INCLUDING TRANSIT =	**316**			**884**			**584**			**628**		

Note: All values rounded to the nearest one (1).

Existing Levels-of-Service

The pedestrian LOS analyses for existing conditions are based on peak 15-minute pedestrian flows observed during the weekday midday for the east-west sidewalk at the NW corner of Myrtle Avenue/Nostrand Avenue.

The pedestrian volume counts at the sidewalks were collected in 2015. Therefore they were increase these volumes by 1.00 percent1 to establish year 2017 existing (baseline) conditions.

Tables 2.8-5 summarizes the results of the existing conditions pedestrian LOS analyses the sidewalk. As shown in **Table 2.8-5**, the sidewalk operate at an acceptable LOS "A" during the weekday midday peak hour.

[1] Based on the growth rate for "Other Brooklyn" in the *CEQR Technical Manual*.

Table 2.8-5: Year 2017 Existing Conditions Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
Nostrand Avenue / Myrtle Avenue	Weekday Midday	NW	E-W	1204.6	A

Future No-Action Levels-of-Service (LOS)

Pedestrian activity in the study area was projected for the Future No-Action Condition based on the projected growth in pedestrian activity that is expected throughout the study area (i.e., 2.78 percent growth between 2017 and 2023 for "Other Brooklyn," as per the March 2014 CEQR Technical Manual). Therefore, to arrive at the total Future No-Action Condition pedestrian volumes, the existing baseline pedestrian volumes were increased by 2.78 percent through the 2021 analysis year.

Table 2.8-6 summarizes the results of the Future No-Action Conditions pedestrian LOS analyses for the sidewalk. As shown in **Table 2.8-6** the sidewalk is projected to continue to operate at an acceptable LOS "A" during the weekday midday peak hour.

Table 2.8-6: Year 2023 No-Action Conditions Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
Nostrand Avenue / Myrtle Avenue	Weekday Midday	NW	E-W	1183.8	A

Future With-Action Levels-of-Service (LOS)

To determine the levels-of-service with the proposed project, the sidewalk LOS analyses at the study intersection was repeated to include the projected 521 new pedestrian trips generated by the proposed project in the weekday midday peak hour.

The projected new pedestrian volume associated with the proposed Action was then added to the Future No-Action Condition pedestrian volumes to arrive at the total projected Future With-Action Condition pedestrian volumes.

Table 2.8-7 summarizes the results of the Future With-Action Conditions pedestrian LOS analyses for the sidewalk. As shown in **Table 2.8-7** the sidewalk is projected to operate at an acceptable LOS "B" during the weekday midday peak hour.

Table 2.8-7: Year 2023 With-Action Conditions Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
Nostrand Avenue / Myrtle Avenue	Weekday Midday	NW	E-W	159.5	B

2.8.4 Transit

The area surrounding the proposed rezoning sites is served by public transit. Several New York City Transit (NYCT) bus lines are routed near the project site. This includes the B54 line, which is routed along Myrtle Avenue adjacent to the proposed rezoning sites, as well as the B38, B43, B44, B48, and B57 lines, all of which are routed along streets within a reasonable walking distance (approximately 0.40 mile or less) from the proposed rezoning sites. In addition, the Myrtle-Willoughby Avenues subway station (on the "G" line) is located approximately ¼ mile east of the proposed rezoning sites.

The preliminary screening threshold provided in the *CEQR Technical Manual*—where potential impacts may occur and further assessments may be warranted—is 200 transit trips for either subway or public bus riders in a given peak hour. Any number of transit trips below this screening threshold would generally not warrant a detailed transit analysis.

Table 2.8-8 summarizes the resulting numbers of new subway trips expected to be generated by the project during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours with the proposed project. As shown in **Table 2.8-8,** the proposed project would generate fewer than 200 new subway trips during the weekday AM peak hour (93 trips), weekday midday peak hour (111 trips), weekday PM peak hour (128 trips), and Saturday midday peak hour (120 trips).

Table 2.8-9 summarizes the resulting numbers of new public bus trips expected to be generated by the project during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours with the proposed project. As shown in **Table 2.8-9,** the proposed project would generate fewer than 200 new bus trips during the weekday AM peak hour (51 trips), weekday midday peak hour (197 trips), weekday PM peak hour (123 trips), and Saturday midday peak hour (135 trips).

As shown, the proposed project would generate fewer than 200 new subway and bus trips during each of the four weekday peak hours. Therefore, the proposed development is not projected to result in any significant adverse subway impacts and no detailed assessment of the potential for subway-related impacts as a result of the proposed project is warranted.

Table 2.8-8: Estimated Subway-Trip Generation Characteristics

Block 1736

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Subway			Subway			Subway			Subway		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	32	6	26	16	8	8	35	23	12	30	15	15
Local Retail	0	0	0	-3	-2	-2	-2	-1	-1	-2	-1	-1
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	0	0	0	-3	-2	-2	-2	-1	-1	-2	-1	-1
Medical Office	0	0	0	0	0	0	0	0	0	0	0	0
Community Center	3	2	1	7	4	3	4	1	3	4	2	2
TOTAL =	**35**	**8**	**27**	**20**	**10**	**10**	**38**	**23**	**14**	**33**	**16**	**16**

Block 1737

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Subway			Subway			Subway			Subway		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	41	8	33	21	10	10	46	30	16	39	20	20
Local Retail	7	4	4	46	23	23	24	12	12	28	14	14
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	7	4	4	46	23	23	24	12	12	28	14	14
Medical Office	5	4	1	14	7	7	15	7	8	14	7	7
Community Center	5	3	2	11	6	5	6	2	4	6	3	3
TOTAL =	**58**	**19**	**39**	**91**	**46**	**45**	**91**	**51**	**40**	**88**	**44**	**44**

TOTAL SUBWAY TRIPS =	**93**	**27**	**66**	**111**	**57**	**55**	**128**	**74**	**54**	**120**	**60**	**60**

Note: All values rounded to the nearest one (1).

Table 2.8-9: Estimated Bus-Trip Generation Characteristics

Block 1736

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Bus			Bus			Bus			Bus		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	7	1	6	4	2	2	8	5	3	7	3	3
Local Retail	-2	-1	-1	-12	-6	-6	-6	-3	-3	-8	-4	-4
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	-2	-1	-1	-12	-6	-6	-6	-3	-3	-8	-4	-4
Medical Office	0	0	0	0	0	0	0	0	0	0	0	0
Community Center	1	1	1	3	2	1	2	0	1	2	1	1
TOTAL =	7	1	5	-6	-3	-3	3	2	1	1	1	1

Block 1737

Land Use	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
	Bus			Bus			Bus			Bus		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	9	2	8	5	2	2	10	7	4	9	4	4
Local Retail	29	15	15	185	92	92	97	49	49	114	57	57
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	29	15	15	185	92	92	97	49	49	114	57	57
Medical Office	3	3	0	9	5	4	10	5	5	9	5	4
Community Center	2	1	1	5	2	2	3	1	2	3	1	1
TOTAL =	44	21	23	203	102	101	120	61	59	134	67	67
TOTAL BUS TRIPS =	51	22	29	197	99	98	123	63	60	135	68	68

Note: All values rounded to the nearest one (1).

2.8.5 Parking

A parking analysis was conducted to determine the extent to which the projected parking demand associated with the applicant's proposed project would be accommodated by the proposed on-site parking supply (i.e., 85 proposed on-site parking spaces). The projected hourly parking demand for each proposed land use—residential, local retail, and community facility—was be estimated throughout the course of a 24-hour period for a typical weekday. This estimate was be based on the sizes and types of land uses proposed for the applicant's site, the associated transportation planning assumptions used in the trip generation estimates, and data from standard reference sources such as the *CEQR Technical Manual*, the Institute of Transportation Engineer's *Parking Generation* manual, and U.S. Census data. The individual hourly parking generation profiles for all three land uses will then be aggregated to arrive at the combined total parking accumulation profile under the Future With-Action condition. The parking generation profile for the typical weekday will then be compared to the proposed on-site parking supply to estimate the propensity, if any, for possible overflow of parked vehicles onto surrounding public streets.

As shown in **Table 2.8-10**, estimates indicate that the projected total hourly parking demand over the course of a typical weekday is not projected to exceed the proposed on-site parking supply of 85 parking spaces. Therefore, the proposed project on the applicant's site is anticipated to have sufficient on-site parking supply to accommodate projected hourly parking demands throughout the course of a typical weekday. Therefore, no overflows of parked vehicles are projected to occur onto surrounding public streets and no significant parking impacts are anticipated under typical weekday conditions.

It should be noted that future development applicants for the other rezoning sites would be expected to provide on-site parking supply in accordance with the rezoning requirements at such time as they are developed.

Table 2.8-10: Summary of Weekday Parking Demand and Supply, by Land Use

	WEEKDAY TEMPORAL DISTRIBUTIONS BY LAND USE												TRIP GENERATION PARAMETERS	WEEKDAY PARKING DEMAND CALCULATIONS														
														Local Retail			Doctor's Office			Residential			Community Center			TOTAL		
	Local Retail			Doctor's Office			Residential			Community Center			Size =	22,109			3,233			179			37,158			Demand	Supply	Supply-Demand
													Daily person-trip rate (trips/unit size)[1] =	205			127			8.075			44.7					
													Auto mode split (% of total trips)[2] =	2.0%			32.0%			16.0%			4.0%					
													Auto occupancy[3] =	1.65			1.50			1.17			1.40					
													Auto ownership[3] =							0.34								
													Linked-trip reduction[4] =	25.0%														
													Daily vehicle trips =	41			88			198			47					
Time Period	% Total[1]	% In[1]	% Out[1]	% Total[2]	% In[2]	% Out[2]	% Total[3]	% In[3]	% Out[3]	% Total[4]	% In[4]	% Out[4]		IN	OUT	PARK	IN	OUT	PARK	IN	OUT	PARK	IN	OUT	PARK			
12:00 AM to 1:00 AM	0.0%	50%	50%	0.0%	50%	50%	2.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	2	2	61	0	0	0	61	85	24
1:00 AM to 2:00 AM	0.0%	50%	50%	0.0%	50%	50%	1.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	1	1	61	0	0	0	61	85	24
2:00 AM to 3:00 AM	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	0	0	61	0	0	0	61	85	24
3:00 AM to 4:00 AM	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	0	0	61	0	0	0	61	85	24
4:00 AM to 5:00 AM	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	0	0	61	0	0	0	61	85	24
5:00 AM to 6:00 AM	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%	0.0%	50%	50%		0	0	0	0	0	0	0	0	61	0	0	0	61	85	24
6:00 AM to 7:00 AM	0.0%	50%	50%	0.0%	50%	50%	1.0%	5%	95%	4.0%	59%	41%		0	0	0	0	0	0	0	2	59	1	1	0	59	85	26
7:00 AM to 8:00 AM	2.0%	51%	49%	4.0%	99%	1%	4.0%	20%	80%	4.0%	50%	50%		0	0	0	3	0	3	2	6	54	1	1	0	58	85	27
8:00 AM to 9:00 AM	3.0%	50%	50%	4.0%	89%	11%	10.0%	20%	80%	4.0%	61%	39%		1	1	0	3	0	6	4	16	42	1	1	1	49	85	36
9:00 AM to 10:00 AM	2.0%	51%	49%	8.0%	90%	10%	7.0%	20%	80%	4.0%	50%	50%		0	0	0	6	1	12	3	11	34	1	1	1	47	85	38
10:00 AM to 11:00 AM	5.0%	57%	43%	8.0%	80%	20%	5.0%	30%	70%	9.0%	50%	50%		1	1	0	6	1	16	3	7	30	2	2	1	47	85	38
11:00 AM to 12:00 PM	8.0%	50%	50%	8.0%	70%	30%	4.0%	50%	50%	9.0%	50%	50%		2	2	0	5	2	19	4	4	30	2	2	1	50	85	35
12:00 PM to 1:00 PM	10.0%	50%	50%	11.0%	51%	49%	5.0%	51%	49%	9.0%	55%	45%		4	4	0	5	5	19	5	5	30	2	2	1	51	85	34
1:00 PM to 2:00 PM	15.0%	51%	49%	8.0%	45%	55%	5.0%	50%	50%	9.0%	50%	50%		3	3	0	3	4	18	5	5	30	2	2	1	50	85	35
2:00 PM to 3:00 PM	11.0%	50%	50%	8.0%	30%	70%	4.0%	50%	50%	9.0%	50%	50%		2	2	0	2	5	15	4	4	30	2	2	1	48	85	37
3:00 PM to 4:00 PM	7.0%	50%	50%	9.0%	30%	70%	5.0%	55%	45%	9.0%	50%	50%		1	1	0	2	6	12	5	4	31	2	2	1	45	85	40
4:00 PM to 5:00 PM	7.0%	50%	50%	10.0%	30%	70%	7.0%	55%	45%	5.0%	60%	40%		1	1	0	3	6	9	8	6	33	1	1	2	44	85	41
5:00 PM to 6:00 PM	10.0%	50%	50%	12.0%	48%	52%	11.0%	65%	35%	5.0%	29%	71%		2	2	0	5	5	8	14	8	39	1	2	1	49	85	36
6:00 PM to 7:00 PM	7.0%	49%	51%	10.0%	2%	98%	9.0%	65%	35%	5.0%	70%	30%		1	1	0	0	9	0	12	6	45	2	1	2	47	85	38
7:00 PM to 8:00 PM	2.0%	43%	57%	0.0%	50%	50%	8.0%	65%	35%	5.0%	50%	50%		0	0	0	0	0	0	10	6	49	1	1	2	51	85	34
8:00 PM to 9:00 PM	1.0%	45%	55%	0.0%	50%	50%	4.0%	70%	30%	5.0%	50%	50%		0	0	0	0	0	0	6	2	53	1	1	2	54	85	31
9:00 PM to 10:00 PM	1.0%	22%	78%	0.0%	50%	50%	3.0%	70%	30%	5.0%	16%	84%		0	0	0	0	0	0	4	2	55	0	2	0	55	85	30
10:00 PM to 11:00 PM	0.0%	50%	50%	0.0%	50%	50%	3.0%	70%	30%	0.0%	50%	50%		0	0	0	0	0	0	4	2	57	0	0	0	57	85	28
11:00 PM to 12:00 AM	0.0%	50%	50%	0.0%	50%	50%	2.0%	95%	5%	0.0%	50%	50%		0	0	0	0	0	0	4	0	61	0	0	0	61	85	24
	100.0%			100.0%			100.0%			100.0%			In and Out Totals =	21	21		44	44		99	99		24	24				
													Total Daily Trips Check =	41			88			198			47					

Notes:
1) Based on temporal distributions from *CEQR Technical Manual* and weekday parking demand profile for Supermarket (Land Use Code 850) from Institute of Transportation Engineers *Parking Generation, 4th Edition* , 2010.
2) Based on temporal distributions from *CEQR Technical Manual* and weekday parking demand profile for Medical-Dental Office Building (Land Use Code 720) in Institute of Transportation Engineers *Parking Generation, 4th Edition*, 2010.
3) Based on temporal distributions from *CEQR Technical Manual*, residential temporal distribution from Pushkarev & Zupan, *Urban Space for Pedestrians*, Table 2.6, p. 37 and weekday parking demand profile for Rental Townhouse (Land Use Code 224) from Institute of Transportation Engineers *Parking Generation, 4th Edition* , 2010.
4) Based on temporal distributions from *CEQR Technical Manual* and weekday parking demand profile for Health/Fitness Club (Land Use Code 492) from Institute of Transportation Engineers *Parking Generation, 4th Edition* , 2010.

2.8.6 Conclusions

This section presented an analysis of the effects of additional trips projected to be generated by the proposed action during the weekday AM, midday, and PM peak hours on the transportation system in the vicinity of the proposed development sites. The following conclusions are drawn from this analysis:

- Although the proposed Action is projected to generate a total of approximately more than 50 vehicle trips during the weekday midday, weekday PM and Saturday midday peak hours, when assigned to the roadway network, only one intersection (Myrtle Avenue/Walworth Street) was projected to have an increase of 52 vehicle trips, which was projected to occur during the weekday midday peak hour. Since this estimated trip generation exceeds the threshold by only two vehicles, and given the typical daily variation in traffic volumes of approximately five to ten percent, no further analysis of this intersection was deemed necessary and no significant adverse impacts related to traffic are anticipated.

- The results of the pedestrian LOS analyses indicate that no significant adverse pedestrian impacts are projected to occur as a result of the proposed action and that the sidewalk is projected to operate at an acceptable LOS during the weekday midday peak hour.

- As shown, the proposed project would generate fewer than 200 new subway trips during each of the four weekday peak hours. Therefore, the proposed development is not projected to result in any significant adverse subway impacts and no detailed assessment of the potential for subway or bus -related impacts as a result of the proposed project is warranted.

- As shown, estimates indicate that the projected total hourly parking demand over the course of a typical weekday is not projected to exceed the proposed on-site parking supply of 85 parking spaces. Therefore, the proposed project on the applicant's site is anticipated to have sufficient on-site parking supply to accommodate projected hourly parking demands throughout the course of a typical weekday. Therefore, no overflows of parked vehicles are projected to occur onto surrounding public streets and no significant parking impacts are anticipated under typical weekday conditions

2.9 AIR QUALITY

When assessing the potential for air quality significant impacts, the *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 most concern are carbon monoxide, lead, nitrogen dioxide, ozone, relatively coarse inhalable particulates (PM_{10}), fine particulate matter ($PM_{2.5}$), and sulfur dioxide.

The *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.

2.9.1 Mobile Sources

According to the *CEQR Technical Manual*, projects, whether site-specific or generic, may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic; create any other mobile sources of pollutants (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.

The proposed action would not result in any of the above thresholds being crossed and would not require further mobile source assessment. The proposed action would not result in the placement of new operable windows within 200 feet of any atypical vehicular source of pollutants, nor would it result in the creation of a fully or partially covered roadway, generate over 170 or more net new increment auto trips at any specific intersection within the project area or notable heavy-duty diesel vehicle traffic, place new sensitive uses adjacent to a large parking facility, result in other mobile sources of pollution, or substantially increase vehicle miles traveled.

2.9.2 Stationary Sources

According to the *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, 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 non-point 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 stationary source.

The proposed action would not result in any of the above thresholds being crossed and would not require further stationary source assessment on the residents generated at the projected development site.

However as the projected development sites will have HVAC ventilation stacks venting from rooftops - impacts from boiler emission will be evaluated. According to the project sponsor, the projected development will likely utilize natural gas, impacts from such ventilation stacks at the proposed development site are a function of fuel oil type, stack height, minimum distance from the source to the nearest building, and square footage of the development. According to the project sponsor, the projected development will likely utilize natural gas.



AECOM

Environmental Assessment Statement
Myrtle Avenue Rezoning
Bedford-Stuyvesant, Brooklyn, NY

Industrial and Manufacturing Uses

Figure 2.9-1

Table 2.9. Industrial and Manufacturing
Block and lots

ID	Block	Lot	Address	Land Use	Permits	Status
1	1734	33	(116 SPENCER STREET)	6	No	
2	1751	6	(157 SPENCER STREET)	6	Yes- PA022078	Cancelled
3	1735	143	(113 SPENCER STREET)	6	No	
4	1735	45	(111 SPENCER STREET)	6	No	
5	1735	151	(97 SPENCER STREET)	6	No	
6	1735	53	(93 SPENCER STREET)	6	No	
7	1735	55	(89 SPENCER STREET)	6	No	
8	1735	14	(88 WALWORTH STREET)	6	No	
9	1735	17	(94 WALWORTH STREET)	6	No	
10	1735	18	(96 WALWORTH STREET)	6	No	
11	1735	19	(98 WALWORTH STREET)	6	No	
12	1735	32	(124 WALWORTH STREET)	6	No	
13	1751	43	(178 WALWORTH STREET)	6	Yes- CA137384	Cancelled
14	1752	1	(161 WALWORTH STREET)	6	No	
15	1752	7	(161 WALWORTH STREET)	6	No	
16	1752	9	(157 WALWORTH STREET)	6	No	
17	1752	11	(153 WALWORTH STREET)	6	No	
18	1752	13	(145 WALWORTH STREET)	6	No	
19	1752	18	(139 WALWORTH STREET)	6	No	
20	1736	50	(109 WALWORTH STREET)	6	Yes- PA166873	
20	1736	50	(109 WALWORTH STREET)	6	Yes- PA031197	Curent
20	1736	50	(109 WALWORTH STREET)	6	Yes-PA166773	Current
20	1736	50	(109 WALWORTH STREET)	6	Yes- CA009283	Current
21	1736	23	(103 Walworth Street)	6	Yes-PA004099	Curent
21	1736	23	(103 Walworth Street)	6	Yes-PA035374	Curent
21	1736	23	(103 Walworth Street)	6	Yes- PA003999	Curent
22	1736	56	(99 WALWORTH STREET)	6	No	
23	1736	57	(95 WALWORTH STREET)	6	No	
24	1736	21	(98 SANDFORD STREET)	6	No	
25	1736	32	(118 SANDFORD STREET)	6	Yes- PA-031374	Cancelled
26	1752	35	(156 SANDFORD STREET)	6	Yes- PR012617	Under Review
26	1752	35	(156 SANDFORD STREET)	6	Yes- PR012717	Under Review
27	1753	4	(161 SANDFORD STREET)	6	Yes-CA018278	Cancelled
28	1737	52	(109 SANDFORD STREET)	6	No	
29	1737	54	(107 SANDFORD STREET)	6	No	
30	1737	55	(105 SANDFORD STREET)	6	No	
31	1737	60	(95 SANDFORD STREET)	6	No	
32	1737	1	(544 PARK AVENUE)	6	Yes- CA286082	Expired
33	1737	23	(122 NOSTRAND AVENUE)	6	No	

HVAC ANALYSIS

Relevant Air Pollutants

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

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants in order to protect public health and the nation's welfare, and New York has adopted the NAAQS as the State ambient air quality standards. This analysis addressed compliance of the potential impacts with the 1-hour and annual NO_2 NAAQS.

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

The current standards and CEQR significant impact criteria that were applied to this analysis, together with their health-related averaging periods, are provided in **Table 2.9-1**.\

Table 2.9-1 Applicable National Ambient Air Quality Standards and CEQR Threshold Values

Pollutant	Averaging Period	NAAQS	CEQR Thresholds
NO_2	1 Hour	0.10 ppm (188 µg/m^3)	--
	Annual	.053 ppm (100 µg/m^3)	--
$PM_{2.5}$	24 Hour	35 µg/m^3	--
	Annual	12 µg/m^3	--
$PM_{2.5}$	24 Hour	--	6.5
	Annual	--	0.3

NO_2 NAAQS

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

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized,

AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model, and averages these values over the numbers of the years modeled. Total estimated concentrations are generated in the statistical form of the 1-hour NO_2 NAAQS format and can be directly compared with the 1-hour NO_2 NAAQS standard.

Based on New York City Department of Planning (NYCDCP) guidance, Tier 1, as the most conservative approach, should initially be applied as a preliminary screening tool to determine whether violations of the NAAQS is likely to occur. If exceedances of the 1-hour NO_2 NAAQS were estimated, the less conservative Tier 3 approach should be applied.

The annual NO_2 standard is 0.053 parts per million (ppm or 100 ug/m^3). In order to conservatively estimate annual NO_2 impacts, a NO_2 to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO_2 analysis, was applied.

$PM_{2.5}$ CEQR Significant Impact Criteria
CEQR TM guidance includes the following criteria for evaluating significant adverse $PM_{2.5}$ incremental impacts:

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

A 24-hour $PM_{2.5}$ background concentration of 21.9 ug/m^3 was obtained from Brooklyn JHS-126 monitoring station as the average of the 98th percentile for the latest 3 years of available monitoring data collected by the NYSDEC for 2012-2014. As the applicable background value is 21.9 ug/m^3, half of the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 6.5 ug/m^3. As such, a significant impact criterion of 6.5 ug/m^3 was used for determining whether the potential 24-hour $PM_{2.5}$ impacts of the proposed development are considered to be significant.
For an annual average adverse $PM_{2.5}$ incremental impact, according to *CEQR* guidance:

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

The above 24-hour and annual significant impact criteria were used to evaluate the significance of predicted $PM_{2.5}$ impacts.

Scenarios Considered

The project-on-project HVAC analysis included the consideration of multiple scenarios and combinations as each site may impact one or more of the other sites. The following project-on-project scenarios were analyzed:

1. Site on Block 1737 Lot 35 on Applicant Site
2. Site on Block 1737 Lot 41 on Applicant Site
3. Site on Block 1737 Lot 42 on Applicant Site
4. Applicant Site on Site on Block 1737-42
5. Cumulative impact of all sites together on Applicant Site
6. Site on Block 1737 Lot 35 on Site on Block 1737 Lot 41
7. Site on Block 1737 Lot 41 on Site on Block 1737 Lot 35
8. Site on Block 1737 Lot 41 on Site on Block 1737 Lot 42
9. Site on Block 1737 Lot 42 on Site on Block 1737 Lot 41

CEQR Screening Analysis

Based on CEQR guidance, a preliminary screening analysis has to be conducted as a first step to predict whether the potential impacts of the HVAC emissions would be significant and therefore require a detailed analysis. However, the *CEQR* screening procedure is only applicable to single sites (buildings) that are less than 30 feet apart from the nearest site (building) of similar or greater height.

Because the majority of the sites are less than 30 feet from each other and $PM_{2.5}$ is critical pollutant for this analysis, which requires the use of a special procedure incorporated in the detailed dispersion model,

the screening procedure was not applied. In addition, because multiple sites (buildings) must be considered in the analysis, a cumulative impact assessment requires the use of a detailed analysis. Therefore, a detailed analysis was conducted.

Detailed Analysis

A dispersion modeling analysis was conducted to estimate impacts from the HVAC emissions of each of the proposed Sites using the latest version of EPA's AERMOD dispersion model 7.10.1 (EPA version 15181). In accordance with *CEQR* guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module can be utilized for 1-hour NO_2 analysis -- to account for NOx to NO_2 conversion. Analyses were conducted with and without the effects of wind flow around the proposed sites (i.e., with and without downwash) utilizing AERMOD Building Profile Input Program (BPIP) algorithm and the highest results are reported.

Emission Rates

Emission rates were estimated as follows:

- As all the proposed sites will be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the gross floor area of the each Site (gsf), EPA AP-42 emission factors for firing natural gas combustion in small boilers, and gross heating values of natural gas;
- $PM_{2.5}$ emissions from natural gas combustion accounted for both filterable and condensable particulate matter;
- Short-term NO_2 and $PM_{2.5}$ emission rates were estimated by accounting for seasonal variation in heat and hot water demand; and
- The natural gas fuel usage factor 59.1 cubic foot per square foot per year was obtained from CEQR Table US1, Total Energy Consumption, Expenditures and Intensities, 2005, Part I: Housing Unit Characteristics and Energy Use Indicators for New York using conservative factor for residential uses.

Table 2.9-2 provides estimated pollutant emission rates from the boiler firing natural gas, and Tables 3 through 6 provide $PM_{2.5}$ and NO_2 short-term (e.g., 24-hour and 1-hour) and annual emission rates for each site. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million BTUs per hour). Boiler sizes were estimated based on assumption that all fuel would be consumed during the 100 day (or 2,400 hour) heating season. A stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Table 2.9-2 Estimated Pollutant Short-term and Annual Emission Rates

Site ID	Lots	Site Height	Stack Height	Total Floor Area	$PM_{2.5}$ Emission Rate (1)		NO_2 Emission Rate (2)	
		feet	feet	ft^2	g/sec	g/sec	g/sec	g/sec
					24-hr	Annual	1-hr	Annual
Applicant Site 1 (1736)	35,37,38,39,137	115	39.01	90,367	1.78E-03	4.89E-04	2.35E-02	6.43E-03
Site 2 1737-35	35	115	39.01	97,175	2.08E-03	5.71E-04	2.74E-02	7.51E-03
Site 3 1737-41	41	115	39.01	19,915	4.27E-04	1.17E-04	5.62E-03	1.54E-03

Site 4 1737-42	42	115	39.01	26,949	5.78E-04	1.58E-04	7.60E-03	2.08E-03

1. $PM_{2.5}$ emission factor for natural gas combustion of 7.6 lb/10^6 cubic feet included filterable and condensable particulate matter (Filterable $PM_{2.5}$ =1.9 lb/10^6 cubic feet and condensable $PM_{2.5}$=5.7 lb/10^6 cubic feet (AP-42, Table 1.4-2).
2. NOx emission factor for natural gas of 100 lb/10^6 cubic feet for uncontrolled boilers with <100MMBtu/hr (AP-42, Table 1.4-1).

Meteorological Data

All analyses were conducted using the five consecutive years of meteorological data (2010-2014). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. The data were processed by Trinity Consultants, Inc. using the current EPA AERMET version (12345) and EPA procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Five years of meteorological data were combined into a single multiyear file to conduct 24-hour $PM_{2.5}$ and 1-hour NO_2 modeling. The $PM_{2.5}$ special procedure which incorporated into AERMOD calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

Background Concentrations

For the purpose of conducting the 1-hour NO_2 Tier 3 analysis, if required, hourly NO_2 and hourly ozone background concentrations was developed from available monitoring data collected by the New York State Department of Environmental Conservation (NYSDEC) at the Queens College monitoring station for the 5 consecutive years (2012-2014), and compiled into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format.

The maximum 1-hour NO_2 background concentration of 57.9 ppb or 109 ug/m^3, which is the 3-year average of the 98th percentile of daily maximum 1-hour concentrations for 2012-2014, and the annual NO_2 background concentration of 17.25 ppb or 33 ug/m^3, which is the maximum annual average for latest 5 years from Queens College monitoring station, were also used.

Stack and Receptor Locations

For the project-on-project analysis, it was assumed that emissions from each development site would be released through a single stack located on the roof approximately 10 feet from the nearest taller building, as per NYC Building Code provision. Therefore, the HVAC stack on each building was initially placed at the minimum 10 feet distance from the nearest building if buildings were attached to each other or at 10 feet distance from the lot line when buildings were apart from each other. If exceedances of the CEQR significant threshold values or NAAQS were predicted, setback distances were increased until the threshold distance at which no exceedances of the CEQR thresholds or NAAQS were predicted. Stack heights were assumed to be 3 feet above the building roof, as per CEQR recommendation.

Receptors were placed around all faces of each building in 10-foot increments on all floor levels, starting 10 feet above the ground and extending up to 115 feet (the level of the upper windows that was assumed to be approximately 10 feet below roof level). In order to assure that maximum impacts are estimated, more than 500 receptors were placed on each development for a total of more than 4,500 receptors.

Modeling parameters used in the analysis are provided in **Table 2.9-3**.

Table 2.9-3 Modeling Parameters

Model	AERMOD (EPA Version 15181)
Source Type	Point Source
Number of emission points (stacks)	Eight Stacks (one on each building)

Emission Sources and Receptor	UTM NAD83 Datum and UTM Zone 18
Surface Characteristic	Urban Area Option
Urban Surface Roughness Length	1
Downwash effect	BPIP Program
Meteorological Data	Preprocessed by the AERMET meteorological preprocessor program by Trinity Consultants, Inc. Yearly meteorological data for 2010-2014 concatenated into single multiyear file for $PM_{2.5}$ modeling, as EPA recommended
Surface Meteorological Data	LaGuardia 2010-2014
Profile Meteorological Data	Brookhaven Station 2010-2014
Pollutant Background Concentrations	Queens College monitoring station data for 2010-2014
$PM_{2.5}$ Analysis	Special procedure incorporated into AERMOD where model calculates concentration at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest across all receptors of the N-year averaged highest values

Results

$PM_{2.5}$ Results

Results of the potential project-on-project $PM_{2.5}$ impacts are provided in **Table 2.9-4**. All projected development sites, except the Applicant Site and Site 1737-35, are relatively small buildings, which results in relatively small pollutant emission rates. In addition, the closest sites to the Applicant Site and Site 1737-35 are at least 25 feet away and, as such, the impacts of these sites are relatively small as well (e.g., the maximum impact is 2.3 ug/m^3). On the other hand, two of the smaller sites (Site 1737-42 to Site 1737-41) have greater potential impacts because they are immediately adjacent to each other. However, no trigger occurs for either the CEQR significant impact criteria or NAAQS were predicted for any projected sites, including the Applicant Site and Site 1737-35.

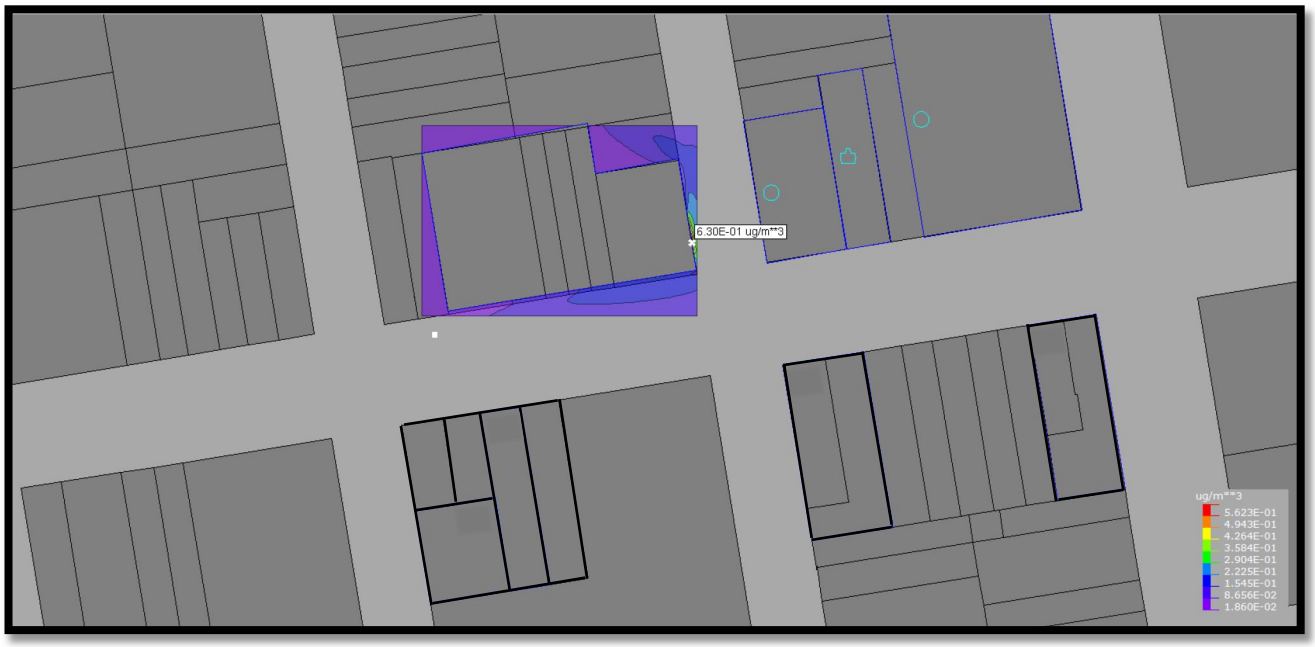
As shown, the maximum estimated 24-hour and annual $PM_{2.5}$ impacts from the HVAC emissions of each site are less than the 24-hour and annual $PM_{2.5}$ significant incremental impact criteria of 6.5 ug/m^3 and 0.3 ug/m^3, respectively **(Figure 2.9-2)**. Therefore, emissions from each site would not significantly impact any of the other sites and no stack setbacks are required. However, (E) designations would be required to specify the exclusive use of natural gas in the HVAC systems of all of the projected developments.

Table 2.9-4 Project-on-Project $PM_{2.5}$ Results

Site ID	Receptor Sites	24-hr $PM_{2.5}$ Impacts	Annual $PM_{2.5}$ Impacts	CEQR Significant Impact Criteria 24hr/Annual
		µg/m^3	µg/m^3	µg/m^3
Sites Impact on Applicant Site				
Site 1737-35	On Applicant Site	0.26	<0.01	6.5/0.3
Site 1737-41	On Applicant Site	0.12	<0.01	6.5/0.3
Site 1737-42	On Applicant Site	0.49	<0.01	6.5/0.3
Applicant Site Impact the Other Sites				
Applicant Site	On Site 1737-42	0.21	<0.01	6.5/0.3
Sites Impact Each Other				

Site 1737-35	On Site 1737-41	2.34	<0.01	6.5/0.3
Site 1737-41	On Site 1737-35	0.56	<0.01	6.5/0.3
Site 1737-41	On Site 1737-42	2.66	<0.01	6.5/0.3
Site 1737-42	On Site 1737-41	4.83	0.02	6.5/0.3
Cumulative Impact of all Sites together on Applicant Site		.63	<0.01	6.5/0.3

Figure 2.9-2 Cumulative PM2.5 Impacts on Applicant Site Contour Map



NO_2 Results

Results of the potential project-on-project NO_2 emission impacts are provided in Table 2.9.5. For the 1-hour NO_2 analysis, a Tier 1 analysis was sufficient to demonstrate compliance with NAAQS values. The NO_2 8th highest estimated daily 1-hour total concentration, which includes HVAC impacts and the NO_2 background concentration, is less than the 1-hour NO_2 NAAQS of 188 ug/m^3 for all of the sites considered. The estimated annual NO_2 total concentrations, which included HVAC impacts and the NO_2 annual background concentration, are all less than the annual NO_2 NAAQS of 100 ug/m^3 for all sites considered.

Therefore, emissions from each site would not significantly impact the other sites and no stack setbacks are required for all of the projected sites, including the Applicant Site.

Conclusion

The result of the analysis is that

- No significant adverse air quality impacts from the HVAC emissions of each projected site on each other are predicted;
- No significant adverse cumulative air quality impacts from the HVAC emissions of the all projected sites on the Applicant Site are predicted; and
- No significant adverse air quality impacts from the HVAC emissions of the Applicant Site on the other projected sites are predicted.

As such, no stack setbacks are required. E-designations, however, would be imposed on Applicant Site and the other projected sites to limit the use of natural gas in all HVAC systems. To preclude the potential for significant adverse noise impacts, an (E) Designation would be provided for all lots included in all projected and potential development sites, including the applicant site (Block 1736, Lots 35, 37, 137, 38, and 39), Projected Site 2 (Block 1737, Lot 35), Projected Site 3 (Bock 1737, Lot 41), Projected Site 4 (Block 1737 Lot 42), Potential Site 1 (Block 1753, Lots 21 and 22) and Potential Site 2 (Block 1753, Lots 28 and 30). E-433 has been assigned to this project. The text of the (E) designation for would be as follows:

Table 2.9-5 Project-on-Project NO_2 Results

Site ID	Source and Receptor Sites	1-hr NO2 Total Conc.*	Annual NO2 Total Conc.*	NAAQS 1-hr/Annual
		µg/m3	µg/m3	µg/m3
Sites Impact on Applicant Site				
Site 1737-35	On Applicant Site	112	33	188/100
Site 1737-41	On Applicant Site	109	33	188/100
Site 1737-42	On Applicant Site	110	33	188/100
Applicant Site Impact the Other Sites				
Applicant Site	On Site 1737-42	116	33	188/100
Sites Impact Each Other				
Site 1737-35	On Site 1737-41	109	33	188/100
Site 1737-41	On Site 1737-35	112	33	188/100
Site 1737-41	On Site 1737-42	109	33	188/100
Site 1737-42	On Site 1737-41	151	33	188/100
Cumulative Impact of all Sites together on Applicant Site		116	33	

*Total 1-hour and annual NO2 concentrations include corresponding background values 109 ug/m3 and 33 ug/m3, respectively.

Required E- Designations

(E) Designations which would be required for Applicant Site and all other projected sites that will impose restriction fuel to the exclusive use of natural gas in the HVAC systems. To avoid significant adverse impacts related to air quality, the Proposed Action incorporates (E) designations, as follows:

Projected Development Sites

Projected Development Site 1: Block 1736, Lots 35, 37, 137, 38, and 39. Any new residential and/or commercial development on Block 1736 Lot 35, 37, 38, 39, and 137 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 128 feet above grade.

Projected Development Site 2: Block 1737, Lot 35. Any new residential and/or commercial development on Block 1737 Lot 35 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 128 feet above grade.

Projected Development Site 3: Block 1737, Lot 41. Any new residential and/or commercial development on Block 1737 Lot 41 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 128 feet above grade.

Projected Development Site 4: Block 1737, Lot 42. Any new residential and/or commercial development on Block 1737 Lot 42 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 128 feet above grade.

Potential Development Sites

Potential Development Site 1: Block 1753, Lots 21, and 22. Any new residential and/or commercial development on Block 1753 Lots 21 and 22 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 88 feet above grade.

Block 1753, Lots 28 and 30: Any new residential and/or commercial development on Block 1753 Lots 28 and 30 must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at a minimum of 88 feet above grade.

With the implantation of the aforementioned (E) designations, no significant adverse impacts related to air quality would result from the proposed actions. No further analysis is warranted.

AIR TOXCIS

Introduction

In accordance with CEQR guidance, a survey of the NYCDEP CAT database was conducted that identified two industrial facilities with air toxic emissions currently operating within 400 feet of the proposed development -- Kings County Auto Body, Inc., located at 168 Walworth Street (Block 1751 Lot 41) and Control Electropolishing Corp., located at 109 Walworth Street (Block Lot). As such, an analysis was conducted to determine whether the toxic air pollutants emitted from these facilities have the potential to significantly impact the proposed developments.

Facilities Identified Based on NYCDEP Permits

Kings County Auto Body, Inc (Permit PB017407K) is involved in auto body paint work in a spray booth that is equipped with an 80% efficient replaceable fiberglass filter. The facility's permit contains emission rates for two pollutants – solids with a Chemical Abstracts Service (CAS) number of NY075-00-0, which is particulate matter and total volatile organic compounds (VOCs) with a CAS number of NY998-00-0, which is group of solvents with no established guideline values in the New York States Department of Environment Conservation's DAR-1 database.

Control Electropolishing Corp. is involved in the metal electropolishing process, which, according to its permit, releases three pollutants into the atmosphere– vapors of nitric acid, hydrochloric acid, and sodium peroxide.

Emissions from Spray Booth Operations

Automobile paint is a composition of solids and volatile organic compounds (VOCs), mostly solvents. When emission rates for VOC-based solvents are given for the total group of VOCs, which is a mixture of different compounds of varying toxicities that have no guideline values in NYSDEC DAR-1 database, individual compounds within the group with known guideline values should be identified to enable comparison to DAR-1 guideline values. During the spraying of the paint, solvents are evaporated and released into atmosphere as gases, generating emissions of air toxics, while the solids content generate emissions of particulates.

In accordance with DEP guidance, an analysis should, as a first step, conservatively assume that 100% of solvents contained in the paint would be released into the atmosphere. Therefore, emission rates of the solvents were calculated by multiplying the hourly paint usage rates, if known, or the total VOC emission rates, if listed in the permit by the weight percentage of each selected ingredient in the paint. The composition of the paint can be obtained from the Material Safety Data Sheet (MSDS) data for each category of auto paint, which are usually contain typical solvents found in paints and thinners.

Particulate Emissions

In accordance with NYCDEP guidance, solids in the paint being exhausted into the atmosphere as particles need to be considered as $PM_{2.5}$/PM_{10} emissions. In order to estimate emission rates for each fraction based on the solids content listed in the permit, the percentage of $PM_{2.5}$/PM_{10} fraction in the total mass of particulate matter should be applied based on cumulative particle size distribution for surface coating operations via spray booths (EPA, AP-42, Appendix B1, Page B.1-12, Particle Size Distribution Data and Sized Emission Factors for Selected Sources, Table 4.2.2.8 Automobile and Light-Duty Track Surface Coating Operations, Automobile Spray Booths). Data shows that 28.6% of the total mass of particulate matter emitted from spray booth operations is $PM_{2.5}$ and 46.7 % of the total mass of particulate matter is PM_{10}.

Based on these data, a 28.6% factor was applied to the hourly and annual emissions of total particulate matter to estimate $PM_{2.5}$ emission rates and a factor of 46.7% was applied to estimate PM_{10} emission rates.

Kings County Auto Body, Inc (PB017407K)

As shown in permit application for Kings County Auto Body, Inc. (Permit PB017407K), hourly and annual total VOC emission rates are 3.1 pounds per hour (lb/hr) and 4,650 pounds per year (lb/yr). The hourly solids uncontrolled emission rate is estimated to be 0.325 lb/hr and, after applying control efficiency of 80% (facility is equipped with a replaceable filter which control solids emissions with an 80% efficiency) is 0.065 lb/hr. The annual solids emission rate is estimated to be 97.6 lb/yr.

Representative solvents were selected using MSDS Sherwin-Williams auto paint. As a wildly-used automotive paint, Sherwin-Williams paint was selected with the maximum percentage of each hazardous ingredient found in different types of Sherwin-Williams paints. A total of eleven ingredients obtained from the MSDS were included in the evaluation. Table 1 below shows the composition of the paint and content of each solvent in weight percentages. The values were used to calculate hourly and annual solvent emission rates for the spray booth operations (Table 2). Estimated $PM_{2.5}$ and PM_{10} emission rates from spray booths operations under PB017407K are provided in Table 3.

Table 2.9-6: Composition of the Paint Used from MSDS for Sherwin-Williams Auto Paint

Chemical Name	CAS No.	Maximum % by wt.
Acetone	67-64-1	19%
Methanol	67-56-1	3%

2-Propanol	67-63-0	5%
Methyl Isobutyl Ketone	108-10-1	8%
Toluene	108-88-3	51%
Isobutyl Acetate	110-19-0	18%
1-Methoxy-2-Propanol Acetate	108-65-6	2%
Dibutyl Phthalate	84-74-2	1%
Talc	14807-96-6	32%
Titanium Dioxide	13463-67-7	7%
Carbon Black	1333-86-4	2%

Table 2.9-7: Estimated Emission Rates and Actual Concentrations under PB017407K

Pollutant	CAS No.	Pollutant Emission Rates				Conc. for 1		Actual Conc.	
		Hourly	Annual	Hourly	Annual	1-hour	Annual	Hourly	Annual
		lb/hr	lb/year	g/sec	g/sec	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$
Acetone	67-64-1	3.1	4,650	0.0742	0.0127	1,528	62	113.4	0.788
Methanol	67-56-1			0.0117	0.0020			17.9	0.124
2-Propanol	67-63-0			0.0195	0.0033			29.8	0.207
Methyl Isobutyl Ketone	108-10-1			0.0312	0.0054			47.7	0.332
Toluene	108-88-3			0.1992	0.0341			304.4	2.115
Isobutyl Acetate	110-19-0			0.0703	0.0120			107.4	0.746
1-Methoxy-2-Propanol	108-65-6			0.0078	0.0013			11.9	0.083
Dibutyl Phthalate	84-74-2			0.0039	0.0007			6.0	0.041
Talc	14807-96-			0.1250	0.0214			191.0	1.327
Titanium Dioxide	13463-67-			0.0273	0.0047			41.8	0.290
Carbon Black	1333-86-4			0.0078	0.0013			11.9	0.083

Note: Based on CEQR Table 17-3 -- 1-hour concentration at 365 feet is 1,528 ug/m^3 and annual

Table 2.9-8: PM2.5/PM10 Estimated Emission Rates from Spray Booth Operations

Permit No.		Permitted Emission Rate		Fraction of in total Solids	Estimated Emission Rates			
		lb/hr	lb/year	%	lb/hr	lb/year	g/s	g/s
PB017407 K	PM_{10}	0.065	97.6	46.7%	0.030	45.58	0.0038	0.0007
	$PM_{2.5}$	0.065	97.6	28.6%	0.019	27.91	0.0023	0.0004

Control Electropolishing Facility (Permit PB0131197R)

The permit application for this metal electropolishing facility contains hourly and annual emission rates for three pollutants – nitric acid, hydrogen chloride, and sodium hydroxide (see Table 4).

Table 2.9-9: Pollutants and Estimated Hourly and Annual Emission Rates Under PB031197R

Pollutant Name	CAS No.	Permitted Emission Rates		Hourly	Annual
		lb/hr	lb/year	g/sec	g/sec
Nitric Acid	07697-37-2	0.001	1.6	0.0001	0.00002
Hydrogen Chloride	07647-01-0	0.001	1.6	0.0001	0.00002
Sodium Hydroxide	01310-75-2	0.001	1.6	0.0001	0.00002

Toxic Assessment Methodology

Toxic air pollutants can be grouped into two categories: carcinogenic air pollutants, and non-carcinogenic air pollutants. These include hundreds of pollutants, ranging from high to low toxicity. While no federal standards have been promulgated for toxic air pollutants, the US Environmental Protection Agency (EPA) and the New York state Department of Environmental Conservation (NYSDEC) have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure criteria. All of pollutants listed in the permit are non-carcinogens.

In order to evaluate short-term and annual impacts of the non-carcinogenic toxic air pollutants, the NYSDEC has established short-term ambient guideline concentrations (SGCs) and ambient annual-average-based guideline concentrations (AGCs) for exposure limits. These are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. DAR-1 SGC and AGC values were applied to all VOC-based compounds as well as $PM_{2.5}$. Estimated concentrations of $PM_{2.5}$ were also compared to the respective 24-hour/annual NAAQS.

Developed ratios of 1-hour and annual concentrations of each pollutant to its respective SGCs or AGCs (e.g., concentration-to-guideline values) were used to determine whether concentration of each pollutant exceeds its applicable guideline value. If no exceedances are found (i.e., ratios are less than 1), no adverse health effects would occur. If concentration of any pollutant exceeds its applicable guideline value (either SGC or AGC), more detailed analysis would be required.

CEQR Screening Analysis

For estimating potential impacts, the *New York City Environmental Quality Review Technical Manual* (*CEQR TM*) recommends using a screening procedure for industrial emission sources with toxic air pollutants as a first step in an analysis. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of 1 gram per second from Table 17-3, "Industrial Source Screen," of the *CEQR TM* for the applicable averaging time periods. This approach, which can be used to estimate maximum short-term (1-hour/24-hour) and annual average concentration values at various distances (from 30 to 400 feet) from an emission source, was used to assess the potential impacts of the emissions from the permitted facility.

The minimum distance from the lot line of closest Applicant Site (Block 1736, Lots 35, 37, 38, 39, and 137) to the lot line of the spray booth facility on Block 1751 Lot 41 is 391 feet. Conservatively, a distance of 365 feet was used in this analysis. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour, 24-hour, and annual concentrations were estimated to be 1,528, 434, and 62 ug/m^3, respectively.

The minimum distance from the lot line of the closest Applicant Site to the lot line of the metal polishing facility on Block 1736 Lot 50 is 83 feet. Conservatively, a distance of 65 feet was used in this analysis. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour, 24-hour, and annual concentrations were estimated to be 27,787, 8,841, and 1,368 ug/m^3, respectively.

All values obtained from Table 17-3 of the *CEQR TM* for an emission rate of 1 gram per second were then multiplied by the permitted emission rate of each solvent to estimate actual pollutant concentrations for different time periods, and these concentrations were then compared to the applicable SGC and AGC values. The values for all solvents under permit PB017407K are provided in Tables 5 and 6. Estimated values for metal electropolishing facility under PB031197R are provided in Tables 9 and 10.

The current (2016) edition of the DAR-1 uses $PM_{2.5}$ standards (e.g., the 24-hr National Ambient Air Quality Standard [NAAQS] of 35 ug/m^3 and the annual NAAQS of 12 ug/m^3 as $PM_{2.5}$ guideline values. Therefore, for the 24-hour PM_{10}, the 24-hr NAAQS of 150 ug/m^3 was used for comparison as well. In addition to the NAAQS, the 24-hour and annual $PM_{2.5}$ impacts were compared to the *CEQR* significant impacts criteria. The 24-hour $PM_{2.5}$ significant impact threshold of 6.0 ug/m^3 was developed using monitoring data collected by the NYSDEC at Brooklyn JHS monitoring station as the average of 98th percentile for the last 3-years (2013-2015) of 23 ug/m^3. The *CEQR* annual significant threshold value is 0.3 ug/m3. Comparison of $PM_{2.5}$/PM_{10} estimated concentrations to the CEQR significant thresholds and applicable NAAQS are provided in Tables 7 and 8.

Table 2.9-10: Estimated 1-Hour Concentration Ratios (Ca/SGC) under PB017407K

Pollutant	CAS No.	Max Estimated 1-hour Conc.	SGC	1-hour Ratios
		($\mu g/m^3$)	($\mu g/m^3$)	
Acetone	67-64-1	113.4	180,000	6.30E-04
Methanol	67-56-1	17.9	33,000	5.43E-04
2-Propanol	67-63-0	29.8	98,000	3.05E-04
Methyl Isobutyl Ketone	108-10-1	47.7	31,000	1.54E-03
Toluene	108-88-3	304.4	37,000	8.23E-03
Isobutyl Acetate	110-19-0	107.4	-	-
1-Methoxy-2-Propanol	108-65-6	11.9	55,000	2.17E-04
Dibutyl Phthalate	84-74-2	-	-	-
Talc	14807-96-6	191.0	-	-
Titanium Dioxide	13463-67-7	41.8	-	-
Carbon Black	1333-86-4	11.9	-	-

Table 2.9-11: Estimated Annual Concentration Ratios (Ca/AGC) under PB017407K

Pollutant	CAS No.	Max Estimated Annual Conc.	AGC	Annual Ratios
		($\mu g/m^3$)	($\mu g/m^3$)	
Acetone	67-64-1	0.788	30,000	2.63E-05
Methanol	67-56-1	0.124	4,000	3.11E-05
2-Propanol	67-63-0	0.207	7,000	2.96E-05
Methyl Isobutyl Ketone	108-10-1	0.332	3,000	1.11E-04
Toluene	108-88-3	2.115	5,000	4.23E-04
Isobutyl Acetate	110-19-0	0.746	17,000	4.39E-05
1-Methoxy-2-Propanol	108-65-6	0.083	2,000	4.15E-05
Dibutyl Phthalate	84-74-2	0.041	12	3.46E-03
Talc	14807-96-6	1.327	4.8	2.76E-01
Titanium Dioxide	13463-67-7	0.290	24	1.21E-02
Carbon Black	1333-86-4	0.083	7	1.18E-02

Note: Based on CEQR Table 17-3 -- 1-hour concentration at 365 feet is 1,528 ug/m^3 and annual

Table 2.9-12: Estimated PM2.5 and PM10 24-hr Concentrations from Spray Booth Operations under

Pollutant	CAS No.	Emission Rate	24-hr Impact	Background	Total Conc.	NAAQS	CEQR
		g/sec	ug/m3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
PM10	NY075-00-0	0.0038	1.66	40	41.7	150	
PM2.5	NY075-02-5	0.0023	1.02	23	24.0	35	6.0

Note: 24-hr and annual $PM_{2.5}$ impacts estimated using pre-tabulated 24-hr and annual concentrations from Table 17-3 434 and

62 ug/m^3, respectively.

Table 2.9-13: Estimated PM2.5 Annual Concentrations from Spray Booth Operations under PB017407K

Pollutant	CAS No.	Emission Rate	Max Annual Impact	Background Conc.	Total Conc.	NAAQS	CEQR
		g/sec	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
PM2.5	NY075-02-5	0.00040	0.025	9.1	9.1	12	0.3

Table 2.9-14: Estimated 1-hour Concentration Ratios (Ca/SGC) under PB031197R

Pollutant	CAS No.	Max Estimated 1-hour Conc.	SGC	1-Hour Ratios
		$\mu g/m^3$	ug/m^3	
Nitric Acid	07697-37-2	3.5	86	4.07E-02
Hydrogen Chloride	07647-01-0	3.5	2,100	1.67E-03
Sodium Hydroxide	01310-75-2	3.5	200	1.75E-02

Note: Based on CEQR Table 17-3 -- 1-hour concentration at 65 feet is 27,787 ug/m^3 and annual concentration is 1,368

Table 2.9-15: Estimated Annual Concentration Ratios (Ca/AGC) under PB031197R

Pollutant	CAS No.	Max Estimated 1-hour Conc.	AGC	1-hour Ratios
		$\mu g/m^3$	$\mu g/m^3$	
Nitric Acid	07697-37-2	0.031	12	2.62E-03
Hydrogen Chloride	07647-01-0	0.031	20	1.57E-03
Sodium Hydroxide	01310-75-2	0.031	N/A	N/A

Note: Based on CEQR Table 17-3 -- 1-hour concentration at 65 feet is 27,787 ug/m3 and annual concentration is 1,368 ug/m3.

Result

As shown, the 1-hour and annual concentrations estimated for each solvent, for $PM_{2.5}$ and PM_{10}, for nitric and hydrogen chloride acids, and sodium peroxide under all permits are less than their respective SGC or AGC values or applicable NAAQS. As such, no further detailed analysis is required.

The result of this analysis is that that emissions from the industrial facilities located within 400 feet of the project site would not cause a significant air quality impact on the proposed development.

2.10 NOISE

Noise is defined as any unwanted sound, and sound is defined as any air pressure variation that the human ear can detect. Human beings can detect a large range of sound pressures ranging 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.

In terms of hearing, humans are less sensitive to low frequencies (<250 Hz) than mid-frequencies (500-1,000 Hz). Humans are most sensitive to frequencies in the 1,000 to 5,000 Hz range. Since ambient noise contains many different frequencies all mixed together, measures of human response to noise assign more weight to frequencies in this range. This is known as the A-weighted sound level.

Noise is measured in sound pressure level (SPL), which is converted to a decibel scale. The decibel is a relative measure of the sound level pressure with respect to a standardized reference quantity. Decibels on the A-weighted scale are termed "dB(A)." The A-weighted scale is used for evaluating the effects of noise in the environment because it most closely approximates the response of the human ear. On this scale, the threshold of discomfort is 120 dB(A), and the threshold of pain is about 140 dB(A). **Table 2.10-1** shows the range of noise levels for a variety of indoor and outdoor noise levels.

Because the scale is logarithmic, a relative increase of 10 decibels represents a sound pressure level that is 10 times higher. However, humans do not perceive a 10 dB(A) increase as 10 times louder; they perceive it as twice as loud. 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.

As a change in land use may result in a change in type and intensity of noise perceived by residents, patrons and employees of a neighborhood, the *CEQR Technical Manual* recommends an analysis of two principal types of noise sources: mobile sources; and stationary sources. Both types of noise sources are examined in the following sections.

2.10.1 Mobile Sources

Mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the proposed action.

According to the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed action, a detailed analysis is generally performed. Vehicular traffic studies are not warranted, as the proposed action is not expected to generate a magnitude of trips through any local intersection during peak periods that would trigger the need for detailed analysis. Within the study area, Myrtle Avenue and Nostrand Avenues have a functional classification as "Principal Arterial under the National Highway System (NHS) and NYCDOT Local Truck Route roadways. Within the Study area, Sanford Street is a one-way southbound roadway classified as a Local Street. Sanford Street extends between Park Avenue to the north (where it continues north one block as Warsoff Place and terminates at Flushing Avenue) and it dead-ends at PS 54: Samuel C. Barnes Elementary School, just south of Willoughby Avenue. Also within the study area, Walworth Street is a one-way northbound roadway classified as a Local Street. Walworth Street extends between Dekalb Avenue to the south and Flushing Avenue to the north. In the study area, Walworth Street is approximately 24 feet wide, with one northbound travel lane. The intersection of Walworth Street/Myrtle Avenue is signalized with standard crosswalks striped across all legs. As such, the proposed action would not result in a doubling of PCEs on area roadways or at any intersections, and no significant adverse mobile source noise impacts due to vehicular traffic are anticipated as a result of the proposed action.

As discussed in the *CEQR Technical Manual*, if the proposed project is located in areas with high ambient noise levels, which typically include those near heavily-traveled thoroughfares, airports, exposed rail, or other loud activities, further noise analysis may be warranted to determine the attenuation measures for the project. The projected development site is located at 723-733 Myrtle Avenue (Block 1736, Lots 35, 37, 38, 39 and 137) of Bedford-Stuyvesant neighborhood in Brooklyn. Although the project is unlikely to generate sufficient traffic volumes to warrant a mobile source analysis, ambient noise levels may be affected by the site's adjacency to Myrtle Avenue, which is a heavily trafficked roadway. As such, ambient noise levels were measured to provide an assessment of the potential for traffic noise to have a significant adverse effect on future residents.

The *CEQR Technical Manual* provides noise exposure guidelines in terms of L_{eq} and L_{10} for the maximum amount of allowable noise under existing regulations. L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating sound pressure levels 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 greater effect on the L_{eq} than low noise levels. The L_{eq} has an advantage over other descriptors because L_{eq} values from different noise sources can be added and subtracted to determine cumulative noise levels. In comparison, L_{10} is the SPL exceeded 10 percent of the time. Similar descriptors include the L_{50}, L_{01}, and L_{90} values.

Table 2.10-1 Sound Pressure Level & Loudness of Typical Noises in Indoor & Outdoor Environments

Noise Level dB(A)	Subjective Impression	Typical Sources		Relative Loudness (Human Response)
		Outdoor	Indoor	
120-130	Uncomfortably Loud	Air raid siren at 50 feet (threshold of pain)	Oxygen torch	32 times as loud
110-120	Uncomfortably Loud	Turbo-fan aircraft at take-off power at 200 feet	Riveting machine Rock band	16 times as loud
100-110	Uncomfortably Loud	Jackhammer at 3 feet		8 times as loud
90-100	Very Loud	Gas lawn mower at 3 feet Subway train at 30 feet Train whistle at crossing Wood chipper shredding trees Chain saw cutting trees at 10 feet	Newspaper press	4 times as loud
80-90	Very Loud	Passing freight train at 30 feet Steamroller at 30 feet Leaf blower at 5 feet Power lawn mower at 5 feet	Food blender Milling machine Garbage disposal Crowd noise at sports event	2 times as loud
70-80	Moderately Loud	NJ Turnpike at 50 feet Truck idling at 30 feet Traffic in downtown urban area	Loud stereo Vacuum cleaner Food blender	Reference loudness (70 dB(A))
60-70	Moderately Loud	Residential air conditioner at 100 feet Gas lawn mower at 100 feet Waves breaking on beach at 65 feet	Cash register Dishwasher Theater lobby Normal speech at 3 feet	2 times as loud
50-60	Quiet	Large transformers at 100 feet Traffic in suburban area	Living room with TV on Classroom Business office Dehumidifier Normal speech at 10 feet	1/4 as loud
40-50	Quiet	Bird calls Trees rustling Crickets Water flowing in brook	Folding clothes Using computer	1/8 as loud
30-40	Very quiet		Walking on carpet Clock ticking in adjacent room	1/16 as loud
20-30	Very quiet		Bedroom at night	1/32 as loud
10-20	Extremely quiet		Broadcast and recording studio	
0-10	Threshold of Hearing			

Sources: Noise Assessment Guidelines Technical Background, by Theodore J. Schultz, Bolt Beranek and Newman, Inc., prepared for the US Department of Housing and Urban Development, Office of Research and Technology, Washington, D.C., undated; Sandstone Environmental Associates, Inc.; Highway Noise Fundamentals, prepared by the Federal Highway Administration, US Department of Transportation, September 1980; Handbook of Environmental Acoustics, by James P. Cowan, Van Nostrand Reinhold, 1994.

Noise measurements were conducted on November 12, 2015, at two locations in front of the proposed project area. A Type 2 Larson Davis LxT sound meter with windshield was used to conduct the noise monitoring. The meter was placed on a tripod at a height of approximately five feet above the ground, away from any other surfaces. The meter was calibrated prior to and following each monitoring session.

Noise measurements were conducted in front of the projected development sites on the sidewalk of Myrtle Avenue at:

- Location 1: the midblock location of Myrtle Avenue between Walworth and Sanford Streets, in front of the proposed development site (Block 1736, Lot 38)

- Location 2: the midblock location of Myrtle Avenue between Sanford Street and Nostrand Avenue, in front of projected development site 4 (Block 1737, Lot 42)

The results of the noise measurements taken at the proposed development site are summarized in **Table 2.10-2 and Table 2.10-3**.

Table 2.10-2 Location 1: Measured Noise Levels (dB(A))

Time Period	L_{eq}	L_{10}
AM (8:30 – 9:30)	72.5	75.3
MD (10:45 – 11:45)	68.5	72.3
PM (4:30 – 5:30)	72.4	73.2

Table 2.10-3 Location 2: Measured Noise Levels (dB(A))

Time Period	L_{eq}	L_{10}
AM (8:30 – 9:30)	74	75.5
MD (10:45 – 11:45)	72.7	70.8
PM (4:30 – 5:30)	71.8	74.6

Notes:
Off-peak reading skewed likely due to emergency vehicle going through monitoring area as well as presence of UPS delivery person working in area.

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Protection Order-City Environmental Quality Review (CEPO-CEQR) noise standards at the exterior façade to achieve interior noise levels of 45 dB(A) or below. CEPO-CEQR Noise Standards classify noise exposure into four categories: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable. As noted in the *CEQR Technical Manual*, these standards are the basis for classifying noise exposure into the following categories based on the L_{10} measured directly outside the projected development site

Table 2.10-4 Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Project	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation[1]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^2$ dB(A)

Source: *CEQR Technical Manual*
Notes:
[1] The above composite window-wall attenuation values are for residential dwellings. Commercial and office spaces/meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.
[2] Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.

The measured ambient noise levels indicate that the project-induced sensitive receptors would be in an area that is marginally unacceptable *Noise Exposure Guidelines* summarized in CEQR Table 19-2. Therefore an impact would occur unless the building design as proposed provides a composite building attenuation that would be sufficient to reduce these levels to an acceptable interior noise level. These values are shown in **Table 2.11-4**.

The maximum L_{10} measured at the project site was 75.5 dB(A) during the AM-peak period. Therefore, the noise at the project site falls well below "Marginally Unacceptable" conditions. In order to ensure an acceptable interior noise environment maintaining an interior noise level of 45 dB(A), future residential uses at the projected development sites must provide a closed window condition with a minimum of 33 dB(A) window/wall attenuation on the facades facing Myrtle Avenue. This level of attenuation could be achieved with a closed window situation and alternate means of ventilation, such as indoor air conditioning, heat pumps or split systems To preclude the potential for significant adverse noise impacts, an (E) Designation would be provided for all lots included in all projected and potential development sites, including the applicant site (Block 1736, Lots 35, 37, 137, 38, and 39), Projected Site 2 (Block 1737, Lot 35), Projected Site 3 (Bock 1737, Lot 41), Projected Site 4 (Block 1737 Lot 42), Potential Site 1 (Block 1753, Lots 21 and 22) and Potential Site 2 (Block 1753, Lots 28 and 30). E-433 has been assigned to this project. To avoid significant adverse impacts related to noise, the Proposed Action incorporates (E) designations, as follows.

Projected Development Sites

Projected Development Site 1: Block 1736, Lots 35, 37, 137, 38, and 39. In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all façades to maintain an interior noise level of 45 dBA. 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.

Projected Development Site 2: Block 1737, Lot 35: In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation along the eastern façade and a minimum of 31 dBA on all other façades to maintain an interior noise level of 45 dBA. 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

Projected Development Site 3: Block 1737, Lot 41. In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all façades to maintain an interior noise level of 45 dBA. 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.

Projected Development Site 4: Block 1737, Lot 42. In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum

of 31 dBA window/wall attenuation on all façades to maintain an interior noise level of 45 dBA. 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.

Potential Development Sites

Potential Development Site 1: Block 1753, Lots 21, and 22. In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all façades to maintain an interior noise level of 45 dBA. 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.

Block 1753, Lots 28 and 30: In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation along the eastern façade and a minimum of 31 dBA on all other façades to maintain an interior noise level of 45 dBA. 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.

With the implantation of the aforementioned (E) designations, no significant adverse impacts related to noise would result from the proposed actions. No further analysis is warranted.

2.10.2 Stationary Sources

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

Even though the proposed project area is located in an existing M1-1 and M1-2 district, no unenclosed stationary noise sources of concern were observed during field inspection. As the project site is not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. Additionally, as the proposed project would not introduce a new stationary noise source, no significant adverse stationary source impacts are anticipated as a result of the proposed action, and no further analysis is warranted.

2.11 NEIGHBORHOOD CHARACTER

Neighborhood character, as defined in the *CEQR Technical Manual,* is considered to be an amalgam of the various elements that give a neighborhood its distinct personality. These elements include land use, socioeconomic conditions, historic and cultural resources, urban design and visual resources, transportation, noise, open space and shadows, as well as any other physical or social characteristics that help to define a community. Not all of these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining features.

According to the *CEQR Technical Manual,* if a project has the potential to result in any significant adverse impacts on any of the above technical areas, a preliminary assessment of neighborhood character may be appropriate. A significant impact identified in one of these technical areas is not automatically equivalent to a significant impact on neighborhood character; rather, it serves as an indication that neighborhood character should be examined.

In addition, depending on the project, a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character. As stated in the *CEQR Technical Manual*, a "moderate" effect is generally defined as an effect considered reasonably close to the significant adverse impact threshold for a particular technical analysis area. When considered together, elements may have the potential to significantly affect neighborhood character. Moderate effects on several elements may affect defining features of a neighborhood and, in turn, a pedestrian's overall experience. If it is determined that two or more categories may have potential 'moderate effects' on the environment, CEQR states that an assessment should be conducted to determine if the proposed project result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. If a project would result in only slight effects in several analysis categories, then further analysis is generally not needed.

The proposed action would not exceed any of the thresholds in the technical areas listed above, which would typically warrant a detailed assessment of the potential for neighborhood character impacts, and thus significant adverse impacts are not expected. In addition, the proposed action is not expected to result in any notable moderate changes in the noted technical areas, and as such, would not have a significant effect on neighborhood character. An assessment of the potential for moderate changes as a result of the proposed action follows below. A key to the photographs of the site and surrounding project study area were previously shown with photographs of the site and surrounding study area displayed previously at the end of Section 1.

The project site and project area is centered on Myrtle Avenue between Nostrand Avenue and Walworth Street which generally consists of mixed multi-family residential and commercial buildings as well as some light industrial uses. Directly east and west of the project site are larger mixed-use and public housing (Marcy Public Housing) developments of greater scale, height, and quality. These areas contribute to a walking street and a sense of a community and place. Due south of the site – there area is a mix of industrial manufacturing and commercial uses with more uniformly residential only forming west of Nostrand Avenue. Due north of the project area - the blocks are a fairy deteriorated scrabble of industrial and intermixed with some residential buildings. The particular set of blocks in which the project area lies are clearly the most deteriorated, the lest uniform, and could be characterized by uses most degrading to a sense of place and a quality environment than any of the adjacent blocks the project area abuts.

The proposed site is located within an M1-1 district, while the project area south of Myrtle Avenue is an M-2 district, however, as noted previously, the Myrtle Avenue corridor is primarily mixed-use residential, while the uses along each of the side roads, at Nostrand Ave. and Walworth Street contain predominately an assemblage of vacant lots, and varied industrial manufacturing uses punctuated by an occasional residential lot. R6-A Districts abut the proposed project area directly to the south, east and west, and C2-4 overlays are present directly to the west of the proposed project area along Myrtle Avenue, and to the east on Myrtle Avenue across from Marcy Playground. In this sense – the proposed rezoning to and R7 with a C2-4 overlay is perfectly in line with the character of the area and is in fact necessary to knit together the broader neighborhood.

Although there is a historic eligible district (Cripplebush Road Historic District) that is touches edge of study boundary of the project area at the far southeast corner– the proposed project and projected development site will have little impact to this residential neighborhood – characterized primarily by 19th Century row houses. The proposed redevelopment will reinforce the residential transitioning of the area while providing needed commercial and community facility uses for residents of the area. Therefore, no significant adverse impacts on historic or architectural resources are expected as a result of the proposed action, and further assessment is not warranted

2.12 CONSTRUCTION

Construction, although temporary, can result in disruptive and noticeable effects on a proposed action area. A determination of the significance of construction and the need for mitigation is based on the duration and magnitude of these effects. Construction is typically of greatest importance when it could affect traffic conditions, archaeological resources, and the integrity of historic resources, community noise

patterns and air quality conditions. All analyses were undertaken in accordance with the guidelines contained in the CEQR Technical Manual.

The proposed action involves a rezoning in the Fort Greene section of Brooklyn. Including the site controlled by the applicant, there are two projected development sites and one potential development sites in the project area. While the duration of construction on the applicant's site is expected to last approximately 18 months, the remaining projected development sites are anticipated to be developed in the six years following the adoption of the proposed rezoning. The potential development site is considered less likely to be developed over the six-year analysis period, but is still considered a site for potential future development.

As construction induced by the proposed action would be gradual, taking place over a six-year period, potential impacts would be minimal and, as discussed below, not expected to have any significant adverse impacts. The following is a brief discussion of the effects associated with the construction related activities on traffic, air quality, noise, historical resources and hazardous materials resulting from the construction of the projected development sites as described in Section 1.3 above.

Effect of Construction on Traffic

The proposed action would result in new development, over a six-year period, on up to four projected development sites. These developments would replace existing uses on the development sites. During construction, the projected development sites would generate trips from workers traveling to and from the construction sites, and from the movement of materials and equipment.

The infrastructure of New York City is comprised of physical systems that support the population, including water supply, wastewater, sanitation, energy, roadways, bridges, tunnels, and public transportation. This section covers only the effect of the proposed action on traffic operations. Given typical construction hours of 7:00 AM to 4:00 PM, worker trips would be concentrated in off-peak hours typically before both the AM and PM peak commuter periods. Truck movements typically would be spread throughout the day on weekdays, and would generally occur between the hours of 7:00 AM and 4:30 PM. Traffic generated by construction workers traveling to and from their work sites and construction truck traffic would not represent a substantial increment during the area's peak travel periods.

Construction activities may result in short-term disruption of both traffic and pedestrian movements at the development sites. This would occur primarily due to the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the site. Additionally, construction would at times result in the temporary closing of sidewalks adjacent to the site. These conditions would not lead to significant adverse effects on traffic and transportation conditions.

Effect of Construction on Air Quality

Possible impacts on local air quality during construction induced by the proposed action include fugitive dust (particulate) emission from land clearing operation and demolition as well as mobile source emissions (hydrocarbons, nitrogen oxide, and carbon monoxide) generated by construction equipment and vehicles.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities should be of a short-term duration and relatively contained within a proposed site, not significantly impacting nearby buildings or residents. All appropriate fugitive dust control measures – including watering of exposed areas and dust covers for trucks – would be employed during construction of the development sites. Therefore, the fugitive source emissions generated by the proposed action would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the proposed action would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a six-year period and be dispersed throughout the proposed project area, the mobile source emissions generated by the proposed action would not be significant. Overall, the proposed action would not have the potential to result in significant adverse air quality impacts.

Effect of Construction on Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from the construction sites can affect community noise levels. The level of impact of these noise sources depends on the noise characteristics of the equipment and activities involved the construction schedule, and the location of potentially sensitive noise receptors.

Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken.

Construction noise associated with the proposed action is expected to be similar to noise generated by other residential construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by Environmental Protection Agency noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses.

Thus, while there may be short periods of time when noise is greater than the Noise Control Code, these regulations would be followed in such a matter that no significant adverse noise impacts would be expected to result from the proposed action.

Effect of Construction on Historic Resources

The *CEQR Technical Manual* states that construction impacts may occur on historic and cultural resources if in-ground disturbances or vibrations associated with project construction could undermine the foundation or structural integrity of nearby resources. A construction assessment is not needed for historic and cultural resources unless the project involves construction activities within 400 feet of a historic resource. As noted previously, the proposed project area is situated approximately 350 feet northeast of the Cripplebush Road Historic Eligible District USN #04701.017049 and associated buildings (USN #04701.016382, USN #04701.017053).The block bounded by Vernon Ave and Willoughby Ave and Nostrand and Marcy Ave's contains approximately 5 parcels associated with this District that are within 400 feet of projected development site 8 on Block 1753, Lots 28 & 30. Currently however, this district or buildings within this area are not recognized as an LPC historic resource or district.

The City has two procedures for avoidance of damage to historic structures from adjacent construction. All buildings are provided some protection from accidental damage through New York City Department of Buildings (DOB) controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the code requirements.

The second protective measure applies only to designated NYCL and S/NR listed historic buildings that are located within 90 linear feet of a proposed construction site. For these structures, the DOB's Technical Policy and Procedure Notice (TPPN) #10/88 is applicable. The DOB's TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet), and to detect at an early stage the beginnings of damage so that construction procedures can be changed. The 90-foot distance is recognized as being close enough to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations, falling debris, and/or collapse.

As discussed in in Chapter 2.6 above, the 23rd Cripplebush Road Historic Eligible District and associated buildings are within 350 feet of a projected development site, and would therefore be protected under the measures of Building Code Section 27-166 (C26-112.4). Provided these measures are followed, the proposed actions would not result in significant adverse construction-related impacts at these resources.

By following the protection measures under DOB Code Section 27-166 (C26-112.4) and DOB's TPPN #10/88 for those applicable resources, demolition and/or construction work on the projected development site would not cause any significant adverse construction-related impacts to nearby historic and cultural resources.

Effect of Construction on Hazardous Materials

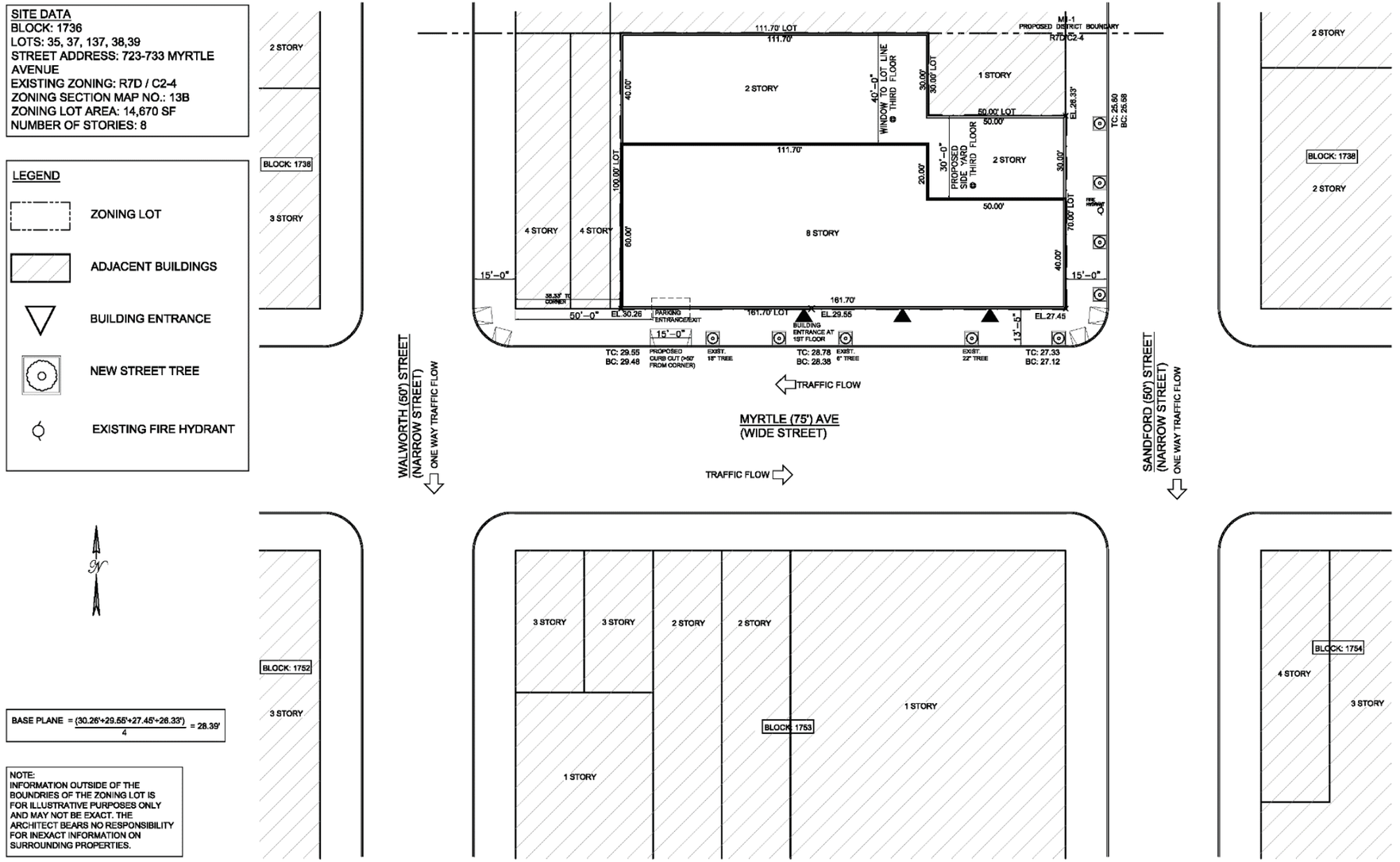
The proposed action would result in new development in the project area. As such, a hazardous materials assessment was undertaken, as presented Section 2.7 of this EAS. As discussed in the section, all contaminants and contaminated materials are expected to be removed in accordance with environmental regulations and no significant adverse impacts are expected.

Conclusion

Construction-related activities are not expected to have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the proposed action.

APPENDICIES TO SUPPLEMENTAL STUDIES TO THE MYRTLE AVENUE EAS

Appendix A:
Site Plans and Zoning Analysis from the Project Architect

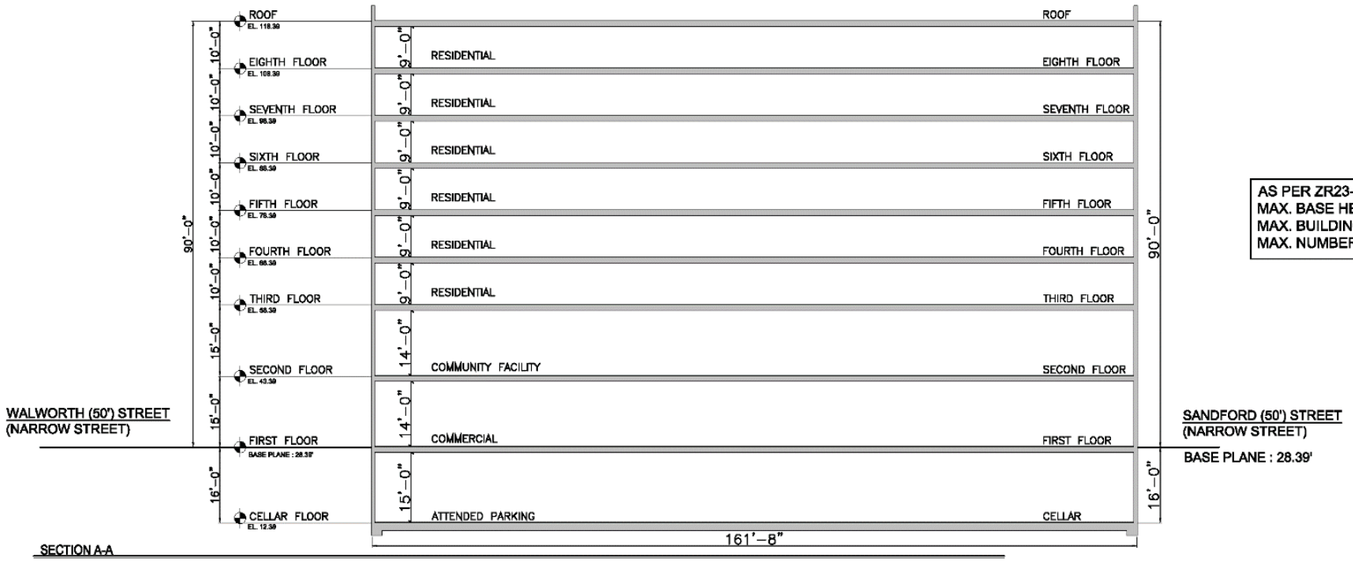


SITE PLAN

723 – 733 MYRTLE AVENUE BROOKLYN, NY

Valentino Pompeo Architect, P.C.
437 Beach 129 Street
Belle Harbor, NY 11694

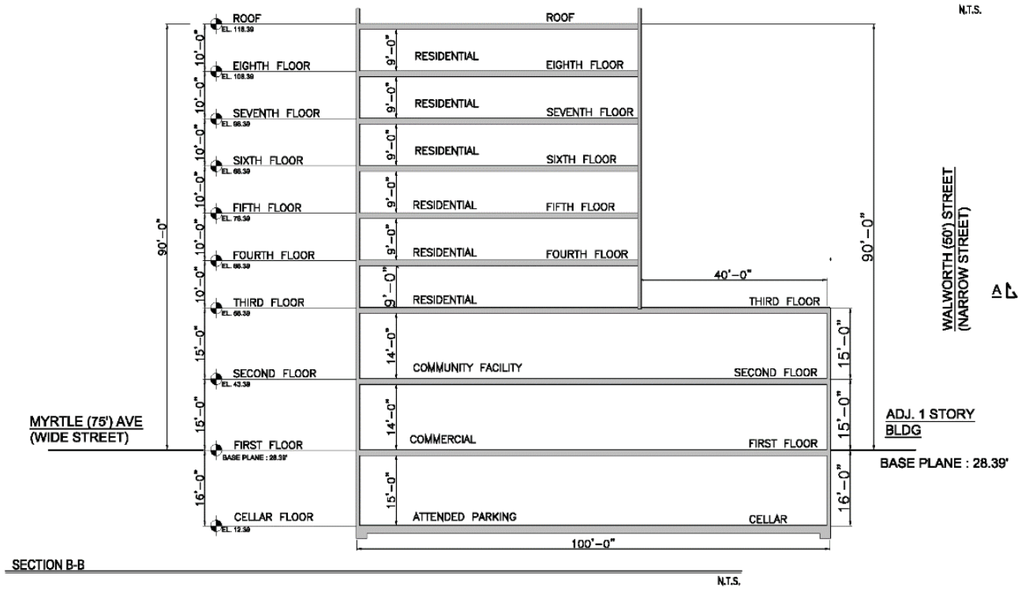
ARCHITECTURE | PLANNING



SECTION A-A

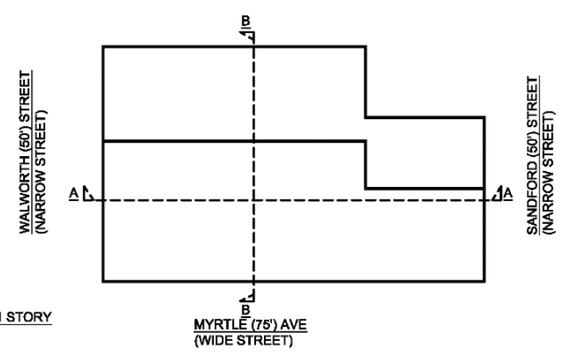
N.T.S.

AS PER ZR23-664: HEIGHTS
MAX. BASE HEIGHT = 95'-0"
MAX. BUILDING HEIGHT = 115'-0"
MAX. NUMBER OF STORIES = 11



SECTION B-B

N.T.S.



SECTIONS

723 – 733 MYRTLE AVENUE BROOKLYN, NY

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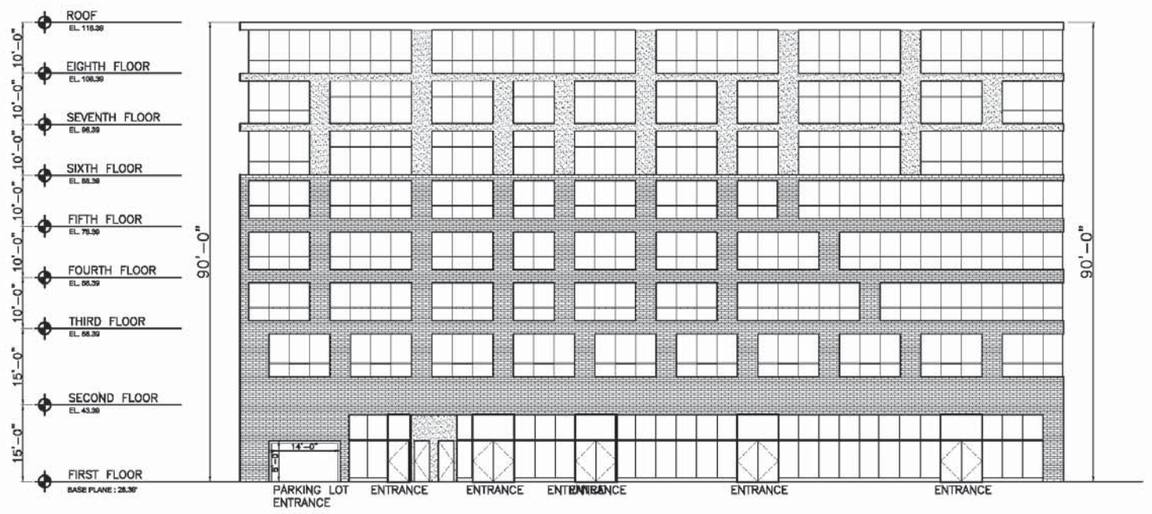
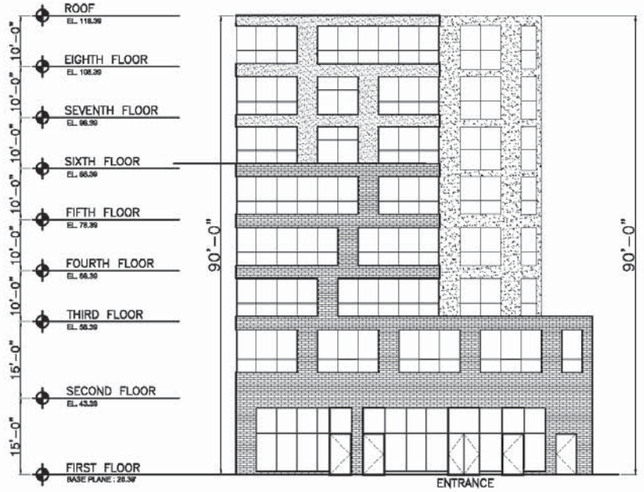
437 Beach 129 Street
Belle Harbor, NY 11694

ARCHITECTURE | PLANNING



SOUTH ELEVATION - ALONG MYRTLE AVE

N.T.S.



EAST ELEVATION - SANDFORD STREET

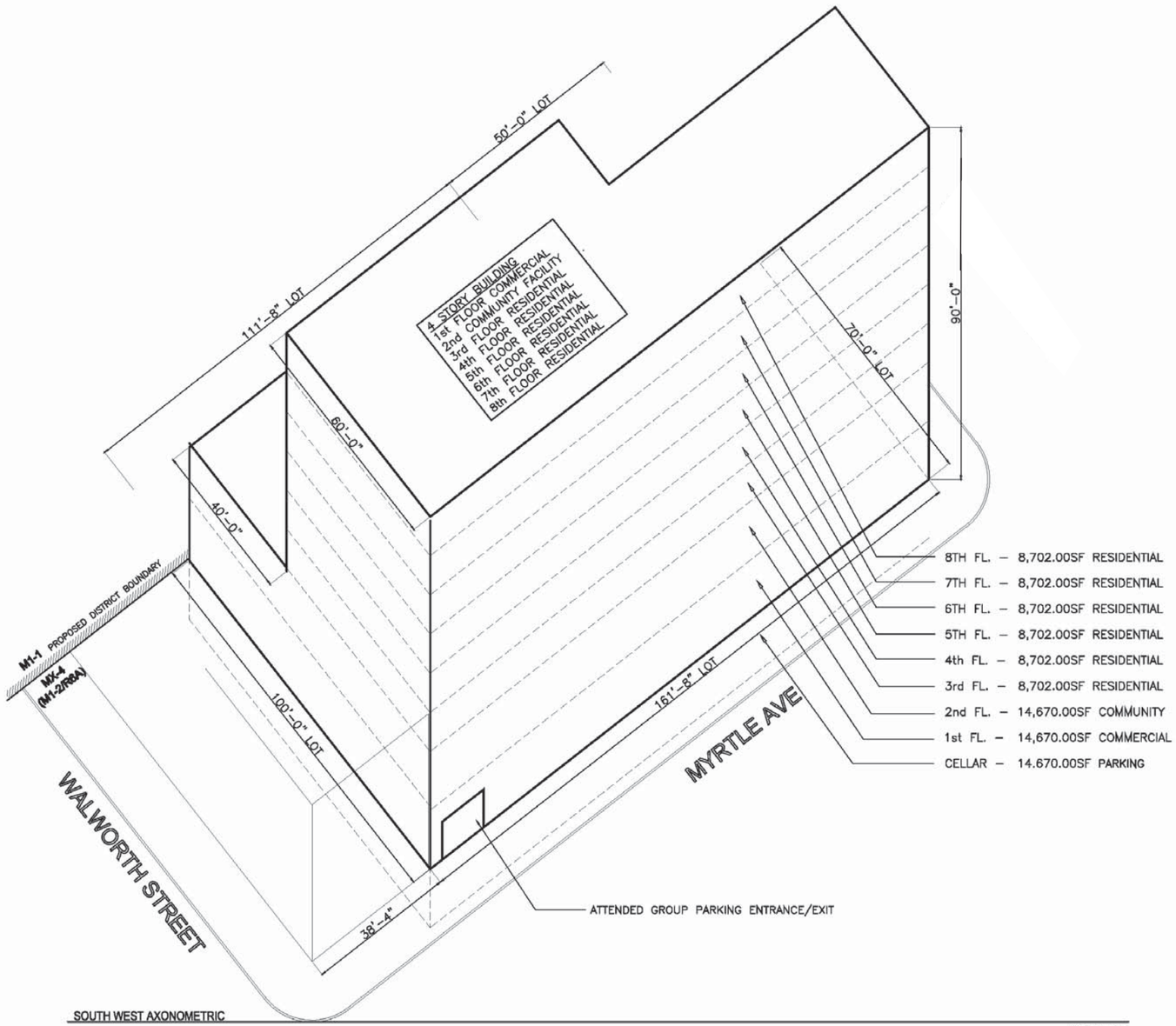
N.T.S.

ELEVATIONS

723 – 733 MYRTLE AVENUE BROOKLYN, NY

Valentino Pompeo Architect, P.C.
437 Beach 129 Street
Belle Harbor, NY 11694

ARCHITECTURE | PLANNING



AXONOMETRIC VIEW

723 – 733 MYRTLE AVENUE BROOKLYN, NY

Valentino Pompeo Architect, P.C.
437 Beach 129 Street
Belle Harbor, NY 11694

ARCHITECTURE | PLANNING



AXONOMETRIC VIEW

723 – 733 MYRTLE AVENUE BROOKLYN, NY

Valentino Pompeo Architect, P.C.
437 Beach 129 Street
Belle Harbor, NY 11694

ARCHITECTURE | PLANNING

Appendix B:
Correspondence with the Landmarks Preservation Commission

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 / 16DCP177K
Project: MYRTLE/SANFORD AVE REZONING
Date received: 7/18/2016

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 733 MYRTLE AVENUE, BBL: 3017360035
2) ADDRESS: 727 MYRTLE AVENUE, BBL: 3017360037
3) ADDRESS: 725A MYRTLE AVENUE, BBL: 3017360137
4) ADDRESS: 725 MYRTLE AVENUE, BBL: 3017360038
5) ADDRESS: 723 MYRTLE AVENUE, BBL: 3017360039
6) ADDRESS: 751 MYRTLE AVENUE,, BBL: 3017370035
7) ADDRESS: 739 MYRTLE AVENUE, BBL: 3017370041
8) ADDRESS: 735 MYRTLE AVENUE, BBL: 3017370042
9) ADDRESS: 139 WALWORTH STREET, BBL: 3017520018
10) ADDRESS: 728 MYRTLE AVENUE, BBL: 3017520021
11) ADDRESS: 740 MYRTLE AVENUE, BBL: 3017530021
12) ADDRESS: 740 MYRTLE LLC, BBL: 3017530022
13) ADDRESS: 752 MYRTLE AVENUE, BBL: 3017530028
14) ADDRESS: 754 MYRTLE AVENUE, BBL: 3017530030

Gina Santucci 7/18/2016

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31307_FSO_GS_07182016.doc

Appendix C:
Phase 1 ESA

PHASE I ENVIRONMENTAL ASSESSMENT



723, 727, 729, 733 MYRTLE AVENUE

BROOKLYN, NY 11205

PREPARED FOR:

PHASE I ENVIRONMENTAL
SITE ASSESSMENT REPORT
723, 727, 729, 733 MYRTLE AVENUE
BROOKLYN, NY 11205
DATE ISSUED: APRIL 4, 2016

PREPARED BY:
SINGER ENVIRONMENTAL GROUP, LTD.
5318 NEW UTRECHT AVENUE
BROOKLYN, NY 11219

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Scope

Singer Environmental Group (SEG) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations set forth by SEG for the property located at 723, 727, 729, 733 Myrtle Avenue, Brooklyn, NY (the "Property").

The Phase I Environmental Site Assessment is designed to provide the Client with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with ASTM E 1527-13, *Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process*.

Site Description

The Property is situated on a rectangular shaped parcel of land comprised of 11,667 Sq. Ft. (total) The parcel of land is situated in a residential/commercial area of Brooklyn consisting of a vacant lot. This site is not located in an "IBZ" (Industrial Business Zone). This site is not an "E" (Environmental) Designated Site with the NYC Department of Planning. According to NYC Oasis information, this site is zoned M1-1. This property has a block 1736, Lots 35, 36, 37, 39. The subject property is a vacant lot used for truck parking and a trailer is located on site used as an office.

Site History

According to Sanborn History Maps, the subject property is depicted as stores from the 1900's to the 1950's, stores, dwellings in the 1960's, stores, public, residential, vacant in 1977, stores, residential, public, warehouse, vacant from 1979 to 1980, vacant from 1984 to 1989, parking in 1996. No Dry Cleaners is depicted on the Sanborn History Maps. According to Property Shark Phone Records Penske Truck Rental and PSTP Inc. were located at 723 Myrtle Avenue in 2010 and PSTP Inc. was located at 727 Myrtle Avenue in 2015. A City Directory Abstract search was conducted to determine the historical tenants. None of the tenants listed would be considered a historical recognized environmental condition (HREC).

History of Surrounding Areas

According to Sanborn History Maps, the property located to the north is depicted as dwellings in the 1900's, unclear writing in the 1910's, auto repairing in the 1930's, waste paper from the 1940's to the 1950's, flat (manufacturing) from the 1960's to the 1990's, the property located to the west is depicted as stores from the 1900's to the 1970's, commercial from the 1980's to the 1990's, the property located to the east is depicted as stores from the 1900's to the 1990's. The property located to the south is not depicted on the Sanborn History Maps.

Asbestos Containing Material (ACM), Lead Based Paint (LBP), Mold

SEG did not conduct an ACM, LBP or mold survey as part of this assessment due to the fact that there is no building on the lot.

Heating System, Above/Underground Storage Tanks

No aboveground storage tank, indications of an underground storage tank, vent or fill was noted. No gasoline tanks were depicted on the Sanborn History Maps.

A fuel oil application was filed in 1906 at 729 Myrtle Avenue (Lot 36). Any tank associated with the fuel oil application would have most likely been removed upon demolition of the former structure. **No further action is recommended.**

Polychlorinated Biphenyls (PCBs)

SEG did not observe any PCB's during this inspection.

Site Observations

Lot - Asphalt & Gravel Covering. Natural easterly flow. Old car storage, minor dumping, rocks, (2) 5 gallon buckets of gear oil. No vegetation or trees, no ponding, no staining.

STATE AND FEDERAL DATABASE SUMMARY TABLE			
Regulatory Database	**Approximate Minimum Search Distance**	**Subject Property Listed**	**Off-site Listings within search distance**
Federal NPL (National Priority List) Sites	1.0 Mile	No	0
Federal Delisted NPL Sites	1.0 Mile	No	0
Federal CERCLIS Sites	0.5 Mile	No	2
Federal CERCLIS NFRAP Sites	0.5 Mile	No	0
Federal RCRA CORRACTS Sites	1.0 Mile	No	2
Federal RCRA Non-CORRACTS TSD Sites	0.5 Mile	No	0
Federal RCRA Generators Sites	.250 Mile	No	16
State NY SHWS (State Hazardous Waste) Sites	1.0 Mile	No	1
State Solid Waste Facility/Landfill	0.5 Mile	No	0
NY LTANKS (Leaking Underground Storage Tanks)	0.5 Mile	No	37
NY Underground Storage Tanks	.250 Mile	No	16
NY Spills	.125 Mile	No	13
NY Vapor Reopened	1.0 Mile	No	0

ASSESSMENT SUMMARY TABLE			
Assessment Component	**Section(S)**	**Recommended Actions**	**Estimated Cost**
Historical Review	3.0	**No Further Action**	N/A
Current Occupants/Operations	2.2	No Further Action	N/A
Hazardous Substances/Petroleum Products	5.3.1	No Further Action	N/A
Drains, Sumps & Storm Water Dry Wells	5.3.5	No Further Action	N/A
Storage Tanks	5.3.6	**No Further Action**	N/A
PCB's	5.3.3	No Further Action	N/A
Regulatory Agency/Database Review	7.0	No Further Action	N/A
Asbestos Containing Materials	5.3.10	Not Surveyed	N/A
Lead-Based Paint	5.3.12	Not Surveyed	N/A
Lead In Drinking Water	5.3.8	No Further Action	N/A
Radon	5.3.11	No Further Action	N/A
Mold	5.3.13	Not Surveyed	N/A
Wetlands	4.4	No Further Action	N/A

CONCLUSIONS AND RECOMMENDATIONS

SEG has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of 723, 727, 729, 733 Myrtle Avenue, BROOKLYN, NY, the Property. Any exceptions to or deletions from this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

- A fuel oil application was filed in 1906 at 729 Myrtle Avenue (Lot 36). Any tank associated with the fuel oil application would have most likely been removed upon demolition of the former structure. **No further action is recommended.**

- According to Sanborn History Maps, an auto repair was located to the north of the subject property in 1935. **No further action is recommended regarding the former auto repair due to the fact that (1) it has not occupied the premises in at least 70 years and (2) it slopes topographically downgradient ("Away") from the subject property.**

1.0 INTRODUCTION

Singer Environmental Group (SEG) was retained to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 723, 727, 729, 733 Myrtle Avenue, BROOKLYN, NY 11205 (the Property). The protocol used for this assessment is in general conformance with ASTM E 1527-13, *Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process*.

On March 16, 2016, Shemon Singer, a representative of SEG, conducted a site reconnaissance to assess the possible presence of petroleum products and hazardous materials at the Property. SEG's investigation included review of reconnaissance of adjacent properties, background research, and review of available local, state, and federal regulatory records regarding the presence of petroleum products and/or hazardous materials at the Property.

SEG contracted Environmental Data Resources (EDR) of Southport, Connecticut to perform a computer database search for local, state, and Federal regulatory records pertaining to environmental concerns for the Property and properties in the vicinity of the Property (see Section 7.0).

1.1 PURPOSE

The purposes of this Phase I Environmental Site Assessment ("ESA") are: To identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E-1527-13) in connection with the Property. SEG understands that the findings of this study will be used by the Client to evaluate a pending financial transaction in connection with the Property.

1.2 SCOPE OF SERVICES

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E 1527-13. SEG warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an Environmental Site Assessment of a property for the purpose of identifying recognized environmental conditions.

No other warranties are implied or expressed.

1.3 ASSUMPTIONS

There is a possibility that even with the proper application of these methodologies there may exist on the Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. SEG believes that the information obtained from the record review and the interviews concerning the site is reliable. However, SEG cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the Client with information relating to the Property.

1.4 LIMITATIONS AND EXCEPTIONS

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM 1527-13.

1.5 USER PROVIDED INFORMATION

Pursuant to ASTM E 1527-2013, the following site information was requested from the Client (User of this report), by SEG.

Item	Provided by User	Not Provided by user	Discussed Below	Does Not Apply
2.1.1 Environmental Pre-Survey Questionnaire		X		
2.1.2 Title Records		X		
2.1.3 Environmental Liens or Activity and Use Limitation		X		
2.1.4 Specialized Knowledge		X		
2.1.5 Valuation Reduction for Environmental Issues		X		
2.1.6 Identification of Key Site Manager		X		
2.1.7 Reason For Performing Phase I	Yes, See Section 1.1			
2.1.8 Prior Environmental Reports		X		
2.1.9 Other		X		

1.6 INTERVIEWS

No one was available on site for an interview.

Regulatory Officials

A FOIL Request was submitted to the NYS Department of Environmental Conservation (NYS DEC), NYC Department of Health (DOH) and the NYC Department of Environmental Protection (DEP)

1.7 SPECIAL TERMS AND CONDITIONS

The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the client. No subsurface exploratory drilling or sampling was done under the scope of this work. Unless specifically stated otherwise in the report, no chemical analyses have been performed during the course of this ESA.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

SEG, their principals and employees are indemnified for any future changes or conditions of deterioration in or on the subject property. Inasmuch as each has made not guarantees of the premises, expressed or implied in connection with this report, any liability which each may have shall be limited to the fee for the inspection of the property.

1.8 USE RELIANCE

SEG, in evaluating a request for an extension of credit (the "Mortgage Loan") to be secured by the property may rely upon this report. This information also may be used by any actual or prospective purchaser, transferee, assignee, or servicer of the Mortgage Loan, any actual or prospective investor (including agent or advisor) in any securities evidencing a beneficial interest in or backed by the Mortgage Loan, any rating agency actually or prospectively rating any such securities, any indenture trustee, and any institutional provider(s) from time to time of any liquidity facility or credit support for such financing. In addition, this report or a reference to this report, may be included or quoted in any offering circular, registration statement, or prospectus in connection with a securitization or transaction involving the Mortgage Loan and/or such securities. This report has no other purpose and should not be relied upon by any other person or entity.

2.0 SITE DESCRIPTION

2.1 PROPERTY LOCATION AND JURISDICTION

The address of the Property is 723, 727, 729, 733 Myrtle Avenue, BROOKLYN, NY. The Property is located in a residential/commercial area of BROOKLYN. According to the NYC Department of Buildings, the block and lot numbers are 1736, 35, 36, 37, 39 The legal description is reproduced below:

According to the NYC Department of Buildings (DOB), this property is known as 723, 727, 729, 733 Myrtle Avenue with a block and lot of 1736, 35, 36, 37, 39. According to NYC Oasis Information, the zoning is M1-1. NYC Oasis records a lot area of 11,667 sq. ft. (total). This property is located on the corners of Myrtle Avenue and Sandford Street.

2.2 PROPERTY DESCRIPTION AND IMPROVEMENTS

The Property consists of a rectangular shaped parcel 11,667 ft. in size. The Property is a vacant lot used for truck parking and a trailer is located on site used as an office. This site is not located in an IBZ (Industrial Business Zone). This site is not an "E" Designated site with the NYC Department of City Planning. The subject property is a vacant lot.

3.0 HISTORICAL USE INFORMATION

3.1 SITE HISTORY

According to Sanborn History Maps, the subject property is depicted as stores from the 1900's to the 1950's, stores, dwellings in the 1960's, stores, public, residential, vacant in 1977, stores, residential, public, warehouse, vacant from 1979 to 1980, vacant from 1984 to 1989, parking in 1996. No Dry Cleaners is depicted on the Sanborn History Maps. According to Property Shark Phone Records Penske Truck Rental and PSTP Inc. were located at 723 Myrtle Avenue in 2010 and PSTP Inc. was located at 727 Myrtle Avenue in 2015. A City Directory Abstract search was conducted to determine the historical tenants. None of the tenants listed would be considered a historical recognized environmental condition (HREC).

4.0 ENVIRONMENTAL SETTING

4.1 TOPOGRAPHY

The United States Geological Survey (USGS), Brooklyn Quadrangle 7.5-Minute series topographic map was reviewed for this ESA. This map was published by the USGS in 1966 and was photorevised in 1995. A review of the USGS 7.5 Minute Topography map was conducted. Based on the topographical gradients, the groundwater flow is assumed to be in a easterly direction.

4.2 SOILS

Soil types in the area are generally loamy sand, silt loam, sandy loam and fine sandy loam.

4.3 GEOLOGY

There are no predominant geological surface features on the subject property. The elevation of the property is 28 feet above sea level.

4.4 HYDROLOGY

The nearest surface water in the vicinity of the Property is the Navy Yard Basin. No settling ponds, lagoons, surface impoundments, wetlands or natural catchbasins were observed at the Property during this investigation.

4.5 FLOOD ZONE INFORMATION

Flood zone information and flood insurance should be addressed in the title report.

4.6 OIL AND GAS EXPLORATION

The on-site reconnaissance addressed oil and gas exploration at the Property. According to the NYS Department of Conservation, Division of Oil, Gas no operating or abandoned oil or gas wells are on or adjacent to the Property.

5.0 SITE RECONNAISSANCE

5.1 METHODOLOGY AND LIMITING CONDITIONS

The Property was inspected by Mr. Singer on March 16, 2016. The weather at the time of the site visit was mostly sunny, 76 degrees. SEG accessed the vacant lot.

5.2 GENERAL SITE CHARACTERISTICS

5.2.1 SOLID WASTE DISPOSAL

No solid waste is generated at this site.

5.2.2 SURFACE WATER DRAINAGE

There are no surface water bodies or streams on the subject property.

5.2.3 WELLS AND CISTERNS

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

5.2.4 WASTEWATER

No indications of industrial wastewater disposal or treatment facilities were observed during the onsite reconnaissance.

5.2.5 ADDITIONAL SITE OBSERVATIONS

Lot - Asphalt & Gravel Covering. Natural easterly flow. Old car storage, minor dumping, rocks, (2) 5 gallon buckets of gear oil. No vegetation or trees, no ponding, no staining.

5.3 POTENTIAL ENVIRONMENTAL CONDITIONS

5.3.1 HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS USED OR STORED AT THE SITE

No evidence of the use of hazardous materials or wastes was observed on the Property.

5.3.1.1 UNLABELED CONTAINERS AND DRUMS

No unlabeled containers or drums were observed during the Site reconnaissance.

5.3.1.2 DISPOSAL LOCATIONS OF REGULATED/ HAZARDOUS WASTE

No obvious indications of hazardous waste generator, storage or disposal were observed on the property or were indicated during interview.

5.3.2 EVIDENCE OF RELEASES

No obvious indications of hazardous material or petroleum product releases, such as stained areas or stressed vegetation, was observed during the site reconnaissance or reported during interviews.

5.3.3 POLYCHLORINATED BIPHENYLS (PCBS)

An inspection was conducted at the subject property and in the immediate vicinity for the presence of any underground, surface or suspended transformers and visible power supply sources. Oil-containing transformers are known to frequently contain PCBs (Polychlorinated biphenyl's). PCBs are contained in older transformers and other electrical equipment and have the potential for serious health risks. The level of PCB content in such transformers and electrical equipment is regulated by the U.S. Environmental Protection Agency, Regulations 40 CFR Part 761. Upon visual inspection, SEG did not observe any transformers during this inspection.

Older transformers and other electrical equipment could contain polychlorinated biphenyls (PCBs) at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified:

- Less than 50 parts per million (PPM) of PCBs – "*Non-PCB" transformer*
- 50 ppm-500 ppm – "*PCB-Contaminated" electrical equipment*
- Greater than 500 ppm – "*PCB" transformer*

SEG did not observe any transformers during this inspection.

5.3.4 LANDFILLS

No evidence of on-site landfilling was observed or reported during the site reconnaissance.

5.3.5 PITS, PONDS, LAGOONS, SUMPS, AND CATCH BASINS

No evidence of on-site pits, ponds or lagoons was observed or reported during the site reconnaissance. No evidence of sumps or catch basins, other than used for storm water removal, was observed or reported during the site reconnaissance.

5.3.6 ON-SITE ASTS AND USTS

No aboveground storage tank, indications of an underground storage tank, vent or fill was noted. No gasoline tanks were depicted on the Sanborn History Maps.

A fuel oil application was filed in 1906 at 729 Myrtle Avenue (Lot 36). Any tank associated with the fuel oil application would have most likely been removed upon demolition of the former structure. **No further action is recommended.**

5.3.7 RADIOLOGICAL HAZARDS

No radiological substances or equipment was observed or reported stored on the Property.

5.3.8 LEAD IN DRINKING WATER

Drinking water is not currently utilized at the site.

5.3.9 ASBESTOS-CONTAINING MATERIALS (ACM)

As part of the asbestos section of this survey, an inspection of all the aforementioned areas were conducted: Construction materials on the exterior and interior of the building were also inspected for possible asbestos content.
Within each of these rooms/areas/facilities, piping insulation (e.g. on hot and cold water supply piping), if any, was checked at exposed locations for possible asbestos content.

ACM was not surveyed for this report due to the fact that there is no building on the lot.

5.3.4 RADON

The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures. This property is located in Zone 3.

Review of the EPA Map of Radon Zones places the Property in Zone 3, where average predicted radon levels are less than 2.0 pCi/L below the EPA Action limit of 4.0 pCi/L.

5.3.11 LEAD-BASED PAINT

Based on the Scope of Services, LBP was not evaluated for this assessment.

Paint samples were **NOT** taken for lead content. However, in older buildings it is likely that lead based paint was used within the multi-layered painted surfaces. (Lead based paint was banned in 1978). Lead paint can be hazardous if digested, especially by small children.
Lead was not surveyed for this report due to the fact that there is no building on the lot.

5.3.12 MOLD

On October 29, 1993, the New York City Department of Health (DOH), the New York City Human Resources Administration (HRA), and the Mt. Sinai Occupational Health Clinic convened an expert panel on *Stachybotrys atra* in Indoor Environments. The purpose of the panel was to develop policies for medical and environmental evaluation and intervention to address Stachybotrys atra (now known as Stachybotrys Chartarum (SC)) contamination. the original guidelines were developed because of mold growth problems in several New York City buildings in the early 1990's. This documents revises and expands the original guidelines to include all fungi (mold).

Currently there are no United States Federal, New York State, or New York City regulations for evaluating potential health effects of fungal contamination and remediation. These guidelines are subject to change as more information regarding fungal contaminants becomes available.

Mold was not surveyed for this report due to the fact that there is no building on the lot.

5.3.13 VAPOR ENCROACHMENT/VAPOR INTRUSION

A Vapor Encroachment Condition (VEC) is defined by ASTM E2600-10 as the presence or likely presence of contaminant of concern (COC) vapors in the subsurface of the Target Property (TP) caused by the release of vapors from the contaminated soil or groundwater or both either or near the TP. Vapor Intrusion (VI) occurs when contaminated of concern (COC) vapors enter a structure from subsurface and impact the indoor air quality (IAQ) of a building. At high enough concentrations, vapor intrusion may present a health risk to the building's occupants. SEG conducted a review of historical resources and regulatory database listings to identify any potential sources of contaminations at the subject site that may result in Vapor Encroachment or Vapor Intrusion. In addition, SEG has reviewed available information for surrounding properties within the appropriate search distances to identify potential sources of VEC/VIC at the subject site.

This is not intended to meet the criteria of a Vapor Encroachment Screen (VES) as outlined by ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transaction. This is beyond the scope of a Phase I ESA.

FINDINGS:

The NYS DEC maintains a list of sites that have the potential for vapor intrusion and are being re-evaluated.

The Subject Property is not included on the Vapor Reopened listing. No Vapor Reopened facilities are located within one mile of the Property.

Based on the EDR Vapor Reopended database, site reconnaissance and historical review, the potential of Vapor Encroachment/Vapor Intrusion (VE/VI) is low.

6.0 CURRENT/HISTORICAL USE OF ADJOINING PROPERTIES

During the vicinity reconnaissance, SEG observed the following land use on properties in the immediate vicinity of the Property.

6.1 CURRENT USE

Current Use	
North	Areas immediately adjacent to the north of the property included the following: Residential
South	Areas immediately adjacent to the south of the property included the following: Commercial
West	Areas immediately adjacent to the west of the property included the following: Residential/Stores
East	Areas immediately adjacent to the east of the property included the following: Residential/Stores

6.2 HISTORICAL USE

Historical Use	
North	According to Sanborn History Maps, the property located to the north is depicted as dwellings in the 1900's, unclear writing in the 1910's, auto repairing in the 1930's, waste paper from the 1940's to the 1950's, flat (manufacturing) from the 1960's to the 1990's.
South	The property located to the south is not depicted on the Sanborn History Maps.
West	According to Sanborn History Maps, the property located to the west is depicted as stores from the 1900's to the 1970's, commercial from the 1980's to the 1990's.
East	According to Sanborn History Maps, the property located to the east is depicted as stores from the 1900's to the 1990's.

7.0 RECORDS REVIEW

7.1 STANDARD ENVIRONMENTAL RECORD SOURCES

7.1.1 STATE AND FEDERAL REGULATORY REVIEW

Information from standard Federal and state environmental record sources was provided through Environmental Data Resources (EDR). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. This integrated database also contains postal service data in order to enhance address matching. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geocoded locations is approximately +/-300 feet.

In some cases, location information supplied by the database provider is insufficient to allow geocoded facility locations. These facilities are listed under the unmappables section within the EDR report. A review of the unmappable facilities indicated that none of these facilities are within the ASTM minimum search distance from the Property.

Regulatory information from the following database sources regarding possible recognized environmental conditions, within the ASTM minimum search distance from the Property, was reviewed. Specific facilities are discussed below if determined likely that a potential recognized environmental condition has resulted at the Property from the listed facilities. Please refer to Appendix C-1 for a complete listing.

Federal NPL

The National Priorities List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

No NPL sites are located within one mile of the Property.

Federal CERCLIS List

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

2 CERCLIS sites are listed within one-half mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

Federal CERCLIS NFRAP Sites List

The CERCLIS No Further Remedial Action Planned (NFRAP) List is a compilation of to human health or the environment, under the CERCLA framework.

No CERCLIS NFRAP sites are listed within ½ mile of the Property.

Federal Resource Conservation and Recovery Act (RCRA) CORRACTS TSD Facilities List

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Treatment, Storage and Disposal (TSD) database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste. The CORRACTS database is the EPA's list of treatment storage or disposal facilities subject to corrective action under RCRA.

2 RCRA CORRACTS TSD facilities are listed within one mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

Federal Resource Conservation and Recovery Act (RCRA) Non-CORRACTS TSD Facilities List

The RCRA TSD database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste.

No RCRA TSD sites are listed within one-half mile of the Property.

Federal RCRA Generator List

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

15 Lg. and 1 Sm. RCRA Generator facilities are listed within ¼ mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information or reported release of oil or hazardous substances.

No ERNS sites were listed on the Property or on the adjacent properties.

State Priority List

The database maintains a State Priority List (SPL) of sites considered to be actually or potentially contaminated and presenting a possible threat to human health and the environment.

No SPL sites are listed within one mile of the Property.

State CERCLIS-Equivalent List

The database maintains a State CERCLIS-equivalent list (SCL) of sites under investigation that could be actually or potentially contaminated and presenting a possible threat to human health and the environment.

No SCL sites are listed within one-half mile of the Property.

Solid Waste/Landfill Facilities (SWLF)

A database of SWLF is listed.

No SWLF facilities are listed within one-half mile of the Property.

State Leaking Underground Storage Tank List (LUST)

37 LUST sites are listed within one-half mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

State Underground Storage Tank List (UST)

The NYS DEC compiles lists of all underground storage tanks located ¼ mile of the subject property.

16 UST sites are listed within one-quarter mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

NY Spills Database

The NYS DEC compiles lists of all spills reported ¼ mile of the subject property.

13 sites are listed within one-quarter mile of the Property.

- Based upon the review of available information, the above listed facilities are not anticipated to directly impact the Property and no further investigation is warranted.

NY Vapor Reopended

The NYS DEC maintains a list of sites that have the potential for vapor intrusion and are being re-evaluated.

Based on the EDR Vapor Reopended database, site reconnaissance and historical review, the potential of Vapor Encroachment/Vapor Intrusion (VE/VI) is low.

7.1.2 LOCAL REGULATORY REVIEW

7.1.2.1 BUILDING DEPARTMENT

Electronic records from the city Building Department were reviewed for evidence indicating the developmental history of the Property, and for the presence of documentation relative to underground storage tanks.

7.1.2.2 OTHER AGENCIES

FOIL Requests were submitted to the NYS DEC, NYC DEP and NYC DOH, to date no response has been received, upon receipt of an pertinent information, an addendum will follow.

8.0 FINDINGS AND CONCLUSIONS

8.1 FINDINGS

8.1.1 ON-SITE ENVIRONMENTAL CONDITIONS

- A fuel oil application was filed in 1906 at 729 Myrtle Avenue (Lot 36).

8.1.2 OFF-SITE ENVIRONMENTAL CONDITIONS

- According to Sanborn History Maps, an auto repair was located to the north of the subject property in 1935.

8.1.3 PREVIOUSLY RESOLVED ENVIRONMENTAL CONDITIONS

No historical recognized environmental conditions were identified in connection with the Property during the course of this assessment.

8.1.4 *DE MINIMIS* ENVIRONMENTAL CONDITIONS

No *de minimis* environmental conditions were identified in connection with the Property during the course of this assessment.

8.2 CONCLUSIONS AND RECOMMENDATIONS

SEG has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-2013 of 723, 727, 729, 733 Myrtle Avenue, BROOKLYN, NY, the Property. Any exceptions to or deletions from this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

- A fuel oil application was filed in 1906 at 729 Myrtle Avenue (Lot 36). Any tank associated with the fuel oil application would have most likely been removed upon demolition of the former structure. **No further action is recommended.**

- According to Sanborn History Maps, an auto repair was located to the north of the subject property in 1935. **No further action is recommended regarding the former auto repair due to the fact that (1) it has not occupied the premises in at least 70 years and (2) it slopes topographically downgradient ("Away") from the subject property.**

8.3 DEVIATIONS

This Phase 1 ESA substantially complies with the scope of services and ASTM 1527-13.

9.0 REFERENCES

Reports, Plans, and Other Documents Reviewed:

NYC Department of Buildings Property Profile Overview

NYC Department of Finance Assessment Roll

NYC Oasis Maps

Property Shark

Radon Map

USGS - 7.5 Minute Topographic Quadrangle of Central Park, New York-New Jersey, 1966, photorevised 1995.

Radius database report (723, 727, 729, 733 Myrtle Avenue, Inquiry #4568602.2s dated 3-18-16)

Radon Zone Map

Sanborn History Maps

Agencies Contacted via FOIL Requests:

NYS DEC

NYC DEP

NYS DOH

10.0 CERTIFICATION

Phase I Environmental Site Assessment
Conducted on

Address: **723, 727, 729, 733 Myrtle Avenue, Brooklyn, NY**

Prepared for

Client Name:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 312.4 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Shemon Singer

_____ _____

Environmental Professional **Signature**

Prepared By

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Appendix D:
New York City Department of Environmental Protection Correspondence

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of Sustainability

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August 9, 2016

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

Re: Myrtle Avenue/Sandford Avenue Rezoning
723-733 Myrtle Avenue
Block 1736, Lots 35, 37, 137, 38, and 39 (Proposed Development Site)
Block 1736, Lots 34, 35, 37, 137, 38, 39, 43, and 44; Block 1737, Lots 35, 40, 41, 42, and 45; Block 1752, Lots 18, 19, 20, and 21; and Block 1753, Lots 21, 22, 23, 24, 25, 26, 27, 28, and 30 (Rezoning Area)
CEQR # 16DCP177K
Brooklyn, New York

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the May 2016 Environmental Assessment Statement prepared by AECOM and the April 2016 Phase I Environmental Site Assessment Report (Phase I) prepared by Singer Environmental Group, LTD on behalf of JMS Realty Corporation (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment to rezone an area that includes 26 tax lots among four blocks from M1-1 and M1-2 zoning districts to an R7D/C2-4 zoning district and a zoning text map amendment to Zoning Resolution Appendix F to establish a Minimum Inclusionary Housing Area from the New York City Department of City Planning (DCP). The proposed action would facilitate development of the applicant's property consisting of Block 1736, Lots 35, 37, 38, 39, and 137 with an eight-story, mixed-use residential, commercial and community facility development containing approximately 77 dwelling units. The proposed development would include 14,640 square feet of retail space and 14,670 square feet of community facility space for a medical office. The rezoning area includes the Myrtle Avenue-fronting portions of blocks 1736, 1737, 1752 and 1753, which are bound by Walworth Street to the west and Nostrand Avenue to the east in the Bedford-Stuyvesant neighborhood of Brooklyn Community District 3.

Block 1736, Lots 35, 36, 37, and 39

The April 2016 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial

uses including dwellings, auto repair facilities, waste paper, manufacturing, stores, a machine shop, furniture storage, a beer depot, auto sales, a filling station, a loft, auto and truck parking, bus parking, Cocoline Chocolate Company Inc., etc. The New York State Department of Environmental Conservation (NYSDEC) Spills database identified 13 spills within a 1/8-mile of the subject property. The NYSDEC leaking storage tanks (LTANKS) database identified 37 LTANKS sites within a 1/2-mile of the subject property. In addition, there are 3 NYSDEC Voluntary Cleanup Program sites, 2 NYSDEC Brownfield sites, and 1 United States Environmental Protection Agency (EPA) Brownfields site within a 1/2-mile of the subject property.

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

Block 1736, Lots 35, 37, 137, 38, and 39 (Sites under the control or ownership of the applicant)

- DCP should inform the applicant that based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils of the subject parcels. A Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be submitted to DEP for review and approval prior to the start of any fieldwork. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil, groundwater, and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (filtered and unfiltered for groundwater samples). The soil vapor sampling should be conducted in accordance with the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. An Investigative Health and Safety Plan (HASP) should also be submitted to DEP for review and approval prior to the start of any fieldwork.

Block 1736, Lots 34, 43, and 44; Block 1737, Lots 35, 40, 41, 42, 45; Block 1752, Lots 18, 19, 20, and 21; and Block 1753, Lots 21, 22, 23, 24, 25, 26, 27, 28, and 30 (Sites not under the control or ownership of the applicant)

- Since these sites are not under the control or ownership of the applicant, DEP recommends that an "E" designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject properties. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR number **16DCP177K**. If you have any questions, you may contact Wei Yu at (718) 595-4358.

Sincerely,

Maurice S. Winter
Deputy Director, Site Assessment

c: E. Mahoney
M. Winter
W. Yu
T. Estesen
M. Wimbish
O. Abinader – DCP
S. Shellooe – DCP
M. Bertini – OER
File

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental and energy. With approximately 95,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments.