ENVIRONMENTAL ASSESSMENT FORM (EAF) & SUPPLEMENTAL ENVIRONMENTAL STUDIES

for the

Proposed PS at 160 Van Cortlandt Park South

Bronx, New York

May 26, 2022

Lead Agency:
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

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Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Proposed PS at 160 Van Cortlandt Park South, Bronx		
Project Location (describe, and attach a general location map): 160 Van Cortlandt Park South, Bronx, New York 10463 (Bronx County)		
Brief Description of Proposed Action (include purpose or need): On behalf of the New York City Department of Education (DOE), the New York City School Construction Authority (SCA) proposes to create a new, approximately 736-seat primary school (PS) facility at 160 Van Cortlandt Park South in the Kingsbridge section of the Bronx. Construction of the new PS facility has been proposed to provide additional public school capacity in Community School District (CSD) No. 10. The project site (portion of Lot 150 on Block 3271) is located within a R7-1 residential zoning district, where schools are permitted as-of-right. The proposed action would entail DOE acquisition of the western portion of Lot 150, which comprises approximately 21,810 square feet (sf) of paved parking area, for construction of a new PS facility. As contemplated, the proposed new school facility would be a five-story structure and would contain approximately 103,654 gross square feet (gsf). The proposed school's main entrance would be located on Review Place. An approximately 6,400 sf school play yard would be provided on the rooftop of the proposed school building. In addition, as part of the proposed project, an approximately 2,500 sf at-grade school play yard would occupy a permanent easement area adjacent to the project site. The new PS would provide approximately 736 seats for students in grade levels pre-kindergarten through five within CSD No. 10, and special education students enrolled in a District 75 program. It is expected that the new PS would open in September 2027.		
Name of Applicant/Sponsor: New York City School Construction Authority	Telephone: (718) 472-8000 E-Mail:	
Address: 30-30 Thomson Avenue		
City/PO: Long Island City	State: New York	Zip Code: 11101-3045
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): TS Communities Holdings, L.L.C.	Telephone: E-Mail:	
Address: 45 Rockefeller Plaza		
City/PO: New York	State: New York	Zip Code: 10111

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☐Yes ☑No		
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Acquisition of a portion of a privately-owned lot and construction costs will be funded by DOE's Five-Year Capital Plan (FY 2020-2024)	
e. County agencies ☐Yes ☑No		
f. Regional agencies ☐Yes ☑No		
g. State agencies ☐Yes ☑No		
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes ☐No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes ☑No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
R7-1 medium-density residential

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? 10

b. What police or other public protection forces serve the project site?
NYPD 50th Police Precinct

c. Which fire protection and emergency medical services serve the project site?
FDNY Engine Company 81, Ladder Company 46; EMS Station - Woodlawn Heights

d. What parks serve the project site?
Van Cortlandt Park (located approximately 70 ft to the north); Van Cortlandt's Tail (approximately 160 ft to the west); Gaelic Park (located approximately 600 ft to the northwest); Bailey Playground (located approximately 600 ft to the southeast)

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Institutional (primary school facility)

b. a. Total acreage of the site of the proposed action? 0.5 acres
b. Total acreage to be physically disturbed? 0.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 30-32 months (Active construction is anticipated to be less than 24 months)
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: 87' height; 100' width; and 231' length

iii. Approximate extent of building space to be heated or cooled: approx. 103,654 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment:

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑ Yes ☐ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Excavation for grading and building foundations

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): TBD
- Over what duration of time? up to 6 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

Excavated soil

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No
If yes, describe.

v. What is the total area to be dredged or excavated? TBD acres

vi. What is the maximum area to be worked at any one time? TBD acres

vii. What would be the maximum depth of excavation or dredging? TBD feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan:

TBD

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: 25,941 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No

If Yes:

- Name of district or service area: Community District 8 (Bronx)
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

N/A

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: N/A gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: 8,320 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

Sanitary wastewater

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: Wards Island Wastewater Treatment Plant (WWTP)
- Name of district: Community District 8 (Bronx)
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

N/A

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

N/A

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐ Yes ☑ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Power generators and other diesel powered construction equipment

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) Heating and hot water systems would use natural gas. Based on the detailed HVAC analysis per CEQR, it is unlikely that the proposed school building's heating and hot water systems would result in any impact to the surrounding neighborhood.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No N/A

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 AM - 3:30 PM
- Saturday: 7 AM - 3:30 PM *
- Sunday: N/A
- Holidays: N/A

ii. During Operations:

- Monday - Friday: 8 AM - 6 PM (including after-school activities)
- Saturday: N/A
- Sunday: N/A
- Holidays: N/A

* On some occasions, construction work on Saturday may be required to complete some time-sensitive tasks. The level of activity for any weekend work would be less than a normal workday.

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

The majority of construction activities would take place Monday through Friday, although certain activities could occur on weekend days. Hours of construction are regulated by the NYC Department of Buildings. Much of the proposed project's construction would occur within the project site.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

TBD

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No N/A

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No N/A

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

_____

_____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

_____

_____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

_____

_____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

_____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

_____

_____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☐ Commercial ☑ Residential (~~suburban~~) ☐ Rural (non-farm)

☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Institutional; Mixed Use; Open Space (Van Cortlandt Park)

ii. If mix of uses, generally describe:

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.5	0.5	0
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Our Children Group Family Daycare (213 W 238th St); Mabel Crucey Group Family Daycare (3801 Review Place); Riverdale Nursery School & Family Center (3816 Waldo Ave); Riverdale Nurturing Daycare (3800 Waldo Ave); Riverdale Wonderland Daycare (3600 Irwin Ave); Silver Spoons Daycare (3445 Corlear Ave); The Kid's Room Childcare (3410 Kingsbridge Ave); Itty Bitty Steps WeeCare (3605 Kingsbridge Ave)

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? approx. 2.5 - 25 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Urban Land 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: approx. 13.7 - 19.5 feet

e. Drainage status of project site soils:
☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: None

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Eligible property:Visitation B.V.M Church Parsonage, Eligible property:Visitation BVM Church, Eligible property:Visit...

iii. Brief description of attributes on which listing is based:

The Visitation of the Blessed Virgin Mary Church complex is a SR/NR-eligible resource (not listed) which was completed in 1953 and designed in a simplified modern style reflecting New Formalist-style aesthetics. The Complex includes three contributing buildings, the church, parsonage, and school, and one contributing structure, the bell tower; these eligible resources are located east of the project site. It is anticipated that, as part of a separate action, these eligible resources will be demolished and this portion of the block will be redeveloped with new residential development by 2026.

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Mosholu Parkway; Bronx River Parkway; Saw Mill Parkway; Pelham Parkway; Cross County Parkway; Hutchinson Parkway; Sprain Parkway

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): New York State Parkways

iii. Distance between project and resource: 0.6; 1.6; 1.6; 2.5; 3.8; 4.4; 4.7 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Sarah L. Butler Date May 26, 2022

Signature Sarah L. Butler Title Associate, STV Incorporated

PRINT FORM

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☑	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☑	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☑	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☑	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☑	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☑	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. ☑ NO ☐ YES
(See Part 1. D.2.f., D,2,h, D.2.g)
If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑ NO ☐ YES
If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☐ ☐	☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☐ ☐	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☑	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☑	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☑	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.)

☑ NO ☐ YES

If "Yes", answer questions a - e. If "No", go to Section 12.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☑	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☑	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☑	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☑	☐
e. Other impacts: A portion of the JOP would be withdrawn from Joint Operation and placed under DOE's jurisdiction, reducing the overall size of the JOP.		☑	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)

☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", go to Section 13.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____ _____		☐	☐

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☑	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☑	☐
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☑	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☑	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☑	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☑	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☑	☐
e. Other Impacts: _____ _____		☐	☐

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☑	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☑	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☑	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☑	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☑	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☑	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☑	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☑	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☑	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☑	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☑	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☑	☐
m. Other impacts: _____ _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [IfApplicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the New York City School Construction Authority as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Proposed PS at 160 Van Cortlandt Park South, Bronx

Name of Lead Agency: New York City School Construction Authority

Name of Responsible Officer in Lead Agency: Michael Cona

Title of Responsible Officer: Senior Project Manager, Real Estate Services

Signature of Responsible Officer in Lead Agency: Michael Cona Date: May 26, 2022

Signature of Preparer (if different from Responsible Officer) Sarah L. Butler Date: May 26, 2022

For Further Information:

Contact Person: Michael Cona

Address: 30-30 Thomson Avenue, Long Island City, New York 11101-3045

Telephone Number: (718) 472-8000

E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

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SUPPLEMENTAL ENVIRONMENTAL STUDIES

for the

Proposed PS at 160 Van Cortlandt Park South

Bronx, New York

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Proposed PS at 160 Van Cortlandt Park South
Bronx, New York

SUPPLEMENTAL ENVIRONMENTAL STUDIES

Executive Summary

Introduction

On behalf of the New York City Department of Education (DOE), the New York City School Construction Authority (SCA) proposes to create a new, approximately 736-seat primary school (PS) facility at 160 Van Cortlandt Park South in the Kingsbridge section of the Bronx. The proposed new school would serve students in grade levels pre-kindergarten through five within Community School District (CSD) No. 10, and special education students enrolled in a District 75 program.[1] In order to develop the new facility, the SCA would acquire a portion of Lot 150 on Block 3271 for the proposed school site.

The portion of Lot 150 comprising the project site is located at the western end of the block (Block 3271) bounded by Van Cortlandt Park South to the north, West 239th Street to the south, Putnam Avenue West to the east, and Review Place to the west. The project site is part of the existing, approximately 77,857 square foot (sf) former Visitation of the Blessed Virgin Mary Church complex ("the Complex"), which comprises the entire city block; the Complex has been determined eligible for inclusion in the State and National Registers of Historic Places by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The project site consists of a paved parking area that formerly served the Complex (currently vacant). The remainder of the block comprises three vacant buildings (a former church, a former parochial school, and a former parsonage) surrounded by unmaintained lawn and paved walkways and parking areas. The project site is approximately 0.5 acre (21,810 square feet) in area and is located within a R7-1 residential zoning district, where schools are permitted as-of-right.

The proposed action would entail the DOE's acquisition of the western portion of Lot 150, which comprises approximately 21,810 square feet (sf) of a paved parking area, for construction of an approximately 736-seat primary school facility. (As part of a separate action by others, the existing buildings on the remainder of the block will be demolished and that portion of the block will be redeveloped with new residential development by 2026.) As contemplated, the proposed new school facility would be a five-story structure and would contain approximately 103,654 gross square feet (gsf). The proposed school's main entrance would be located on Review Place. The new public school facility would provide approximately 736 seats for students in grade levels pre-kindergarten through five, and would include the following: classrooms for grade levels pre-kindergarten through five, CSD special education classrooms, District 75 (citywide special

[1] District 75 programs provide citywide special education services for students in need of intensive or specialized services.

education) classrooms, District 75 administrative office space, District 75 speech rooms, District 75 resource rooms, District 75 occupational therapy room, District 75 physical therapy room, District 75 multi-purpose room, reading resource room, speech resource room, art room, music room, science room, gymatorium, exercise room, library, guidance suite, medical suite, administration suite, students' dining area, staff lunch/conference room, kitchen, cafeteria, and storage. An approximately 6,400 sf school play yard would be provided on the rooftop of the proposed school building, facing Review Place and West 239th Street. In addition, as part of the proposed project, an approximately 2,500 sf at-grade school play yard would occupy a permanent easement area adjacent to the project site ("playground easement").[2]

Funding for site acquisition, design, and construction of the proposed school facility would be provided by the DOE's Proposed Five-Year Capital Plan for Fiscal Years 2020-2024. It is expected that the new PS would open in September 2027.

The new public school facility would serve primary school students within CSD No. 10 and special education (District 75) students.[3] It is estimated that approximately 96 teachers and staff would be employed at the new school facility.[4] Construction of the new approximately 736-seat PS has been proposed to provide additional public school capacity in CSD No. 10 in order to address existing overcrowding and forecast changes in student enrollments, and also to support the DOE's policies regarding class-size reduction and the expansion of pre-kindergarten classroom capacity in the City.

This report examines the environmental effects expected to result from the construction and operations of the new PS. The following summarizes the expected impacts and their significance.

Potential Effects of the Proposed Project

A. Land Use, Zoning and Public Policy

LAND USE

The proposed project involves the acquisition of a portion of Lot 150 on Block 3271, for construction of a new school facility. After the site is cleared for construction, the proposed school building, which would be a five-story structure, would be built on the project site. The new school would contain approximately 103,654 gross square feet (gsf), with its main entrance on Review Place. The project would provide an approximately 6,400 sf school play yard on the

[2] The permanent easement area for the proposed school play yard is located in the western portion of the interior courtyard within the future adjacent residential development located east of the proposed school building.

[3] The proposed school facility would serve 640 PS students and 96 District 75 students for a total of 736 students.

[4] Includes 64 staff for 640 PS students (based on a ratio of 10:1 – 10 students to one teacher) and 32 staff for 96 District 75 students (based on a ratio of 6:1:1 – six students to one special education teacher and one aid) for a total of 96 teachers and staff.

rooftop of the proposed school building and an approximately 2,500 sf at-grade school play yard within a permanent easement area adjacent to (and east of) the project site.

The proposed school would be consistent with surrounding uses in the study area, which are predominantly open space, residential, and mixed use buildings. The proposed project would replace a parking lot associated with a vacant, former community facility use (former church, parochial school, and parsonage) with a compatible community facility use (school facility) and introduce an active use that would be compatible with surrounding land uses. No significant adverse impacts to land use would result from the proposed PS.

ZONING AND PUBLIC POLICY

The proposed school facility would conform to the requirements of the R7-1 zoning district with respect to use, as schools (Use Group 3) are permitted as-of-right in residential districts. It is expected that the design of the proposed PS would be in compliance with existing zoning regulations.[5] As the proposed PS is permitted as-of-right and would comply with zoning regulations, no significant adverse impacts to zoning and public policy would occur.

The proposed project would be consistent with the 197-a plan applicable to the entire Bronx Community District (CD) 8.

B. Socioeconomic Conditions

The proposed school would be constructed on a site formerly used as parking for the Complex which is currently vacant. The proposed project would introduce approximately 736 primary school students and a total of approximately 96 teachers, administrators, and support staff to the project site. The proposed PS would not result in the displacement of any residents or businesses, as the site is currently unoccupied. Additional jobs for teachers and support staff would be created as a result of the new school.

Although the proposed project would result in new construction, the construction activities generally would be contained within the site. In addition, the construction of the new school building would be a localized activity of limited duration, without the potential to affect a larger area or the conditions of any specific industry. Significant adverse impacts to socioeconomic conditions from the proposed project would not result.

C. Community Facilities and Services

The proposed action would create a new public school facility on a site currently comprised of a paved parking area (former parking for a vacant institutional use). The proposed PS would serve approximately 736 students in grades pre-kindergarten through five within CSD No. 10, and special education students enrolled in a District 75 program. The proposed project would not

[5] Zoning analysis provided by SCA, March 2021

introduce new residents to the area, therefore creating little new demand for community facilities and services.

Further, the proposed new school facility would provide an additional community resource for area residents and expand the public school capacity in CSD No. 10; however, the new PS would not change the service area of this school district. No significant adverse impacts to community facilities and services would occur as a result of the proposed project.

D. Open Space

The construction of a new school facility on the project site would not have any direct or indirect impacts on open space. The need for physical education at the school would be met within the project site itself with the provision of a gymatorium within the proposed school building, an approximately 6,400 sf play yard on the rooftop of the proposed five-story school building (facing Review Place and West 239th Street), and an approximately 2,500 sf at-grade school play yard within a permanent easement area adjacent to (and east of) the project site. Therefore, the open space needs of the students and staff associated with the proposed PS would be met on site, and the new school would not result in any significant adverse impacts to open space resources.

E. Shadows

Based on preliminary designs, the proposed project would result in a new five-story school building. The proposed school building would be over 50 feet in height, and so a screening for shadow impacts was performed.

With an estimated height of approximately 87 feet (including the bulkhead), the proposed school's maximum shadow would extend approximately 375 feet. Following both Tier 1 and Tier 2 screenings for shadows, performed in the manner prescribed by the *CEQR Technical Manual*, it was determined that three potentially sunlight-sensitive resources are located within 375 feet of the proposed school building: publicly-accessible Van Cortlandt Park, Van Cortlandt's Tail, and Twin Oaks Triangle. Shadows from the proposed school could extend over the southwestern corner of Van Cortlandt Park and the entirety of Van Cortlandt's Tail and Twin Oaks Triangle. However, shadows from the residential development that will be built east of the project site by 2026 will extend over much of the same area before the school would be constructed. Therefore, a detailed analysis was performed to assess the incremental shadow that would be attributable only to the proposed school building, specifically, and to allow for a clearer understanding of seasons and time of day that shadowing would be present on potentially sunlight-sensitive resources.

Incremental shadow from the proposed PS would be expected to fall on Van Cortlandt Park on the December 21st and March 21st analysis dates, on Van Cortlandt's Tail on the March 21st and May 6th analysis dates, and on Twin Oaks Triangle on the December 21st analysis date. However, Van Cortlandt Park (including its landscaped areas, playgrounds, Multi-Purpose Paved Area, athletic fields, Old Putnam Trail, and pedestrian walkways), Van Cortlandt's Tail, and Twin Oaks Triangle would not experience any significant adverse impacts related to shadows. Therefore, the proposed PS would not result in any significant adverse impact related to shadows.

F. Historic and Cultural Resources

ARCHAEOLOGICAL RESOURCES

A Preliminary Assessment/Disturbance Record study was completed for the proposed project site in May 2022 to address the archaeological sensitivity of the project site.

It was determined that no further research and study of archaeological resources is warranted, based on a low sensitivity for both precontact and historical period archaeological resources, coupled with significant disturbance to the original ground surface on the project site. Construction of the proposed new school facility on the project site would not result in significant adverse impacts to archaeological resources.

HISTORICAL RESOURCES

Although the project site is part of the SR/NR-eligible Visitation of the Blessed Virgin Mary Church complex, the project site does not contain historic resources and is not located within close proximity to any historic landmark. Therefore, no impacts to historic resources would result from construction of the proposed PS.

G. Urban Design and Visual Resources

The proposed development of the project site as a new school would improve the urban design of the study area and visual quality of the surrounding streetscapes and would not adversely affect any of the study area's visual resources. Therefore, the proposed PS would have a positive effect with regard to the proposed design for the project site; no significant adverse impact to urban design and visual quality would result with the proposed project.

H. Natural Resources

There are no known natural resources (e.g., terrestrial ecological features, wetlands, water bodies, streams, or special flood hazard area) on or adjacent to the project site, and none would be affected by the proposed project. The site is part of a well-developed urban context. Therefore, terrestrial resources, aquatic resources, and flooding do not represent environmental concerns for the project site.

None of the CEQR criteria for detailed natural resources analyses are met; significant adverse impacts to natural resources would not result.

I. Hazardous Materials

A Phase I Environmental Site Assessment (ESA), a Site Inspection and Regulatory Agency Database Review (SIDBR), and a Phase II Environmental Site Investigation (ESI) were completed for the proposed project site. The Phase I ESA was completed in August 2017 and the SIDBR and Phase II ESI were completed in August 2021 and September 2021, respectively.

The Phase I ESA identified on-site recognized environmental conditions (RECs) associated with historic fill of unknown origin, potential presence of buried structures, Petroleum Bulk Storage (PBS) on the site including an active 10,000-gallon aboveground storage tank (AST) in a subterranean vault, an active 275-gallon AST, a removed 500-gallon underground storage tank (UST) with impacts to soil, and the potential for additional buried tank(s). Off-site RECs included: current and historical automobile repair facilities, gasoline service stations, PBS facilities, MTA-NYCT maintenance facilities, and dry cleaners; and regulatory database listings in the vicinity of the site for hazardous waste generators, spill incidents, petroleum bulk storage facilities, registered/historic cleaners, and historic auto sites. Environmental concerns were associated with the potential presence of mold, asbestos-containing material (ACM), lead-based paint (LBP), and/or polychlorinated biphenyl (PCB)-containing materials, and potential emissions from an active nearby dry cleaner.

The SIDBR identified RECs associated with the presence of on-site groundwater monitoring wells, stained areas of pavement, and historical dumping of debris and garbage on-site. Off-site RECs included: current and historical automobile repair facilities, gasoline service stations, PBS facilities, and dry cleaners; and regulatory database listings in the vicinity of the site for aerometric information retrieval system, voluntary cleanup program, hazardous waste generators, spill incidents, petroleum bulk storage facilities, registered/historic cleaners, and historic auto sites. Environmental concerns associated with the potential presence of mold, ACM, LBP, and/or PCB-containing materials or debris resulting from exiting on-site structure or buried structure and historic fill material and regulatory compliance issue related to AST registration.

Based on the findings of the Phase I ESA and SIDBR, a Phase II ESI was conducted at the site that included a geophysical survey and collection and laboratory analysis of soil, groundwater, and soil vapor samples.

The results of the due diligence process indicated the detection of several volatile organic compounds (VOCs) in soil vapor at concentrations above the New York State Department of Health (NYSDOH) comparison criteria, which are attributed to off-site sources. Several semi-volatile organic compounds (SVOCs) and metals were detected at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives; the presence of these compounds is attributed to historic fill. VOCs, SVOCs and metals were detected in groundwater samples at concentrations exceeding their respective NYSDEC Ambient Water Quality Standards and Guidance Values; the presence of VOCs is attributed to off-site sources and the presence of SVOCs and metals is attributed to historic fill.

The 10,000-gallon AST at the site would be excavated and removed in accordance with all federal, state, and local requirements. For the site to be suitable for construction of a public school facility, a soil vapor barrier and a sub-slab depressurization system (SSDS) would be incorporated into the new building design. Material excavated from the site would be characterized to identify material handling, reuse, and/or disposal requirements, and two feet of environmentally clean fill would be placed over all landscaped areas. Any dewatering required during construction would be performed in accordance with applicable local, state, and federal regulations and minimized to mitigate potential influx of contaminated water from off-site sources toward the site. Suspect ACM, LBP, mold and PCB-containing materials affected by site development would be properly managed. In addition, to minimize any potential for exposure by construction

workers and the surrounding public, standard industry practices, including appropriate health and safety measures, will be utilized. With the implementation of these measures, there would be no significant potential for significant effects related to hazardous materials.

J. Water and Sewer Infrastructure

The project site is located within the Wards Island Wastewater Treatment Plant (WWTP) drainage area, which serves portions of the Bronx and Manhattan. This WWTP is permitted to treat 275 million gallons per day (mgd).

The proposed school would include approximately 736 seats and 96 faculty and staff and, thus, daily water usage would be approximately 7,360 gallons per day (gpd) for students and 960 gpd for staff, for a total of 8,320 gpd. The proposed school building would contain approximately 103,654 gsf and, thus, would consume an additional 17,621 gpd for air conditioning, for a total of 25,941 gpd during the cooling season. No significant adverse impacts to water supply would result.

K. Solid Waste and Sanitation Services

The new school facility, with a total of approximately 736 students and 96 faculty and staff, would generate approximately 3,456 pounds of solid waste per week, or 14,811 pounds per month. The New York City Department of Sanitation (DSNY) is responsible for collecting and disposing of solid waste from residences and public facilities, including schools. The typical DSNY collection truck for commercial carters typically carries between twelve and fifteen tons of waste material per truck. Therefore, with 3,456 pounds of solid waste per week, or 14,811 pounds per month, to be generated by occupants of the proposed school facility, there would be no significant adverse impact anticipated with solid waste collection and disposal.

L. Energy

It is expected that the new school building would be substantially more energy efficient than the adjacent buildings in the neighborhood. The proposed project would comply with the New York State Energy Conservation Construction Code. The proposed project would also incorporate energy conservation measures.

The proposed project would be designed following the NYC Green Schools Rating System (guidelines specific to the design, construction and operation of New York City public school buildings) and be in compliance with site-related credits to achieve a LEED-certified or higher rating.

The estimated annual usage of energy for the proposed approximately 103,654 gsf school facility would be approximately 26 billion British Thermal Units (BTUs), or 19.5 billion BTUs for the nine-month academic year. It is expected that no significant adverse impacts would occur with the capacity of both Con Edison and National Grid to provide service to the project site and surrounding area.

M. Transportation

With the proposed project, no significant adverse transit and parking impacts would be expected; however, traffic and pedestrian impacts are anticipated. Mitigation measures are recommended to avoid the potential impacts and restore No Build conditions.

Traffic. There are potential significant traffic impacts at three of the study area intersections, as a result of the proposed school. The impacts at West 240th Street/Van Cortlandt Park South at Broadway can be fully mitigated with signal timing adjustments and parking regulation changes on the eastbound approach to provide two travel lanes. The impacts at Broadway and West 238th Avenue can be fully mitigated with signal timing adjustments. The impacts at Van Cortlandt Park South and Review Place can be fully mitigated by implementing a traffic signal.

Pedestrians. There are potential significant pedestrian impacts at two locations within the study area as a result of the proposed school. The significant pedestrian impact at the south crosswalk of Broadway at 238th Street during the AM peak hour can be fully mitigated by a signal timing shift. There is also a significant pedestrian impact on the south sidewalk of Van Cortlandt Park South between Broadway and Review Place that can be fully mitigated by increasing the sidewalk clear width by removing or reducing existing obstructions in the sidewalk.

Transit. No significant transit impacts would be expected. Less than 200 incremental peak hour transit trips would be generated by staff, students, and accompanying adults; therefore, the proposed school is unlikely to create a significant transit impact.

Parking. No parking shortfall would be expected. The proposed school would increase the parking demand by 32 vehicles, which would increase the parking occupancy rate to 98 percent.

N. Air Quality

Based on the air quality screening procedures described in the *CEQR Technical Manual*, the proposed school would not result in a significant number of project-induced vehicular traffic and, therefore, it would not adversely affect surrounding mobile source air quality conditions. In addition, existing stationary source emissions in the immediate vicinity of the project site would not have a detrimental effect on the health of students or staff at the proposed school nor would the new school building's operations result in stationary source impacts within the surrounding community.

The proposed school would be considerably smaller in size than 350,000 sf and is subsequently not considered an energy-intense source, per the guidance of the *CEQR Technical Manual*. Therefore, the proposed project would not result in a significant adverse greenhouse gas (GHG) emissions impact.

O. Noise

Mobile Source Noise. As the proposed project is a new school building, an increase in vehicular traffic traveling to and away from the proposed school site is expected to occur due to a combination of future staff automobiles and school bus movements. Therefore, an assessment of

traffic noise exposure using the Passenger Car Equivalent (PCE)-based methodology was undertaken.

The expected PCE traffic volumes under future 2027 Build conditions indicate that noise level increases in the 0.1 to 2.3 dBA range can be expected to occur. However, noise level increases of less than three dBA are considered below the level of human perceptibility and are below the SCA five dBA minimum noise level increase impact criterion. The projected 2.3 dBA increase can be attributed to the new school vehicle movements expected to be running along Review Place under 2027 Build conditions.

As a maximum noise level increase of 2.3 dBA is projected to occur due to the proposed project, and it is well below the SCA five dBA minimum noise level increase impact criteria, no significant adverse impact from traffic movements is expected to occur.

Playground Noise. As part of the proposed project, an approximately 6,400 sf school play yard would be provided on the rooftop of the proposed five-story school building, facing Review Place and West 239th Street. In addition, an approximately 2,500 sf at-grade school play yard would occupy a permanent easement area adjacent to the project site on the east side of the proposed school building. As a result, the potential impact of playground noise was considered at noise sensitive noise properties located closest to these play yards.

Based on the overall playground assessment, projected noise exposure from the proposed at-grade and rooftop playgrounds would be below the SCA five dBA minimum increase threshold necessary to warrant abatement consideration. Therefore, playground noise from the proposed project would not result in a significant noise impact to any noise sensitive properties nearest the proposed playgrounds within the adjacent community.

School Interior Noise Levels. Based on the noise monitoring measurements, the estimated maximum L_{10} noise exposure level was determined to be 74 dBA along Van Cortlandt Park South during the AM peak period. Based on the CEQR noise exposure standards, the school's exterior noise exposure would be in the "Marginally Unacceptable" category. Therefore, double-glazed windows and doors rated to provide a minimum of 29 dBA noise attenuation would be required to reduce the exterior noise exposure to an acceptable interior level of 45 dBA or below. With these recommended measures, the proposed new school would remain below NYCDEP's interior noise level requirements, and would not experience any noise exposure impacts.

The proposed school's HVAC equipment, along with any other project-related mechanical devices, would be designed to meet the NYC Noise Code standards.

P. Public Health

No impacts related to air quality, water quality, or noise are anticipated as a result of the proposed project. Hazardous materials are anticipated to be present on site, based on the Phase I ESA and Phase II ESI prepared for the project site. However, with any such existing on-site contamination appropriately addressed through proper handling and disposal, and other measures (including the incorporation of a soil vapor barrier and a sub-slab depressurization system into the new building design; the characterization of material excavated from the site to identify material

handling, reuse, and/or disposal requirements; and the placement of two feet of environmentally clean fill over all landscaped areas), no public health issues are expected with the proposed project. Therefore, the proposed project would not result in significant adverse impacts to public health.

Q. Neighborhood Character

The construction of the proposed PS would be an appropriate land use, and its design would contribute to the visual quality of the area. Its height and massing would be consistent with other development in the area, being approximately 7 ft taller than the existing apartment building immediately to the west and approximately 12 ft shorter than the planned residential development immediately to the east.

The proposed school would enliven the streetscape, particularly in the replacement of an unused parking lot, and given its neighborhood-oriented function, the new school would be consistent with the residential context surrounding the project site.

Technical analyses have concluded that with the recommended improvement measures in place, the proposed school at this location would not result in significant adverse impacts related to traffic, air quality, or noise conditions that would alter the character of the neighborhood.

Furthermore, the proposed new school would introduce new capacity in the school district, thereby representing an improvement to neighborhood character in terms of improved community facilities and services. As such, the proposed PS would be a positive attribute to the educational opportunities in the neighborhood, as well as an improvement to the physical design and character of the project site and surrounding area. Therefore, the proposed PS would have a positive effect on neighborhood character; no significant adverse impact to neighborhood character would result with the proposed project.

R. Construction-Related Impacts

The anticipated total duration of construction for the proposed project is assumed to be approximately 30-32 months; however, active construction on the site is anticipated to be less than 24 months. Physical construction of the school would include foundation, superstructure, mechanical installations, and interior finishing work.

Impacts that may result from construction of the proposed project include temporary traffic and parking congestion, increased noise from construction activities, fugitive dust and mobile source emissions, soil erosion and sedimentation, and disturbance of potentially hazardous materials. Construction impacts would be temporary and to the extent practicable would be limited to the proposed school site.

Construction activities may result in temporary disruptions to the surrounding community. Various measures would be implemented in order to minimize the temporary disruptions and to ensure the safety of the community during construction. Therefore, it is expected that no significant adverse impacts would occur with construction of the proposed project.

Chapter 1: Project Description

A. Introduction

On behalf of the New York City Department of Education (DOE), the New York City School Construction Authority (SCA) proposes to create a new, approximately 736-seat primary school (PS) facility at 160 Van Cortlandt Park South in the Kingsbridge section of the Bronx. The proposed new school would serve students in grade levels pre-kindergarten through five within Community School District (CSD) No. 10, and special education students enrolled in a District 75 program.[6] In order to develop the new facility, the SCA would acquire a portion of Lot 150 on Block 3271 for the proposed school site.

Funding for site acquisition, design, and construction of the proposed school facility would be provided by the DOE's Five-Year Capital Plan for Fiscal Years 2020-2024. It is expected that the new PS would open in September 2027.

B. Purpose and Need

The new public school facility would serve primary school students within CSD No. 10 and special education (District 75) students.[7] Construction of the new PS facility has been proposed to provide additional public school capacity in CSD No. 10. CSD No. 10 includes the areas of Spuyten Duyvil, Riverdale, Fieldston, North Riverdale, Kingsbridge, Norwood, Bedford Park, Fordham, Belmont, and University Heights.

According to school capacity and utilization data for the 2019-2020 school year, CSD No. 10's elementary school facilities collectively operated at approximately 105 percent of their target capacity. The DOE's Five-Year Capital Plan for Fiscal Years 2020-2024 allocates capital funding for the creation of a total of 1,598 additional seats at the primary school level in CSD No. 10 to address existing overcrowding and forecast changes in student enrollments, and also to support the DOE's policies regarding class-size reduction and the expansion of pre-kindergarten classroom capacity in the City.

C. Project Site

The project site is situated on the eastern side of Review Place (also known as John M. Collins Place), between Van Cortlandt Park South and West 239th Street, amid a mix of land uses including institutional, open space, residential, and mixed-use buildings in the Kingsbridge section of the Bronx, within Community District 8 (see Figure 1-1). The portion of Lot 150 comprising the project site is located at the western end of the block (Block 3271) bounded by Van Cortlandt Park South to the north, West 239th Street to the south, Putnam Avenue West to the

[6] District 75 programs provide citywide special education services for students in need of intensive or specialized services.

[7] The proposed school facility would serve 640 PS students and 96 District 75 students for a total of 736 students.

east, and Review Place to the west, as shown on Figure 1-2. The project site has approximately 232 feet of frontage on Review Place, 101 feet of frontage on Van Cortlandt Park South, and 85 feet of frontage on West 239th Street. The project site is part of the existing, approximately 77,857 square foot (sf) former Visitation of the Blessed Virgin Mary Church complex ("the Complex"), which comprises the entire city block; the Complex has been determined eligible for inclusion in the State and National Registers of Historic Places by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The project site consists of a paved parking area that formerly served the Complex (currently vacant). The remainder of the block comprises three vacant buildings (a former church, a former parochial school, and a former parsonage) surrounded by unmaintained lawn and paved walkways and parking areas. The project site is approximately 0.5 acre (21,810 square feet) in area and is located within a R7-1 residential zoning district, where schools are permitted as-of-right.

D. Proposed Action

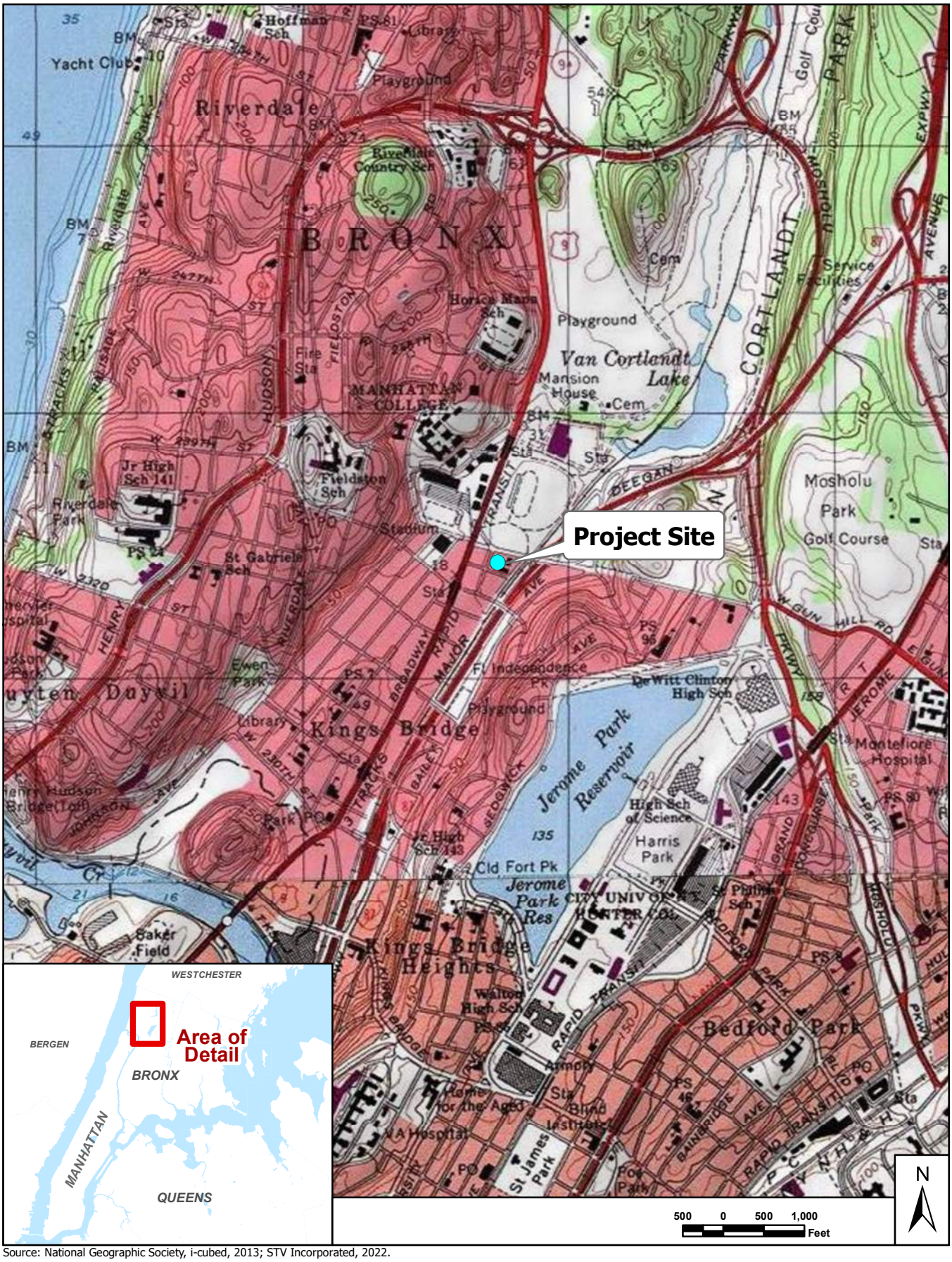
The proposed action would entail the DOE's acquisition of the western portion of Lot 150, which comprises approximately 21,810 square feet (sf) of a paved parking area, for construction of an approximately 736-seat primary school facility. (As part of a separate action by others, the existing buildings on the remainder of the block will be demolished and that portion of the block will be redeveloped with new residential development by 2026.)

As contemplated, the proposed new school facility would be a five-story structure and would contain approximately 103,654 gross square feet (gsf). The proposed school's main entrance would be located on Review Place (see Figure 1-3). The new public school facility would provide approximately 736 seats for students in grade levels pre-kindergarten through five, and would include the following: classrooms for grade levels pre-kindergarten through five, CSD special education classrooms, District 75 (citywide special education) classrooms, District 75 administrative office space, District 75 speech rooms, District 75 resource rooms, District 75 occupational therapy room, District 75 physical therapy room, District 75 multi-purpose room, reading resource room, speech resource room, art room, music room, science room, gymatorium, exercise room, library, guidance suite, medical suite, administration suite, students' dining area, staff lunch/conference room, kitchen, cafeteria, and storage. An approximately 6,400 sf school play yard would be provided on the rooftop of the proposed school building, facing Review Place and West 239th Street. In addition, as part of the proposed project, an approximately 2,500 sf at-grade school play yard would occupy a permanent easement area adjacent to the project site ("playground easement").[8]

[8] The permanent easement area for the proposed school play yard is located in the western portion of the interior courtyard within the future adjacent residential development located east of the proposed school building.

It is estimated that approximately 96 teachers and staff would be employed at the new school facility.[9] The new PS would operate during normal school hours, from September to June.

[9] Includes 64 staff for 640 PS students (based on a ratio of 10:1 – 10 students to one teacher) and 32 staff for 96 District 75 students (based on a ratio of 6:1:1 – six students to one special education teacher and one aid) for a total of 96 teachers and staff.



Source: National Geographic Society, i-cubed, 2013; STV Incorporated, 2022.

Figure 1-1

Proposed PS at 160 Van Cortlandt Park South, Bronx

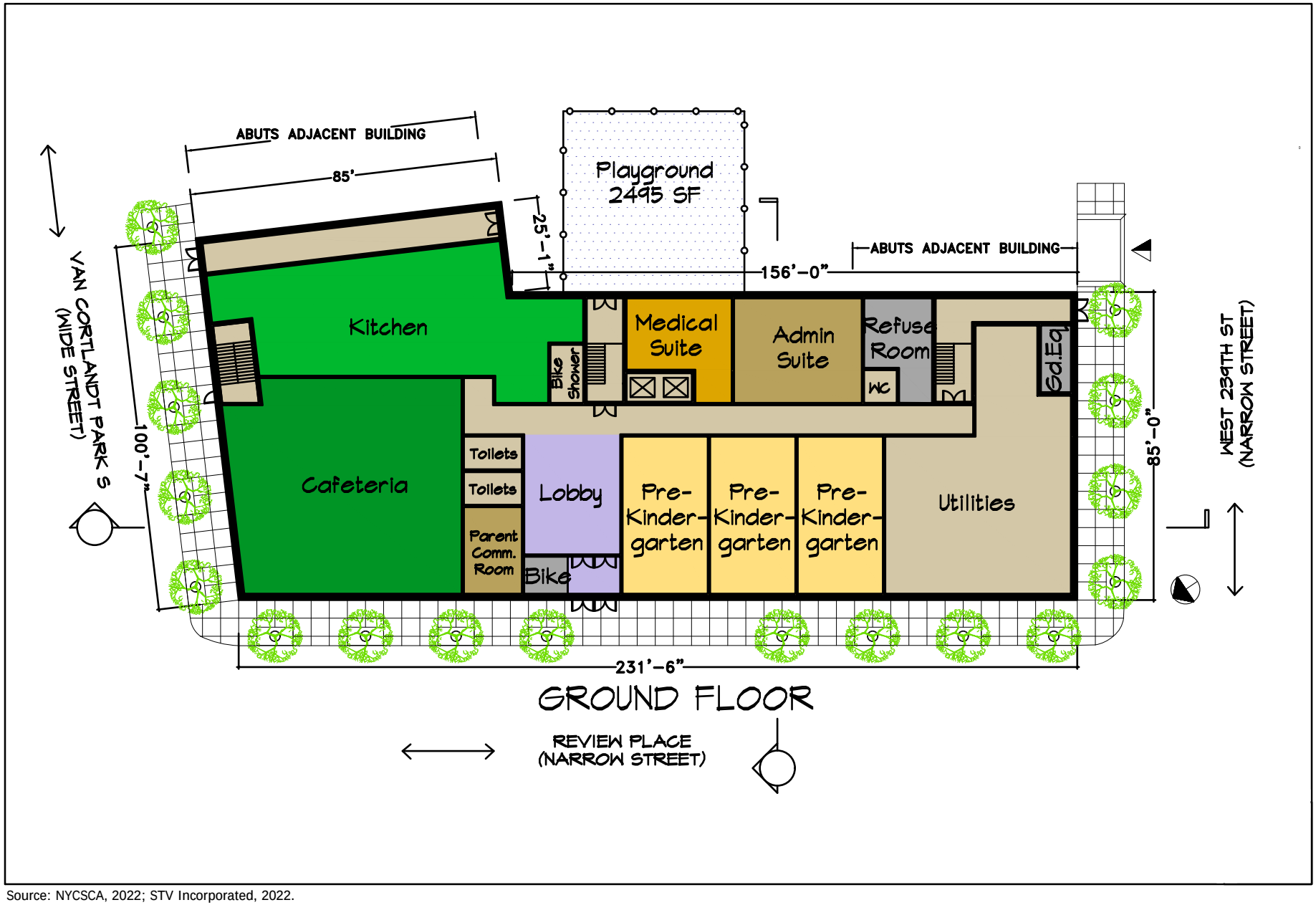
PROJECT LOCATION

Source: Esri, GigitalGlobe, GeoEye, Eathstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; NYS Cultural Resources Information System; STV Incorporated, 2022.

Figure 1-2

Proposed PS at 160 Van Cortlandt Park South, Bronx

AERIAL VIEW



Source: NYCSCA, 2022; STV Incorporated, 2022.

Figure 1-3

SITE PLAN

Chapter 2: Land Use, Zoning and Public Policy

Land use refers to the activity that is occurring on land and within the structures that occupy it. Types of uses include residential, commercial, industrial, community facilities/institutional, vacant land, and parkland/open space. An analysis of land use patterns characterizes the uses and development trends in the area that may be changed or affected by the proposed action. This analysis is then used to determine whether the proposed project is compatible with or may alter those conditions. Zoning establishes standards and requirements used to regulate and guide development within New York City. Regulatory controls prescribe permitted uses, building coverage and open space standards, setbacks, structure heights and parking requirements. Public policies are those adopted policies, other than zoning, that can affect or define land use.

A. Existing Conditions

LAND USE

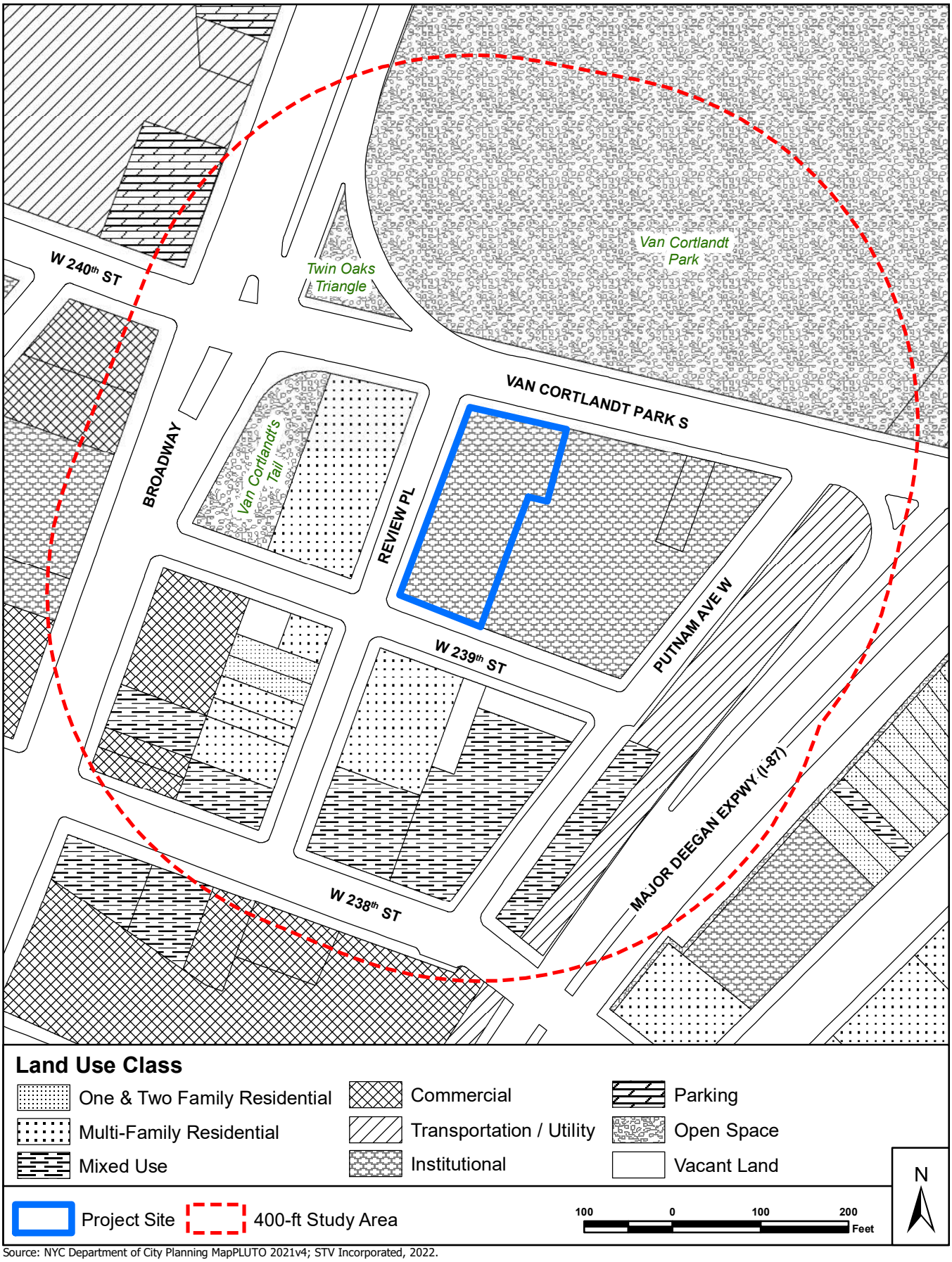
The proposed new public school facility would be constructed on a privately-owned property (portion of Lot 150 on Block 3271) in the Kingsbridge section of the Bronx. The proposed project site has a gross land area of approximately 0.5 acre (21,810 square feet). The project site consists of a paved parking area that formerly served the Complex. The project site is part of the existing, approximately 77,857 sf Complex (currently vacant), which comprises the entire city block. The remainder of the block comprises three vacant buildings (a former church, a former parochial school, and a former parsonage), ranging in height from two to three stories, surrounded by unmaintained lawn, paved walkways, and parking areas (a portion of which is currently utilized by ArchCare service vans).

The portion of Block 3271, Lot 150 comprising the project site is located at the western end of the block bounded by Van Cortlandt Park South to the north, 239th Street to the south, Putnam Avenue West to the east, and Review Place to the west (see Figure 2-1). The project site has approximately 232 feet of frontage on Review Place, 101 feet of frontage on Van Cortlandt Park South, and 85 feet of frontage on West 239th Street.

The analysis of land use, zoning, and public policy was conducted within a study area defined in accordance with the *CEQR Technical Manual*. The study area for the proposed project comprises the area within a 400-foot radius surrounding the project site. As illustrated on Figure 2-1, the study area boundary is generally defined by Van Cortlandt Park to the north, 238th Street to the south, the Major Deegan Expressway (I-87) to the east, and Broadway to the west.

Within the study area, the land uses are predominantly institutional, open space, residential, and mixed use buildings. Other land uses within the study area include commercial, vacant lots, parking, and transportation/utility.

The institutional use nearest the project site is the Complex with its vacant buildings (a former church, a former parochial school, and a former parsonage) located adjacent to (and east of) the project site. The other institutional uses within the study area include a portion of the Manhattan College Research and Learning Center located along the west side of Broadway between West 240th Street and West 238th Street.



Source: NYC Department of City Planning MapPLUTO 2021v4; STV Incorporated, 2022.

Figure 2-1

Open space uses in the study area include a park (Van Cortlandt Park), a paved plaza area (Van Cortlandt's Tail), and a "Greenstreet" (Twin Oaks Triangle). Van Cortlandt Park defines the study area north of Van Cortlandt Park South. The portion of Van Cortlandt Park (southwestern corner) contained within the study area includes landscaped areas, two playgrounds, a multi-purpose paved area, athletic fields, benches, a statue, pedestrian walkways, and a portion of the Old Putnam Trail. Along Broadway between Van Cortlandt Park South and West 239th Street, Van Cortlandt's Tail is a paved plaza area with benches, trees, and plantings. At the intersection of Broadway and Van Cortlandt Park South, Twin Oaks Triangle (a "Greenstreet") contains trees, cobblestone paving, vegetation, and a pedestrian path connecting to crosswalks on both the north and south sides of the triangle.

Residential uses, which are concentrated along Review Place, consist predominantly of six-story multi-family apartment buildings, as well as three-story walk-up multi-family buildings. The apartment buildings within the study area are built to the lot line with no setback; however, the walk-up multi-family buildings are built with small to moderately-sized setbacks. Two single-family, two-story residences are located along Review Place and are built to the lot line.

Mixed-use buildings (ground floor commercial and upper floor residential) are interspersed throughout the study area. Other mixed-use buildings include the Mabel Crucey Group Family Day Care with upper floor residential apartments located along West 238th Street between Broadway and Review Place, and Our Children Day Care Basilica with upper floor residential apartments located along West 238th Street between Review Place and Putnam Avenue West.

Commercial uses within the study area are concentrated along Broadway and West 238th Street and include an automotive dealership, a Rite Aid pharmacy, local pharmacies, a gas station, a bar/restaurant, a medical office building, a bakery, bodegas, a dry cleaner, and a small portion of a chain pet food supply store (Petco), which is part of the Riverdale Crossing Shopping Center (the remaining portions of the Riverdale Crossing Shopping Center are located outside the 400-foot study area).

Three vacant lots are located within the study area along the south side of West 239th Street between Putnam Avenue West and Broadway. Each of these lots is separated from the surrounding streetscapes with temporary green construction fencing.

A parking lot owned by New York City Transit (NYCT) is located at the northwestern corner of the study area at the intersection of Broadway and West 240th Street. This parking lot is located underneath overhead subway tracks that lead "1" trains to the NYCT 240th Street Yard. It is currently utilized as student parking for Manhattan College.

A major transportation land use, the below-grade Major Deegan Expressway (I-87), defines the study area east of Putnam Avenue West. A grass-covered strip of land, containing scattered trees, acts as a divider between Putnam Avenue West and the Major Deegan Expressway (I-87); this area adjacent to the expressway is owned by the New York City Department of Transportation.

ZONING AND PUBLIC POLICY

As shown on Figure 2-2, a R7-1 medium-density residential zoning district is mapped over the project site and a large portion of the study area (the area south of Van Cortlandt Park South and

east of Broadway). R7 districts are medium-density apartment house districts mapped in much of the Bronx. R7 districts encourage lower apartment buildings on smaller zoning lots and, on larger lots, taller buildings with less lot coverage. Community facilities, such as schools (Use Group 3), are permitted as-of-right in R7-1 districts.

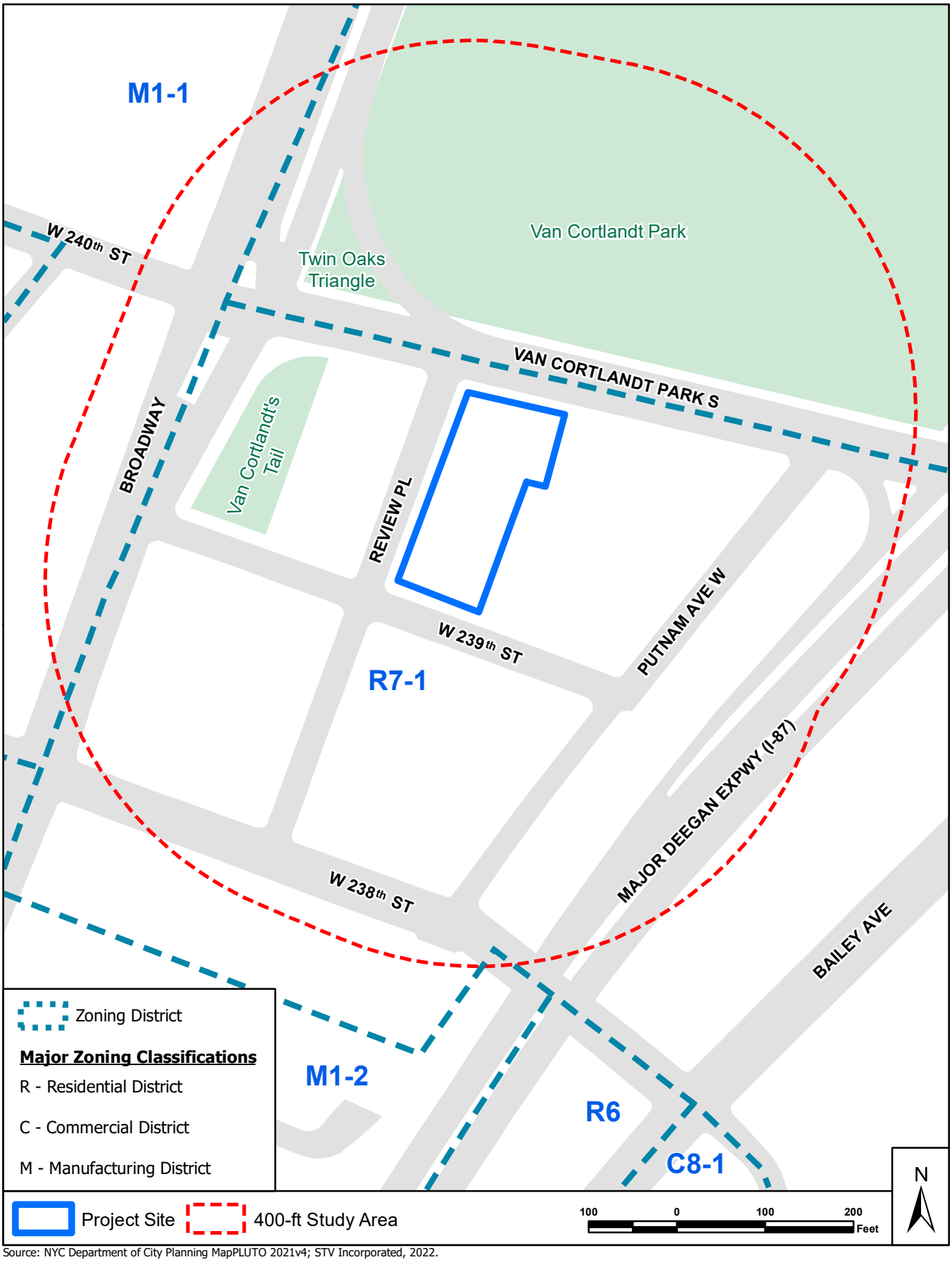
The study area's western edge (west of Broadway) is located within a M1-1 district. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts and typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities.

The *CD 8 2000: A River to Reservoir Preservation Strategy – Bronx Community Board 8 197-a Plan* applies to the project site and the entire study area. This 197-a plan, approved by the City Planning Commission in 2003, includes recommendations for the entire Bronx Community District (CD) 8, which is bounded by Westchester County/Van Cortlandt Park, Goulden Avenue/Reservoir Avenue, West Kingsbridge Road/West 225th Street/Spuyten Duyvel Creek, and the Hudson River. The plan's primary goals are to (1) preserve the scale and character of area neighborhoods; (2) strengthen protections for sensitive natural features including steep slope areas, mature trees, water features, and the surrounding contexts of these features; (3) improve the appearance and economic vitality of local commercial districts; (4) foster economic opportunities and improve access for all segments of the population to cultural and educational facilities; (5) create additional recreational resources, enhance existing parks, and promote the greening of major corridors; and (6) preserve and educate the public about historical resources. This 197-a plan sets forth 70 recommendations to attain these goals ranging from zoning and land use to housing, parks, education, and economic development.

Waterfront Revitalization Program. As the proposed project site does not fall within the City's designated coastal zone, the proposed action was not assessed for its consistency with the policies of the City's Local Waterfront Revitalization Program.

The project site and study area are located in Flood Zone X, which is area determined to be outside the 1% annual chance floodplain (100-year flood) and 0.2% annual chance floodplain (500-year flood).

According to the best available flood hazard data for Sandy affected counties in New York and New Jersey, the project site is not located within a flood hazard area (https://data.cityofnewyork.us/Environment/Sandy-Inundation-Zone/uyj8-7rv5).



Source: NYC Department of City Planning MapPLUTO 2021v4; STV Incorporated, 2022.

Figure 2-2

B. The Future Without the Project

LAND USE

If the proposed PS is not built, no changes to the project site are expected to occur by the 2027 Build Year. The existing project site would remain as a vacant, paved parking area. It is anticipated that, as part of a separate action, the existing buildings on the remainder of the project site block will be demolished and this eastern portion of the block will be redeveloped to provide 336 residential dwelling units and associated parking. No other developments are anticipated for the study area by the 2027 Build Year, and land use conditions are generally expected to resemble existing conditions.

According to a review of the Zoning Application Portal (ZAP) data, provided by the New York City Department of City Planning (NYCDCP) and accessed via https://nycdcppfs.dynamics365portals.us/applicants/overview/application-status-new/ on April 6, 2022, there are no additional development projects or rezonings planned to be undertaken within the vicinity of the project site.

ZONING AND PUBLIC POLICY

No changes to zoning or public policy are expected to occur by the 2027 Build Year; zoning and public policy currently in effect for the project site and study area will remain in effect in 2027.

C. Potential Effects of the Proposed Project

LAND USE

The proposed project involves the acquisition of a portion of Lot 150 on Block 3271, for construction of a new school facility. After the site is cleared for construction, the proposed school building, which would be a five-story structure, would be built on the project site. The new school would contain approximately 103,654 gross square feet (gsf), with its main entrance on Review Place. The project would provide an approximately 6,400 sf school play yard on the rooftop of the proposed school building and an approximately 2,500 sf at-grade school play yard within a permanent easement area adjacent to (and east of) the project site.

The proposed school would be consistent with surrounding uses in the study area, which are predominantly open space, residential, and mixed use buildings. The proposed project would replace a parking lot associated with a vacant, former community facility use (former church, parochial school, and parsonage) with a compatible community facility use (school facility) and introduce an active use that would be compatible with surrounding land uses. No significant adverse impacts to land use would result from the proposed PS.

ZONING AND PUBLIC POLICY

The proposed school facility would conform to the requirements of the R7-1 zoning district with respect to use, as schools (Use Group 3) are permitted as-of-right in residential districts. It is expected that the design of the proposed PS would be in compliance with existing zoning

regulations.[10] As the proposed PS is permitted as-of-right and would comply with zoning regulations, no significant adverse impacts to zoning and public policy would occur.

The proposed project would be consistent with the 197-a plan applicable to the entire Bronx CD 8.

D. Sustainability

Under the *CEQR Technical Manual*, large publicly sponsored projects must conduct a sustainability assessment to determine whether the project is consistent with the planning goals and objectives of *PlaNYC*. As the proposed project would result in the construction of a new approximately 736-seat public school facility to provide additional public school capacity in CSD No. 10 and is not considered to be a large publicly sponsored project as defined by the initiatives of *PlaNYC*, the proposed project was not assessed for its consistency with the goals and objectives established in *PlaNYC*.

[10] Zoning analysis provided by SCA, March 2021

Chapter 3: Socioeconomic Conditions

Socioeconomic impacts may occur when an action would directly or indirectly change population, housing stock, or economic activities in an area. Changes may be substantial but not adverse, or beneficial to some groups and adverse to others. This chapter discusses potential impacts to socioeconomics and identifies their significance.

A detailed socioeconomic analysis is typically conducted if an action would create substantial socioeconomic changes in an area, such as direct displacement of residential population or of substantial numbers of businesses or employees. Other analysis criteria pertain to new development that may be markedly different from existing uses or that would attract substantial residential or worker populations to the area, such as development of 200 or more residential units or more than 200,000 sf of commercial space. Under CEQR, if an action could affect the real estate market over a larger area or if it could adversely affect economic conditions of a specific industry, a socioeconomic analysis may be necessary. The proposed action would include neither residential nor commercial elements; the proposed action is the construction of a new school building, thus increasing school district capacity to address existing overcrowding and meet projected demand. Therefore, no detailed socioeconomic analysis is required.

A. Existing Conditions

The proposed school site is currently comprised of a paved parking area. In addition to the vacant buildings of the Complex to the east of the project site, the immediate uses around the project site primarily consist of residential uses and open space (Van Cortlandt Park).

B. The Future Without the Project

In the absence of the proposed project, the existing project site would remain as a vacant, paved parking area. It is anticipated that, as part of a separate action, the existing buildings on the remainder of the project site block will be demolished and this eastern portion of the block will be redeveloped to provide 336 residential dwelling units and associated parking. Although no significant change is expected regarding socioeconomic conditions within the study area, this residential development would introduce a new residential population.

C. Potential Effects of the Proposed Project

The proposed school would be constructed on a site formerly used as parking for the Complex which is currently vacant. The proposed project would introduce approximately 736 primary school students and a total of approximately 96 teachers, administrators, and support staff to the project site. The proposed PS would not result in the displacement of any residents or businesses, as the site is currently unoccupied. Additional jobs for teachers and support staff would be created as a result of the new school.

Although the proposed project would result in new construction, the construction activities generally would be contained within the site. In addition, the construction of the new school building would be a localized activity of limited duration, without the potential to affect a larger

area or the conditions of any specific industry. Significant adverse impacts to socioeconomic conditions from the proposed project would not result, and no further analysis is required.

Chapter 4: Community Facilities and Services

According to the *CEQR Technical Manual,* "…community facilities are public or publicly funded schools, libraries, child care centers, health care facilities and fire and police protection." The *CEQR Technical Manual* calls for analysis of impacts on community facilities where there are direct effects (a physical alteration or displacement) or indirect effects (addition to population of an area and a concomitant increase in demand for community services). The proposed project would not directly displace a community facility or introduce new resident population or otherwise increase demand on facilities; therefore, no direct or indirect effects to community facilities are expected and a detailed analysis is not required.

A. Existing Conditions

Police Services. Police protection is provided by the City of New York Police Department (NYPD) 50th Police Precinct, which has jurisdiction over the project site. Its headquarters are located at 3450 Kingsbridge Avenue, approximately 0.4 mile south of the site.

Fire Services. Fire protection services are provided by the City of New York Fire Department (FDNY). The facilities closest to the project site that would serve the proposed school include Engine Company 81 and Ladder Company 46, located approximately 0.8 mile south of the project site at 3025 Bailey Avenue.

B. The Future Without the Project

Police Services. No significant change in the demand for service or in the provision of service to community residents is expected.

Fire Services. No significant change in the demand for service or in the provision of service to community residents is expected.

In the absence of the proposed project, the existing project site would remain as a vacant, paved parking area. It is anticipated that, as part of a separate action, the existing buildings on the remainder of the project site block will be demolished and the eastern portion of the block will be redeveloped to provide 336 residential dwelling units and associated parking. Although no significant change is expected regarding community facilities within the study area, this residential development would introduce new residents who would rely on existing community facilities.

C. Potential Effects of the Proposed Project

The proposed action would create a new public school facility on a site currently comprised of a paved parking area (former parking for a vacant institutional use). The proposed PS would serve approximately 736 students in grades pre-kindergarten through five within CSD No. 10, and special education students enrolled in a District 75 program. The proposed project would not introduce new residents to the area, therefore creating little new demand for community facilities and services.

Police Protection. It is expected that the proposed school would have no significant impact on police protection in the community as a result of the project.

Fire Protection. The proposed school would be constructed to meet all existing fire code regulations and would generate a negligible increase to the potential workload of the FDNY. It is expected that the proposed project would not adversely impact the FDNY's ability to provide fire protection to its service area.

Further, the proposed new school facility would provide an additional community resource for area residents and expand the public school capacity in CSD No. 10; however, the new PS would not change the service area of this school district. No significant adverse impacts to community facilities and services would occur as a result of the proposed project, and no further analysis is required.

Chapter 5: Open Space

The *CEQR Technical Manual* calls for analysis of open space impacts if there could be direct effects on an open space (physical loss of public open space by encroachment or displacement); or indirect impacts (increase in demand through the addition of 200 residents or more, or 500 employees or more). As the proposed project would not directly eliminate or alter open space or increase the utilization of neighborhood open spaces (e.g., as through the addition of 200 or more residents or 500 or more employees), a detailed open space analysis is not required.

A. Existing Conditions

The project site does not contain any publicly accessible open space. The 400-ft study area includes the southwestern corner of Van Cortlandt Park, Van Cortlandt's Tail, and Twin Oaks Triangle (a "Greenstreet").[11]

The closest publicly accessible open space to the proposed project site is Van Cortlandt Park, which is located across the street from and directly north of the project site. The approximately 190,000 sf portion of Van Cortlandt Park closest to the project site (southwestern corner) features landscaped areas, two playgrounds, a multi-purpose paved area, athletic fields, benches, a statue, pedestrian walkways, and a portion of the Old Putnam Trail.[12] Additional detail about this open space is outlined in Chapter 6, "Shadows."

Van Cortlandt's Tail is an approximately 14,900 sf paved plaza area with benches, trees, and plantings located along Broadway between Van Cortlandt Park South and West 239th Street. Additional detail about this open space is outlined in Chapter 6, "Shadows."

Twin Oaks Triangle is an approximately 6,700 sf "Greenstreet" located at the intersection of Broadway and Van Cortlandt Park South, containing trees, cobblestone paving, vegetation, and a pedestrian path connecting to crosswalks on both the north and south sides of the triangle. Additional detail about this open space is outlined in Chapter 6, "Shadows."

B. The Future Without the Project

In the absence of the proposed project, the existing project site would remain as a vacant, paved parking area. It is anticipated that, as part of a separate action, the existing buildings on the remainder of the project site block will be demolished and the eastern portion of the block will be redeveloped to provide 336 residential dwelling units and associated parking. Although no significant change is expected regarding open space resources within the study area, this residential development would introduce new residents who would be expected to utilize the study area's open space resources.

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[11] Greenstreets are small planted areas within the street right-of-way maintained by NYC Parks as part of New York City's Greenstreets program.

[12] The Old Putnam Trail is a rail-trail on the former New York Central Railroad's Putnam Division line.

C. Potential Effects of the Proposed Project

The construction of a new school facility on the project site would not have any direct or indirect impacts on open space. The need for physical education at the school would be met within the project site itself with the provision of a gymatorium within the proposed school building, an approximately 6,400 sf play yard on the rooftop of the proposed five-story school building (facing Review Place and West 239th Street), and an approximately 2,500 sf at-grade school play yard within a permanent easement area adjacent to (and east of) the project site. Therefore, the open space needs of the students and staff associated with the proposed PS would be met on site, and the new school would not result in any significant adverse impacts to open space resources.

Chapter 6: Shadows

This section discusses the potential for the proposed project to result in shadow impacts. Per the guidance of the *CEQR Technical Manual*, a shadow is defined 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." Per CEQR, there may be potential for an adverse shadow impact if a proposed action would result in a new structure (or addition to an existing structure of 50 feet or more) or would be located adjacent to, or across the street from, a resource that has been identified as sunlight sensitive; when such an action is proposed, a screening-level shadow analysis is warranted per CEQR.

A. Existing Conditions

The proposed project site is part of the existing Visitation of the Blessed Virgin Mary Church complex ("the Complex").[13] The project site currently consists of a paved parking area that formerly served the Complex. Potentially sunlight-sensitive resources that currently exist in the vicinity of the project site include historic buildings (church, school, and parsonage), located east of the project site, that are all part of the former Complex.

As noted in the land use and open space analyses, the 400-foot study area includes a portion of a park (Van Cortlandt Park), a paved plaza area (Van Cortlandt's Tail), and a "Greenstreet" (Twin Oaks Triangle).

Van Cortlandt Park is located immediately north of the project site and occupies the majority of the study area north of Van Cortlandt Park South. This publicly-accessible open space includes various areas, differentiated by fencing, use, and landscaping. The portion of Van Cortlandt Park that falls within the longest shadow study area includes the following:

- Landscaped Areas: these eleven distinct areas generally contain maintained grass, mature trees, and plantings. These areas are identified as L1 through L11 on Figure 6-1. One of these areas identified as L2 on Figure 6-1 contains a statue.

- Playgrounds: these two playgrounds (identified as P1 and P2 on Figure 6-1) contain playground equipment, benches, and mature trees.

- Multi-Purpose Paved Area: a paved area with perimeter benches, identified as MPPA on Figure 6-1.

- Old Putnam Trail: a wooded area with a pedestrian trail.

- Athletic Fields: multiple grass-covered athletic fields.

[13] The Visitation of the Blessed Virgin March Church complex has been determined eligible for inclusion in the State and National Registers of Historic Places by OPRHP.

- Pedestrian Walkways: paved pedestrian walkways with benches are located throughout this portion of Van Cortlandt Park.

Van Cortlandt's Tail is a paved plaza area with benches, trees, and plantings located along Broadway between Van Cortlandt Park South and West 239th Street.

Twin Oaks Triangle is a "Greenstreet" located at the intersection of Broadway and Van Cortlandt Park South, containing trees, cobblestone paving, vegetation, and a pedestrian path connecting to crosswalks on both the north and south sides of the triangle.

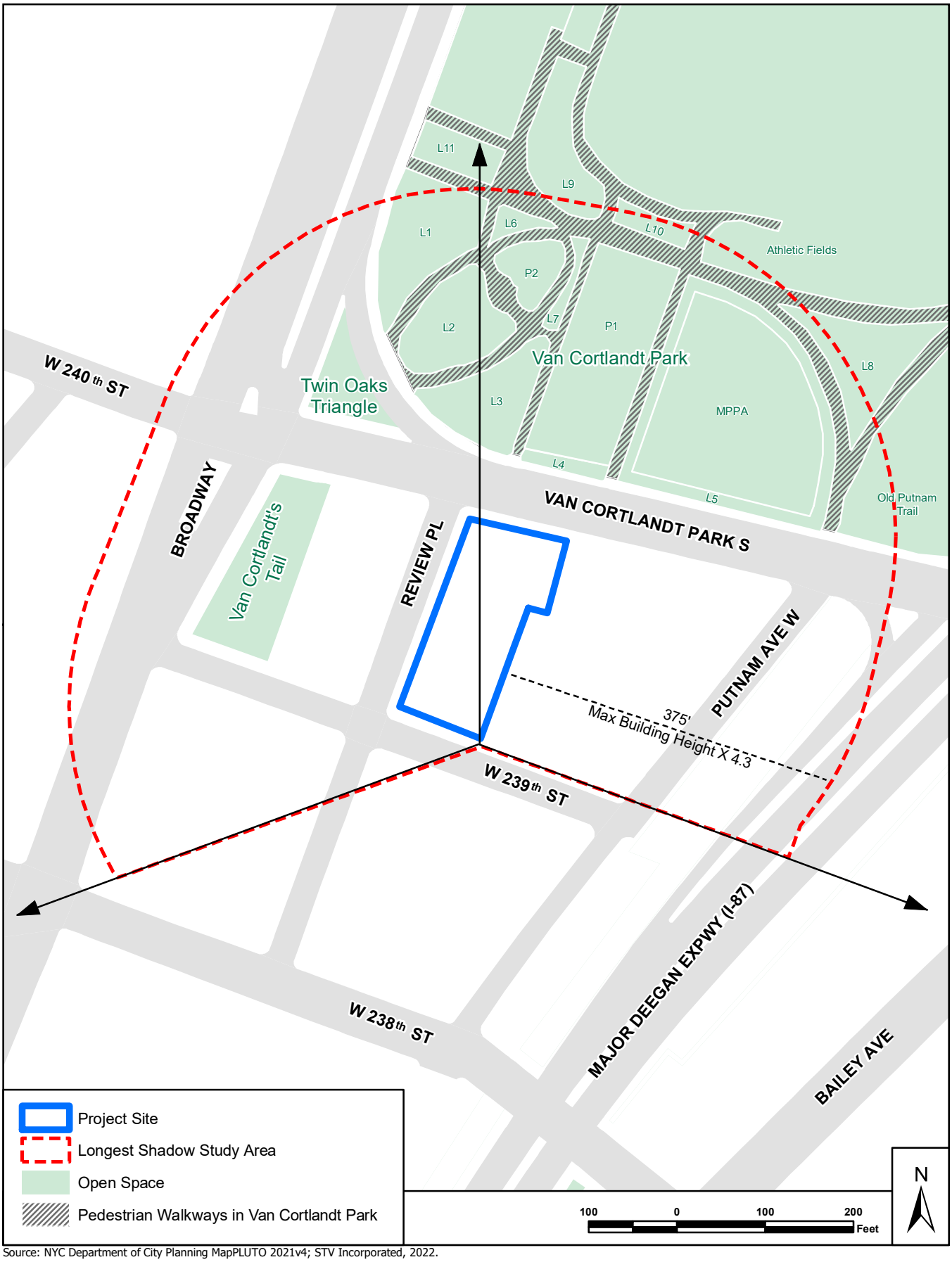
B. The Future Without the Project

If the proposed PS is not constructed, the project site is anticipated to remain vacant. However, as part of a separate action, the existing historic buildings of the former Complex that are located to the east of the project site will be demolished and that portion of the project site block will be redeveloped as a residential development. As a result, these SR/NR-eligible historic resources would not be present in the 2026 build year and are not included as sunlight-sensitive resources for the purposes of this shadows analysis. The new residential development would introduce shadows to the project site and the study area that are not present in existing conditions. Incremental shadows resulting from the future residential development would be expected to fall on Van Cortlandt Park, Van Cortlandt's Tail, and Twin Oaks Triangle.

C. Potential Effects of the Proposed Project

Based on preliminary designs, the proposed project would result in a new five-story school building. The proposed school building would be over 50 feet in height, and so a screening for shadow impacts was performed.

With an estimated height of approximately 87 feet (including the bulkhead), the proposed school's maximum shadow would extend approximately 375 feet. Following both Tier 1 and Tier 2 screenings for shadows, performed in the manner prescribed by the *CEQR Technical Manual*, it was determined that three potentially sunlight-sensitive resources are located within 375 feet of the proposed school building: Van Cortlandt Park, Van Cortlandt's Tail, and Twin Oaks Triangle. As previously described, the SR/NR-eligible historic buildings of the former Complex, although present in existing conditions, will not exist in the 2026 build year and are therefore excluded from consideration in this analysis. Figure 6-1 illustrates the maximum extent of shadow that could be expected to reach these resources. Shadows from the proposed school could extend over the southwestern corner of Van Cortlandt Park and the entirety of Van Cortlandt's Tail and Twin Oaks Triangle. However, shadows from the residential development that will be built east of the project site by 2026 will extend over much of the same area before the school would be constructed. Therefore, a detailed analysis was performed to assess the incremental shadow that would be attributable only to the proposed school building, specifically, and to allow for a clearer understanding of seasons and time of day that shadowing would be present on potentially sunlight-sensitive resources.



Source: NYC Department of City Planning MapPLUTO 2021v4; STV Incorporated, 2022.

Figure 6-1

TIER 2 SHADOW SCREENING

Proposed PS at 160 Van Cortlandt Park South, Bronx

The detailed analysis for shadows was performed by preparing a virtual 3-D model of the proposed PS and study area. In addition to the proposed PS and existing buildings in the study area, the residential development planned for the eastern portion of the project site block was also modeled.[14]

The results of the detailed analysis determined that the incremental shadow from the proposed PS would be expected to fall on Van Cortlandt Park on the December 21st and March 21st analysis dates, on Van Cortlandt's Tail on the March 21st and May 6th analysis dates, and on Twin Oaks Triangle on the December 21st analysis date. See Table 6-1 and Figures 6-2a through 6-2e for the results of the detailed shadow analysis.

Van Cortlandt Park

Landscaped Areas

- **L1:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on L1 for approximately ten minutes, from 9:05 AM to 9:14 AM, on the December 21st analysis date. Incremental shadows from the proposed PS would not reach L1 on any other analysis date. Due to the limited duration of this incremental shadow and that the shadow would occur outside the growing season, L1 would not experience any significant adverse impact related to shadows.

- **L2:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on L2 for approximately 51 minutes, from 9:19 AM to 10:10 AM, on the December 21st analysis date. Incremental shadows from the proposed PS would not reach L2 on any other analysis date. Due to the limited duration of this incremental shadow and that the shadow would occur outside the growing season, L2 would not experience any significant adverse impact related to shadows.

- **L3:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on L3 on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach L3 on any other analysis date. The incremental shadows on December 21st would last for approximately four hours and 44 minutes, from 9:30 AM to 2:14 PM. As this would occur outside the growing season, this incremental shadow would not adversely affect the vegetation present in L3. The incremental shadows on March 21st would last for approximately one hour and one minute, from 12:37 PM to 1:38 PM. While this shadow would be present during the growing season, the limited duration of the incremental shadow would not reduce the amount of direct sunlight received on L3 to below the minimum six to eight hours of direct sunlight specified by the CEQR Technical Manual. Therefore, L3 would not experience any significant adverse impact related to shadows.

[14] The future residential development was modeled using an estimated floor-to-floor height of ten feet (the development ranges in height from one to eight stories).

- **L4:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on L4 on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach L4 on any other analysis date. The incremental shadows on December 21st would last for approximately three hours and 23 minutes, from 11:30 AM to 2:53 PM. As this would occur outside the growing season, this incremental shadow would not adversely affect the vegetation present in L4. The incremental shadows on March 21st would last for approximately three hours and 58 minutes, from 12:37 PM to 4:39 PM. This incremental shadow would never result in the entire area being covered in shadow at any one time. Although much of L4 would receive between six and eight hours of direct sunlight, certain portions of this area, in conjunction with shadows from other buildings, may potentially receive less than six hours of direct sunlight on this analysis date. However, as indicated by the CEQR Technical Manual for areas like this that contain mature trees, shrubs, and other plantings, four to six hours of direct sunlight a day could be tolerated. Therefore, L4 would not experience any significant adverse impact related to shadows.

- **L5:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on L5 on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach L5 on any other analysis date. The incremental shadows on December 21st would last for approximately 42 minutes, from 2:11 PM to 2:53 PM. As this would occur outside the growing season, this incremental shadow would not adversely affect the vegetation present in L5. The incremental shadows on March 21st would last for approximately one hour and 49 minutes, from 2:40 PM to 4:29 PM. This incremental shadow would never result in the entire area being covered in shadow at any one time. Although much of L5 would receive between six and eight hours of direct sunlight, certain portions of this area, in conjunction with shadows from other buildings, may potentially receive less than six hours of direct sunlight on this analysis date. However, as indicated by the *CEQR Technical Manual* for areas like this that contain mature trees, shrubs, and other plantings, four to six hours of direct sunlight a day could be tolerated. Therefore, L5 would not experience any significant adverse impact related to shadows.

- **L6 – L11:** As shown on Table 6-1, incremental shadows from the proposed PS would not reach Landscaped Areas L6, L7, L8, L9, L10, and L11 on any of the analysis dates. Therefore, these landscaped areas would not experience any significant adverse impact related to shadows.

Playgrounds

- **P1:** As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on P1 on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach P1 on any other analysis date. The incremental shadows on December 21st would last for approximately two hours and 15 minutes, from 11:38 PM to 2:53 PM. As this would occur outside the growing season, this incremental shadow would not adversely affect the vegetation present in P1. Further, the shadow would gradually move across the playground and would never fully encompass the playground, leaving a portion of the playground in sunlight at all times. The

incremental shadow on March 21st would last for approximately two hours and six minutes, from 2:05 PM to 4:11 PM. While this shadow would be present during the growing season, the limited duration of the incremental shadow would not reduce the amount of direct sunlight received on P1 to below the minimum of six to eight hours of direct sunlight specified by the *CEQR Technical Manual*. Nor would the playground be fully encompassed in shadow at any time during the analysis period. Therefore, P1 would not experience any significant adverse impact related to shadows.

- **P2:** As shown on Table 6-1, incremental shadows from the proposed PS would not reach P2 on any of the analysis dates. Therefore, P2 would not experience any significant adverse impact related to shadows.

Multi-Purpose Paved Area (MPPA)

As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on the MPPA on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach the MPPA on any other analysis date. The incremental shadows on December 21st would last for approximately 37 minutes, from 2:16 PM to 2:53 PM. As the shadow would for a limited duration and would only occur on a small portion of the MPPA, there would be no adverse effect on this analysis date. The incremental shadow on March 21st would last for approximately one hour and 33 minutes, from 2:56 PM to 4:29 PM. As no vegetation is present on the MPPA, no plant life would be affected by incremental shadows on the MPPA. Further, the incremental shadow would only be present on a small part of the southern portion of the MPPA, leaving the vast majority of this portion of Van Cortlandt Park in direct sunlight on this analysis date. Therefore, the MPPA would not experience any significant adverse impact related to shadows.

Athletic Fields

As shown on Table 6-1, incremental shadows from the proposed PS would not reach the Athletic Fields on any of the analysis dates. Therefore, the Athletic Fields would not experience any significant adverse impact related to shadows.

Old Putnam Trail

As shown on Table 6-1, incremental shadows from the proposed PS would not reach the Old Putnam Trail on any of the analysis dates. Therefore, the Old Putnam Trail would not experience any significant adverse impact related to shadows.

Pedestrian Walkways

As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on the Pedestrian Walkways on both the December 21st and March 21st analysis dates. Incremental shadows from the proposed PS would not reach the Pedestrian Walkways on any other analysis date. The incremental shadows on December 21st would last for approximately five hours and 45 minutes, from 9:07 AM to 2:53 PM. The incremental shadow on March 21st would last for approximately three hours and 42 minutes, from 12:47 PM to 4:29 PM. Despite the duration of these shadows, their gradual movement throughout the day would not leave any one

area of the Pedestrian Walkways in shadow for an extended period of time. Rather, much of the Pedestrian Walkways, in particular the benches present along the pathways, would experience adequate direct sunlight so as to not affect the enjoyment of this resource. Therefore, the Pedestrian Walkways would not experience any significant adverse impact related to shadows.

Twin Oaks Triangle (a "Greenstreet")

As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on Twin Oaks Triangle for two hours and 15 minutes, from 8:51 AM to 11:04 AM, on the December 21st analysis date. Incremental shadows from the proposed PS would not reach Twin Oaks Triangle on any other analysis date. Due to the short duration and small portion of the Twin Oaks Triangle that would experience incremental shadows resulting from the proposed PS and that the shadow would occur outside the growing season, Twin Oaks Triangle would not experience any significant adverse impact related to shadows.

Van Cortlandt's Tail

As shown on Table 6-1, incremental shadows resulting from the proposed PS would be present on Van Cortlandt's Tail on both the March 21st and May 6th analysis dates. Incremental shadows from the proposed PS would not reach the Van Cortlandt's Tail on any other analysis date. The incremental shadows on March 21st would last for approximately 55 minutes, from 7:36 AM to 8:31 AM. The incremental shadows on May 6th would last for approximately 44 minutes, from 6:27 AM to 7:11 AM. The portions of Van Cortlandt's Tail that would experience incremental shadows as a result of the proposed PS would still continue to receive between six and eight hours of sunlight per day as specified by the *CEQR Technical Manual*.[15] Therefore, Van Cortlandt's Tail would not experience any significant adverse impact related to shadows.

[15] Other portions that would not receive incremental shadows as a result of the proposed project currently receive less than six hours of direct sunlight per day as a result of shadows from existing buildings. Despite these shadows, these portions of the open space maintain mature trees and vegetation.

Table 6-1: Detailed Shadows Analysis Results

Resource		Features	December 21 8:51 AM – 2:53 PM		March 21 7:36 AM – 4:29 PM		May 6 6:27 AM – 5:18 PM		June 21 5:57 AM – 6:01 PM	
			Shadow Entry	Shadow Exit	Shadow Entry	Shadow Exit	Shadow Entry	Shadow Exit	Shadow Entry	Shadow Exit
Van Cortlandt Park	L1	Grass, plantings, trees, and a statue	9:05 AM	9:14 AM	--	--	--	--	--	--
	L2		9:19 AM	10:10 AM	--	--	--	--	--	--
	L3		9:30 AM	2:14 PM	12:37 PM	1:38 PM	--	--	--	--
	L4		11:30 AM	2:53 PM	12:37 PM	4:29 PM	--	--	--	--
	L5		2:11 PM	2:53 PM	2:40 PM	4:29 PM	--	--	--	--
	L6 – L11		--	--	--	--	--	--	--	--
	P1	Playground equipment, benches, mature trees, and plantings	11:38 AM	2:53 PM	2:05 PM	4:11 PM	--	--	--	--
	P2		--	--	--	--	--	--	--	--
	Multi-Purpose Paved Area (MPPA)	Unprogrammed paved area with benches	2:16 PM	2:53 PM	2:56 PM	4:29 PM	--	--	--	--
	Athletic Fields	Baseball and football fields	--	--	--	--	--	--	--	--
	Old Putnam Trail	Wooded area with pedestrian trail	--	--	--	--	--	--	--	--
	Pedestrian Walkways	Paved walkways and benches	9:07 AM	2:53 PM	12:47 PM	4:29 PM	--	--	--	--
Van Cortlandt's Tail		Paved plaza area with benches, trees, and plantings	--	--	7:36 AM	8:31 AM	6:27AM	7:11 AM	--	--
Twin Oaks Triangle (a "Greenstreet")		Mature trees, cobblestone paving, vegetation, and a pedestrian path connecting to crosswalks on both the north and south sides of the triangle	8:51 AM	11:04 AM	--	--	--	--	--	--

Maximum Incremental Shadow
December 21 at 8:51 AM

Source: STV Incorporated, 2022.

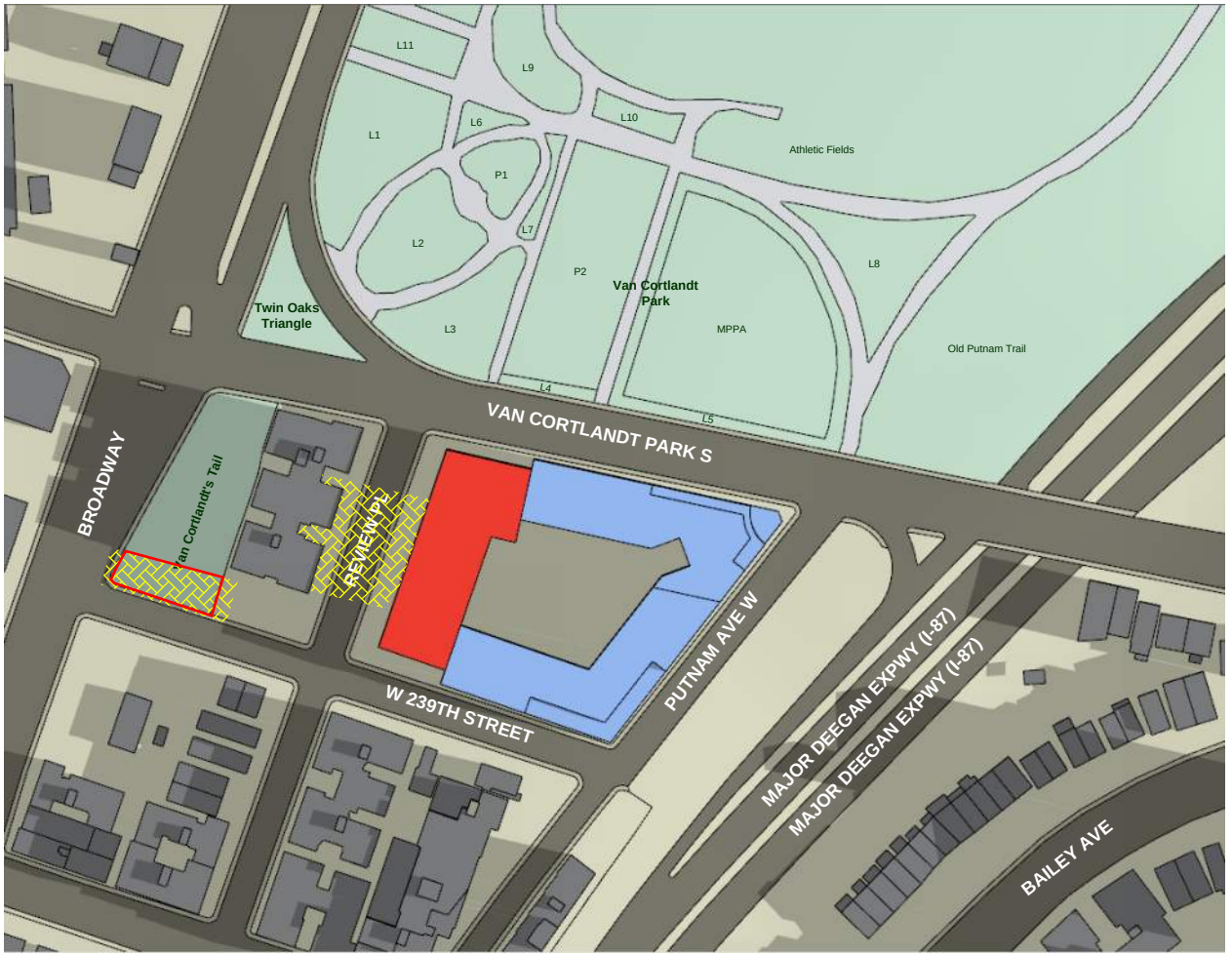
Figure 6-2a

Maximum Incremental Shadow
December 21 at 2:53 PM

Source: STV Incorporated, 2022.

Figure 6-2b

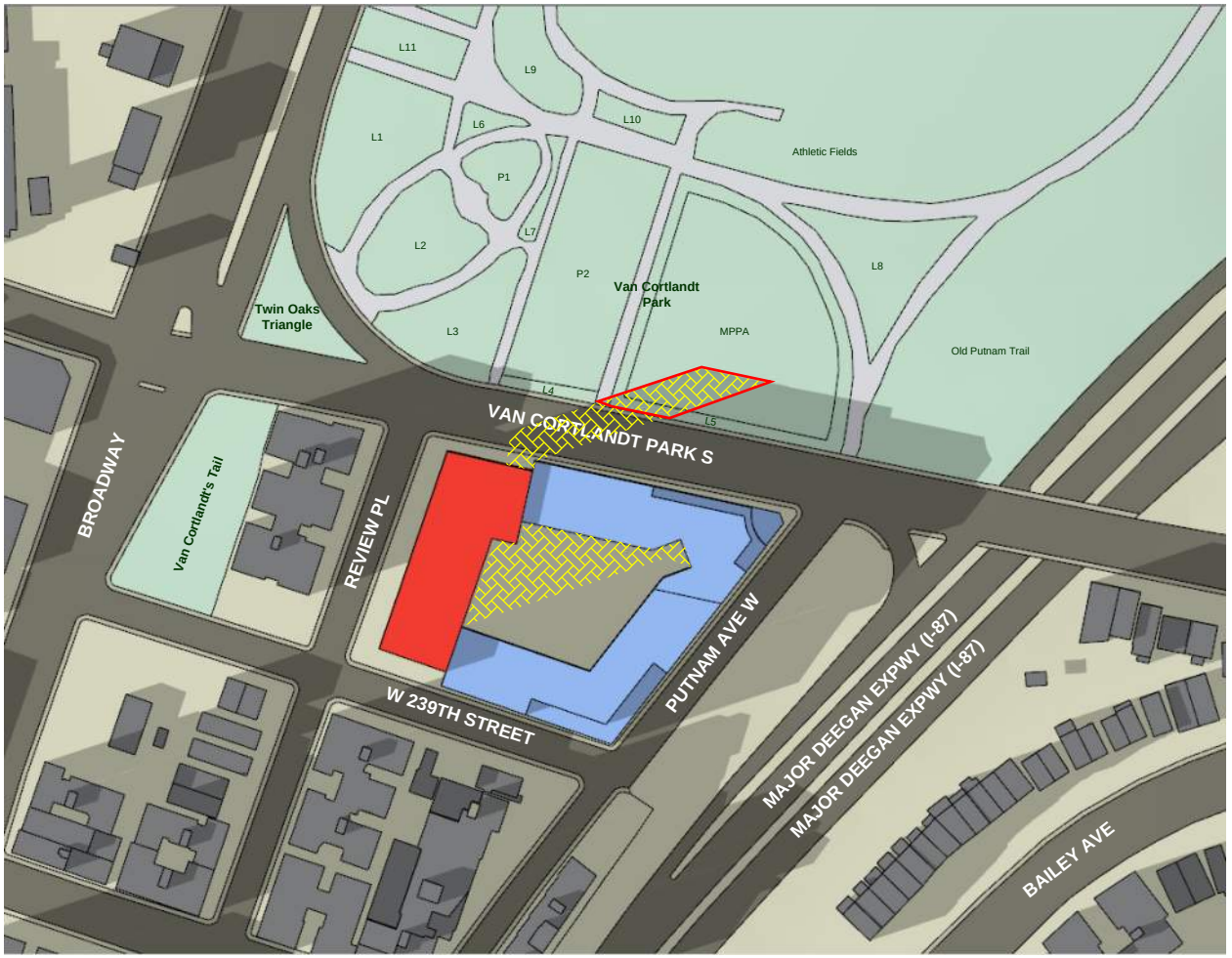
Maximum Incremental Shadow
March 21 at 7:36 AM



Source: STV Incorporated, 2022.

Figure 6-2c

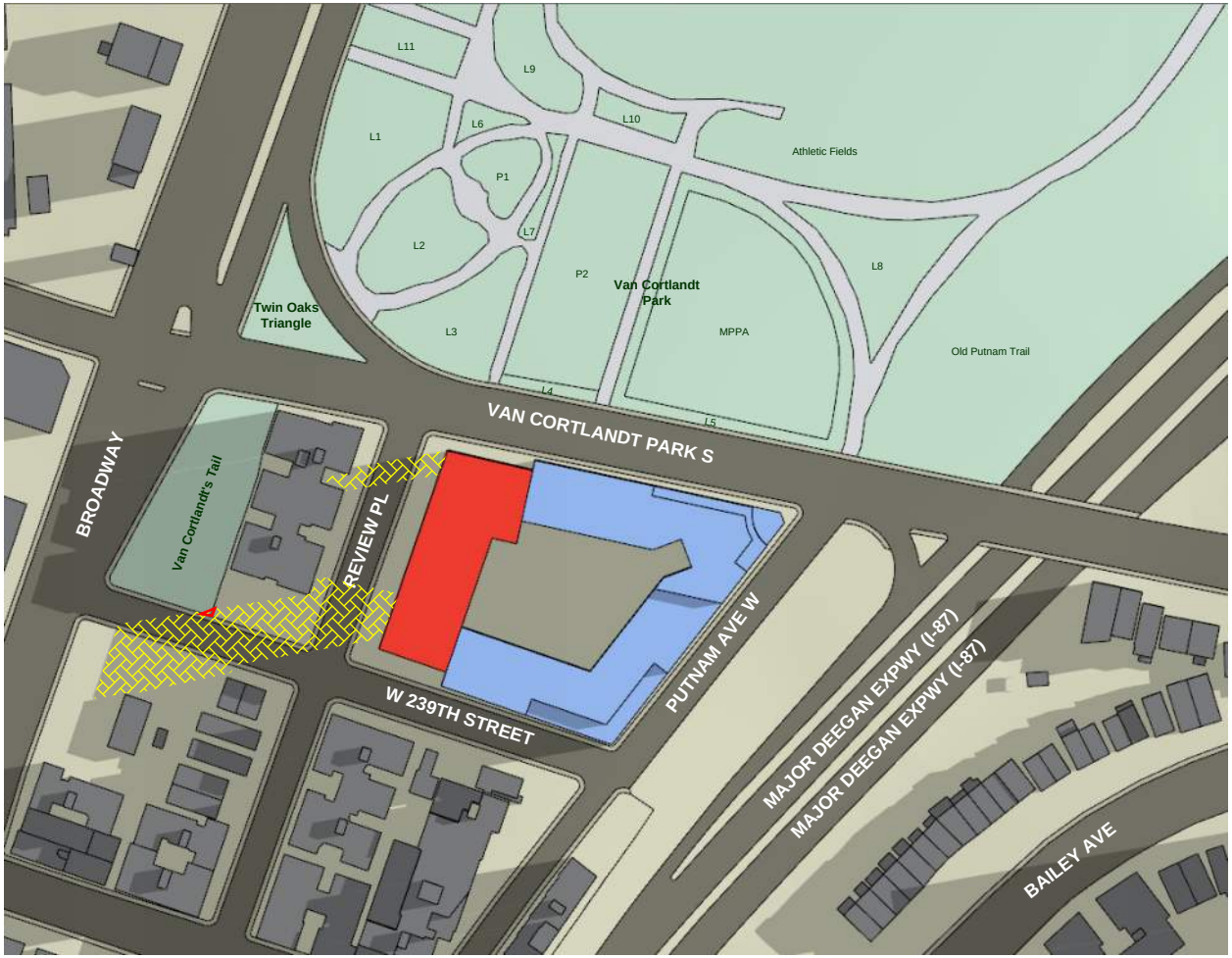
Maximum Incremental Shadow
March 21 at 4:29 PM



Source: STV Incorporated, 2022.

Figure 6-2d

Maximum Incremental Shadow
May 6 at 6:27 AM



Source: STV Incorporated, 2022.

Figure 6-2e

Chapter 7: Historic and Cultural Resources

This section considers the potential impact of the construction of the proposed PS on archaeological and historic resources on or near the project site.[16] For archaeological resources, the *CEQR Technical Manual* recommends a detailed evaluation if there would be in-ground disturbance of an area not previously excavated. For historic resources, the *CEQR Technical Manual* recommends a detailed assessment if a proposed action would result in an adverse effect on historic buildings, structures, objects, sites or districts.

A. Existing Conditions

ARCHAEOLOGICAL RESOURCES

The project site was once part of a low-lying area abutting natural wetlands surrounding Tibbetts Brook. There has been significant filling on the project site to raise the elevation above the original landform, and to create a level surface that first contained clay tennis courts associated with the West Side Tennis Club and after their removal, the present asphalt-paved parking lot associated with the Visitation of the Blessed Virgin Mary Church complex. Soil borings confirm that beneath the present parking lot there is a very think stratum of introduced mixed fill, ranging from 6-12 feet in depth below the existing grade, which in turn overlay natural sandy soils.

Precontact Sensitivity. From what is known of precontact period settlement patterns in New York City, most habitation and processing sites are found in sheltered, elevated sites close to wetland features, major waterways, and with nearby sources of fresh water. In its predevelopment state, the project site was a low-lying area abutting a natural wetlands surrounding Tibbetts Brook. A large number of precontact period archaeological sites have been recorded in the project site vicinity, including within Van Cortlandt Park immediately to the north, and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) therefore has indicated that the project site is within an area of archaeological sensitivity.

Although in its predevelopment condition the project site would have had a high precontact period archaeological sensitivity and could have contained archaeological resources, the introduction of a very thick stratum of historic fill (ranging from 6-12 feet in depth) has capped this earlier land surface, and possibly disturbed the upper reaches of the original surface in the landfilling process. Project plans for the new PS indicate that there will be no basement level. Although there will be pilings to support the new PS, the depth of the pile caps and any new subsurface utilities should not extend below the depth of the landfill and disturb potentially sensitive soils or impact any potential archaeological resources. Based on these factors, the proposed project will not affect any possible precontact period resources.

[16] For the purposes of this analysis, the project site includes the 21,810 sf project site to be acquired by the SCA and an approximately 2,500 sf "playground easement" area adjacent to the eastern boundary of the project site.

Historical Sensitivity. Research indicates that the project site block remained undeveloped until 1908, when the West Side Tennis Club constructed tennis courts and a clubhouse on the project site block. The project site contained portions of the clay tennis courts. After the tennis facility was removed, in the early 1950s the present Visitation of the Blessed Virgin Mary Church complex was constructed on the project site block, with the project site containing an associated asphalt-paved parking lot. There is no indication that any significant historic period archaeological resources could remain on the project site from either of these two twentieth-century uses. Based on these factors, the project site is not sensitive for historic period archaeological resources.

Please refer to Appendix A for a Preliminary Assessment/Disturbance Record study, which addresses archaeological sensitivity of the project site.

HISTORICAL RESOURCES

The project site, consisting of a paved parking area, formerly served the Visitation of the Blessed Virgin Mary Church complex (currently vacant), which has been determined eligible for inclusion in the State and National Register of Historic Places as a historic district by OPRHP. The former Complex includes three vacant buildings (a former church, a former parochial school, and a former parsonage) and a bell tower located east of the project site on the remainder of the project site block. The complex appears significant at the local level under National Register Criterion C in the area of architecture. All resources were completed in 1953 and designated in a simplified modern style with the church and bell tower reflecting New Formalist-style aesthetics.[17] The project site is not located within close proximity to any historic landmark.

B. The Future Without the Project

In the absence of the proposed construction of the PS facility, there would be no new construction on the project site and no excavation or further disturbance of the project site. No potential cultural resources would be affected.

As part of a separate action by others, it is anticipated that the buildings and bell tower comprising the former Complex (located east of the project site) will be demolished and a new residential development will be constructed on this eastern portion of the project site block.

There are no historic resources within close proximity to the project site that are slated for review or expected to be designated in the future without the project. Therefore, in the future without the project, there would be no historic resources near the project site.

[17] New York State Office of Parks, Recreation and Historic Preservation, Visitation of the Blessed Virgin Mary Church complex Determination of Eligibility, July 1, 2021

C. Potential Effects of the Proposed Project

ARCHAEOLOGICAL RESOURCES

The Preliminary Assessment/Disturbance Record study completed for the proposed project site determined that no further research and study of archaeological resources is warranted, based on a low sensitivity for both precontact and historical period archaeological resources, coupled with significant disturbance to the original ground surface on the project site. Construction of the proposed new school facility on the project site would not result in significant adverse impacts to archaeological resources.

HISTORICAL RESOURCES

Although the project site is part of the SR/NR-eligible Visitation of the Blessed Virgin Mary Church complex, the project site does not contain historic resources and is not located within close proximity to any historic landmark. Therefore, no impacts to historic resources would result from construction of the proposed PS.

Chapter 8: Urban Design and Visual Resources

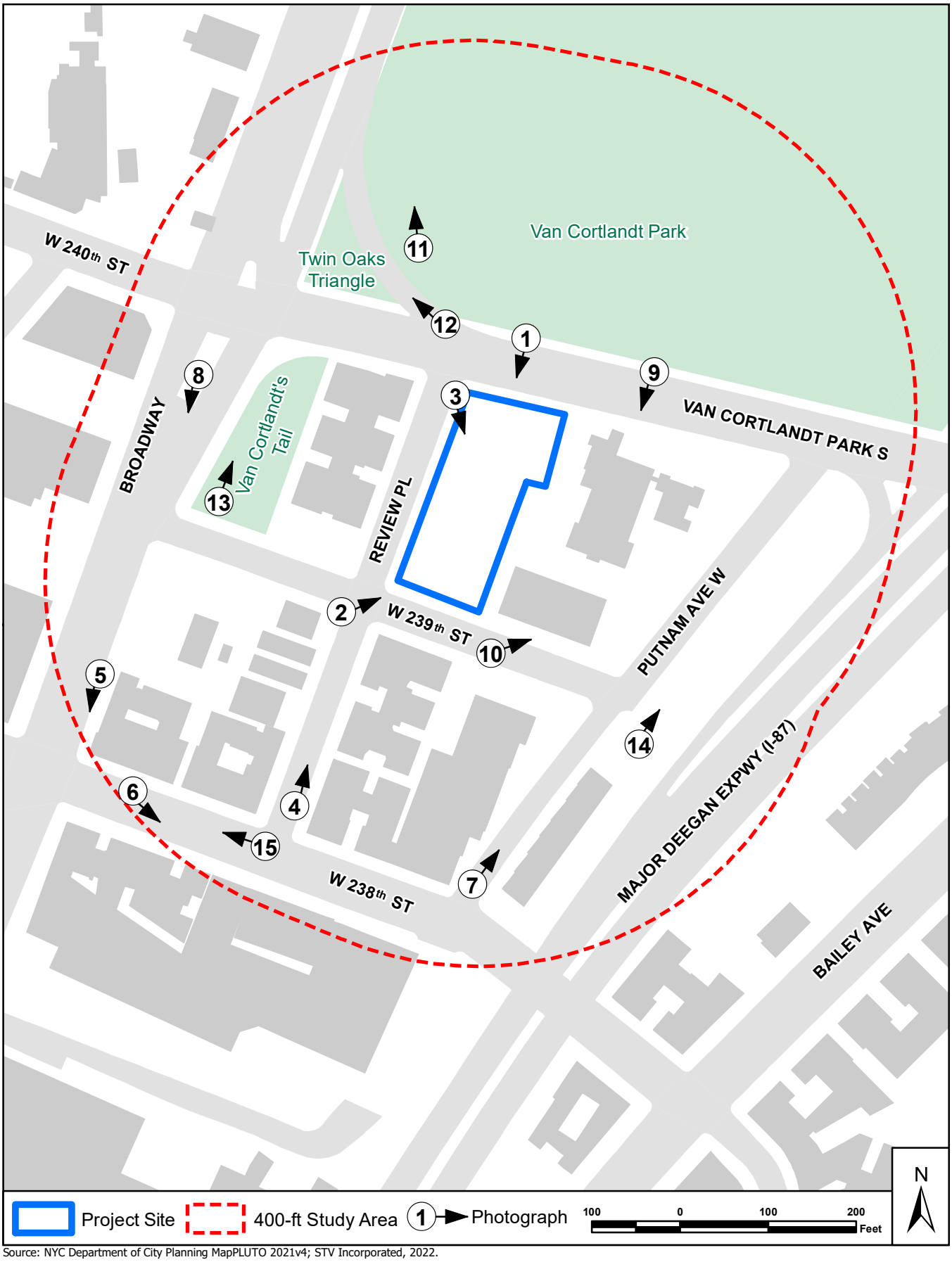
Urban design is the physical appearance of the neighborhood, including building bulk, use and type, building arrangement, block form and street pattern, street hierarchy, streetscape elements, and natural features. Visual resources are the unique or important public view corridors, vistas, or natural or built features of the area. The assessment of urban design is concerned with the potential changes to the pedestrian experience that may result from a proposed action. The *CEQR Technical Manual* recommends a preliminary assessment to determine whether physical changes proposed by the project could rise to the level of potential significant adverse impact. A detailed assessment of urban design and visual resources may be appropriate when a project would have substantially different bulk or setbacks than exist in an area, and when substantial new, above-ground construction would occur in an area that has important views, natural resources, or landmark criteria.

A. Existing Conditions

As described in Chapter 2, "Land Use, Zoning and Public Policy," the project site is located within the neighborhood of Kingsbridge in the Bronx and is surrounded by institutional, open space, residential, and mixed use buildings. Photographs of the project site and of streetscapes throughout the study area are provided to illustrate the urban design characteristics of the project site and surrounding neighborhood. The location from which each photograph was taken is identified on Figure 8-1.

PROJECT SITE

The project site is situated at the western end of the block (Block 3271) bounded by Van Cortlandt Park South to the north, West 239th Street to the south, Putnam Avenue West to the east, and Review Place to the west. The project site consists of a paved parking area that was associated with the bordering former Complex (see Photos 8-1, 8-2, and 8-3). The paved parking area is encircled by a chain-link perimeter fence and contains one large tree towards its southern edge. Although not publicly accessible, the interior of the project site is visible from the surrounding streetscapes. In its current condition, the project site does not favorably add to the urban design or aesthetic character of the surrounding neighborhood. The eastern edge of the project site, which does not have street frontage, adjoins the remaining portion of the former Complex, consisting of multiple vacant buildings (including a former church, a former parochial school, and a former parsonage) and additional parking areas (a portion of which is currently utilized by ArchCare service vans).



Source: NYC Department of City Planning MapPLUTO 2021v4; STV Incorporated, 2022.

Figure 8-1

Proposed PS at 160 Van Cortlandt Park South, Bronx

PHOTOGRAPH KEY

Photo 8-1: View of project site, facing south from Van Cortlandt Park South.

Photo 8-2: View of the project site, facing northeast from the corner of Review Place and West 239th Street. The buildings of the former Complex are visible in the background.

Photo 8-3: View of the interior of the project site from the corner of Review Place and Van Cortlandt Park South.

STUDY AREA

Building bulk, use and type. The study area surrounding the project site consists of two- to six-story residential buildings, five- to seven-story mixed-use buildings, one- to three-story commercial buildings, and two- to three-story institutional buildings.

Residential housing types are concentrated along Review Place (see Photo 8-4). Prominent residential uses are two six-story apartment buildings, one between Van Cortlandt Park South and West 239th Street and one between West 239th Street and West 238th Street. A smaller three-story apartment building is located at the corner of Review Place and West 239th Street. Two-story semi-detached residences are located between West 239th Street and West 238th Street.

Mixed-use buildings can be found on Broadway, West 238th Street, and Putnam Avenue West (see Photos 8-5, 8-6, and 8-7). On Broadway, there is a five-story mixed-use building with ground floor retail (a barber shop and check cashing facility) and residential upper floors. Along West 238th Street and Putnam Avenue West, there are five- and seven-story mixed-use buildings with first floor medical offices, daycare centers, and retail with residential upper floors.

Commercial buildings include two one-story automotive-related uses along Broadway, a gas station and an automotive dealership (see Photo 8-8). Also, along Broadway are two two-story commercial buildings, housing a bar and medical offices (see Photo 8-5). Along West 238th Street, there are two one-story commercial buildings that contain a bar/restaurant, a bakery, and a local market (see Photo 8-6). Also, along West 238th Street, a portion of the Riverdale Crossing Shopping Center comprising a three-story building containing a chain pet supply store and restaurant fall within the southeastern corner of the study area (see Photo 8-6).

Institutional uses within the study area include the developed side of the Complex, which consists of multiple vacant buildings (including a former church, a former parochial school, and a former parsonage) ranging in height from two to three stories (see Photos 8-9 and 8-10). Additionally, along Broadway the rear two-story portion of a Manhattan College academic building fronts Broadway along the eastern edge of the study area (see Photo 8-8).

Building arrangement. South of West 239th Street, building arrangement is consistently dense with buildings constructed at or very near the front lot line, allowing for little or no setback yard space along the sidewalk. However, two residential buildings along Review Place (John M. Collins Place) are set back to an extent to allow for shallow driveways. Buildings in this part of the study area tend to either be attached or built with minimal separation, creating a consistent streetwall that enforces the sense of a walkable urban neighborhood. A notable break from this consistent urban form is the gas station along Broadway between West 239th and West 238th Streets.

North of West 239th Street, the building arrangement is less dense. The project site itself is a parking lot associated with the former Complex, which has three buildings spread out across a block and separated by landscaping and interior driveways. An apartment building on Review Place is built to the lot line; however, the rear of the building adjoins Van Cortlandt's Tail, an open space that fronts Broadway. North of Van Cortlandt Park South, there are few buildings, as the study area is largely defined by the presence of Van Cortlandt Park.

Street hierarchy, block form, and street pattern. The street pattern of the study area forms an irregular rectilinear grid pattern that is bounded by Van Cortlandt Park to the north, the Major Deegan Expressway (I-87) to the east, West 238th Street to the south, and Broadway to the west.

Despite being visually and functionally different streets, the major thoroughfares in the study area are Van Cortlandt Park South, Broadway, and West 238th Street. Van Cortlandt Park South is a four-lane, two-way road that primarily serves as an access road to and from the nearby Major Deegan Expressway (I-87). The street itself is fronted by the vacant former Complex, Van Cortlandt Park, Van Cortlandt's Tail, and an apartment building. Similarly, Broadway is a major transportation thoroughfare in the study area, but in contrast to Van Cortlandt Park South, Broadway hosts commercial uses making it a more active pedestrian area. This pedestrian activity is reinforced by the presence of the elevated subway tracks above the thoroughfare and the presence of the 238th Street "1" Train Station located on the southwestern edge of the study area. West 238th Street, although narrower and more local in character than the two previously described streets, is a major local commercial thoroughfare that generates considerable pedestrian and vehicular activity. Other streets within the study area – Review Place, Putnam Avenue West, and West 239th Street – are more local and residential in character.

The Major Deegan Expressway (I-87) is present along the eastern edge of the study area and is accessed by Van Cortlandt Park South. While vehicular access to the Major Deegan Expressway (I-87) is an important aspect of the study area, the highway itself is a depressed roadway and passes below both Van Cortlandt Park South and West 238th Street and, as such, is not a local roadway. Rather, the depressed Major Deegan Expressway (I-87) serves as a physical and visual barrier between the study area and the neighborhood to the east of the highway.

Streetscape elements. Well-maintained sidewalks serve the entire study area, with the exception of the west side of Putnam Avenue West north of West 239th Street, where there is no sidewalk. Street trees are generally present throughout the study area, although the maturity varies from street to street, with the exception of Broadway, which has no street trees.

Mature trees, vegetation, and decorative entrance gates line Van Cortlandt Park South along the northern side of this street that borders Van Cortlandt Park. Additionally, a Greenstreet is present at the intersection of Broadway and Van Cortlandt South, which provides trees and plantings for pedestrian enjoyment. Van Cortlandt's Tail fronts Broadway, Van Cortlandt Park South, and West 239th Street and contains mature trees and benches.

Decorative stairs on either side of the intersection of Broadway and West 238th Street provide access to the elevated "1" train. Street lighting fixtures throughout the study area are utilitarian rather than decorative and do not promote any unique or meaningful design statement. Curbside parking is present and utilized throughout the study area. Outside of Van Cortlandt Park and Van Cortlandt's Tail, there are no benches or other street furniture.

Visual Resources. The former Complex itself, including the project site, is designated as an SR/NR-eligible historic resource. The former Complex is considered significant under National Register Criterion C, for its architecture, which includes a Modernist/New Formalist-style church and a Neoclassical-style parsonage. Constructed in 1953, the church complex includes a separate school building, which is located to the rear (south) of the church, the sanctuary building with bell tower, and an attached parsonage. An elevated walkway connects the sanctuary to the parsonage. The Complex was vacated in 2017. For the pedestrian on the street, the vacant Complex and overgrown vegetation is visible through chain-link fencing. The former Complex is in a state of disrepair with several broken windows and graffiti visible from surrounding sidewalks.

Van Cortlandt Park is a publicly-accessible open space and the predominant feature of the northern portion of the study area (see Photo 8-11). The portion of the park that falls within the study area contains two playgrounds, a multi-purpose paved area, lawns, benches, pedestrian walkways, mature trees, various plantings and vegetation, and a portion of the Old Putnam Trail.

Twin Oaks Triangle (a "Greenstreet") is a publicly-accessible open space immediately southwest of Van Cortlandt Park at the intersection of Van Cortlandt Park South and Broadway (see Photo 8-12). This open space contains cobblestone paving, vegetation, and a pedestrian path connecting to crosswalks on both the north and south sides of the triangle.

Van Cortlandt's Tail is a paved plaza area that fronts Van Cortlandt Park South, Broadway, and West 239th Street (see Photo 8-13). The park contains benches, trees, and plantings.

A grass-covered strip of land, containing scattered trees, separates Putnam Avenue West from the Major Deegan Expressway (I-87). This "buffer" area is owned by the New York City Department of Transportation, and as with the expressway, is depressed from the rest of the study area and is not easily visible from streets other than the expressway. This strip of land is generally unmaintained (see Photo 8-14).

Although not a listed historic resource, the 238th Street Station is a focal point of the 238th Street streetscape. Constructed in 1908 in the Victorian Gothic style, the station is notable for its decorative cast-iron elements on canopies, railings, and stairs (see Photo 8-15).

Photo 8-4: View looking north on Review Place. Apartment buildings, detached multi-family buildings, and semi-detached single-family buildings are visible along this street.

Photo 8-5: View facing south along Broadway, showing mixed-use and commercial buildings. A portion of the elevated 238th Street Station is visible on the right.

Photo 8-6: View looking east along West 238th Street in the direction of Review Place, showing five-story mixed-use buildings, one-story commercial buildings, and in the distance a three-story building within a portion of the Riverdale Crossing Shopping Center.

Photo 8-7: View looking north along Putnam Avenue West from West 238th Street. Seven-story apartment buildings with ground-floor medical uses are visible on both sides of the street.

Photo 8-8: View facing south along Broadway beneath the elevated "1" line subway tracks. A gas station is visible on the left. A car dealership and the rear of a Manhattan College academic building are visible on the right.

Photo 8-9: View facing south across Van Cortlandt Park South to the vacant, former church, bell tower, and parsonage present on the Complex.

Photo 8-10: View facing northeast across West 239th Street toward the vacant, former parochial school on the Complex.

Photo 8-11: View facing northwest toward one of the Van Cortlandt Park entrance gates on Van Cortlandt Park South.

Photo 8-12: View facing west along Can Cortlandt Park South toward Twin Oaks Triangle (a "Greenstreet") near the intersection with Broadway.

Photo 8-13: View facing north toward Van Cortlandt Park South from within Van Cortlandt's Tail, showing benches, vegetation, and paved areas.

Photo 8-14: View facing north showing an entrance ramp to the Major Deegan Expressway (I-87) and adjacent grass-covered strip of land. A retaining wall topped with a chain-link fence is visible on the left, behind which is Putnam Avenue West.

Photo 8-15: View facing west along West 238th Street, showing the elevated 238th Street Station above the intersection of West 238th Street and Broadway.

B. The Future Without the Project

If the proposed construction of the new PS does not occur, then it is expected that the proposed project site would resemble current conditions, with the project site remaining as a vacant, former parking lot. As part of a separate action, on the remaining portion of Lot 150 to the east (on the separate lot not acquired by the DOE), a private developer will demolish the existing buildings on it and construct a new "U"-shaped, multi-story residential development to be completed by 2026. Aside from this development, the urban design and general visual quality are generally expected to resemble existing conditions. Therefore, future conditions without the project would be altered immediately adjacent to the project site, but throughout the rest of the study area it would generally resemble existing conditions.

C. Potential Effects of the Proposed Project

Building bulk, use and type. The use, type, and bulk of the new school building would be consistent with other buildings in the area, and it would replace a former parking lot associated with a former institutional use (the Complex) with another institutional use (a new school facility). As discussed in Chapter 2, "Land Use, Zoning and Public Policy," it is expected that the design of the proposed PS would be in compliance with existing zoning regulations.

At its tallest, the new school building would stand five stories (approximately 72 ft to the roof and 87 ft including bulkhead) tall, including rooftop mechanical structures (see Figure 8-2). As

such, the proposed school building would stand approximately 7 ft taller than the existing residential apartment building on the opposite side of Review Place but would be approximately 12 ft shorter than the residential development that would be constructed adjacent to (and east of) the proposed school building. However, the introduction of an active use on the project site would reintroduce streetscape level connections to the public pedestrian realm, representing an improvement to the pedestrian experience of both the project site and study area. The introduction of the school at this location would replace an unused parking lot for a former institutional use with another institutional use. Therefore, the proposed new school would be of a building bulk, use, and type that is consistent with the study area.

Building arrangement. The proposed new school would be developed on the western portion of the block (currently containing the parking lot of the Complex). The proposed PS would cover the entire project site and is expected to be built to the lot line. This building arrangement would create a continuous streetwall, thereby contributing, via building arrangement, to the form of the streetscape and thereby improving the pedestrian experience. It would also represent an improvement over existing conditions, in which an unused parking lot with perimeter chain-link fencing is seen from the surrounding streetscapes.

Street hierarchy, block form, and street pattern. The proposed project would not alter the street hierarchy of the study area, nor would it affect the street hierarchy of the broader area. The proposed new PS would not alter the arrangement or configuration of blocks, nor would it affect the current street pattern and prevailing form of blocks in the study area.

Streetscape elements. It is anticipated that the street trees in the location of the proposed school would be protected during construction; where they must be removed, they would be replaced with new street trees, which would be planted along the Van Cortlandt Park South, Review Place, and West 239th Street sidewalks around the project site. The sidewalks contiguous to the project site would be replaced and/or repaired as appropriate as part of the proposed project. Also, the surrounding chain-link fencing would be removed, opening the project site to the surrounding area and thereby improving the pedestrian experience.

Visual Resources. The buildings of the former Complex will have been demolished as part of a separate action to allow for construction of the adjacent residential development project, leaving the former parking lot comprising the project site as the sole portion of the Complex to remain. Given that the parking lot is unmaintained and promotes no activity on the surrounding streets, the proposed new school would represent an improvement over existing conditions. The surrounding streetscapes would be enlivened by an active use that would conform the urban form by creating a cohesive streetwall.

While the proposed PS would be directly visible without obstruction from Van Cortlandt Park, there would be no adverse effect. The neighborhood would maintain views of the park from the surrounding streetscapes and the views from the park, while altered, would still be of an urban neighborhood. As detailed in Chapter 5, "Open Space," and Chapter 6, "Shadows," the proposed PS would not result in any direct or indirect effects to this visual resource.

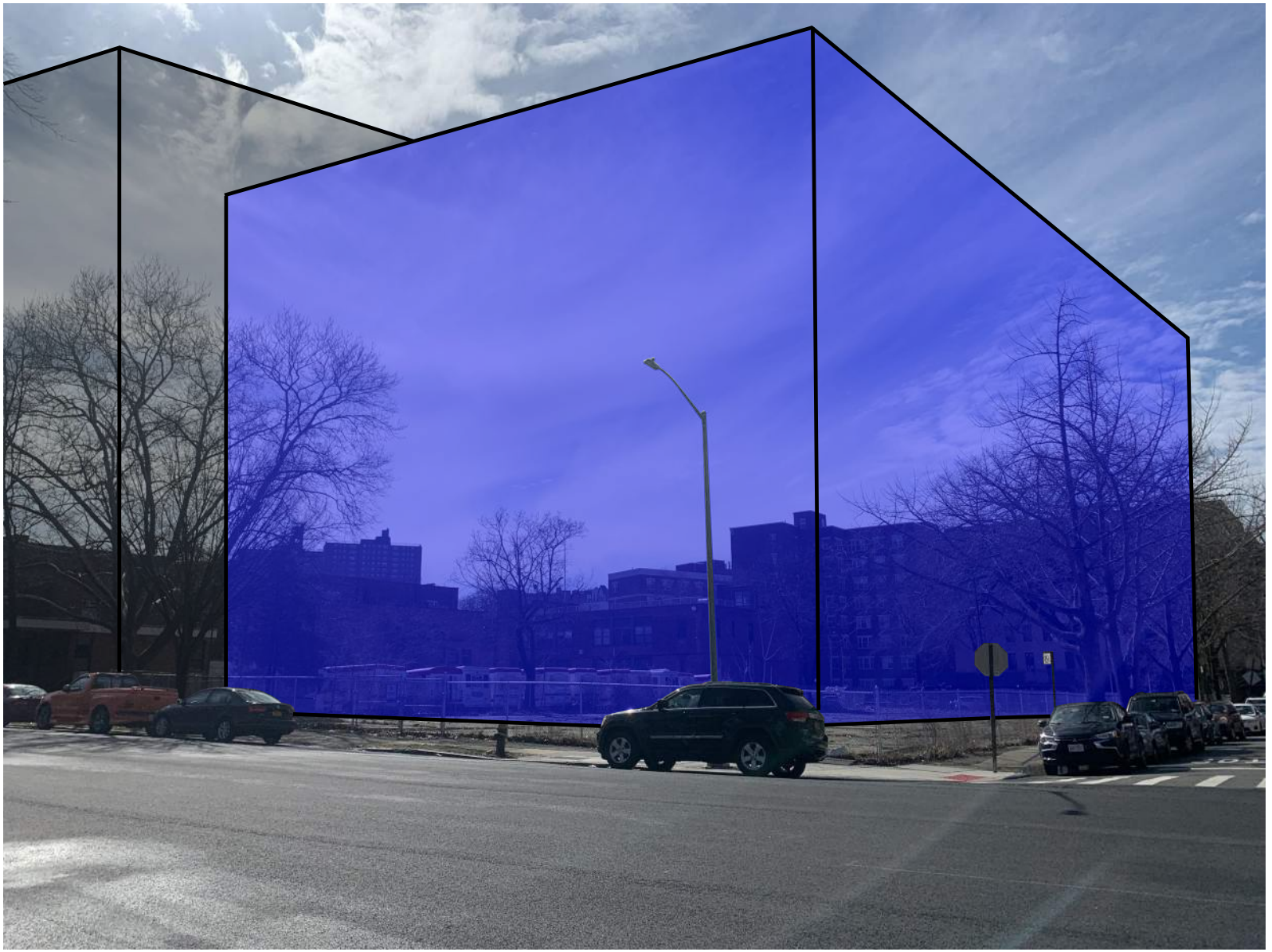
The proposed PS would not be visible from Van Cortlandt's Tail, as an approximately 65-foot tall apartment building separates this open space from the project site. As detailed in Chapter 5,

"Open Space," and Chapter 6, "Shadows," the proposed PS would not result in any direct or indirect effects to this visual resource.

The proposed PS would be visible from Twin Oaks Triangle but this view would be similar to the existing view that pedestrians have of an urban neighborhood currently afforded them from this open space. Views of Van Cortlandt Park from Twin Oaks Triangle would not be affected. Further, as detailed in Chapter 5, "Open Space," and Chapter 6, "Shadows," the proposed PS would not result in any direct or indirect effects to this visual resource.

As the proposed PS would not be visible from the 238th Street Station, views toward this station would not be altered by the proposed project.

The proposed development of the project site as a new school would improve the urban design of the study area and the pedestrian experience along the surrounding streetscapes and would not adversely affect any of the study area's visual resources. Therefore, the proposed PS would have a positive effect with regard to the proposed design for the project site; no significant adverse impact to urban design and visual quality would result with the proposed project, and no further analysis is warranted.



Scale: NTS
Source: NYCSCA; STV Incorporated, 2022.

Figure 8-2

Proposed PS at 160 Van Cortlandt Park South, Bronx

MASSING DIAGRAM

Chapter 9: Natural Resources

Under CEQR, a natural resources assessment considers species in the context of the surrounding environment, habitat or ecosystem, and examines a project's potential to impact those resources. The *CEQR Technical Manual* recommends that an assessment may be appropriate if a natural resource is present on or near the site of the project and disturbance of that resource is caused by the project.

A. Existing Conditions

The project is located within a fully developed urbanized area and is not in close proximity to any significant terrestrial or aquatic resources, and there are no visible wetlands, water bodies or streams located on or near the site. Therefore, terrestrial and aquatic resources do not represent environmental concerns for the project site.

Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which delineates the floodplain for 100- and 500-year flood events. According to information obtained through the on-line FEMA Map Services Center (www.msc.fema.gov), the project site is not located within a 100- or 500-year flood zone. Therefore, this does not represent an environmental concern for the project site.

A review of the on-line Environmental Resources Mapper (http://www.dec.ny.gov/animals/38801.html) for the New York State Department of Environmental Conservation (NYSDEC), New York Natural Heritage Program, on May 6, 2022, indicated that the project site is located in the vicinity of plants listed as endangered, threatened, or rare by NYSDEC.

B. The Future Without the Project

Without the proposed project, no significant changes are expected with regard to natural resources.

C. Potential Effects of the Proposed Project

There are no known natural resources (e.g., terrestrial ecological features, wetlands, water bodies, streams, or special flood hazard area) on or adjacent to the project site, and none would be affected by the proposed project. The site is part of a well-developed urban context. Therefore, terrestrial resources, aquatic resources, and flooding do not represent environmental concerns for the project site. As the project site is a paved urban site, no natural resources beyond planted landscapes would be found there.

None of the CEQR criteria for detailed natural resources analyses are met; significant adverse impacts to natural resources would not result, and no additional analysis is necessary.

Chapter 10: Hazardous Materials

This section addresses environmental conditions at the location of the proposed new school facility located at 160 Van Cortlandt Park South in the Bronx, New York, hereafter referred to as the proposed project site (or site), which consist of the area across an entire block (Block 3271, Lots 150 and 175).

A Phase I Environmental Site Assessment (ESA) was completed by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) on behalf of the SCA in August 2017. A Site Inspection and Regulatory Agency Database Review (SIDBR) was completed by D&B Engineers and Architects in August 2021.

The main objective of the Phase I ESA was to identify the presence or likely presence, use, or release of hazardous substances or petroleum products, which are defined in ASTM International (ASTM) Standard Practice E1527-13 as recognized environmental conditions (RECs). In addition, other environmental issues or concerns such as radon, methane, asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyl (PCB)-containing equipment, chemical storage, regulatory compliance issues, dry cleaner and other industrial emissions, mold, biological agents, and electromagnetic fields were evaluated. The Phase I ESA included a site inspection, a review of the existing data on geology and hydrology of the area, interviews, and a review of historical maps, federal, state, and local agency records, and other documents to assess past and current uses of the site and adjacent areas.

The Phase I ESA identified on-site RECs associated with the historical use and storage of fuel oil in aboveground storage tanks (ASTs) and an underground storage tank (UST) and potential presence of historic fill of unknown origin, buried structures, and/or demolition debris associated with former buildings at the site. Off-site RECs included: current and historical automobile repair facilities, gasoline service stations, PBS facilities, MTA-NYCT maintenance facilities, and dry cleaners; and regulatory database listings in the vicinity of the site for hazardous waste generators, spill incidents, petroleum bulk storage facilities, registered/historic cleaners, and historic auto sites. Environmental concerns associated with the potential presence of mold, ACM, LBP, and/or PCB-containing building materials and historic fill, and potential emissions from a nearby dry cleaner were also identified.

The main objective of the SIDBR was to identify conditions not previously identified through prior investigations, which may affect the suitability of the site for use as a public school facility.

The SIDBR identified RECs associated with the presence of on-site groundwater monitoring wells, stained areas of pavement, and historical dumping of debris and garbage on-site. Off-site RECs included: current and historical automobile repair facilities, gasoline service stations, PBS facilities, and dry cleaners; and regulatory database listings in the vicinity of the site for aerometric information retrieval system, voluntary cleanup program, hazardous waste generators, spill incidents, petroleum bulk storage facilities, registered/historic cleaners, and historic auto sites. Environmental concerns associated with the potential presence of mold, ACM, LBP, and/or PCB-containing materials or debris resulting from exiting on-site structure or buried structure and historic fill material and regulatory compliance issue related to AST registration.

To better understand the degree to which these environmental conditions may have impacted the site, a Phase II Environmental Site Investigation (ESI) was completed by D&B in September 2021.

A. Existing Conditions

The site occupies an entire block and consists of two lots that are comprised of: a one-story church building with a partial basement, a two-story rectory building with a basement, a two-story school building with a basement, and an asphalt-paved parking area. The vacant on-site buildings were most recently occupied by The Church of the Visitation of the Blessed Virgin Mary and Visitation School. Historically, the site was undeveloped prior to 1914, at which time a tennis center was constructed. The tennis center operated from approximately 1914 until 1952, which is when the current site buildings that include the church and rectory were constructed. The surrounding area has historically consisted of primarily residential, commercial, and recreational uses.

The site is bounded to the north by Van Cortlandt Park South, followed by a public park (Van Cortlandt Park); to the south by West 239th Street, followed by residential properties; to the east by Putnam Avenue West, followed by vegetated vacant land and the Major Deegan Expressway; and to the west by Review Place (John M. Collins Place), followed by residential properties.

Based on the findings of the Phase I ESA and SIDBR, a Phase II ESI was conducted at the site that included a geophysical survey and collection and laboratory analysis of soil, groundwater, and soil vapor samples.

Subsurface soil generally consisted of dark brown, brown, and tan material overlaying brown fine to medium sand with silt and clay. Historic fill material (coal ash, gravel, asphalt, glass, ceramic, concrete and brick) was observed in all completed soil borings to a maximum depth of 15 feet below ground surface (bgs). Groundwater was encountered at depths between approximately 13 feet bgs to 19 feet bgs across the site.

A review of the soil vapor sample analytical results indicated that several volatile organic compounds (VOCs) were detected at concentrations above the New York State Department of Health (NYSDOH) comparison criteria. The presence of these compounds in soil vapor is attributed to off-site sources.

A review of soil sample analytical results indicated that several semi-volatile organic compounds (SVOCs) and metals were detected at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives. The presence of these compounds in soil is attributed to the presence of historic fill at the site.

A review of groundwater sample analytical results indicated that VOCs, SVOCs, and metals were detected in groundwater samples at concentrations exceeding their respective NYSDEC Ambient Water Quality Standards and Guidance Values. The presence of VOCs in groundwater is attributed to off-site sources. The presence of SVOCs and metals in groundwater is attributed to the presence of historic fill at the site.

B. The Future Without the Project

In the future without the proposed project, the project site is expected to remain in its current condition until the site is redeveloped.

C. Potential Effects of the Proposed Project

The proposed project would not result in impacts from contaminated media and building materials. The 10,000-gallon AST at the site would be excavated and removed in accordance with all federal, state, and local requirements. For the site to be suitable for construction of a public school facility, a soil vapor barrier and sub-slab depressurization system (SSDS) would be incorporated into the new building design. Material excavated from the site would be characterized to identify material handling, reuse, and/or disposal requirements, and two feet of environmentally clean fill would be placed over all landscaped areas. Any dewatering required during construction would be performed in accordance with applicable local, state, and federal regulations and minimized to mitigate potential influx of contaminated water from off-site sources toward the site. Suspect ACM, LBP, mold, and PCB-containing materials affected by site development would be properly managed. In addition, to minimize any potential for exposure by construction workers and the surrounding public, standard industry practices, including appropriate health and safety measures, will be utilized. With the implementation of these measures, there would be no significant potential for significant adverse effects related to hazardous materials.

Chapter 11: Water and Sewer Infrastructure

The *CEQR Technical Manual* sets the following relevant criteria for the preparation of a detailed infrastructure assessment: if an action would have an exceptionally large water requirement (greater than one million gallons per day), or is located in a portion of the water supply distribution system known to have limited supply capacity, a detailed analysis is appropriate. For water usage, the proposed action would need to meet the CEQR criteria of demanding a very large quantity of water, which is not typical of school projects. Therefore, no detailed analysis of water supply is needed.

Stormwater management can be a concern if it transmits new or increased levels of pollutants to the City's water bodies, such as may occur as a result of industrial facilities, large impervious surfaces or project activities or construction that would increase the potential for soil erosion and sedimentation of water bodies. The *CEQR Technical Manual* lists industrial activities that may require assessment and indicates that clearing, grading and excavation activities affecting an area of less than five acres (and not also part of a larger plan of development) would not require a State Pollution Discharge Elimination System (SPDES) permit.

A. Existing Conditions

Publicly-supplied infrastructure includes water, sewer, and solid waste management services. Privately-supplied infrastructure includes electrical and gas service, as well as telephone service.

Water Supply. Water is supplied to the site from the Delaware and Catskill reservoir systems through New York City's municipal water distribution system, which has a cumulative storage capacity of 550 billion gallons. Within the City, a grid of underground distribution mains provides potable water for both process and sanitary requirements, and also supplies fresh water for the proposed school's fire sprinkler system. Water pressure throughout the City system is generally about 20 pounds per square inch (psi), which, according to the *CEQR Technical Manual*, is the minimum pressure acceptable for uninterrupted service.

The project site consists of a paved parking area for the former Complex and is currently unoccupied; therefore, there is currently no on-site water usage.

Storm/Sanitary Sewers. The project site is located within the Wards Island Wastewater Treatment Plant (WWTP) drainage area, which serves portions of the Bronx and Manhattan. The Wards Island WWTP is permitted to treat 275 million gallons per day (mgd). Effluent from the plant is regulated by the New York State Department of Environmental Conservation (NYSDEC) under SPDES.

Sanitary wastewater generated at the project site would be discharged to the New York City sewer system, which carries wastewater to the Wards Island WWTP.

There is currently no sanitary wastewater generation at the project site since it is unoccupied.

B. The Future Without the Project

Without the proposed action, no substantial change is expected with regard to water usage and sewage flow at the project site.

C. Potential Effects of the Proposed Project

Water Supply. According to the *CEQR Technical Manual*, each occupied school seat is estimated to consume approximately 10 gallons per day (gpd) of water, and it is assumed each staff member would consume approximately 10 gpd. In addition, 0.17 gpd would be required per square foot of space for air conditioning an educational facility. The proposed school would include approximately 736 seats and 96 faculty and staff and, thus, daily water usage would be approximately 7,360 gpd for students and 960 gpd for staff, for a total of 8,320 gpd. The proposed school building would contain approximately 103,654 gsf and, thus, would consume an additional 17,621 gpd for air conditioning, for a total of 25,941 gpd during the cooling season. No significant adverse impacts to water supply would result.

Storm/Sanitary Sewers. The amount of sewage generated by the proposed school would be approximately 8,320 gpd, and would be minimal in comparison to the treatment plant's permitted capacity; no adverse impacts would result, and no further analysis is warranted.

Chapter 12: Solid Waste and Sanitation Services

A solid waste assessment determines whether a proposed project would cause a substantial increase in solid waste production that would overburden available solid waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with state policy related to the City's integrated solid waste management system. According to the *CEQR Technical Manual*, if a project's generation of solid waste would not exceed 50 tons per week, it may be assumed that there would be sufficient public or private carting and transfer station capacity in the metropolitan area to absorb the increment, and further analysis generally would not be required. The *CEQR Technical Manual* recommends that the solid waste to be generated by a project be disclosed, using the citywide average rates for waste generation.

A. Existing Conditions

Solid waste collection and disposal is the responsibility of the New York City Department of Sanitation (DSNY) and private carters. DSNY is responsible for collecting and disposing of solid waste from public facilities and residences while commercial entities must retain private carters.

As the project site is unoccupied, there is currently no solid waste generated on the project site.

B. The Future Without the Project

Without the proposed action, no substantial change is expected with regard to solid waste generation at the project site. No solid waste would be generated at the project site without the proposed project.

C. Potential Effects of the Proposed Project

Using the solid waste generation rates for a public primary school use, which is three pounds per pupil per week and 13 pounds per employee (office building rate), the proposed school would generate approximately 3,456 pounds of solid waste per week, or 14,811 pounds per month.

DSNY is responsible for collecting and disposing of solid waste from residences and public facilities, including schools. The typical DSNY collection truck for commercial carters typically carries between twelve and fifteen tons of waste material per truck. Therefore, with 3,456 pounds of solid waste per week, or 14,811 pounds per month, to be generated by occupants of the proposed school facility, there would be no significant adverse impact anticipated with solid waste collection and disposal.

Chapter 13: Energy

Energy analyses are appropriate when an action could significantly affect the transmission or generation of energy, or generate substantial indirect consumption of energy. A detailed assessment of energy impacts would be limited to projects that may significantly affect the transmission or generation of energy. Although significant adverse energy impacts are not anticipated for the majority of projects analyzed under CEQR, a discussion of the proposed school's projected amount of energy consumption during long-term operation is discussed below.

A. Existing Conditions

The neighborhood surrounding the project site along with other parts of New York City is supplied with electricity by the Consolidated Edison Company of New York (Con Edison), and natural gas by National Grid. Both Con Edison and National Grid are state-regulated and have sufficient capacity to meet the area's electrical and natural gas needs. Both companies can increase their capacities by purchasing from other utility companies. Energy demand for the proposed project consists of the building loads for heating, ventilation, and air conditioning (HVAC) systems, and for lighting and other electrical power.

Currently, the project site is unoccupied and creates no demand for energy.

B. The Future Without the Project

Without the proposed action, no substantial change is expected with regard to energy demand at the project site and, therefore, there would be no demand for energy at the project site in the future without the proposed project.

C. Potential Effects of the Proposed Project

Electrical utility service would be provided by Con Edison and natural gas from National Grid. The proposed project would be required to comply with the New York State Energy Conservation Construction Code. This code governs performance requirements for heating, ventilation, and air conditioning systems, as well as the exterior building envelope. The code, promulgated on January 1, 1979, pursuant to Article Eleven of the Energy Law of the State of New York, requires that new and recycled buildings (both public and private) be designed to ensure adequate thermal resistance to heat loss and infiltration. In addition, it provides requirements for the design and selection of mechanical, electrical, and illumination systems. Consequently, the proposed school facility is expected to be substantially more energy efficient than conventional pre-code buildings.

Further, the proposed project would incorporate additional energy conservation measures. The proposed project would be designed following the NYC Green Schools Rating System (guidelines specific to the design, construction, and operation of New York City public school buildings) and be in compliance with site-related credits to achieve a LEED-certified or higher rating.

The proposed project would include the creation of new educational space plus support facilities, staff support spaces, food service, and related building support services. Following construction, the new school is expected to consume approximately 250,700 billion British Thermal Units (BTUs) per square foot per year. Therefore, the estimated annual usage of energy for the proposed approximately 103,654 gsf school facility would be approximately 26 billion BTUs, or 19.5 billion BTUs for the nine-month academic year. Nonetheless, the proposed school would neither affect transmission or generation of energy, nor generate substantial indirect consumption of energy. It is expected that no significant adverse impacts would occur with the capacity of both Con Edison and National Grid to provide service to the project site and surrounding area.

Chapter 14: Transportation

This chapter analyzes the potential traffic, transit, parking, and pedestrian impacts of the proposed 736-seat PS, located at 160 Van Cortlandt Park South in the Kingsbridge section of the Bronx (Community School District 10). A study area was defined that considered site location, potential access points to the proposed school site, primary streets serving the general area, and key intersections likely to be affected by school-generated trips.

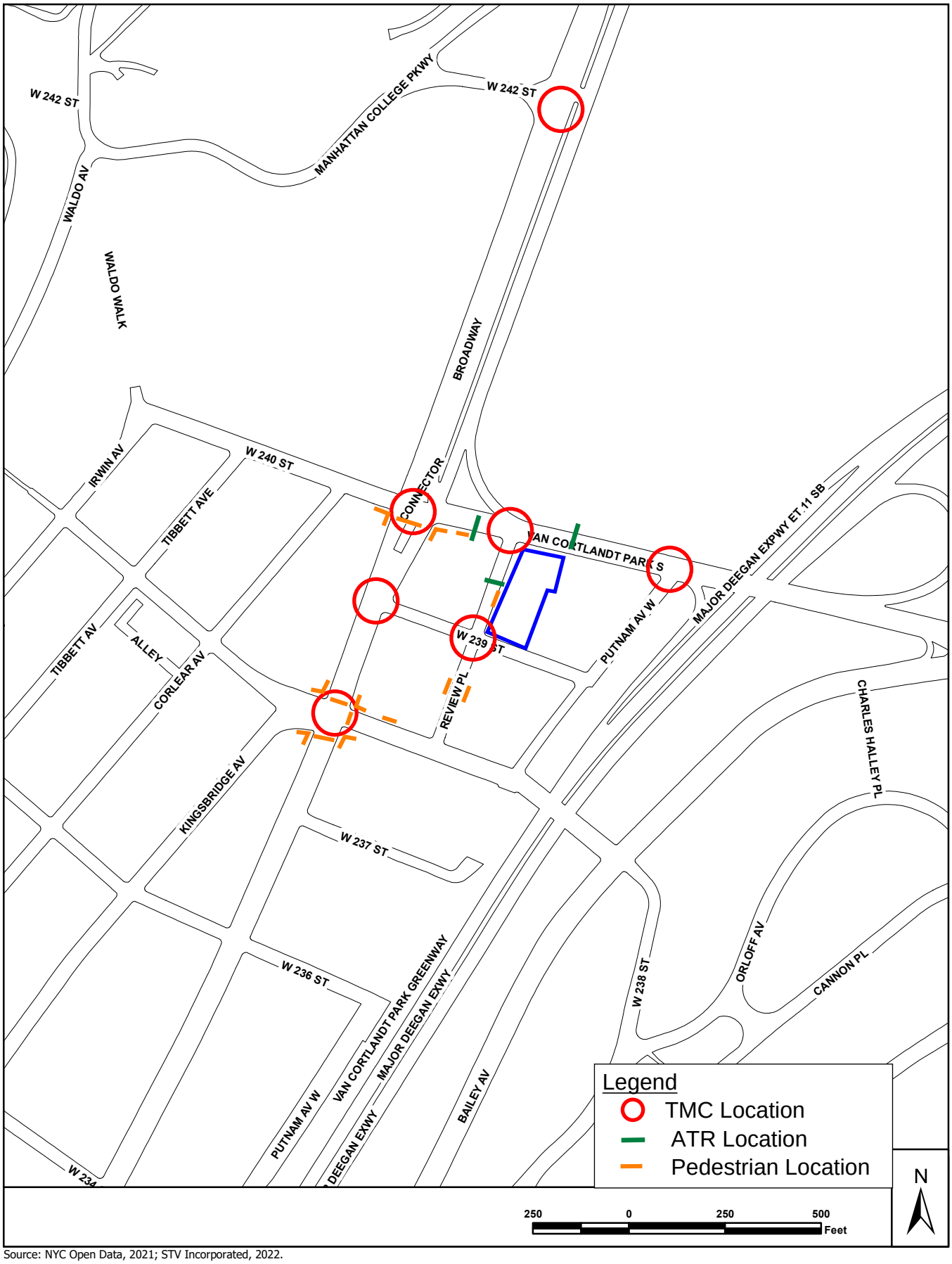
A. Existing Conditions

Roadway Network. The traffic study area comprises seven intersections (three signalized and four unsignalized) in the vicinity of the proposed school site in the Bronx (see Figure 14-1). These include:

- West 242nd Street and Broadway
- West 240th Street/Van Cortland Park South and Broadway
- West 239th Street and Broadway
- West 238th Street and Broadway
- Van Cortland Park South and Review Place
- West 239th Street and Review Place
- Van Cortland Park South and Putnam Avenue West

Please note that the intersection of West 238th Street and Putnam Avenue West was initially identified as a study intersection. The total traffic increment at this intersection would be only 11 vehicles per peak hour by the proposed school, therefore this intersection was screened out for further analysis. The following analysis considers the intersections near the site that are most likely to be affected by the project-generated traffic. The main travel routes in the study area are:

- Van Cortlandt Park South is a two-way east-west principal arterial that connects to Broadway and the Major Deegan Expressway (I-87), located on the south perimeter of Van Cortlandt Park. West of Broadway, it is referred to as West 240th Street. East of the Major Deegan Expressway on- and off-ramps, the roadway continues as Van Cortlandt Avenue West, which continues south to Sedgwick Avenue. In the study area, the street provides two travel lanes in each direction and curbside parking on the south curb. The intersections of Broadway and the Major Deegan Expressway interchange along Van Cortlandt Park South are signalized intersections. The intersections of Van Cortlandt Park South at Review Place and Putnam Avenue West are stop-controlled intersections.
- Review Place is a short, two-block local street between Van Cortlandt Park South and West 238th Street. Review Place is one-way southbound between West 238th and West 239th streets. It is a two-way street between Van Cortlandt Park South and West 239th Street, adjacent to the proposed school site, and provides one travel lane and curbside parking in both directions. The intersections on Review Place are all stop-controlled intersections.



Source: NYC Open Data, 2021; STV Incorporated, 2022.

Figure 14-1

Proposed PS at 160 Van Cortlandt Park South, Bronx **TRAFFIC STUDY AREA**

- The Major Deegan Expressway (I-87) is a six-lane expressway that connects the Bronx to upstate New York. It generally follows the alignment of the Harlem River from the Triborough Bridge to the New York Thruway. It is located just east of the study area with north- and southbound on- and off-ramps from Van Cortland Park South.
- Broadway is a two-way principal arterial that runs north-south through the study area. Broadway runs from Bowling Green in lower Manhattan through the Bronx and into Westchester County. In the study area, there is generally a single travel lane in each direction. The elevated NYCT 1 subway line runs above the roadway with columns located in the street bed, creating some areas for parking and turn-bays. Broadway connects to the Henry Hudson Parkway to the north and to Manhattan over the Broadway Bridge to the south. Intersections along Broadway are signalized.

Traffic Conditions. Turning movement counts (TMCs), including manual turning movement, vehicle classification counts, and pedestrian crosswalk counts were collected at:

- West 242nd Street and Broadway
- West 240th Street/Van Cortland Park South and Broadway
- West 239th Street and Broadway
- West 238th Street and Broadway
- Van Cortland Park South and Review Place
- West 239th Street and Review Place
- Van Cortland Park South and Putnam Avenue West

24-hour automatic traffic recorder (ATR) data were collected at the following locations adjacent to the project site:

- North and southbound Review Place between Van Cortlandt Park South and 239th Street
- Eastbound Van Cortlandt Park South between Broadway and Review Place
- Westbound Van Cortlandt Park South between Putnam Avenue West and Review Place

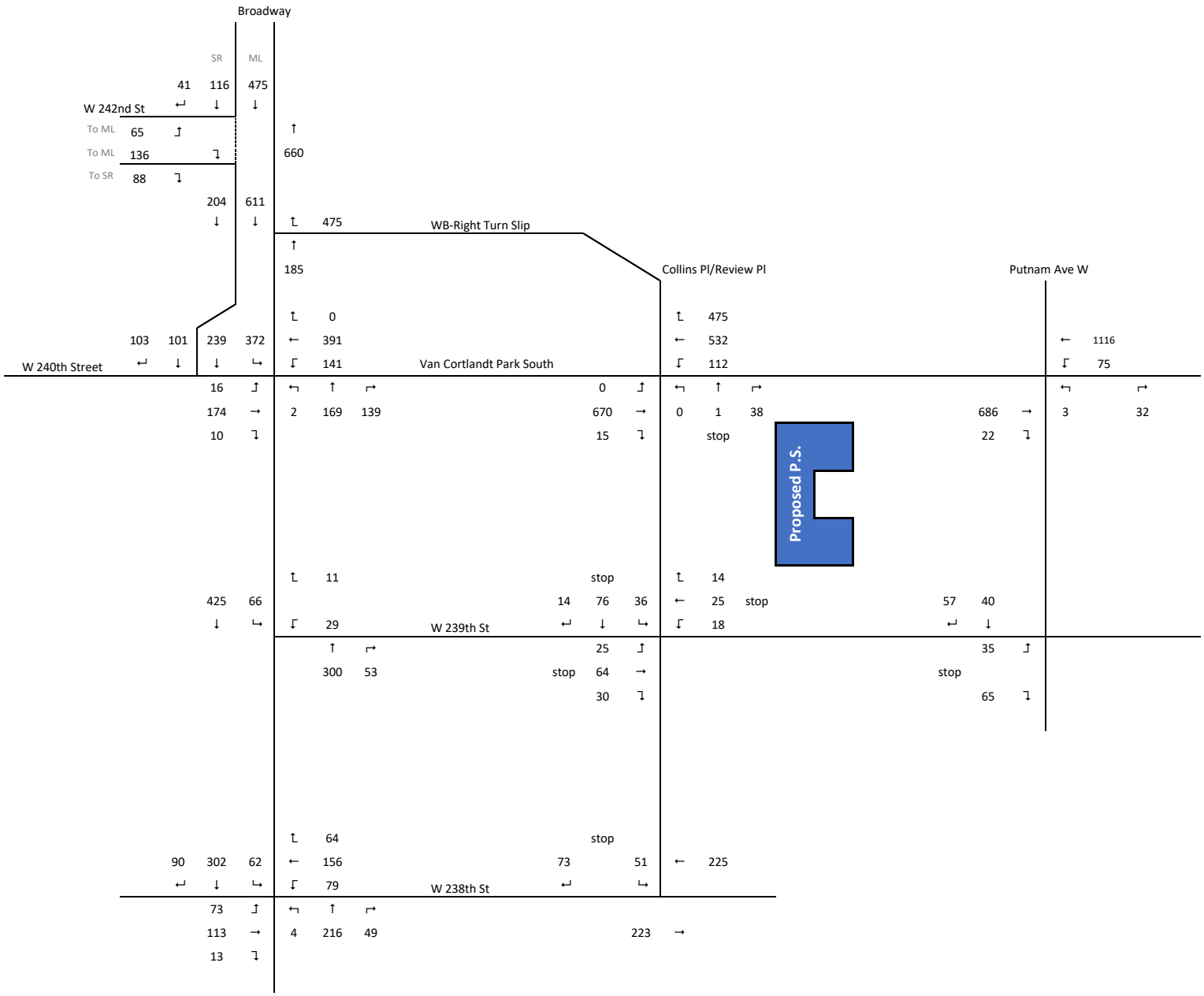
Pedestrian counts were performed during the AM and PM peak periods for:

- South crosswalk, southwest and southeast corners of Broadway and West 240th Street/Van Cortlandt Park South
- South sidewalk of Van Cortlandt Park South between Broadway and Review Place
- East sidewalk of Review Place between West 239th Street and Van Cortlandt Park South
- East and west sidewalks of Review Place between West 239th Street and West 238th Street
- North sidewalk of West 238th Street between Broadway and Review Place
- North, east, and south crosswalks and all four corners at Broadway and West 238th Street

Traffic counts were conducted during the week of April 11, 2022 while schools were in session. The peak periods identified for analysis and counted for this project were the weekday AM and mid-afternoon PM peak hours when travel to and from the proposed school site would be busiest. A review of the manual count data and the 24-hour ATR data indicated that traffic volumes peak between 7:45 and 8:45 AM, and between 3 and 4 PM (see Appendix B).

Due to the ongoing COVID-19 pandemic and its impact on typical traffic patterns, recently collected traffic data may not represent a typical weekday condition. Therefore, STV in consultation with New York City Department of Transportation (NYCDOT), developed a methodology to use a control count location with historic count data available to develop a factor to be applied to the April 2022 counts. Vehicle and pedestrian count data was available from 2019 for the intersection of West 238th Street at Broadway, one of the traffic study intersections. Data for this intersection was collected during the same period as the vehicle and pedestrian counts collected for the detailed analysis locations. The volumes counted at West 238th Street and Broadway in April 2022 were compared to the volume data available from June 2019. A factor of 1.06 was applied to the 2022 AM peak hour vehicular counts to adjust the volumes to non-pandemic conditions; no factor was applied to the 2022 PM peak hour counts.

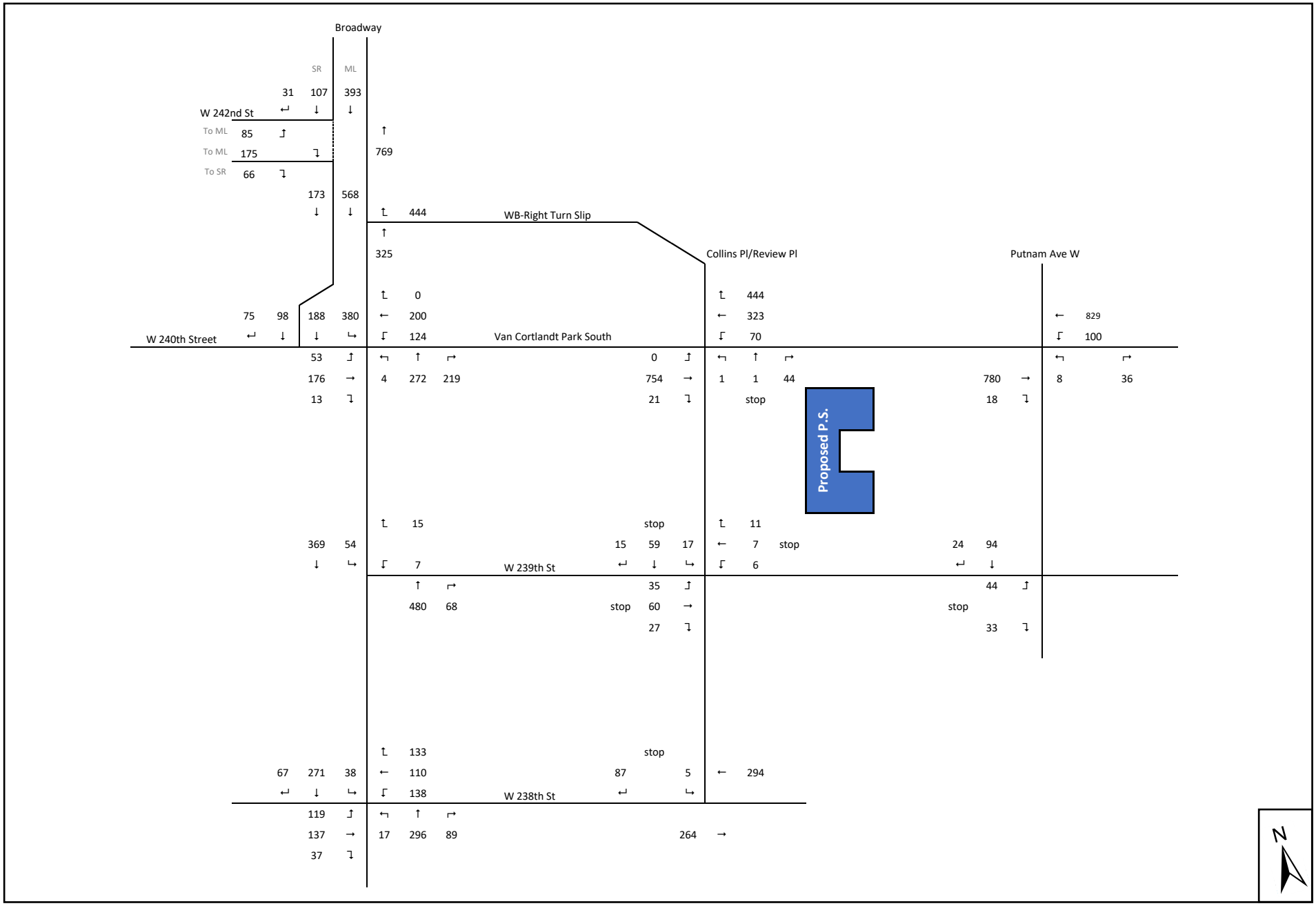
There is a wide range of traffic volumes through the study area on the local and arterial streets during both peak periods (see Figures 14-2 and 14-3). Van Cortlandt Park South carries a high volume of westbound traffic, with over 1,100 vehicles per hour (vph) during both the AM and PM peak hours. The eastbound Van Cortlandt Park South traffic volumes are lower, with approximately 650 vph during the AM and PM peak hours. The traffic volumes on Review Place, in front of the main entrance to the proposed school, are generally low with less than 40 vph northbound and 125 vph southbound during the AM and PM peak hours. Southbound Broadway processes up to 500 vph in the AM and PM peak hours; northbound Broadway generally process about 300 vph.



Source: STV Incorporated, 2022.

Figure 14-2

2022 EXISTING AM PEAK HOUR TRAFFIC VOLUMES



Source: STV Incorporated, 2022.

Figure 14-3

2022 EXISTING PM PEAK HOUR TRAFFIC VOLUMES

Analysis Methodology and Results. The *Highway Capacity Manual 2000 (HCM2000)* procedures were used to determine the capacities and levels of service for each of the intersections comprising the traffic study area. For a signalized intersection, levels of service are determined for the intersection and its individual lane groups and are defined in terms of the average control delays experienced by all vehicles that arrive in the analysis period, including delays incurred beyond the analysis period when the intersection or lane group is saturated.

The delay levels for signalized intersections are detailed below.

- Level of Service (LOS) A describes operations with very low delay, i.e., up to 10 seconds per vehicle. This occurs when signal progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.
- LOS B describes operations with delay in the range of 10 to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. Again, most vehicles do not stop at the intersection.
- LOS C describes operations with delay in the range of 20 to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. The number of vehicles stopping at an intersection is significant at this level, although many still pass through without stopping.
- LOS D describes operations with delay in the range of 35 to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles that do not stop declines.
- LOS E describes operations with delay in the range of 55 to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity ratios.
- LOS F describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume-to-capacity ratios with cycle failures. Poor progression and long cycle lengths may also be contributing to such delays. Often, vehicles do not pass through the intersection in one signal cycle.

The LOS thresholds for unsignalized intersections differ slightly from those for signalized intersections. Delay levels for unsignalized intersections are detailed below.

- LOS A describes operations with very low delay, i.e., up to 10 seconds per vehicle. This generally occurs when little or no delay is experienced at the intersection.
- LOS B describes operations with delay in the range of 10 to 15 seconds per vehicle. This generally occurs when short traffic delays are experienced at the intersection.
- LOS C describes operations with delay in the range of 15 to 25 seconds per vehicle. This generally occurs when average traffic delays are experienced at the intersection.

- LOS D describes operations with delay in the range of 25 to 35 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable, and longer traffic delays are experienced.
- LOS E describes operations with delay in the range of 35 to 50 seconds per vehicle. At LOS E, there is obvious congestion, and very long traffic delays are experienced at the intersection.
- LOS F describes operations with delay greater than 50 seconds per vehicle. At LOS F, there is heavy congestion, and excessive traffic delays are experienced at the intersection.

For signalized and unsignalized intersections, LOS A, B, and C are considered acceptable; LOS D is considered marginally acceptable for delays shorter than or equal to those at mid-LOS D; LOS D is considered marginally unacceptable for delays longer than those at mid-LOS D; and LOS E and F are considered unacceptable.

Each of the intersections comprising the traffic study area was analyzed in terms of its capacity to accommodate existing traffic volumes as defined by the resulting levels of service (see Appendix B for HCS analyses). The analyses showed that all intersections in the project study area operate at acceptable levels during both the AM and PM peak analysis hours with overall operations at LOS D or better (see Table 14-1). The following lane groups experience delays:

- The eastbound approach on West 240th Street at Broadway operates at LOS E condition in the AM peak hour.
- The westbound left-turn on Van Cortlandt Park South at Broadway operates at LOS E condition in the AM and PM peak hours.
- The westbound approach on West 238th Street at Broadway operates with a high volume-to-capacity ratio during the PM peak hour. Currently the westbound approach is marked as a single traffic lane; however, field site observations indicate that when left-turning vehicles are waiting to complete the turn, other vehicles utilize the available remaining roadway space to drive through or make a right turn at the intersection. Therefore, to calibrate operations at this intersection approach, the westbound approach on West 238th Street at Broadway was analyzed assuming it operates as two lanes: a short exclusive left-turn bay and a shared through/right-turn lane.

Table 14-1: 2022 Existing Conditions Traffic Operations

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Signalized									
West 242nd Street & Broadway									
West 242nd Street	EB	L	0.47	24.0	C	L	0.58	26.7	C
		R	0.16	19.2	B	R	0.12	18.7	B
Broadway	NB	T	0.44	20.2	C	T	0.48	14.8	B
	SB-Mainline	T	0.24	12.5	B	T	0.18	12.0	B
	SB-Service Road	TR	0.47	25.1	C	TR	0.47	26.2	C
	Overall Intersection	-		**18.8**	**B**	-		**17.4**	**B**
Van Cortlandt Park South/West 240th Street & Broadway									
West 240th Street	EB	LTR	0.92	71.3	E	LTR	0.73	43.3	D
Van Cortlandt Park South	WB	L	0.86	70.9	E	L	0.79	60.6	E
		T	0.85	48.5	D	T	0.46	31.8	C
Broadway	NB	LT	0.18	24.9	C	LT	0.28	17.9	B
		R	0.36	28.6	C	R	0.60	25.0	C
	SB-Mainline	L	0.60	36.3	D	L	0.58	37.0	D
		T	0.24	7.0	A	T	0.18	9.8	A
	SB-Service Road	TR	0.22	12.9	B	TR	0.18	3.4	A
	Overall Intersection	-		**37.5**	**D**	-		**28.4**	**C**
West 238th Street & Broadway									
West 238th Street	EB	LT	0.50	27.6	C	LT	0.86	52.2	D
		R	0.07	20.4	C	R	0.15	21.7	C
	WB	LTR	0.65	31.6	C	LT	0.61	30.1	C
						R	0.61	30.1	C
Broadway	NB	LTR	0.34	12.5	B	LTR	0.55	15.9	B
	SB	LTR	0.65	21.1	C	LTR	0.53	16.2	B
	Overall Intersection	-		**22.8**	**C**	-		**28.2**	**C**
Unsignalized									
Van Cortlandt Park South & Review Place									
Van Cortlandt Park South	EB	TR	0.31	0.0	A	TR	0.33	0.0	A
	WB	LTR	0.17	4.7	A	LTR	0.11	4.2	A
Review Place	NB	LTR	0.11	14.4	B	LTR	0.12	15.0	B
	Overall Intersection	-		**1.3**	**A**	-		**1.0**	**A**
Van Cortlandt Park South & Putnam Avenue West									
Van Cortlandt Park South	EB	TR	0.32	0.0	A	TR	0.32	0.0	A
	WB	LT	0.11	3.1	A	LT	0.16	4.5	A
Putnam Avenue West	NB	LR	0.12	16.9	C	LR	0.19	22.1	C
	Overall Intersection	-		**1.0**	**A**	-		**1.6**	**A**

Table 14-1: 2022 Existing Conditions Traffic Operations (continued)

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
West 239th Street & Broadway									
West 239th Street	WB	LR	0.16	19.3	C	LR	0.09	18.0	C
Broadway	NB	TR	0.24	0.0	A	TR	0.38	0.0	A
	SB	LT	0.07	2.0	A	LT	0.08	2.2	A
	Overall Intersection	-		**2.0**	**A**	-		**1.3**	**A**
West 239th Street & Review Place									
West 239th Street	EB	LTR	0.17	8.2	A	LTR	0.17	8.0	A
	WB	LTR	0.08	7.7	A	LTR	0.04	7.2	A
Review Place	SB	LTR	0.19	8.5	A	LTR	0.13	7.9	A
	Overall Intersection	-		**8.2**	**A**	-		**7.9**	**A**

- "Mvt." refers to the specific intersection approach lane(s) and how the lane(s) operate and/or specific pavement striping. TR is a combined through- right turn lane(s), R or L refers to exclusive right- or left-turn movement lane(s), and LTR is a
- V/C is the volume-to-capacity ratio for the Mvt. listed in the first column. Values above 1.0 indicate an excess of demand over capacity.
- Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group listed in the Mvt. Column as noted in the 2000 HCM - TRB.

- The delay calculations for signalized intersections represent the average control delay experienced by all vehicles that arrive in the analysis period, including delays incurred beyond the analysis period when the lane group is saturated.

- LOS for unsignalized intersections is based upon total average delay per vehicle (sec/veh) for each lane group listed in the Mvt. column as noted in the 2000 HCM -TRB.

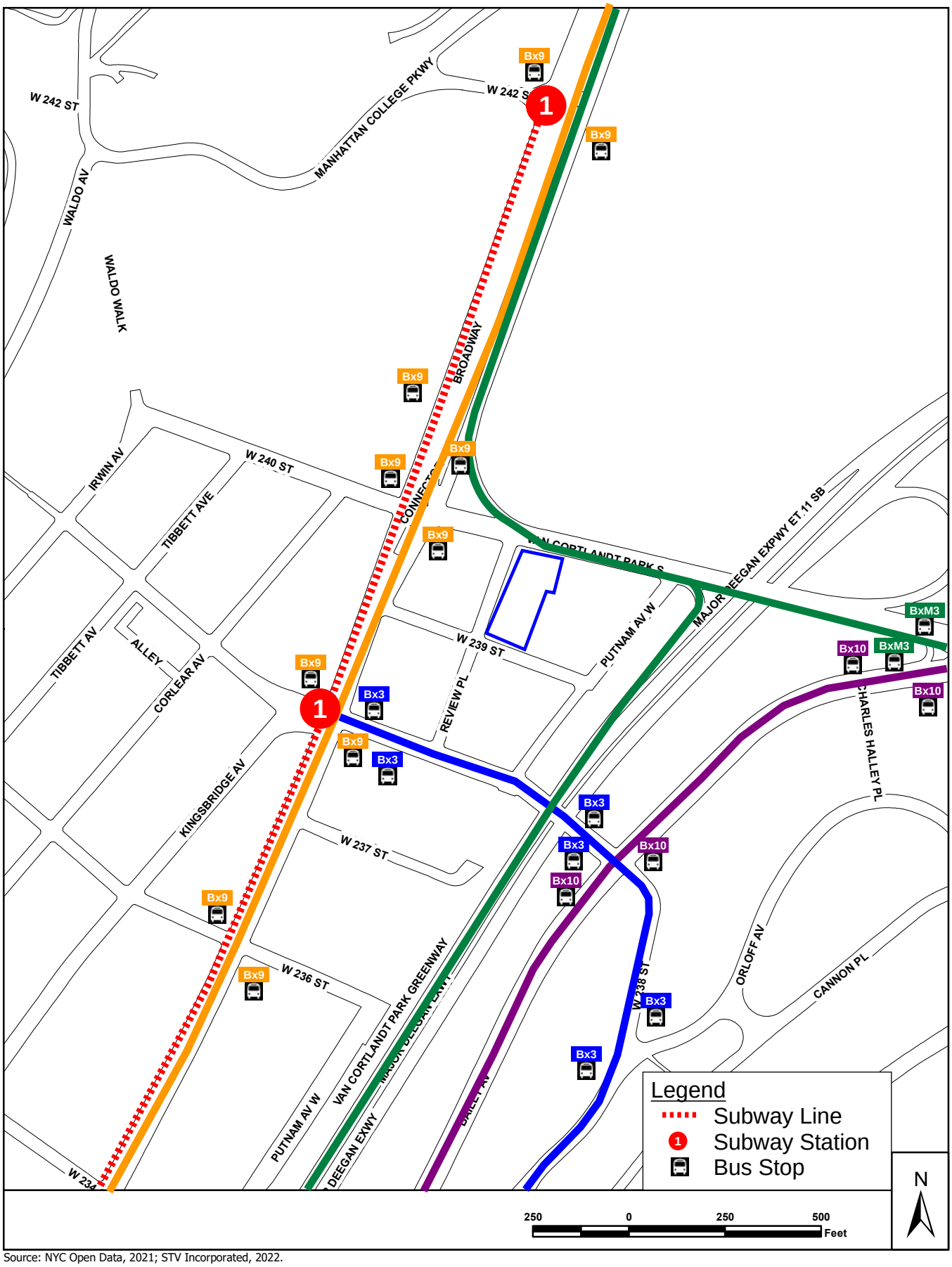
Parking. The parking study area within a quarter mile (a typical "walkable" radius) of the project site is bounded by West 242nd Street to the north, Cannon Place to the east, West 235th Street to the south, and Irwin Avenue to the west.

Since there are a few alternate-side parking regulations in effect in the study area, an on-street parking survey was conducted on one representative midweek day when parking regulations were in effect to determine the number of spaces within an acceptable walking distance (i.e., a quarter-mile radius) of the proposed school site (see Appendix B). Based on the survey, there are approximately 894 legal on-street parking spaces within a reasonable walking distance of the school site. Broadway provides hourly parking spaces and these spaces were not included in the parking capacity of the area since the allowable time in these spaces is limited to two hours and, therefore, these spaces would be unavailable to school-generated traffic. The number of available on-street parking spaces is about 71 spaces, which is about eight percent of the existing curb parking capacity (see Table 14-2).

Table 14-2: 2022 Existing On-Street Parking Supply and Demand

Parking Parameter	w/o Reg
Parking-Space Supply	894
Demand	823
(Occupancy Rate)	92%
Spaces Available	71
(Rate)	8%

Transit and Pedestrians. The study area is served by NYCT with one express (BxM3) and three local (Bx3, Bx9, and Bx10) bus routes (see Figure 14-4). The Bx3 bus route operates on West 238th Street (terminating at Broadway and West 238th Street), the Bx9 bus route operates along Broadway, and the Bx10 operates on Bailey Avenue within the study area. The local bus routes serve passengers within the Bronx. The BxM3 provides express service between Yonkers and Midtown, operating on Van Cortland Park South and the Major Deegan Expressway in the study area.



Source: NYC Open Data, 2021; STV Incorporated, 2022.

Figure 14-4

Pedestrian flow operating conditions were evaluated using *HCM2000* methodologies and the NYCDOT-approved Excel spreadsheet (see Appendix B). The congestion levels of a pedestrian facility are determined by considering pedestrian volumes; measuring the sidewalk, passageway, or crosswalk width; determining the available pedestrian capacity; and developing a ratio of volume flows to capacity (v/c) conditions. The resulting ratio is then compared with the LOS standards for flow, measured in terms of either pedestrian space or delay.

At interrupted-flow facilities, such as signalized and stop-controlled intersections, crosswalk and corner operations are often based on crosswalk time-space and pedestrian space, respectively, which are the average effective area per pedestrian of the analyzed element, measured in square feet per pedestrian (sf/ped). The levels of service for all crosswalk elements at a signalized intersection and for all corner elements at both a signalized and unsignalized intersection are defined in terms of these spaces. LOS A occurs when the average pedestrian space is greater than 60 sf/ped. LOS B, C, and D occur when the space is in the range of 40 to 60, 24 to 40, and 15 to 24 sf/ped, respectively. LOS E is capacity for a space from eight to 15 sf/ped. LOS F describes jammed conditions with an average space of eight sf/ped or less.

Pedestrian counts were performed in 15-minute intervals during the AM and PM peak periods for the pedestrian analysis locations. The pedestrian volumes peak between 7:15 and 8:15 AM during the morning hours and between 3 and 4 PM during the afternoon peak period. (The Existing pedestrian networks are included in Appendix B.)

Due to the ongoing COVID-19 pandemic affecting daily life in New York City, pedestrian data collected in April 2022 may not represent a typical weekday condition. Therefore, STV in consultation with NYCDOT, developed a factor to be applied to the pedestrian counts. An adjustment factor of 1.10 was applied to the AM peak hour pedestrian volumes to adjust to non-pandemic volumes. No factor was applied to the PM count data.

The pedestrian counts indicated that existing volumes are low at the pedestrian elements adjacent to the proposed school site, with volumes generally less than 20 pedestrians per hour. The south crosswalk at the intersection of Van Cortlandt Park South and Review Place processed between 30 and 50 pedestrians during the AM and PM peak hours. The highest pedestrian volumes in the study area were observed at the intersection of Broadway and West 238th Street, located near the subway entrance and bus stops for the Bx3 and Bx9. Crosswalk volumes at this intersection range between 120 and 560 pedestrians during the AM and PM peak hours.

Table 14-3 summarizes the existing 2022 LOS for the analyzed pedestrian elements. The pedestrian analyses indicate that all analyzed corners, crosswalks, and sidewalks operate at acceptable LOS A or B conditions.

Table 14-3: 2022 Existing Pedestrian Conditions

Intersection and Element	AM Peak		PM Peak	
	Average Space (sf/ped)	LOS	Average Space (sf/ped)	LOS
Broadway & West 240th Street / Van Cortlandt Park South				
Southwest corner	801	A	386	A
Southeast corner	2,233	A	765	A
South crosswalk	523	A	222	A
Broadway & West 238th Street				
Northwest corner	917	A	805	A
Northeast corner	263	A	239	A
Southwest corner	179	A	248	A
Southeast corner	201	A	241	A
North crosswalk	115	A	124	A
South crosswalk	41	B	74	A
East crosswalk	201	A	170	A
Van Cortlandt Park South between Broadway & Review Place				
South sidewalk	611	A	209	A
Review Place between Van Cortlandt Park South & West 239th Street				
East sidewalk	1,528	A	2,445	A
Review Place between West 238th Street & West 239th Street				
West sidewalk	698	A	1,222	A
East sidewalk	3,209	A	2,567	A
West 238th Street between Broadway & Review Place				
North sidewalk	489	A	578	A

Note: Average Space is based on the assumption that pedestrians distribute themselves uniformly throughout the effective crosswalk and corner space. LOS designations are based on average pedestrian space expressed as square feet per pedestrian (sf/ped).

Safety. The school catchment area is not located within a NYCDOT Vision Zero (2019) Bronx Priority Area. There are no intersections or streets within the proposed catchment area that are identified as Vision Zero priority intersections or corridors.

A review of the crash data provided from NYCDOT for the most recent three-year period of 2018 through 2020 indicated that the intersections along the predominant school walk routes to/from the proposed school site experienced fewer than five pedestrian/bicycle-type crashes in any consecutive twelve-month period and zero fatalities were recorded. According to the *CEQR Technical Manual,* a high-crash location is defined as a location identified along a Vision Zero corridor or intersection or one where there were five or more pedestrian/bicycle injury crashes in any consecutive twelve-month period of the most recent three-year period. None of the pedestrian safety study area intersections are high-crash locations (see Tables 14-4 and 14-5). A pedestrian safety assessment has been prepared and provided to NYCDOT.

Table 14-4: 2018 - 2020 Crash Summary

Intersection		Crashes, 2018-2020				Injuries	Fatalities
		Total	Motor Vehicle	Pedestrian	Bicycle		
Broadway	West 238th Street	14	8	3	3	14	0
	West 239th Street	11	11	0	0	11	0
	West 240th Street / Van Cortlandt Park South	4	2	1	1	4	0
	West 242nd Street	6	3	3	0	6	0
Putnam Avenue West	West 238th Street	8	5	3	0	8	0
	West 239th Street	0	0	0	0	0	0
	Van Cortlandt Park South	1	1	0	0	1	0
Review Place	West 238th Street	3	1	2	0	3	0
	West 239th Street	3	3	0	0	3	0
	Van Cortlandt Park South	0	0	0	0	0	0

Table 14-5: 2018 - 2020 Detailed Crash Summary by Year

Intersection		Crashes												Injuries			Fatalities		
		Total			Motor Vehicle			Pedestrian			Bicycle								
		2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020
Broadway	West 238th Street	5	4	5	5	1	2	0	1	2	0	2	1	5	4	5	0	0	0
	West 239th Street	0	8	3	0	8	3	0	0	0	0	0	0	0	8	3	0	0	0
	West 240th Street / Van Cortlandt Park South	2	1	1	1	1	0	0	0	1	1	0	0	2	1	1	0	0	0
	West 242nd Street	2	3	1	2	1	0	0	2	1	0	0	0	2	3	1	0	0	0
Putnam Avenue West	West 238th Street	0	6	2	0	4	1	0	2	1	0	0	0	0	6	2	0	0	0
	West 239th Street	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Van Cortlandt Park South	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Review Place	West 238th Street	0	2	1	0	1	0	0	1	1	0	0	0	0	2	1	0	0	0
	West 239th Street	0	3	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0
	Van Cortlandt Park South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

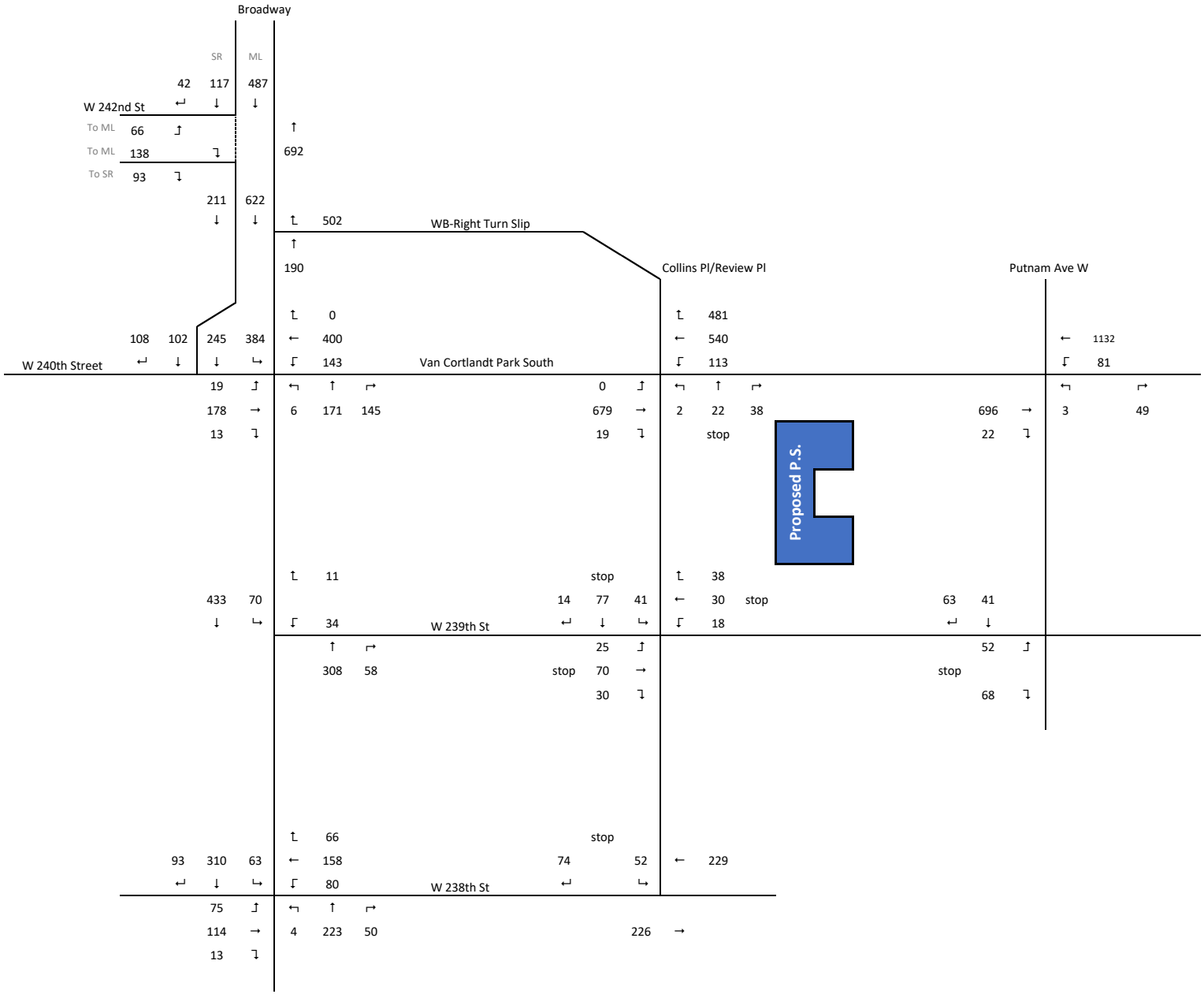
B. The Future Without the Project

The analysis of the future traffic conditions without the proposed school (i.e., the future No Build conditions) serves as the baseline against which impacts of the project are compared. The future No Build analysis includes the traffic and pedestrian volume increases expected due to an overall growth in background traffic through and within the study area, and major real estate developments and roadway system changes scheduled to be occupied or implemented by the future 2027 Build Year. A background growth rate of 0.25 percent for five years resulting in an overall growth of approximately one percent by 2027 was assumed for this area of the Bronx, per *CEQR* standards. Two proposed developments were also included in the No Build traffic volumes. A 336-unit residential development is planned for the portion of the block adjacent to (and east of) the proposed school site. Additionally, a 10,770 square-foot restaurant and catering hall is planned for 205 West 240th Street. The trip generation and traffic assignment of these developments have been included in the No Build traffic networks.

NYCDOT's Bike Unit has a planned street improvement project on Broadway in the study area. The project includes removing substandard parking lanes, constructing bus boarding islands, adding pedestrian islands, and protected bicycle lanes in each direction. The travel lanes on north- and southbound Broadway will be reduced to eleven feet. These geometric changes have been incorporated in the No Build traffic analysis.

Future No Build Traffic Conditions. There would be an increase in traffic volumes along the roadways included in the project study area based on the one percent background growth and proposed area developments. (see Figures 14-5 and 14-6). The following study intersections would experience significant LOS changes due to the changes in No Build traffic volumes (see Table 14-6):

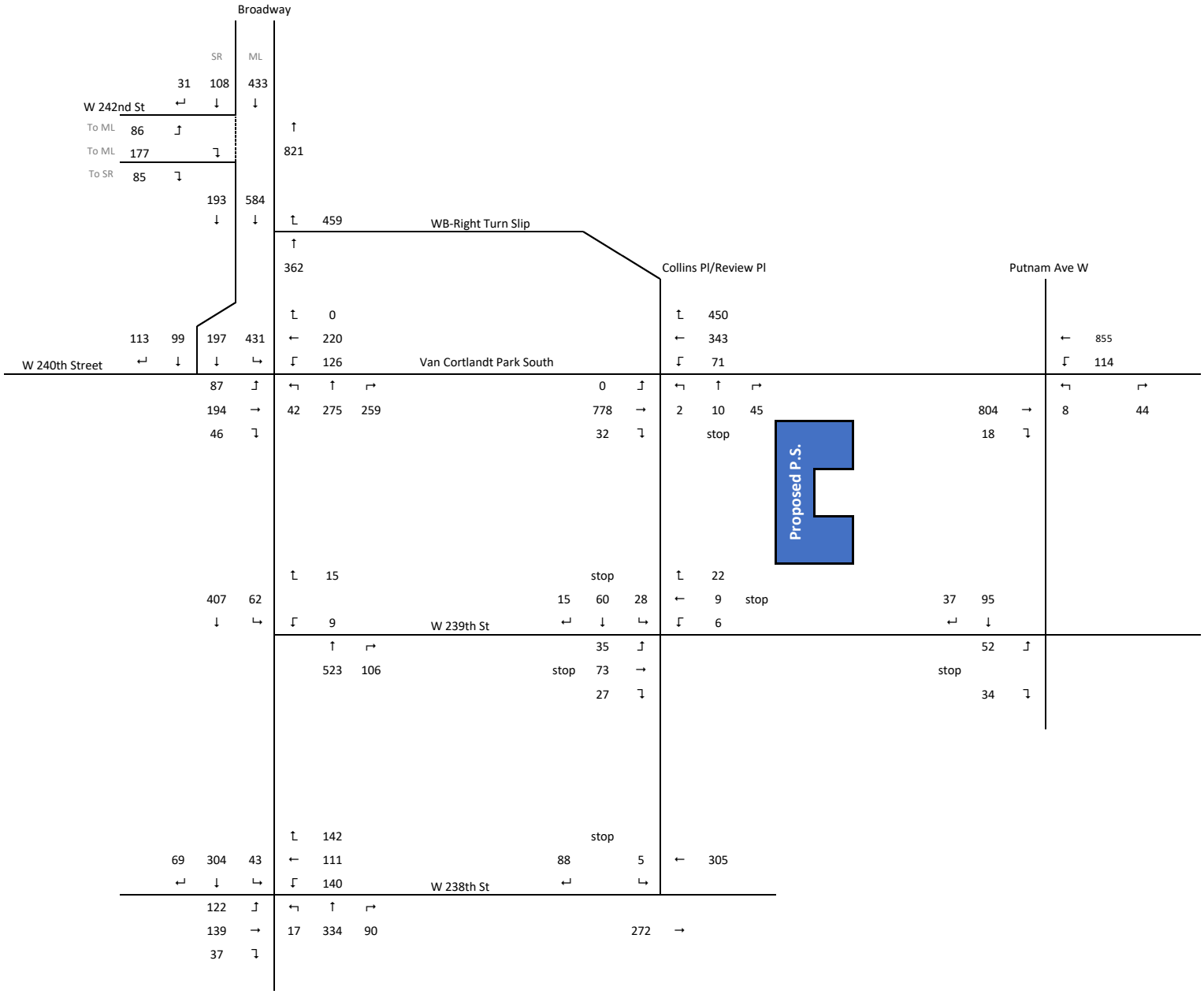
- The eastbound approach on West 240th Street at Broadway deteriorates to LOS F condition in the AM and PM peak hours.
- The westbound left-turn on Van Cortlandt Park South at Broadway deteriorates to LOS F condition in the AM and PM peak hours.
- The overall intersection of Broadway and Van Cortlandt Park South/West 240th Street operates at LOS E in the PM peak hour.
- The eastbound approach on West 238th Street at Broadway deteriorates to LOS E condition in the PM peak hour.



Source: STV Incorporated, 2022.

Figure 14-5

2027 NO BUILD AM PEAK HOUR TRAFFIC VOLUMES



Source: STV Incorporated, 2022.

Figure 14-6

2027 NO BUILD PM PEAK HOUR TRAFFIC VOLUMES

Table 14-6: 2027 No Build Conditions Traffic Operations

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Signalized									
West 242nd Street & Broadway									
West 242nd Street	EB	L	0.47	24.2	C	L	0.59	27.0	C
		R	0.17	19.3	B	R	0.15	19.0	B
Broadway	NB	T	0.46	20.3	C	T	0.51	15.9	B
	SB-Mainline	T	0.24	12.5	B	T	0.20	12.1	B
	SB-Service Road	TR	0.47	25.3	C	TR	0.47	26.2	C
	Overall Intersection	-		**18.9**	**B**	-		**17.8**	**B**
Van Cortlandt Park South/West 240th Street & Broadway									
West 240th Street	EB	LTR	1.09	118.6	F	LTR	1.35	213.8	F
Van Cortlandt Park South	WB	L	1.00	105.4	F	L	1.04	119.2	F
		T	0.87	50.5	D	T	0.50	32.8	C
Broadway	NB	LT	0.19	25.0	C	LT	0.36	19.3	B
		R	0.38	29.0	C	R	0.71	29.5	C
	SB-Mainline	L	0.61	36.7	D	L	0.66	39.5	D
		T	0.25	7.0	A	T	0.19	9.9	A
	SB-Service Road	TR	0.27	15.4	B	TR	0.26	4.0	A
	Overall Intersection	-		**46.4**	**D**	-		**59.0**	**E**
West 238th Street & Broadway									
West 238th Street	EB	LT	0.52	28.1	C	LT	0.92	61.8	E
		R	0.07	20.6	C	R	0.17	22.2	C
	WB	LTR	0.67	32.4	C	LT	0.64	31.3	C
						R	0.64	31.3	C
Broadway	NB	LTR	0.35	12.8	B	LTR	0.61	17.4	B
	SB	LTR	0.68	21.4	C	LTR	0.59	16.1	B
	Overall Intersection	-		**23.2**	**C**	-		**30.8**	**C**
Unsignalized									
Van Cortlandt Park South & Review Place									
Van Cortlandt Park South	EB	TR	0.31	0.0	A	TR	0.34	0.0	A
	WB	LTR	0.23	6.5	A	LTR	0.15	5.3	A
Review Place	NB	LTR	1.36	367.0	F	LTR	0.47	55.9	F
	Overall Intersection	-		**14.2**	**B**	-		**2.6**	**A**
Van Cortlandt Park South & Putnam Avenue West									
Van Cortlandt Park South	EB	TR	0.32	0.0	A	TR	0.33	0.0	A
	WB	LT	0.13	3.4	A	LT	0.19	5.1	A
Putnam Avenue West	NB	LR	0.17	16.4	C	LR	0.23	22.9	C
	Overall Intersection	-		**1.2**	**A**	-		**1.8**	**A**

Table 14-6: 2027 No Build Conditions Traffic Operations (continued)

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
West 239th Street & Broadway									
West 239th Street	WB	LR	0.19	20.6	C	LR	0.12	21.6	C
Broadway	NB	TR	0.24	0.0	A	TR	0.44	0.0	A
	SB	LT	0.08	2.1	A	LT	0.10	2.7	A
	Overall Intersection	-		**2.2**	**A**	-		**1.6**	**A**
West 239th Street & Review Place									
West 239th Street	EB	LTR	0.18	8.3	A	LTR	0.19	8.2	A
	WB	LTR	0.12	7.8	A	LTR	0.05	7.3	A
Review Place	SB	LTR	0.20	8.7	A	LTR	0.15	8.1	A
	Overall Intersection	-		**8.3**	**A**	-		**8.1**	**A**

- "Mvt." refers to the specific intersection approach lane(s) and how the lane(s) operate and/or specific pavement striping. TR is a combined through- right turn lane(s), R or L refers to exclusive right- or left-turn movement lane(s), and
- V/C is the volume-to-capacity ratio for the Mvt. listed in the first column. Values above 1.0 indicate an excess of demand over capacity.
- Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group listed in the Mvt. Column as noted in the 2000 HCM - TRB.

- The delay calculations for signalized intersections represent the average control delay experienced by all vehicles that arrive in the analysis period, including delays incurred beyond the analysis period when the lane group is saturated.

- LOS for unsignalized intersections is based upon total average delay per vehicle (sec/veh) for each lane group listed in the Mvt. column as noted in the 2000 HCM -TRB.

Parking. Demand for parking was assumed to increase proportionally to the traffic growth in the study area by 0.25 percent per year for five years, resulting in an approximate increase of one percent in occupancy rate of the available on-street parking. In the future No Build conditions, the parking space availability is expected to be similar to existing conditions, with approximately seven percent available parking supply (see Table 14-7).

NYCDOT's planned street improvement project on Broadway will eliminate some curbside parking due to the installation bus boarding islands, pedestrian islands, and protected bicycle lanes in each direction. School-generated traffic is unlikely to park along Broadway since the allowable time in these spaces is restricted to two hours; however, this parking supply change along Broadway may have an indirect effect on parking capacity as some of these vehicles may park off of Broadway on streets with street cleaning parking regulations where school staff may park.

Table 14-7: 2027 No Build On-Street Parking Supply and Demand

Parking Parameter	w/o Reg
Parking-Space Supply	894
Demand	833
(Occupancy Rate)	93%
Spaces Available	61
(Rate)	7%

Transit and Pedestrians. The numbers of transit riders and pedestrians in the study area were also assumed to increase by 0.25 percent per year for five years, in proportion to traffic volumes. Transit service and operational conditions were expected to remain similar to the current conditions, since the planned developments in the area and the applied growth factor would not significantly alter conditions from existing conditions.

No Build pedestrian activity near the project site and in the study area was also anticipated to remain similar to existing conditions, and no pedestrian element would experience significant LOS changes due to these No Build adjustments (see Table 14-8).

Table 14-8: 2027 No Build Pedestrian Conditions

Intersection and Element	AM Peak		PM Peak	
	Average Space (sf/ped)	LOS	Average Space (sf/ped)	LOS
Broadway & West 240th Street / Van Cortlandt Park South				
Southwest corner	331.4	A	207.9	A
Southeast corner	533.3	A	388.9	A
South crosswalk	127.5	A	87.9	A
Broadway & West 238th Street				
Northwest corner	903.7	A	820.5	A
Northeast corner	205.6	A	217.3	A
Southwest corner	155.2	A	216.8	A
Southeast corner	154.5	A	201.6	A
North crosswalk	113.1	A	115.2	A
South crosswalk	32.7	C	52.7	B
East crosswalk	133.1	A	135.5	A
West crosswalk	427.6	A	276.8	A
Van Cortlandt Park South between Broadway & Review Place				
South sidewalk	82.3	A	65.7	A
Review Place between Van Cortlandt Park South & West 239th Street				
East sidewalk	135.7	A	159.3	A
Review Place between West 238th Street & West 239th Street				
West sidewalk	545.0	A	979.0	A
East sidewalk	1,993.1	A	1,743.4	A
West 238th Street between Broadway & Review Place				
North sidewalk	457.2	A	590.2	A

Note: Average Space is based on the assumption that pedestrians distribute themselves uniformly throughout the effective crosswalk and corner space. LOS designations are based on average pedestrian space expressed as square feet per pedestrian (sf/ped).

C. Potential Effects of The Proposed Project

The analysis of future conditions with the project in place requires the determination of the number of trips by travel mode expected to be generated by the proposed school, the assignment of these vehicle trips to the street network approaching the site, and the determination of projected levels of service at the critical locations analyzed.

Trip Generation: The proposed PS would provide space for 736 seats. Of the 736 new seats, 96 seats will be provided for D75 (special education) students and 640 seats will be provided for PS students. It is anticipated that the school would employ an estimated 96 teachers and staff. For trip generation purposes, it was conservatively assumed that the school would be filled to capacity (i.e., no absentee rate was applied).

The modal split data to develop the trip generation estimates for the general education component of the proposed PS were developed based on the Journey-to-Work data[18] for Bronx County Census Tracts 279, 283, 285, 287, 295, and 335, a count of residential units within the 0.5-mile radius, and consideration of representative school districts and schools for which previous studies were conducted: the existing PS 163 in the Bronx (CSD 9) and the existing PS 138 in the Bronx (CSD 8). For the D75 component of the proposed PS, an estimated 98 percent of students would be bused to school while the remaining two percent would be dropped off and picked up via private auto trips. This mode split is consistent with other NYCSCA school studies with D75 components.

Students would arrive at and depart from school by a number of travel modes, including private autos, public transit, school buses, and walking from nearby residences. The school catchment area (see Figure 14-7) was determined based on a review of DOE school boundary maps and indicates that a majority of students attending the school would live in nearby residential areas, with more than 50 percent of students within a half-mile distance to the school. Consequently, the majority of PS students (about 55 percent) would walk to school, while approximately 20 percent would be driven to school by their parents. The remaining ten percent of the PS students would commute to school by public transit (i.e., the local Bx9 bus) and fifteen percent by school buses (see Table 14-9). The majority of D75 students (about 98 percent) would commute to school by mini school buses and the remaining two percent would be driven to school by their parents.

It is expected that the school would employ an estimated 96 staff members. The PS student-to-staff ratio is an estimated 10:1 and the D75 student-to-special education teacher-to-paraprofessional ratio is an estimated 6:1:1, yielding a total of approximately 64 PS staff members and 32 D75 staff members. The staff mode choice was determined using reverse-journey-to-work data[19] for Bronx County Census Tracts 279, 283, 285, 287, 295, and 335, where the proposed catchment area is located. The modal split indicates that 36 percent of the staff would utilize

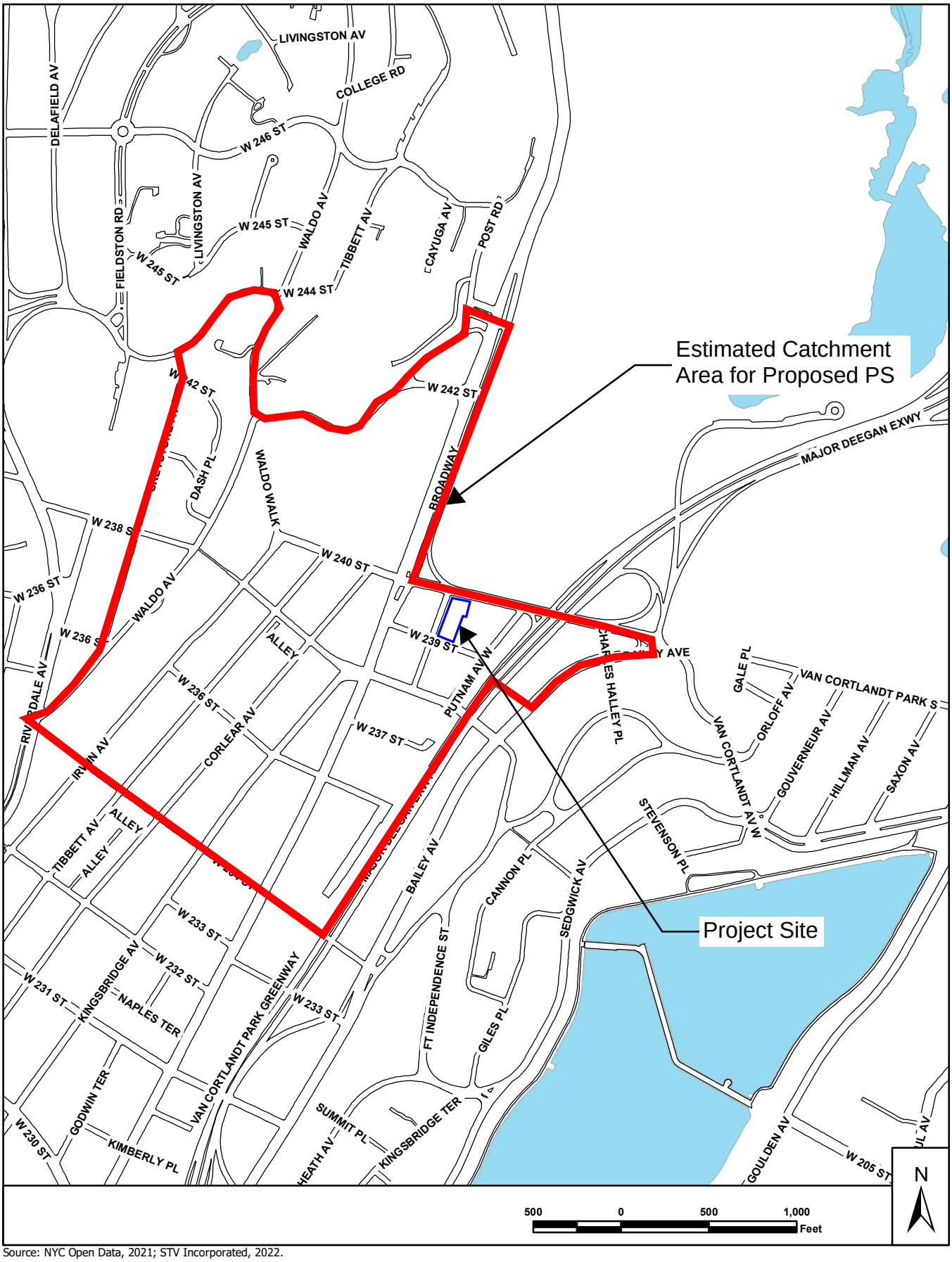
[18] U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates. Special Tabulation: Census Transportation Planning

[19] U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates. Special Tabulation: Census Transportation Planning

public transit, 44 percent would travel in private automobile, and the remaining 20 percent would walk to the school.

School bus and auto drop-off trips were assumed to make a complete in-and-out cycle within the AM and PM peak hours, i.e., arrive full and depart empty within the AM study peak hour and arrive empty and depart full in the PM study peak hour. Based on available data, private auto vehicle occupancy rates of 1.3 for PS students, 1.0 for D75 students, and 1.08 for staff were applied.

Temporal Distribution: It is assumed that 99 percent of students and 80 percent of staff would arrive at the school during the AM peak hour and depart during the PM peak hour, following the guidelines of the *CEQR Technical Manual*. This would result in 121 student vehicle arrivals and 121 vehicle departures (autos and buses) during the AM and PM peak hours (see Table 14-10). Staff trips would result in a total of 32 vehicle arrivals during the AM peak hour and two vehicle departures during the AM peak hour, and two vehicle arrivals and 32 vehicle departures during the PM peak hour. The total number of new school-generated vehicle trips (autos, school buses, and trucks) is projected to be 153 arrivals and 123 departures during the AM peak hour, and 123 arrivals and 153 departures during the PM peak hour.



Source: NYC Open Data, 2021; STV Incorporated, 2022.

Figure 14-7

CATCHMENT AREA

Table 14-9: Transportation Planning Assumptions

	(Pre-K-5) **Students**		*(D75)* **Students**		**Parents**		**Faculty/Staff**	
Project Component:	640		96		(5) 316		96	
Attendance Rate:	(1) 100%		(1) 100%		--		--	
Daily Trip Generation:	(3) 2.0 per student		(3) 2.0 per student		(3) 4.0 per parent		(3) 2.0 per employee	
Temporal Distribution:	(3)		(3)		(3)		(3)	
AM	49.5%		49.5%		49.5%		40.0%	
PM	49.5%		49.5%		49.5%		40.0%	
In/Out Splits:	In	Out	In	Out	In	Out	In	Out
AM	100%	0%	100%	0%	50%	50%	100%	0%
PM	0%	100%	0%	100%	50%	50%	0%	100%
	(2)		(7)		(6)		(4)	
Modal Splits:	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM/PM**	
Auto	--	--	--	--	--	--	42%	
Dropoff/Pickup	20%	20%	2%	2%	--	--	2%	
Walk/Other	55%	55%	0%	0%	85%	85%	20%	
Subway	0%	0%	--	--	--	--	18%	
Bus (Transit)	10%	10%	0%	0%	15%	15%	18%	
School Bus/Van	15%	15%	98%	98%	--	--	--	
	100%	100%	100%	100%	100%	100%	100%	
Vehicle Occupancy:			(7)				(4)	
Auto	--		--		--		1.08	
Dropoff/Pickup	1.3		1.0		--		1.00	
School Bus/Van	15		7		--		--	

Notes:

1. No absentee rate was applied for the proposed PS. The school was assumed to be at full capacity during both the AM and PM peak hours.
2. Trip generation estimates for students were based on Journey-to-Work data for Bronx County Census Tracts 279, 283, 285, 287, 295, and 335, a count of residential units within the 0.5-mile radius, and consideration of representative school districts and schools for which previous studies were conducted: the existing PS 163 in The Bronx (CSD 9) and the existing PS 138 in The Bronx (CSD 8).
3. Based on data from the *City Environmental Quality Review (CEQR) Technical Manual* .
4. U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates for Reverse Journey-to-Work (Bronx County Census Tracts 279, 283, 285, 287, 295, and 335). Special Tabulation: Census Transportation Planning.
5. The number of parent trips (walk and transit) assumes one parent accompanies 1.3 students. The parent walk trips include two trips, a roundtrip to and from the school.
6. Calculated using the student's walk and transit modal split rates.
7. Based on data provided by NYCSCA for schools with D75 students.

Table 14-10: Trip Generation

		(Pre-K-5) Students		*(D75)* Students		Parents		Faculty/Staff				
Project Component:		640		96		316		96				
Peak Hour Trips:												
Weekday AM		634		95		626		77				
Weekday PM		634		95		626		77				
In/Out Splits:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**			
Weekday AM		634	0	95	0	313	313	77	0			
Weekday PM		0	634	0	95	313	313	0	77			
Peak Hour Person Trips:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Net In**	**Out**	**Total**
AM	Auto	--	--	--	--	--	--	32	--	32	0	32
	Dropoff/Pickup	127	0	2	0	--	--	2	--	131	0	131
	Walk/Other	348	0	0	0	264	264	15	--	627	264	891
	Subway	--	--	--	--	--	--	14	--	14	0	14
	Bus (Transit)	63	0	0	0	49	49	13	--	125	49	174
	School Bus/Van	95	0	93	0	--	--	--	--	188	0	188
		633	0	95	0	313	313	76	0	1117	313	**1430**
PM	Auto	--	--	--	--	--	--	--	32	0	32	32
	Dropoff/Pickup	0	127	0	2	--	--	--	2	0	131	131
	Walk/Other	0	348	0	0	264	264	--	15	264	627	891
	Subway	--	--	--	--	--	--	--	14	0	14	14
	Bus (Transit)	0	63	0	0	49	49	--	13	49	125	174
	School Bus/Van	0	95	0	93	--	--	--	--	0	188	188
		--	633	--	95	313	313	--	76	313	1117	**1430**
Peak Hour Vehicle Trips:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Net In**	**Out**	**Total**
AM	Auto	--	--	--	--	--	--	30	0	30	0	30
	Dropoff/Pickup	98	98	2	2	--	--	2	2	102	102	204
	School Bus/Van	7	7	14	14	--	--	--	--	21	21	42
										153	123	**276**
PM	Auto	--	--	--	--	--	--	0	30	0	30	30
	Dropoff/Pickup	98	98	2	2	--	--	2	2	102	102	204
	School Bus/Van	7	7	14	14	--	--	--	--	21	21	42
										123	153	**276**

Notes

1. The number of student auto trips consist of 121 arrivals and 121 departures during the AM analysis hour, and 121 arrivals and 121 departures during the PM analysis hour, assuming a vehicle occupancy of 1.3 per vehicle.

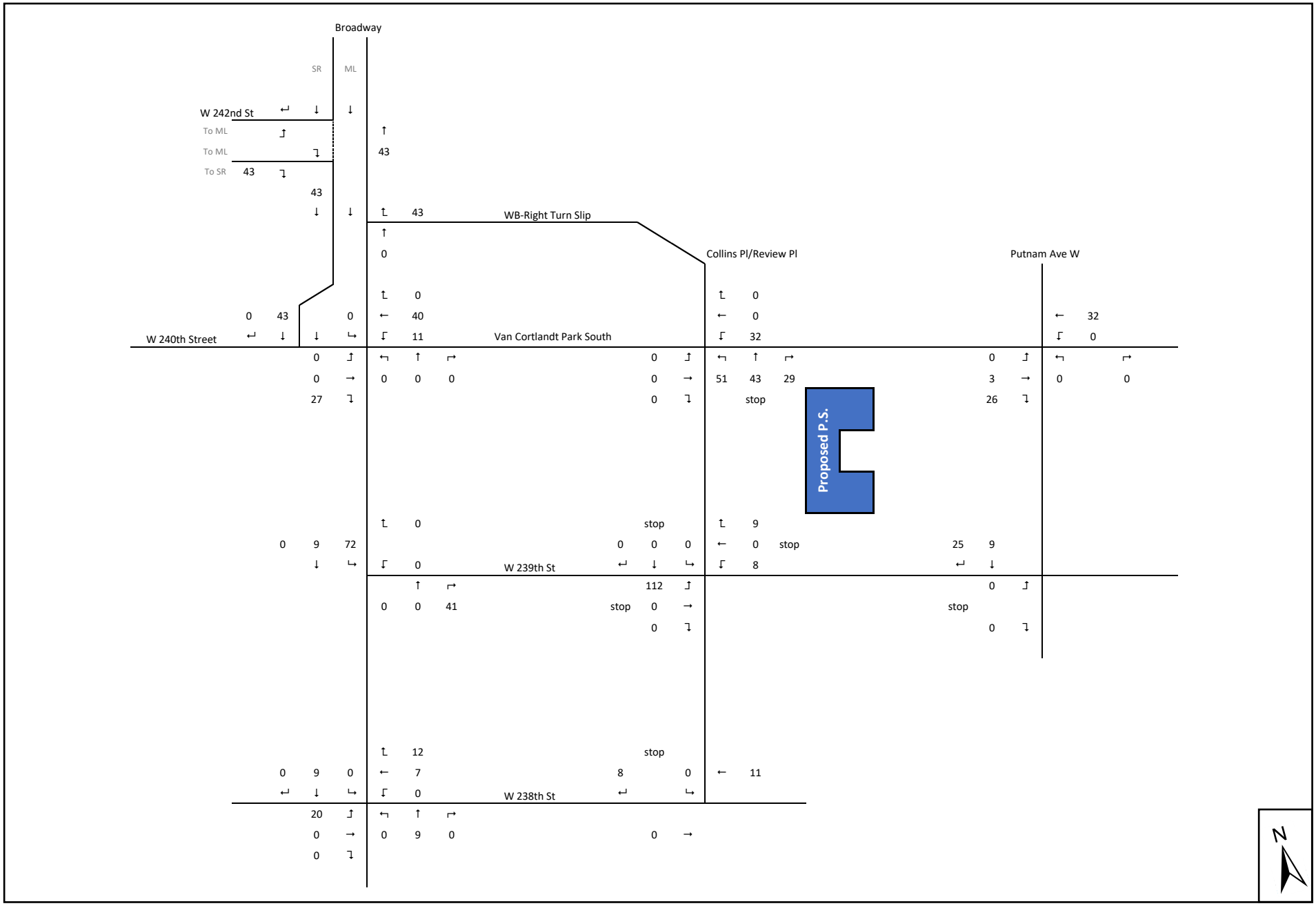
2. The staff auto trips consist of 32 arrivals to the area and 22 departures from the area during the AM analysis hour, and 22 arrivals to the area and 32 departures from the area during the PM analysis hour, assuming a vehicle occupancy rate of 1.08 persons per auto.

Project Vehicle Assignment. The distribution of new vehicle trips to the school was developed based on the location of the school within the catchment area, the concentration of residential developments, and the area's traffic roadway network (see Figure 14-7). The student drop-offs and pick-ups were assumed to take place in front of the school on the east side of Review Place, between Van Cortlandt Park South and West 239th Street. Figures 14-8 and 14-9 show the estimated vehicle arrival and departures for the AM and PM peak hours, respectively.

The majority of residences in the school catchment area are located east of the school. Review Place is a two-way north- and southbound local street between Van Cortlandt Park South and West 239th Street, and switches to a one-way southbound street between West 239th Street and West 238th Street. Based on the school catchment area, vehicle trips could originate from the north, south, east, and west of the school. All vehicles trips would access the school by travelling northbound on Review Place. Return trips from the school would use east- or westbound Van Cortlandt Park South towards their final destination.

Staff vehicle trips were assumed to be distributed differently than student trips as staff are assumed to access the site via Van Cortlandt Park South, a principal arterial. All staff trips were assigned to start their departure and end their arrival trips on the school block of Van Cortlandt Park South.

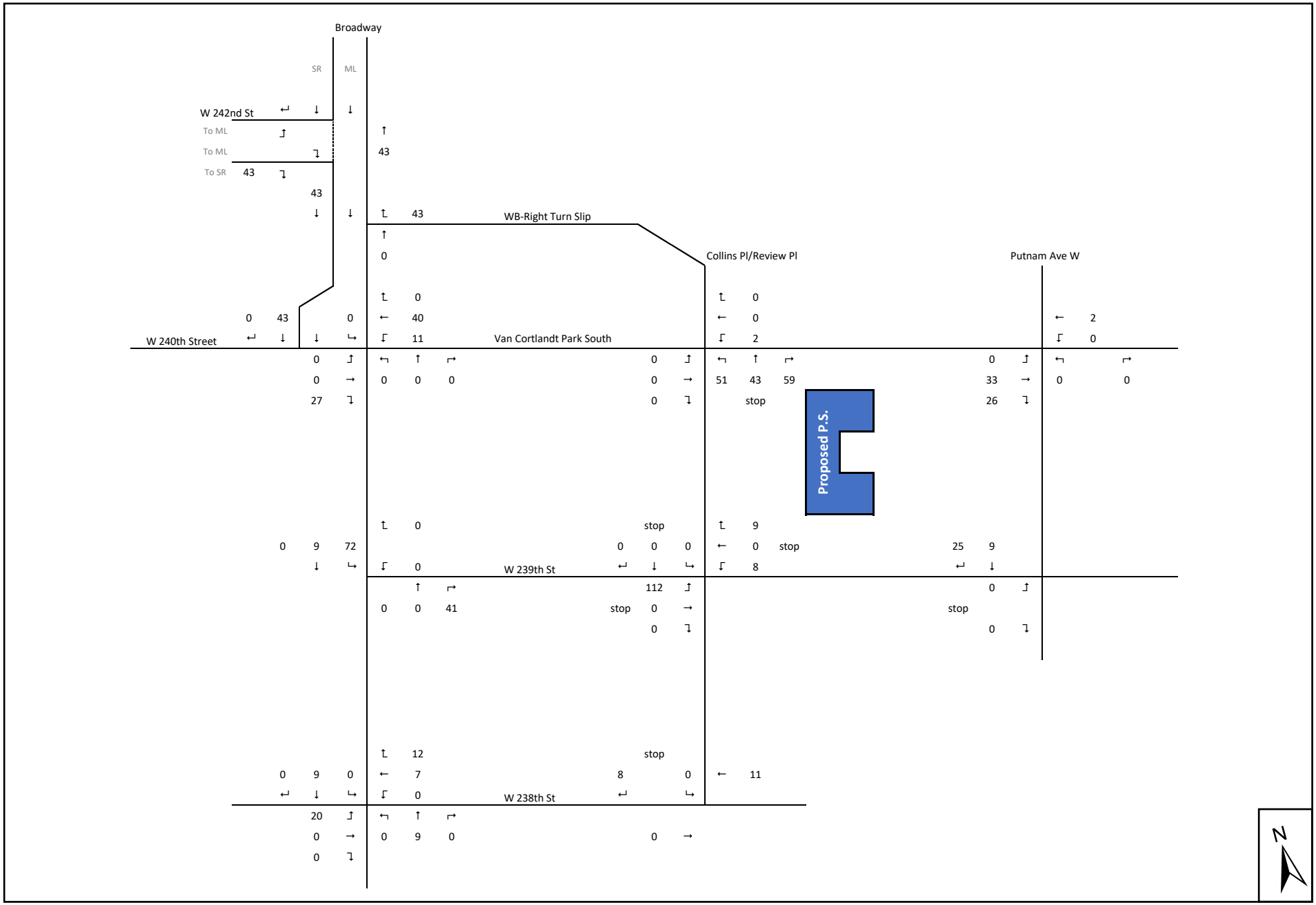
Figures 14-8 and 14-9 show the volumes of vehicle trips that would be generated by the proposed school during the AM and PM peak hours, respectively. Figures 14-10 and 14-11 indicate the total Build volumes during the AM and PM peak hours, respectively.



Source: STV Incorporated, 2022.

Figure 14-8

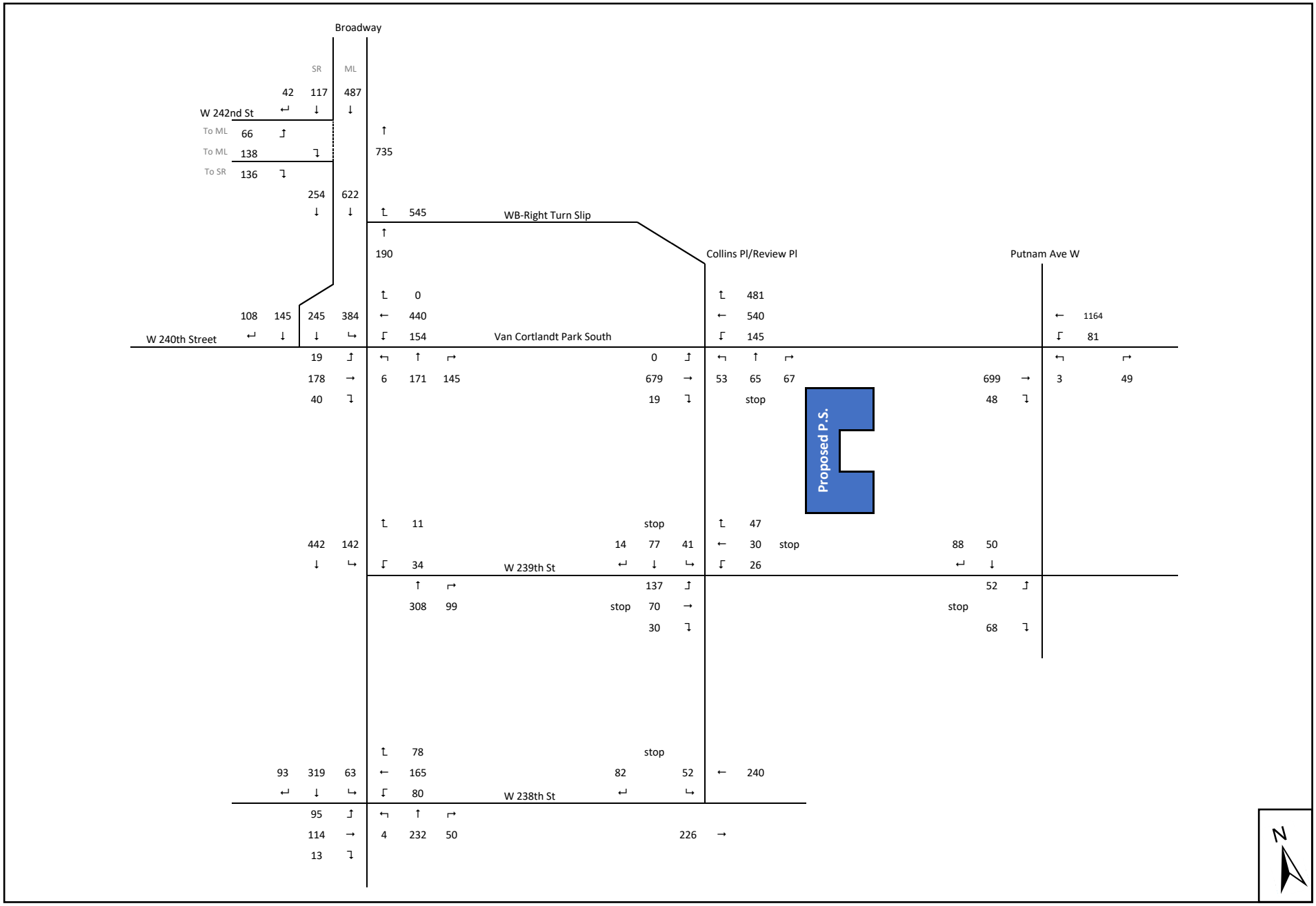
2027 BUILD INCREMENT AM PEAK HOUR TRAFFIC VOLUMES



Source: STV Incorporated, 2022.

Figure 14-9

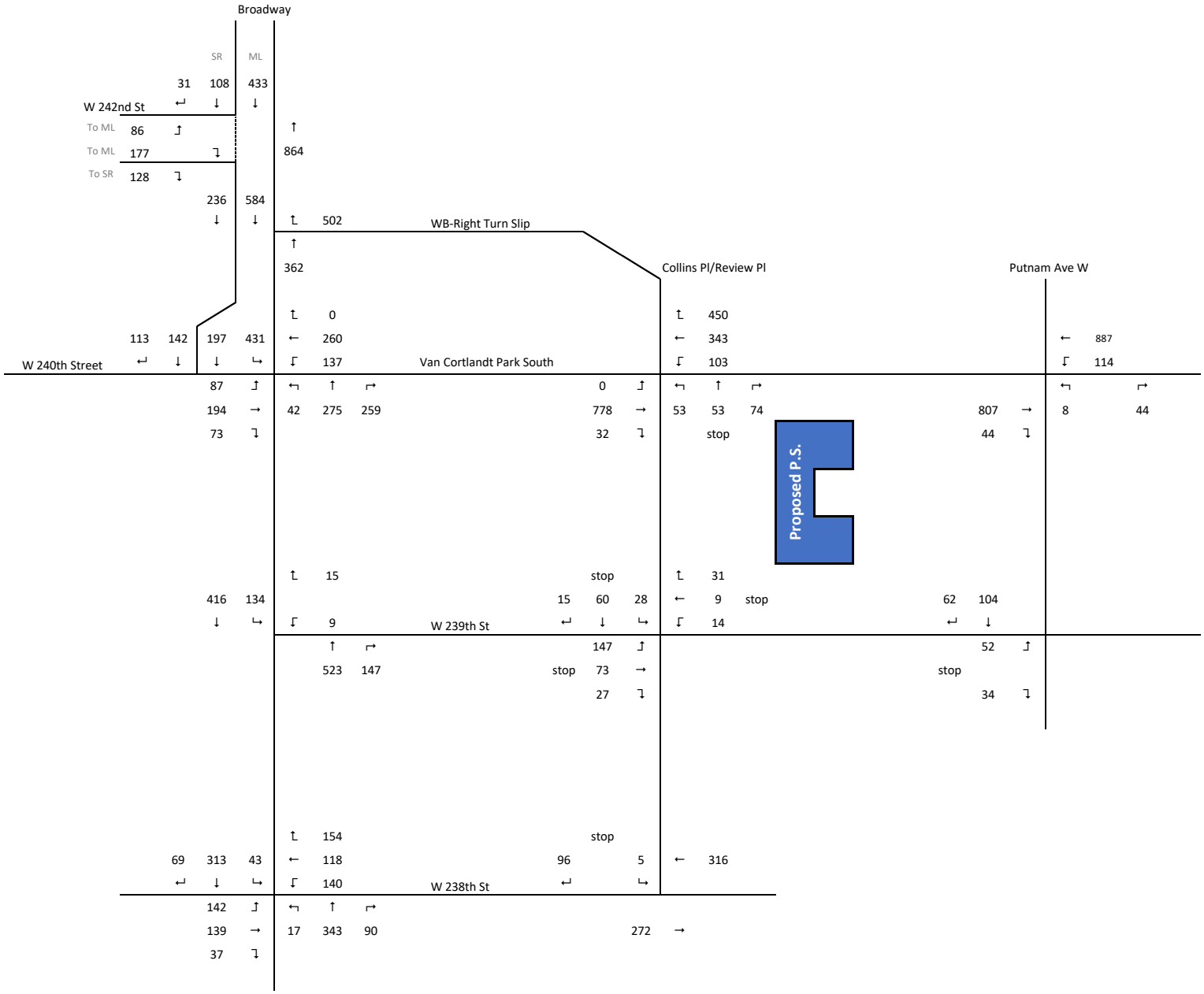
2027 BUILD INCREMENT PM PEAK HOUR TRAFFIC VOLUMES



Source: STV Incorporated, 2022.

Figure 14-10

2027 BUILD AM PEAK HOUR TRAFFIC VOLUMES



Source: STV Incorporated, 2022.

Figure 14-11

2027 BUILD PM PEAK HOUR TRAFFIC VOLUMES

Significant Impact Criteria. The identification of potential significant traffic impacts was based on the following criteria for signalized intersections defined in the *CEQR Technical Manual*:

- If a lane group in the Build Condition is within LOS A, B, C, or D (average control delay less than or equal to 55.0 seconds/vehicle for signalized intersections and delay less than or equal to 35.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant.
- For a lane group that would operate at LOS E in the Build Condition, a projected increase in delay of 5.0 or more seconds compared to the No Build condition is considered a significant impact.
- For a lane group that would operate at LOS F in the Build Condition, a projected increase in delay of 4.0 or more seconds compared to the No Build condition is considered a significant impact.

In addition to these requirements, for the minor street of an unsignalized intersection to create a significant impact, at least 90 passenger car equivalents (PCEs) must be identified in the future Build condition. If significant impacts are identified for movements that operated as LOS E or F in the Build Condition, improvements must be made to achieve the same or better delays as for the No Build conditions.

Future Build Traffic Conditions. The level-of-service analysis for the Build conditions (see Table 14-11) indicated that significant traffic impacts would be expected at three of the study intersections during the AM and PM peak hours.

- The overall intersection operation of Van Cortlandt Park South and Broadway deteriorates to LOS F in the AM and PM peak hours. A significant traffic impact would occur at the eastbound approach and for the westbound left-turn and through movements in both peak periods.
- The eastbound approach of West 238th Street at Broadway deteriorates to LOS F during the PM peak hour.
- The unsignalized intersection of Van Cortlandt Park South and Review Place deteriorates to LOS F in the AM and PM peak hours. The westbound approach deteriorates from LOS A to LOS E in the AM peak hour. The northbound approach deteriorates from LOS C to LOS F in the AM and PM peak hours.

Table 14-11: 2027 Build Conditions Traffic Operations

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Signalized									
West 242nd Street & Broadway									
West 242nd Street	EB	L	0.48	24.4	C	L	0.60	27.3	C
		R	0.25	20.3	C	R	0.23	20.0	B
Broadway	NB	T	0.49	20.5	C	T	0.54	16.4	B
	SB-Mainline	T	0.24	12.5	B	T	0.20	12.1	B
	SB-Service Road	TR	0.47	25.3	C	TR	0.47	26.2	C
	Overall Intersection	-		**19.2**	**B**	-		**18.2**	**B**
Van Cortlandt Park South/West 240th Street & Broadway									
West 240th Street	EB	LTR	1.82	425.6	F	LTR	1.91	459.6	F
Van Cortlandt Park South	WB	L	1.49	293.5	F	L	1.39	256.2	F
		T	0.96	64.0	E	T	0.59	35.0	C
Broadway	NB	LT	0.19	23.5	C	LT	0.36	19.2	B
		R	0.38	27.1	C	R	0.71	28.5	C
	SB-Mainline	L	0.61	36.8	D	L	0.66	39.5	D
		T	0.25	7.0	A	T	0.19	9.9	A
	SB-Service Road	TR	0.33	19.3	B	TR	0.32	4.0	A
	Overall Intersection	-		**102.6**	**F**	-		**105.9**	**F**
West 238th Street & Broadway									
West 238th Street	EB	LT	0.67	35.1	D	LT	1.16	133.5	F
		R	0.09	21.0	C	R	0.20	23.1	C
	WB	LTR	0.78	39.3	D	LT	0.82	44.1	D
						R	0.82	44.1	D
Broadway	NB	LTR	0.37	13.1	B	LTR	0.64	18.1	B
	SB	LTR	0.70	21.6	C	LTR	0.61	17.0	B
	Overall Intersection	-		**26.4**	**C**	-		**47.4**	**D**
Unsignalized									
Van Cortlandt Park South & Review Place									
Van Cortlandt Park South	EB	TR	0.31	0.0	A	TR	0.34	0.0	A
	WB	LTR	0.65	37.2	E	LTR	0.48	24.5	C
Review Place	NB	LTR	36.80	Err	F	LTR	15.30	Err	F
	Overall Intersection	-		**979.9**	**F**	-		**946.1**	**F**
Van Cortlandt Park South & Putnam Avenue West									
Van Cortlandt Park South	EB	TR	0.32	0.0	A	TR	0.33	0.0	A
	WB	LT	0.13	3.4	A	LT	0.19	5.2	A
Putnam Avenue West	NB	LR	0.17	16.9	C	LR	0.24	24.0	C
	Overall Intersection	-		**1.2**	**A**	-		**1.9**	**A**

Table 14-11: 2027 Build Conditions Traffic Operations (continued)

INTERSECTION & APPROACH		AM Peak Hour				PM Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
West 239th Street & Broadway									
West 239th Street	WB	LR	0.27	29.7	D	LR	0.16	27.6	D
Broadway	NB	TR	0.27	0.0	A	TR	0.47	0.0	A
	SB	LT	0.17	4.0	A	LT	0.22	5.9	A
	Overall Intersection	-		**3.6**	**A**	-		**3.0**	**A**
West 239th Street & Review Place									
West 239th Street	EB	LTR	0.37	10.1	B	LTR	0.37	10.0	A
	WB	LTR	0.16	8.3	A	LTR	0.08	7.6	A
Review Place	SB	LTR	0.22	9.3	A	LTR	0.16	8.7	A
	Overall Intersection	-		**9.5**	**A**	-		**9.3**	**A**

- "Mvt." refers to the specific intersection approach lane(s) and how the lane(s) operate and/or specific pavement striping. TR is a combined through- right turn lane(s), R or L refers to exclusive right- or left-turn movement lane(s), and
- V/C is the volume-to-capacity ratio for the Mvt. listed in the first column. Values above 1.0 indicate an excess of demand over capacity.
- Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group listed in the Mvt. Column as noted in the 2000 HCM - TRB.

- The delay calculations for signalized intersections represent the average control delay experienced by all vehicles that arrive in the analysis period, including delays incurred beyond the analysis period when the lane group is saturated.

- LOS for unsignalized intersections is based upon total average delay per vehicle (sec/veh) for each lane group listed in the Mvt. column as noted in the 2000 HCM -TRB.

Parking. The estimated number of new staff vehicle trips (self-drove) generated by the proposed school would increase the parking demand by 32 vehicles. It is not anticipated that parking would be provided on-site. Also, the study area parking supply will decrease as the on-street parking regulations adjacent to the proposed school along Review Place will change to "No Standing School Days 7 AM to 4 PM." The parking space availability would decrease from seven percent in the No Build conditions to two percent in the future Build conditions (see Table 14-12), with 17 available spaces. There would no shortfall of parking spaces with the proposed school.

Table 14-12: 2027 Build On-Street Parking Supply and Demand

Parking Parameter	w/o Reg
Parking-Space Supply	882
Demand	865
(Occupancy Rate)	98%
Spaces Available	17
(Rate)	2%

Transit and Pedestrian Assignment. It is expected that 198 new transit trips would be generated during the AM and PM peak periods. There is one local bus route in the study area, the Bx9 north- and southbound. The nearest subway station is the 1 train at West 238th Street and Broadway. The 198 new transit trips would be distributed between the local bus route and the subway line. According to general thresholds used by the *CEQR Technical Manual* and NYCT, if the proposed action is projected to result in fewer than 200 peak hour subway or bus trips, the action is considered unlikely to create a significant transit impact. Thus, no further analyses of bus or subway conditions are needed.

Pedestrian trips to the school site include walk trips as well as other modes that have a pedestrian component, such as bus trips from the bus stop. Approximately 352 new students would be expected to walk to the proposed school site during the AM and PM peak hours. The walk component of transit trips adds 64 student walk trips in the AM and PM peak hours. It is assumed that one parent would accompany every 1.3 students and the parent trip would include two trips, a roundtrip to and from the school. This results in an additional 640 new parent walk trips in the AM and PM peak hours. Staff trips add 19 walk, 17 subway, and 17 bus trips in both the AM and PM peak hours. Therefore, the total number of new school-generated walk trips is projected to be 1,110 trips during the AM and PM peak hours. (The Build pedestrian networks are included in Appendix B.)

CEQR guidelines further dictate that, for corner, crosswalk, and sidewalk analyses, the proposed action should not create a significant impact if the pedestrian space operates at LOS C or better. If the Build condition deteriorates to LOS D or worse, the impact is considered significant based on a sliding scale identified in the *CEQR Technical Manual*. As shown in Table 14-13, the majority of pedestrian study elements would continue to function at acceptable levels-of-service with the proposed action. However, the following locations would be expected to experience a significant impact:

- The south crosswalk at the intersection of Broadway and West 238th Street deteriorates from LOS C to unacceptable LOS D and LOS C during the AM and PM peak hours, respectively.
- The south sidewalk on Van Cortlandt Park South between Broadway and Review Place deteriorates from LOS A to LOS C and LOS D during the AM and PM peak hours, respectively.

Table 14-13: 2027 Build Pedestrian Conditions

Intersection and Element	AM Peak		PM Peak	
	Average Space (sf/ped)	LOS	Average Space (sf/ped)	LOS
Broadway & West 240th Street / Van Cortlandt Park South				
Southwest corner	118.1	A	92.7	A
Southeast corner	201.5	A	167.6	A
South crosswalk	35.7	C	29.0	C
Broadway & West 238th Street				
Northwest corner	563.7	A	539.0	A
Northeast corner	117.1	A	125.9	A
Southwest corner	113.5	A	160.7	A
Southeast corner	103.3	A	134.5	A
North crosswalk	52.9	B	49.7	B
South crosswalk	23.0	D	33.3	C
East crosswalk	83.1	A	88.9	A
West crosswalk	427.6	A	276.8	A
Van Cortlandt Park South between Broadway & Review Place				
South sidewalk	24.9	C	19.0	D
Review Place between Van Cortlandt Park South & West 239th Street				
East sidewalk	40.5	B	49.4	B
Review Place between West 238th Street & West 239th Street				
West sidewalk	73.5	A	98.0	A
East sidewalk	242.6	A	188.8	A
West 238th Street between Broadway & Review Place				
North sidewalk	158.4	A	185.3	A

Note: Average Space is based on the assumption that pedestrians distribute themselves uniformly throughout the effective crosswalk and corner space. LOS designations are based on average pedestrian space expressed as square feet per pedestrian (sf/ped).

D. Proposed Mitigation Measures

The potential significant traffic and pedestrian impacts that would result from the proposed action can be fully mitigated and improved from the No Build conditions with the implementation of the following measures.

Traffic. Avoidance of potential traffic impacts could be achieved by reconfiguring intersection approaches, signal timing changes, parking regulation changes, and the installation of a traffic signal, as noted below (see Table 14-14).

- West 240th Street/Van Cortlandt Park South at Broadway: Reconfiguring the eastbound approach from a single lane to a two-lane approach by removing the adjacent curbside parking lane would improve the eastbound and westbound approaches to No Build

conditions for the AM and PM peak hours and would avoid project-generated traffic impacts. The removal of curbside parking would not result in a parking impact as there is a surplus of available spaces. This approach mitigation will require the two eastbound approach lanes to split as they bypass elevated subway support columns while proceeding through the intersection. Sufficient space is provided through the intersection and on the receiving side of the intersection to accommodate two eastbound travel lanes. A signal timing shift would also be required for the AM and PM peak hours to shift time from the north/southbound phase and from the southbound left-turn phase to the east/westbound phase. This signal timing adjustment would not impact pedestrian operations.

- Broadway and West 238th Street: Shifting five seconds of green time from the northbound/southbound phase to the eastbound/westbound phase during the PM peak hours would improve the eastbound approach to No Build conditions. This signal timing adjustment would not impact pedestrian operations.

- Van Cortlandt Park South at Review Place: Installing a traffic signal, which would be warranted based on the future projected traffic volumes, to avoid potential impacts at the northbound stop-controlled approach due to the school-generated trips leaving the main entrance of the proposed school. The intersection would satisfy Warrant 3 (Peak Hour) for a traffic signal as the northbound approach of Review Place will exceed 100 vehicles and the total volume on Van Cortlandt Park South will exceed the minimum threshold of 1,500 vehicles during the peak hours.

Pedestrians. The potential significant pedestrian impacts could be improved as noted below (see Table 14-15).

- Broadway and West 238th Street: Shifting one second of green time from the north/southbound phase to the east/westbound phase would improve pedestrian operations for the south crosswalk to No Build LOS conditions during the AM peak hour. This signal timing adjustment would not impact traffic operations.

- Van Cortlandt Park South between Broadway and Review Place: Widening the existing south sidewalk by approximately 3.5 feet would improve pedestrian operations to No Build LOS conditions during the AM and PM peak hours. The sidewalk could be widened by removing or reducing existing obstructions in the sidewalk. An existing fence line which narrows the walk path appears to be located in the right-of-way. Adjusting the fence line would reduce the sidewalk obstructions and create a wider path of travel for pedestrians.

Table 14-14: 2027 Mitigated Build Traffic Conditions

INTERSECTION & APPROACH		Mvt.	No Build 2027			Build 2027			Mitigation			Mitigation Measure
			V/C	Control Delay	LOS	V/C	Control Delay	LOS	V/C	Control Delay	LOS	
AM Peak Hour												
Van Cortlandt Park South/West 240th Street & Broadway												
West 240th Street	EB	LTR	1.09	118.6	F	1.82	425.6	F	0.39	26.6	C	
Van Cortlandt Park South	WB	L	1.00	105.4	F	1.49	293.5	F	0.97	68.7	E	
		T	0.87	50.5	D	0.96	64.0	E	0.78	35.5	D	-Remove 3 parking spaces to convert the existing eastbound shared left-through-right lane to two eastbound left-through-right lanes - Shift 4 seconds of green time from the NB/WB phase and 1 second of green time from the SB LT phase to the EB/WB phase.
Broadway	NB	LT	0.19	25.0	C	0.19	23.5	C	0.22	27.5	C	
		R	0.38	29.0	C	0.38	27.1	C	0.43	32.3	C	
	SB-Mainline	L	0.61	36.7	D	0.61	36.8	D	0.64	41.7	D	
		T	0.25	7.0	A	0.25	7.0	A	0.27	11.2	B	
	SB-Service Road	TR	0.27	15.4	B	0.33	19.3	B	0.36	29.9	C	
	Overall Intersection	-		**46.4**	**D**		**102.6**	**F**		**33.5**	**C**	
Van Cortlandt Park South & Review Place												
Van Cortlandt Park South	EB	TR	0.31	0.0	A	0.31	0.0	A	0.41	11.8	B	
	WB	LTR	0.23	6.5	A	0.65	37.2	E	0.94	26.1	C	-Install a traffic signal at the existing stop-controlled intersection
Review Place	NB	LTR	1.36	367.0	F	36.80	Err	F	0.69	44.8	D	
	Overall Intersection	-		**14.2**	**B**		**979.9**	**F**		**22.9**	**C**	
PM Peak Hour												
Van Cortlandt Park South/West 240th Street & Broadway												
West 240th Street	EB	LTR	1.35	213.8	F	1.91	459.6	F	0.60	30.9	C	
Van Cortlandt Park South	WB	L	1.04	119.2	F	1.39	256.2	F	0.98	86.9	F	
		T	0.50	32.8	C	0.59	35.0	C	0.48	26.6	C	-Remove 3 parking spaces to convert the existing eastbound shared left-through-right lane to two eastbound left-through-right lanes - Shift 4 seconds of green time from the NB/WB phase and 1 second of green time from the SB LT phase to the EB/WB phase.
Broadway	NB	LT	0.36	19.3	B	0.36	19.2	B	0.42	24.2	C	
		R	0.71	29.5	C	0.71	28.5	C	0.82	41.1	D	
	SB-Mainline	L	0.66	39.5	D	0.66	39.5	D	0.69	38.8	D	
		T	0.19	9.9	A	0.19	9.9	A	0.21	11.1	B	
	SB-Service Road	TR	0.26	4.0	A	0.32	4.0	A	0.35	6.3	A	
	Overall Intersection	-		**59.0**	**E**		**105.9**	**F**		**31.0**	**C**	
West 238th Street & Broadway												
West 238th Street	EB	LT	0.92	61.8	E	1.16	133.5	F	0.92	58.1	E	
		R	0.17	22.2	C	0.20	23.1	C	0.17	19.0	B	
	WB	LT	0.64	31.3	C	0.82	44.1	D	0.70	31.3	C	
		R	0.64	31.3	C	0.82	44.1	D	0.70	31.3	C	- Shift 5 seconds of green time from the NB/WB phase to the EB/WB phase.
Broadway	NB	LTR	0.61	17.4	B	0.64	18.1	B	0.71	23.9	C	
	SB	LTR	0.59	16.1	B	0.61	17.0	B	0.68	20.9	C	
	Overall Intersection	-		**30.8**	**C**		**47.4**	**D**		**31.8**	**C**	
Van Cortlandt Park South & Review Place												
Van Cortlandt Park South	EB	TR	0.34	0.0	A	0.34	0.0	A	0.41	10.7	B	
	WB	LTR	0.15	5.3	A	0.48	24.5	C	0.67	10.0	A	-Install a traffic signal at the existing stop-controlled intersection
Review Place	NB	LTR	0.47	55.9	F	15.30	Err	F	0.66	44.9	D	
	Overall Intersection	-		**2.6**	**A**		**946.1**	**F**		**13.6**	**B**	

Table 14-15: 2027 Mitigated Build Pedestrian Conditions

Intersection and Element	2027 No Build		2027 Build		Mitigation		Mitigation Measure
	Average Space (sf/ped)	LOS	Average Space (sf/ped)	LOS	Average Space (sf/ped)	LOS	
AM Peak Hour							
Broadway & West 238th Stret							
North crosswalk	113.1	A	52.9	B	55.7	B	-Shifting one second of green time and additional walk time from the north/southbound phase to the east/westbound phase.
South crosswalk	32.7	C	23.0	D	24.1	C	
East crosswalk	133.1	A	83.1	A	80.9	A	
West crosswalk	427.6	A	427.6	A	416.8	A	
Van Cortlandt Park South between Broadway & Review Place							
South sidewalk	82.3	A	24.9	C	55.6	B	-Widen existing sidewalk by three feet by shifting the existing fence line adjacent to the sidewalk.
PM Peak Hour							
Broadway & West 238th Stret							
North crosswalk	115.2	A	49.7	B	65.2	A	-Shifting one second of green time and additional walk time from the north/southbound phase to the east/westbound phase.
South crosswalk	52.7	B	33.3	C	42.4	B	
East crosswalk	135.5	A	88.9	A	77.0	A	
West crosswalk	276.8	A	276.8	A	241.9	A	
Van Cortlandt Park South between Broadway & Review Place							
South sidewalk	65.7	A	19.0	D	43.3	B	-Widen existing sidewalk by 3.5 feet by shifting the existing fence line adjacent to the sidewalk.

Note: Average Space is based on the assumption that pedestrians distribute themselves uniformly throughout the effective crosswalk and corner space. LOS designations are based on average pedestrian space expressed as square feet per pedestrian (sf/ped).

E. Conclusions

In summary, with the proposed project, no significant adverse transit and parking impacts would be expected; however, traffic and pedestrian impacts are anticipated. Mitigation measures are recommended to avoid the potential impacts and restore No Build conditions.

Traffic. There are potential significant traffic impacts at three of the study area intersections, as a result of the proposed school. The impacts at West 240th Street/Van Cortlandt Park South at Broadway can be fully mitigated with signal timing adjustments and parking regulation changes on the eastbound approach to provide two travel lanes. The impacts at Broadway and West 238th Avenue can be fully mitigated with signal timing adjustments. The impacts at Van Cortlandt Park South and Review Place can be fully mitigated by implementing a traffic signal.

Pedestrians. There are potential significant pedestrian impacts at two locations within the study area as a result of the proposed school. The significant pedestrian impact at the south crosswalk of Broadway at 238th Street during the AM peak hour can be fully mitigated by a signal timing shift. There is also a significant pedestrian impact on the south sidewalk of Van Cortlandt Park

South between Broadway and Review Place that can be fully mitigated by increasing the sidewalk clear width by removing or reducing existing obstructions in the sidewalk.

Transit. No significant transit impacts would be expected. Less than 200 incremental peak hour transit trips would be generated by staff, students, and accompanying adults; therefore, the proposed school is unlikely to create a significant transit impact.

Parking. No parking shortfall would be expected. The proposed school would increase the parking demand by 32 vehicles, which would increase the parking occupancy rate to 98 percent.

The SCA will continue to consult with NYCDOT regarding these recommended measures to mitigate traffic and pedestrian impacts.

Chapter 15: Air Quality

The *CEQR Technical Manual* requires an assessment of air quality for projects that would increase traffic volumes or increase concentrations of air pollutants, especially where they may affect residential or other sensitive uses (such as a school). In this area of the Bronx, a detailed carbon monoxide mobile source analysis would be required if 170 or more project-related auto trips are generated in any given peak period. In addition, the New York City Department of Environmental Protection (NYCDEP) has established screening threshold limits for mobile source particulate matter, for which a detailed analysis is required if more than 23 project-generated heavy-duty diesel trucks or buses would pass through a signalized intersection in any given peak period. Analyses are also required if new sensitive land uses are to be permitted within 200 feet of a highway or bridge or within 400 feet of existing industrial facilities and if a proposed project's heating unit may affect nearby sensitive land uses (or the heating system of nearby buildings may affect the proposed project).

According to the *CEQR Technical Manual*, a greenhouse gas (GHG) emissions assessment is required for projects that would result in new development of 350,000 sf or greater unless the building usage is particularly energy-intense, such as a data processing center or a healthcare facility.

SCREENING ASSESSMENT

Mobile Sources. As outlined in the *CEQR Technical Manual*, in this area of the City, actions that would result in the generation of 170 or more peak-hour vehicle trips at an intersection may cause adverse air quality impacts and require a detailed air quality analysis for carbon monoxide (CO) and particulate matter ($PM_{2.5}$).

Based on the data obtained from the traffic studies associated with this project, the project is not expected to add more than 170 vehicle trips at any intersection in the project area. Therefore, no further analysis for CO is required, and it can be concluded that no significant adverse mobile source CO impacts would result from the proposed project.

For $PM_{2.5}$, the screening procedure outlined in the *CEQR Technical Manual* is based on determining whether the projected number of vehicle trips at an intersection exceeds thresholds based on heavy-duty diesel vehicle (HDDV) equivalents. The thresholds are as follows:

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

To determine whether any of these thresholds are exceeded, the worksheet referenced in Section 201 of the *CEQR Technical Manual* will be utilized to calculate the equivalent number of HDDV equivalents at intersections in the traffic study area. The worksheet uses vehicle classification information based on the traffic data collected for the project, and assigns these classifications to vehicle categories using a table referenced in the *CEQR Technical Manual*. Roadway classifications

will be determined by corridor at each intersection, based on NYCDOT functional class criteria and With Action traffic volumes.

Based on the screening analysis, four intersections exceeded the CEQR screening threshold during at least one peak traffic period. The intersection of Van Cortlandt Park South and Review Place that is predicted to have the highest increment was selected for a $PM_{2.5}$ mobile source detailed analysis.

The prediction of vehicle-generated emissions and their dispersion in an urban environment incorporates meteorological phenomena, traffic conditions, and physical configuration. Air pollutant dispersion models mathematically simulate how traffic, meteorology, and physical configuration combine to affect pollutant concentrations. The mathematical expressions and formulations contained in the various models attempt to describe an extremely complex physical phenomenon as closely as possible. However, because all models contain simplifications and approximations of actual conditions and interactions, and since it is necessary to predict the reasonable worst-case condition, most dispersion analyses predict conservatively high concentrations of pollutants, particularly under adverse meteorological conditions.

The mobile source analyses for the proposed project employ models approved by the United States Environmental Protection Agency (EPA) that have been used for evaluating air quality impacts of projects in New York City, other parts of New York State, and throughout the country. The modeling approach includes a series of conservative assumptions relating to traffic, and background concentration levels resulting in a conservatively high estimate of expected pollutant concentrations that could ensue from the proposed project.

Vehicle Emissions

(a) Engine Emissions

Vehicular $PM_{2.5}$ engine emission factors were computed using the EPA mobile source emissions model, Motor Vehicle Emission Simulator (MOVES2014b).[20] This emissions model is capable of calculating engine, brake wear, and tire wear emission factors for various vehicle types, based on the fuel type (e.g., gasoline, diesel, or natural gas), meteorological conditions, vehicle speeds, vehicle age, roadway type and grade, number of starts per day, engine soak time, and various other factors that influence emissions, such as inspection maintenance programs. The inputs and use of MOVES incorporate the most current guidance available from DEC.

[20] EPA. Motor Vehicle Emission Simulator (MOVES): User Guide for MOVES2014a. EPA420B15095. November 2015.

Vehicle classification data were based on field studies. Appropriate credits were used to accurately reflect the inspection and maintenance program.[21] County-specific hourly temperature and relative humidity data obtained from DEC were used.

(b) Road Dust

Fugitive road dust was calculated as part of the $PM_{2.5}$ 24-hour emission rates for its impacts in local microscale analyses. However, fugitive road dust was not included in the neighborhood scale $PM_{2.5}$ microscale analyses ($PM_{2.5}$ annual) since DEP considers it to have an insignificant contribution on that scale. Road dust emission factors were calculated according to the latest procedure delineated by EPA[22] and the *CEQR Technical Manual*.

Traffic Data. Traffic data for the intersection analysis were derived from existing traffic counts, projected future growth in traffic, and other information developed as part of the traffic analysis for the proposed project (see Chapter 14, "Transportation"). Traffic data for the future without the project (the No Action condition) and with the proposed project (the With Action condition) were employed in the respective air quality modeling condition. The weekday morning (8:00 to 9:00 AM) and afternoon (3:00 to 4:00 PM) peak period were analyzed.

The peak weekday morning and afternoon period traffic volumes were used as a baseline for determining off-peak volumes. Off-peak traffic volumes were determined by adjusting the peak period volumes by the 24-hour distributions of actual vehicle counts collected at appropriate locations.

Dispersion Models for Microscale Analyses. The $PM_{2.5}$ concentrations due to vehicular emissions adjacent to the analysis sites were predicted using the American Meteorological Society/Environmental Protection Agency Regulated Model (AERMOD) Version 21112.[23] AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. AERMOD has been a recommended model for transportation air quality analyses for several years and EPA mandated its use for transportation conformity purposes after a three-year transition period.[24] Following EPA guidelines, the analysis was performed using an area

[21] The inspection and maintenance programs require inspections of automobiles and light trucks to determine if pollutant emissions from each vehicle exhaust system are lower than emission standards. Vehicles failing the emissions test must undergo maintenance and pass a repeat test to be registered in New York State.
[22] EPA. *Compilations of Air Pollutant Emission Factors AP-42*. Fifth Edition, Volume I: Stationary Point and Area Sources, Ch. 13.2.1. NC. http://www.epa.gov/ttn/chief/ap42. January 2011.
[23] EPA. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. Office of Air Quality Planning and Standards. EPA-454/B-19-027. Research Triangle Park, North Carolina. August 2019.
[24] EPA. Revisions to the Guideline on Air Quality Models: Final rule. Federal Register, Vol. 82, No. 10, January 2017.

source representation of emission sources in order to simulate traffic-related air pollutant dispersion.[25] Hourly traffic volumes and associated emission factors were used to estimate hourly emission rates from each modeled roadway segment and predict traffic-related air pollutant concentrations at receptor locations.

Meteorology. In general, the transport and concentration of pollutants from vehicular sources are influenced by three principal meteorological factors: wind direction, wind speed, and atmospheric stability. Wind direction influences the direction in which pollutants are dispersed, and atmospheric stability accounts for the effects of vertical mixing in the atmosphere. These factors, therefore, influence the concentration at a particular prediction location (receptor).

The AERMOD model includes the modeling of hourly concentrations based on hourly traffic data and five years of monitored hourly meteorological data. The data consists of surface data collected at LaGuardia Airport and upper air data collected at Brookhaven, New York for the period 2016–2020. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five-year period. These data are processed using the EPA AERMET program (a meteorological data preprocessor for AERMOD) to develop data in a format which can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps.

Analysis Year. The microscale analyses were performed for 2027, the year by which the proposed project is likely to be completed. The future analysis was performed for both without the proposed project (the No Action condition) and with the proposed project (the With Action condition).

Background Concentrations. Background concentrations are those pollutant concentrations originating from distant sources that are not directly included in the modeling analysis, which directly accounts for vehicular emissions on the streets within 1,000 feet and in the line of sight of an analysis site.

The background concentrations measured at the nearest monitoring stations are presented in Table 15-1. The data was obtained from DEC for the most recent three-year period (2018-2020). These values were used as the background concentrations for the mobile source analysis.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration based on the 98^{th} percentile concentration, averaged over the years 2018-2020, was used to establish the *de minimis* value of 8.0 ug/m^3. $PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared to the $PM_{2.5}$ *de minimis* criteria, without considering the annual background.

[25] EPA. *Project-Level Conformity and Hot-Spot Analyses*, available at: https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses#pmguidance

Table 15-1: Maximum Background Pollutant Concentrations for Mobile Source Analysis

Pollutant	Average Period	Location	Concentration	NAAQS/ *de minimis*
CO	1-hour	Botanical Garden, Bronx	1.7 ppm	35 ppm
	8-hour	Botanical Garden, Bronx	1.2 ppm	9/3.6 ppm
$PM_{2.5}$	24-hour	Botanical Garden, Bronx	19.1 µg/m^3	35/8.0 µg/m^3
	Annual	Botanical Garden, Bronx	7.4 µg/m^3	12/0.1 µg/m3

Notes:
(1) CO concentrations represent the maximum second-highest monitored concentrations from the most recent three years of data.
(2) $PM_{2.5}$ concentration represents the average of the 98th percentile day from the most recent three years of data.

Source: New York State Air Quality Report Ambient Air Monitoring System, DEC, 2018-2020.

Receptor Placement. Multiple receptors (i.e., precise locations at which concentrations are evaluated) were modeled at the selected site(s); receptors were placed along the approach and departure links at a 25 feet interval out to 125 feet in each direction for the $PM_{2.5}$ 24-hour analysis. Receptors in the analysis models for predicting annual average neighborhood-scale $PM_{2.5}$ concentrations were placed at a distance of 15 meters, from the nearest moving lane at each analysis location, based on the *CEQR Technical Manual* procedure for neighborhood-scale corridor $PM_{2.5}$ modeling. Ground-level receptors were placed at sidewalk or roadside locations near intersections with continuous public access, at a pedestrian height of 1.8 meters.

Using the methodology previously described, maximum predicted 24-hour and annual average $PM_{2.5}$ concentration increments were calculated so that they could be compared with the *de minimis* criteria. Based on this analysis, the maximum predicted localized 24-hour average and neighborhood-scale annual average incremental $PM_{2.5}$ concentrations are presented in Tables 15-2 and 15-3, respectively. The results indicate that the proposed project would not result in any violations of the 24-hour or Annual $PM_{2.5}$ *CEQR Technical Manual de minimis* $PM_{2.5}$ or NAQQS criteria. Therefore, mobile source $PM_{2.5}$ emissions from the proposed project would not result in a significant adverse air quality impact.

Table 15-2: Maximum Predicted 24-Hour Average $PM_{2.5}$ Incremental Concentration (μg/m³)

Analysis Location		No Action	With Action	Increment	*De Minimis*/ NAQQS
1	Van Cortlandt Park South and Review Place	-	-	0.08	8.0
		27.35	27.43	-	35
Note: $PM_{2.5}$ *de minimis* criterion—24-hour average, not to exceed more than half the difference between the background concentration (17.7 μg/m³) and the 24-hour standard of 35 μg/m³.					

Table 15-3: Maximum Predicted Annual Average $PM_{2.5}$ Incremental Concentration (μg/m³)

Analysis Location		No Action	With Action	Increment	*De Minimis*/ NAQQS
	Van Cortlandt Park South and Review Place	-	-	0.001	0.1
		7.582	7.583	-	12
Note: $PM_{2.5}$ *de minimis* criterion—annual (neighborhood scale), 0.1 μg/m³.					

Stationary Sources.

1. Heating and Hot Water Systems

According to the *CEQR Technical Manual*, stationary source air quality screening assessments should take into consideration information such as land use, fuel type, stack height, and square footage of the development, to determine if a proposed project has the potential to create any air quality impacts. Based on the future operation of the proposed school's heating and hot water systems, the school was evaluated as a potential stationary source pollutant emitter.

The proposed school would be five stories high and have a total area of approximately 103,654 gsf. It is assumed that the proposed school would use natural gas to run its heating and hot water systems and have rooftop stacks at a height of approximately 72 feet above ground level.

The buildings at the following locations around the project site are taller than the proposed school building. Therefore, a detailed stationary analysis is warranted.

1. 3815 Putnam Avenue West; and
2. No Action residential development located east of the project site (2026 Build Year).

AERMOD Analysis. The analysis was performed using the AERMOD dispersion model, described earlier. AERMOD is EPA's preferred regulatory stationary source model. AERMOD calculates pollutant concentrations from simulated sources (e.g., exhaust stacks) based on hourly meteorological data and surface characteristics, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analysis of

potential impacts from exhaust stacks assumed stack tip downwash, urban dispersion and surface roughness length, and elimination of calms.

AERMOD incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict concentrations in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERMOD also uses the Building Profile Input Program for PRIME (BPIPPRM) to provide a detailed analysis of downwash influences on a direction-specific basis. BPIPPRM determines the projected building dimensions for modeling with the building downwash algorithm enabled. The modeling of plume downwash accounts for all obstructions within a radius equal to five obstruction heights of the stack.

The analysis was prepared both with and without downwash in order to assess the worst-case impacts at elevated locations close to the height of the source, which would occur without downwash, as well as the worst-case impacts at lower elevations and ground level, which would occur with downwash, consistent with the *CEQR Technical Manual* guidance.

As a result, no significant adverse air quality impacts from project-related stationary sources are anticipated.

(c) Methodology Utilized for Estimating NO_2 Concentrations

Annual NO_2 concentrations from stationary sources were estimated using a NO_2 to NO_x ratio of 0.75, based on EPA guidance.[26]

The 1-hour average NO_2 concentration increments from the proposed school's stationary combustion sources were estimated using the AERMOD model's Plume Volume Molar Ratio Method (PVMRM) module to analyze chemical transformation within the model. The PVMRM module incorporates hourly background ozone concentrations to estimate NOx transformation within the source plume. Ozone concentrations were taken from the DEC monitoring station, which had a complete five years of hourly data available. An initial NO_2 to NO_x ratio of 10 percent at the source exhaust stack was assumed, which is considered representative for boilers.

The results represent the five-year average of the annual 98th percentile of the maximum daily 1-hour average, added to background concentrations (see below).

The meteorological data set consisted of five consecutive years of meteorological data, with surface data collected at LaGuardia Airport (2016–2020), and concurrent upper air data collected at Brookhaven, New York. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five-year period. DEC-

[26] EPA. Clarification on the Use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO2 National Ambient Air Quality Standard, available at: https://www3.epa.gov/scram001/guidance/clarification/NO2_Clarification_Memo-20140930.pdf

supplied meteorological data processed with the AERMET Version 21112 processor was used for the modeling analysis.

Emission Rates and Stack Parameters

(d) Proposed School Building

For the proposed school building, annual emission rates for heating and hot water systems were calculated based on fuel consumption estimates provided by the SCA project design team, and applying emission factors for natural gas-fired boilers.[27] NO_x emissions for the hot water heaters for the proposed building were calculated based on design information. $PM_{2.5}$ emissions include both the filterable and condensable components. For the proposed school building, the short-term emission rates (24-hour and shorter) were calculated using daily emissions estimates provided by the project design team.

For the proposed building, to calculate exhaust velocity, the fuel consumption was multiplied by EPA's fuel factor for natural gas,[28] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature, and exhaust velocity was calculated based on the stack diameter.

The emission rates and exhaust stack parameters used in the modeling analysis for the proposed school building are presented in Table 15-4.

Table 15-4: Exhaust Stack Parameters and Emission Rates – Proposed School Building

Building Name	Annual NO_x (g/s)	Short Term NOx (g/s)	Annual $PM_{2.5}$ (g/s)	Short Term $PM_{2.5}$ (g/s)	Stack diameter (m)	Stack Velocity (m/s)	Stack Height (ft)
Proposed School Building	6.74E-03	2.46E-02	5.12E-04	1.87E-03	0.61	0.79	75
Notes: The exhaust temperature modeled for the proposed school building is 307.8°F.							

Background Concentrations. To estimate the maximum expected pollutant concentration at a given location (receptor), the predicted impacts must be added to a background value that accounts for existing pollutant concentrations from other sources that are not directly accounted for in the model (see Table 15-5). For the 1-hour average NO_2 concentration at a given receptor, the modeled concentration from the source was added to corresponding background concentration of 94.9 µg/m^3. This background level represents the three-year average (2018-2020) of the annual 98th percentile of the daily-highest one-hour average NO_2 concentrations (this is the statistical form of the standard) monitored at the nearest DEC background monitoring station—Botanical Garden, Bronx. It should be noted that the maximum modeled concentration would not necessarily coincide with the maximum background concentrations and, therefore, this

27. EPA. Compilation of Air Pollutant Emission Factors AP-42. 5th Ed., V. I, Ch. 1.4. September 1998.
28. EPA. Standards of Performance for New Stationary Sources. 40 CFR Chapter I Subchapter C Part 60. Appendix A-7, Table 19-2. 2013.

approach results in a conservatively high estimate. The annual NO_2 background is 29.3 µg/m^3, based on the maximum annual average value measured over the most recent five years for which data is available (2016-2020).

For the AERMOD analysis, total 1-hour NO_2 concentrations were refined following a more detailed approach (EPA "Tier 3"). The methodology used to determine the total 1-hour NO_2 concentrations from the facility was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from the boilers were first added to the seasonal hourly background monitored concentrations; then, the highest combined daily 1-hour NO_2 concentration was determined at each location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally, the 98th percentile concentrations were averaged over the latest five years.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration based on the 98th percentile concentration, averaged over the years 2018-2020, was used to establish the *de minimis* value of 8. ug/m^3. $PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared to the $PM_{2.5}$ *de minimis* criteria, without considering the annual background. Therefore, the annual $PM_{2.5}$ background is not presented in Table 15-5.

Table 15-5: Maximum Background Pollutant Concentrations

Pollutant	Average Period	Location	Concentration (µg/m^3)	NAAQS (µg/m^3)
NO_2	1-hour	Botanical Garden, Bronx	94.9	188
	Annual	Botanical Garden, Bronx	29.3	100
$PM_{2.5}$	24-hour	Botanical Garden, Bronx	19.1	35
Source: New York State Air Quality Report Ambient Air Monitoring System, DEC, 2018–2020.				

Receptor Placement. Discrete receptors were modeled along existing, No Action condition, and With Action condition building façades to represent potentially sensitive locations such as operable windows and intake vents. Rows of receptors at spaced intervals on the modeled No Action residential building were analyzed at multiple elevations.

Table 15-6 presents the maximum predicted concentration from the heating and hot water systems of the proposed school buildings on the No Action residential development that will be built in 2026. As shown in the tables, all predicted pollutant concentrations are less than the applicable impact criteria. Therefore, there would be no potential for significant adverse air quality impacts from the proposed school building's heating and hot water systems.

Table 15-6: Maximum Modeled Pollutant Concentrations (μg/m³)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	(1)	-	164.7	188(2)
	Annual	1.1	29.7	30.8	100
$PM_{2.5}$	24-hour	3.3	-	-	8.0(3)
	Annual	0.15	-	-	0.3

Notes:
N/A – Not Applicable
(1) The 1-hour NO_2 concentration presented represents the maximum of the total 98th percentile 1-hour NO_2 concentration predicted at any receptor using seasonal-hourly background concentrations.
(2) NAAQS
(3) $PM_{2.5}$ de minimis criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 μg/m³

To ensure that there is no potential for significant adverse impacts of $PM_{2.5}$ or NO_2 from the proposed school building's heating and hot water system emissions, certain restrictions would be required. These restrictions were assumed in the analysis results presented in Table 15-6, and would avoid the potential for significant air quality impacts from stationary sources based on the conservative assumptions used in the analysis.

The restrictions would be as follows:

Block 3271, Lot 150 – Proposed School Building

The new school building on the project site (Block 3271, portion of Lot 150) must utilize natural gas in any fossil fuel-fired heating equipment and hot water equipment. The stack would be located more than 25 feet from the adjacent east side of the No Action residential development, at least 75 feet above grade, to avoid potential significant air quality impacts.

2. Industrial Sources

To assess potential air quality impacts on the proposed school building from existing industrial sources that emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the project sites was conducted to identify potential sources and determine if there are active permits associated with those sources.

As a first step, land use maps were reviewed to identify surrounding land uses that could have NYCDEP-issued industrial permits (i.e., sites classified as Industrial/Manufacturing, Transportation/Utility, or Public Facilities/Institutions). Table 15-7 lists existing industrial processing emission sources that were identified in the DEP CATS database.

Table 15-7: Industrial Sources within 400 Feet of the Project Site

Name of Business	Address	Type of Business[1]	DEP Air Permit ID
Vandale Motors Inc.	5832 Broadway	Gas Station	GR001121

1. Source: NYCDEP's Clean Air Tracking System (NYCDEP CATS). https://a826-web01.nyc.gov/DEP.BoilerInformationExt/

An industrial screening analysis was conducted using the *CEQR Technical Manual* provided lookup Table 17-3: Industrial Source Screen to estimate potential air toxic concentrations at the proposed project site caused by the gas station. Emissions from the gas station were assumed using permit limits and information from USEPA AP-42 Table 5.2-7 Evaporative Emissions from Gas Service Station Operations. This analysis estimated air toxic emission impacts to determine a potential for exceedances of the short-term and annual guideline concentrations criteria (SGC and AGC), which are exposure limits obtained from the EPA, NYSDEC or New York State Department of Health. Based on the analyses results presented in Table 15-8, no exceedances of AGC or SGC are anticipated. Therefore, no significant impacts from the industrial source emissions on the proposed school would occur.

Table 15-8: Air Toxics Analysis Results of Industrial Source Analysis

Chemical Name	CAS	Total Short-Term Concentration ($\mu g/m^3$)	SGC ($\mu g/m^3$)	Total Annual Concentration ($\mu g/m^3$)	AGC ($\mu g/m^3$)
Benzene	00071-43-2	0.92	27.00	0.05	0.13
MTBE	01634-04-4	33.66	N/A	1.69	3.80
Ethylbenzene	00100-41-4	4.90	N/A	0.25	1,000.00
Toluene	00108-88-3	24.48	37,000.00	1.23	5,000.00
Xylene	00108-38-3	7.34	22,000.00	0.37	100.00
Source: DEC, DAR-1 AGC/SGC Tables, February 2021.					

3. Large/Major Source Analysis

Based on NYSDEC's Permit Database (DECinfo Locator), there are no large combustion sources located within 1,000 feet of the project site; therefore, no analysis of these emission sources is required, and no significant impact would occur.

Conformity with the State Implementation Plan. Impacts to air quality from the proposed school are not expected and, therefore, the proposed project would be consistent with the New York State Implementation Plan (SIP) for the control of CO, $PM_{2.5}$, and all other criteria pollutants.

The proposed school would not result in a significant number of project-induced vehicular traffic and, therefore, it would not adversely affect surrounding mobile source air quality conditions. In addition, existing stationary source emissions in the immediate vicinity of the project site would not have a detrimental effect on the health of students or staff at the proposed school nor would the new school building's operations result in stationary source impacts within the surrounding community.

Greenhouse Gas Emissions. At approximately 103,654 gsf, the proposed school would be considerably smaller in size than the 350,000 sf CEQR threshold and is subsequently not considered an energy-intense source. Therefore, the proposed project would not result in a significant adverse GHG emissions impact, and no additional analysis is required.

Chapter 16: Noise

The proposed project was assessed to determine whether any adverse significant noise impacts would occur under future build conditions associated with the proposed project at the nearest sensitive properties within the surrounding community associated with the proposed school building and its school play yards. Issues of concern include the potential for existing vehicular traffic movements to adversely affect student learning activities inside the proposed school building. In addition, other issues of concern include potential noise impacts to the surrounding community resulting from project-induced noise sources, such as increases in vehicular traffic noise, noise from use of the outdoor playgrounds, and from the school building's mechanical equipment systems.

Noise Fundamentals. The A-weighted sound level (dBA) was used to determine existing and future noise exposure because it correlates well with the human perception of changes in noise level and annoyance. The most common time period used for the equivalent noise level is one hour, represented as $L_{eq}(h)$. This descriptor is commonly used to express ambient noise measurements and noise prediction estimates, and is used extensively in noise impact criteria. In addition, another commonly used descriptor is L_{10}, which is defined as the $L_{eq}(h)$ level exceeded ten percent of the time. The L_{10} is used to express interior noise exposure and used under CEQR to define interior noise exceedance criteria inside school and residential buildings.

SCA Noise Criteria. The SCA considers exterior noise level increase of five dBA or more over existing noise levels, determined at noise-sensitive receptors, to be significant and therefore warrant abatement consideration.

CEQR Noise Exposure Standards. The CEQR Noise Exposure Standards, shown in Table 16-1, set by the NYCDEP Division of Noise Abatement, promulgated standards that apply to a proposed project's location near adjacent sensitive receptor sites such as a residence, hospital, or school. As indicated in Table 16-1, these standards established four categories of noise exposure based on time of day and land use type for vehicular traffic, rail, and aircraft-related noise sources. Noise exposure at noise-sensitive receptor sites are classified into four main categories: "Acceptable," "Marginally Acceptable," "Marginally Unacceptable," and "Clearly Unacceptable."

Furthermore, the *CEQR Technical Manual* provides guidance for determining noise attenuation requirements to maintain an acceptable interior noise environment in schools and residential buildings beyond the 25 dBA attenuation that standard double-paned building windows commonly provide today. Acceptable interior noise exposure requires indoor L_{10} noise levels inside schools and residential buildings to be 45 dBA or less. The exterior to interior noise attenuation requirements are determined by establishing the total exterior noise exposure level estimated under future build conditions. The required exterior to interior noise attenuation to maintain an acceptable interior noise environment is defined by the values shown in Table 16-2. For example, a proposed school building, located in an outdoor area where future build noise levels reach the "Marginally Unacceptable" L_{10} level of 75 dBA, would require a minimum exterior to interior noise reduction of 31 dBA to achieve and maintain the 45 dBA interior noise exposure level condition.

Table 16-1: Noise Exposure Standards for Use in City Environmental Impact Review[1]

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

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

Notes:
In addition, any new activity shall not increase the ambient noise level by 3 dBA or more:

1. Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by ANSI Standards; all values are for the worst hour in the time period.
2. Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential of the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.
3. One may use FAA-approved Land contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
4. External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Table 16-2: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Aircraft [A]	$65<DNL\leq68$	$68<DNL \leq71$	$71< DNL \leq73$	$73< DNL \leq75$	$75< DNL$
Train	$65<L_{dn}\leq68$	$68<L_{dn}\leq71$	$71<L_{dn}\leq73\ 7$	$73<L_{dn}\leq75$	$75<L_{dn}$
Attenuation [B]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	See note [C]

Source: New York City Department of Environmental Protection

Notes:

[A] A DNL descriptor based on average values of L_{dn} over a year period.

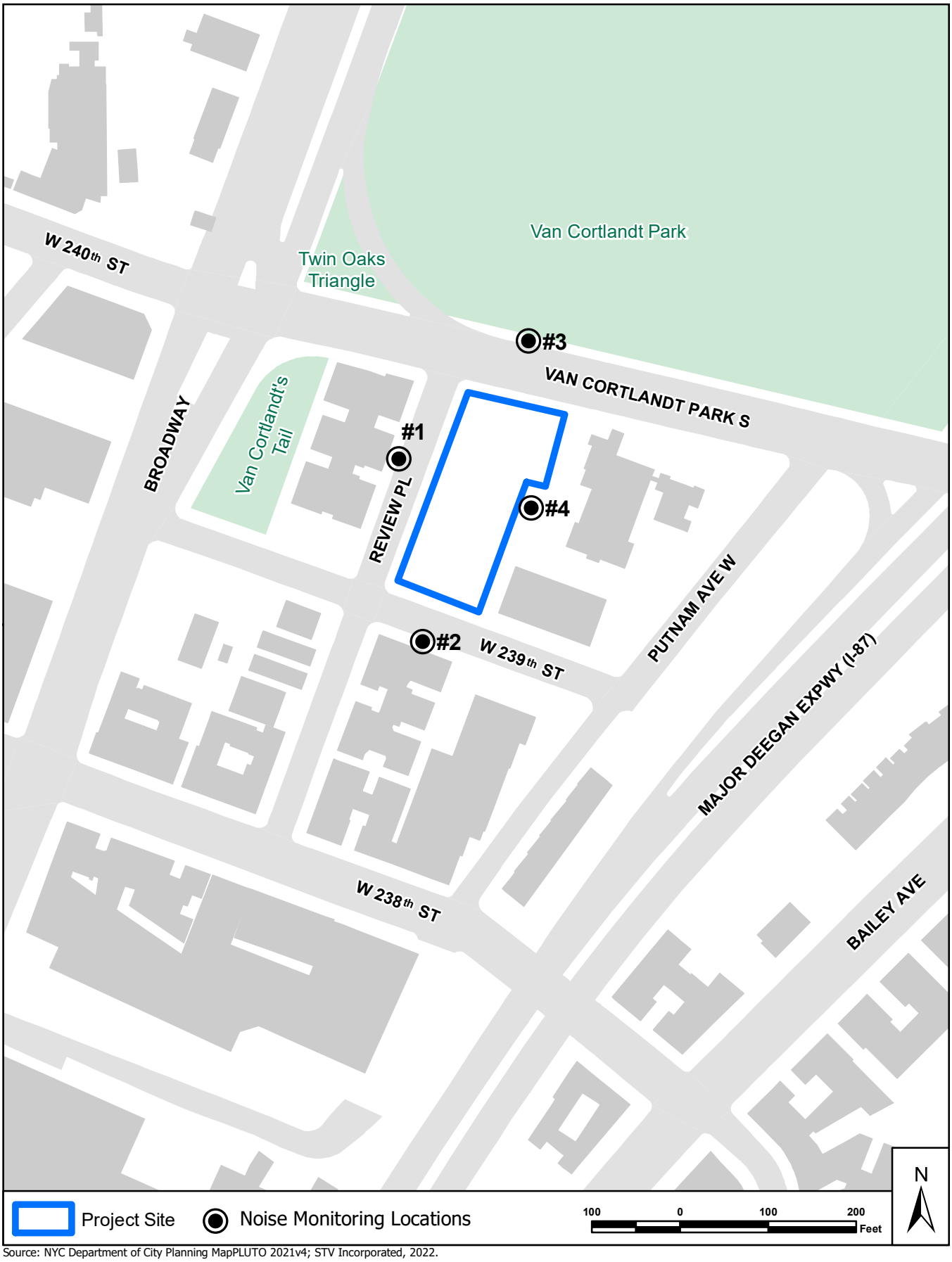
[B] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.

[C] The required attenuation value is the difference between L_{build} and $L_{interior}$, using the appropriate noise descriptor
Where:
L_{build} is the projected noise level under the build condition rounded up to the whole number
$L_{interior}$ is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

A. Existing Conditions

The proposed school site is located on the block bounded by Van Cortlandt Park South to the north, West 239th Street to the south, Putman Avenue West to the east, and Review Place to the west. The surrounding area primarily consists of residential uses and also includes commercial, institutional, and mixed-use buildings. There are no major stationary noise sources in the study area. As a result, the major sources of existing community noise nearby the school are generated primarily from road traffic movements.

Noise Monitoring. Four representative locations, depicted on Figure 16-1, were selected for noise measurement and impact assessment. These sites were selected based on a review of preliminary design plans provided for the proposed new school building and its outdoor play yards. The four sites represent a reasonable worst-case scenario for assessing the project's potential noise exposure within the adjacent community and establishing the proper window attenuation requirements for the proposed school building. Site #1 located at the front of a five-story residential building at 180/240 Van Cortlandt Park South, located west of the proposed school site. Site #2 is located at 3816 Review Place, a six-story residential building located south of the proposed school site. Site #3 is located at front of Van Cortlandt Park along Van Cortlandt Park South, located north of the proposed school site. Site #4 is located at the east side of the proposed at-grade school outdoor playground, 60 feet from the curb line of Van Cortlandt Park Avenue South. Figure 16-1 depicts the location of four noise monitoring sites in relationship to the surrounding area and the project site.



Source: NYC Department of City Planning MapPLUTO 2021v4; STV Incorporated, 2022.

Figure 16-1

NOISE MONITORING LOCATIONS

Existing noise levels were measured at the four receptor sites on April 27th and May 5th, 2022, during regular school operating hours. All noise measurements were recorded for a 20-minute duration per site per time period. The noise measurements were collected during the following time periods: 7:30-9:00 AM, 11:00 AM-12:30 PM, and 2:00-3:00 PM. The predominant background noise sources nearest to the proposed school site were observed to be:

- Vehicular traffic movements along Van Cortlandt Park South, which borders and runs along the northern boundary of the project site.
- Vehicular traffic movements along Review Place, which borders and runs along the western boundary of the project site.
- Vehicular traffic movements along West 239th Street, which borders and runs along the southern boundary of the project site.

The noise descriptors recorded during field measurements included Leq(h) and L_{10}. Table 16-3 provides a summary of the measurement data collected. All noise measurements were recorded using a Larson & Davis Model LxT Type I sound level meter with a windscreen placed over the microphone. Prior to collecting the measurements, the LxT meter was calibrated using a Larson & Davis Model Cal200 calibrator. There were no significant variances between the beginning and ending calibration measurements and, therefore, the recorded measurements were not adjusted. Weather conditions during the noise measurement survey were sunny with light winds of under 10 mph.

Traffic and classification count data at each location were collected concurrently with each noise measurement. Traffic and classification counts are used to calculate the hourly Passenger Car Equivalents (PCEs) during the traffic analysis AM and PM typical school arrival and departure time periods respectively. Each type of motor vehicle (i.e., cars, trucks, etc.) is converted to their equivalent CEQR *Technical Manual* defined PCE values. The relationships used for calculating PCEs are as follows: 1 automobile is equivalent to 1 PCE; 1 medium truck is equivalent to 13 PCEs; 1 bus is equivalent to 18 PCEs; and 1 heavy truck is equivalent to 47 PCEs. In other words, the total noise level produced by one medium truck would be the same as that generated from 13 cars and the noise level from one heavy truck (3 or more axles) would be equivalent to that generated by 47 cars.

Existing Noise Levels. A summary of measured L_{eq}(h) conditions at each receptor site is provided in Table 16-3. Noise levels were collected during three time periods corresponding to school arrivals in the morning, school departures in the afternoon, and the midday period when the outdoor playgrounds are generally used most frequently. As indicated in Table 16-3, measured Leq(h) noise levels ranged from a minimum level of 62 dBA at Site #1 during the AM period to a maximum level of 74 dBA at Site #3 during the AM period. No aircraft or construction noise was observed in the area during the noise monitoring survey.

Table 16-3: Monitored Peak Hour Noise Levels

Site Number	Monitoring Site Location	Hourly Leq(h) (dBA)			Hourly L_{10} (dBA)		
		AM	Midday	PM	AM	Midday	PM
1	180/240 Van Cortlandt Park South	62	63	63	65	67	67
2	3816 Review Place	66	65	64	68	68	66
3	South side of Van Cortlandt Park along Van Cortlandt Park S	73	70	70	74	73	72
4	West Side of No Build Residential Development	66	64	63	68	67	66

Source: STV Incorporated, May 2022

Note: Noise monitoring was completed on April 27 and May 5, 2022, during the time periods of approximately 7:30 AM to 9:00 AM, 11:00 AM to 12:30 PM (Midday) and 2:00 PM to 3:00 PM.

B. The Future Without the Project

In the No Build condition, as noted in the traffic analysis, there would not be a sufficient number of new vehicular trips to double the PCEs through any intersection. The *CEQR Technical Manual* threshold for detailed analysis would not be met. Therefore, the No Build condition is not expected to result in any substantial change to noise levels over the existing conditions.

C. Potential Effects of the Proposed Project

Mobile Source - Noise Impact Screening Assessment. As the proposed project is a new school building, an increase in vehicular traffic traveling to and away from the proposed school site is expected to occur due to a combination of future staff automobiles and school bus movements. Therefore, an assessment of traffic noise exposure using the PCE-based methodology was undertaken.

Future noise exposure estimates at each of the representative sites were determined based on traffic movements projected for the future 2027 Build conditions. In accordance with the CEQR analysis procedures, all traffic volumes with and without the proposed school were converted to PCEs for all roadways near each receptor site. Furthermore, utilizing this data, the estimated noise level change was determined based on the logarithmic formula that consists of the ratio of the estimated future Build PCE value divided by the future No Build PCE value. For this project, the PCE values were determined for Van Cortlandt Park South, Review Place, and West 239th Street. A summary of the peak-hour L_{eq} and L_{10} noise level estimates, under future 2027 No Build and Build conditions, is provided in Table 16-4. The L_{10} noise level estimates are shown in parentheses. The PCE analysis was completed for the peak AM and PM typical school arrival and departure time periods respectively.

The expected PCE traffic volumes under future 2027 Build conditions indicate that noise level increases in the 0.1 to 2.3 dBA range can be expected to occur. However, noise level increases of less than three dBA are considered below the level of human perceptibility and are below the SCA five dBA minimum noise level increase impact criterion. The 2.3 dBA maximum noise level increase is expected to occur adjacent to Site #1, representing the residential properties facing Review Place. The projected 2.3 dBA increase can be attributed to the new school vehicle

movements expected to be running along Review Place under 2027 Build conditions. Maximum 2027 Build condition L_{10} levels will remain within the CEQR "Acceptable" exposure range throughout the day at all four representative locations.

In summary, a maximum noise level increase of 2.3 dBA is projected to occur and it is well below the SCA five dBA minimum noise level increase impact criteria. Therefore, as a result of the proposed project, no significant adverse impact from traffic movements is expected to occur.

Table 16-4: PCE Traffic Noise Level Calculations for Build Conditions

Site Number	2027 Future No Build Noise Levels		2027 Future Build Traffic Noise Levels		Projected 2027 No Build to Build Increase in Noise Levels	
	Hourly Leq(h) (L_{10}) in dBA		Hourly Leq(h) (L_{10}) in dBA		Decibels Change (dBA)	
	AM	PM	AM	PM	AM	PM
1	62 (65)	63 (67)	64 (67)	65 (69)	2.3	2.1
2	66 (68)	64 (66)	66 (68)	64 (66)	0.1	0.2
3	73 (74)	71 (72)	73 (74)	71 (72)	0.1	0.2
4	66 (68)	63 (66)	66 (69)	64 (66)	0.1	0.2

Stationary Source – Playground Noise Assessment. An approximately 6,400 sf school play yard would be provided on the rooftop of the proposed five-story school building, facing Review Place and West 239th Street. In addition, an approximately 2,500 sf at-grade school play yard would occupy a permanent easement area adjacent to the project site on the east side of the proposed school building. As a result, the potential impact of playground noise was considered at noise sensitive noise properties located closest to these play yards.

The analysis of future playground noise exposure is based on the results of the 1992 SCA playground noise study. The results of the study indicate that the highest noise level generated by school playgrounds would occur during the Midday time period when outdoor play activities are generally the greatest.

A summary of the Midday L_{10} noise level estimates, under existing and future 2027 Build conditions, is provided in Table 16-5. It is expected that the worst-case playground noise exposure from the proposed at-grade playground, would occur at Site #4, located east of the proposed school building (and west of the No Build residential development). This change would be an increase of approximately 4.0 dBA over existing ambient L_{10} noise levels reported at this location during the Midday time period. Noise exposure at Site #1, Site #2, and Site #3, is projected to be 0.4, 0.5 and 0.4 dBA, respectively, above existing Midday conditions. The noise level change from the proposed rooftop playground in the Build condition at Site #4 is projected to be 3.3 dBA above existing Midday conditions. Thus, projected noise exposure from the

proposed at-grade and rooftop playgrounds would be below the SCA five dBA minimum increase threshold necessary to warrant abatement consideration. Therefore, playground noise from the proposed project would not result in a significant noise impact to any noise sensitive properties nearest the proposed playgrounds within the adjacent community.

Table 16-5: Estimated Playground Noise and Noise Exposure at Analysis Sites

Site Number	Monitoring Site Location	Existing Traffic Noise	Future Playground Noise	Total Noise Exposure	Delta Noise Level Change	SCA Impact
		L_{10} (dBA)	L_{10} (dBA)	L_{10} (dBA)	dB	
1	180/240 Van Cortlandt Park South	67	57	67	0.4	No
2	3816 Review Place	68	58	68	0.5	No
3	South side of Van Cortlandt Park along Van Cortlandt Park South	73	63	73	0.4	No
4	West Side of No Build Residential Development **(from at-grade playground)**	67	69	71	4.0	No
4	West Side of No Build Residential Development **(from rooftop playground)**	67	67	70	3.3	No

New York City Noise Code. The proposed school building's HVAC equipment, along with any other project-related outdoor mechanical devices, would be designed to meet the NYC Noise Code standards described in Table 16-6.

Table 16-6: New York City Noise Code

Octave Band Frequency (Hz)	Maximum Sound Pressure Levels (dB) as measured within a receiving property as specified below	
	Residential Receiving Property for mixed-use buildings and residential buildings (as measured within any room of the residential portion of the building with windows open, if possible).	Commercial Receiving Property (as measured within any room containing offices within the building with windows open, if possible).
31.5	70	74
63	61	64
125	53	56
250	46	50
500	40	45
1000	36	41
2000	34	39
4000	33	38
8000	32	37

Source: Section 24-232 of the Administrative Code of the City of New York, as amended December 2005.

School Interior Noise Levels. Based on the noise monitoring measurements, the estimated maximum L_{10} noise exposure level was determined to be 74 dBA at Site #3 during the AM peak period (see Table 16-4). Based on the CEQR noise exposure standards, the school's exterior noise exposure would be in the "Marginally Unacceptable" category. Therefore, double-glazed windows and doors rated to provide a minimum of 29 dBA noise attenuation would be required to reduce the exterior noise exposure to an acceptable interior level of 45 dBA or below. With these recommended measures, the proposed new school would remain below NYCDEP's maximum allowable L_{10} noise exposure level of 45 dBA and would not experience any noise exposure impacts.

Chapter 17: Public Health

Public health includes the activities that society undertakes to create and maintain conditions in which people can be healthy. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed project and, if so, to identify measures to mitigate such effects.

For most proposed projects, a public health analysis is not necessary. Where no significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, no public health analysis is warranted.

No impacts related to air quality, water quality, or noise are anticipated as a result of the proposed project. Hazardous materials are anticipated to be present on site, based on the Phase I ESA and Phase II ESI prepared for the project site. However, with any such existing on-site contamination appropriately addressed through proper handling and disposal, and other measures (including the incorporation of a soil vapor barrier and a sub-slab depressurization system into the new building design; the characterization of material excavated from the site to identify material handling, reuse, and/or disposal requirements; and the placement of two feet of environmentally clean fill over all landscaped areas), no public health issues are expected with the proposed project. Therefore, the proposed project would not result in significant adverse impacts to public health, and no additional analysis is necessary.

Chapter 18: Neighborhood Character

The *CEQR Technical Manual* defines neighborhood character as the amalgam of various elements that give neighborhoods their distinct personality, including land use, urban design, visual resources, historic resources, socioeconomic conditions, traffic, and noise. The *CEQR Technical Manual* recommends an assessment of potential impact on neighborhood character when the proposed project has the potential to result in any significant adverse impacts in the following areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. An assessment of neighborhood character is also a means of summarily describing whether the proposed school facility would be compatible with its surroundings.

A. Existing Conditions

The project site is situated along Van Cortlandt Park South, a four-lane east-west street that has moderate to heavy traffic. To the west, Review Place is a lightly trafficked narrow two-way street with on-street parking and sidewalks. To the south, West 239th Street is a lightly trafficked narrow two-way street with on-street parking and sidewalks.

The proposed project site currently consists of a paved parking area that formerly served the Complex and is surrounded by perimeter chain-link fencing. Although not publicly-accessible, the interior of the project site is visible from the surrounding streetscapes. Given its unused state, the project site does not contribute positively to neighborhood character.

As described in Chapter 2, "Land Use, Zoning and Public Policy," and Chapter 8, "Urban Design and Visual Resources," the study area lies at the edge of a well-established neighborhood characterized by mid-rise residential and mixed-use buildings, a mix of other uses to the south, and by Van Cortlandt Park to the north. The streetscapes immediately surrounding the project site are primarily residential along its western and southern sides. A mix of apartment buildings and one- and two-family homes with limited to no setbacks enhance the medium-density residential character of the Review Place and West 239th Street streetscapes. To the east of the project site is the former Complex, of which the project site is currently a part.

The Van Cortlandt Park South streetscape is notable in that it marks a shift in context from the neighborhood to the south and Van Cortlandt Park to the north. The street itself is wide, provides access to and from the Major Deegan Expressway (I-87), and receives more vehicular traffic than the streets to the south. Further, Van Cortlandt Park extends across much of the study area north of Van Cortlandt Park South, denoting a shift from residential neighborhood to a regional open space destination.

B. The Future Without the Project

If the proposed construction of the new PS does not occur, then it is expected that the proposed project site would resemble current conditions, with the project site remaining as a vacant, former parking lot. As part of a separate action, on the remaining portion of Lot 150 to the east (on the separate lot not acquired by the DOE), a private developer will demolish the existing buildings on it (a former church, a former parochial school, and a former parsonage) and construct a new

"U"-shaped, multi-story residential development to be completed by 2026. Aside from this development, neighborhood character is expected to resemble existing conditions. Therefore, future conditions without the project would be altered immediately adjacent to the project site, but throughout the rest of the study area it would generally resemble existing conditions.

C. Potential Effects of the Proposed Project

The construction of the proposed PS would be an appropriate land use, and its design would contribute to the visual quality of the area. Its height and massing would be consistent with other development in the area, being approximately 7 ft taller than the existing apartment building immediately to the west and approximately 12 ft shorter than the planned residential development immediately to the east.

The proposed school would enliven the streetscape, particularly in the replacement of an unused parking lot, and given its neighborhood-oriented function, the new school would be consistent with the residential context surrounding the project site.

Technical analyses have concluded that with the recommended improvement measures in place, the proposed school at this location would not result in significant adverse impacts related to traffic, air quality, or noise conditions that would alter the character of the neighborhood.

Furthermore, the proposed new school would introduce new capacity in the school district, thereby representing an improvement to neighborhood character in terms of improved community facilities and services. As such, the proposed PS would be a positive attribute to the educational opportunities in the neighborhood, as well as an improvement to the physical design and character of the project site and surrounding area. Therefore, the proposed PS would have a positive effect on neighborhood character; no significant adverse impact to neighborhood character would result with the proposed project, and no further analysis is warranted.

Chapter 19: Construction-Related Impacts

The anticipated total duration of construction for the proposed project is assumed to be approximately 30-32 months; however, active construction on the site is anticipated to be less than 24 months.

The assessment of construction-related impacts is related to build conditions for the proposed project. This section summarizes the potential impacts that could result from the construction of a new school facility. To minimize overall adverse impacts during construction activities, the project would be planned, scheduled, and staged to minimize disruption to the existing traffic network, the abutting neighborhoods, and the environment. To the maximum extent practicable, construction staging would take place within the project site. Some adverse impacts related to construction activities may be unavoidable, but the duration and severity of such impacts would be minimized by utilizing best management practices during construction. Materials and practices that are typically used during construction activities to minimize impacts are briefly described below.

Construction Materials and Equipment. Standard construction equipment such as pavers, haul trucks, scrapers, loaders, spreaders, and rollers would be used to move and consolidate soil, pave, and supply and remove construction materials from the site. Backhoes and cranes may be needed to install drainage facilities and other utilities, and dig footings for structures, as well as for relocation of any on-site utilities. During the construction phase of the project, on-site locations would most likely be used as staging areas for equipment and construction materials.

Construction Impacts on Traffic and Transportation, Pedestrians, and Parking. Traffic and transportation operations in the study area may be affected by the movement of construction equipment, materials, and construction workers to and from the site on a daily basis. Movement and repositioning of oversized machinery and/or materials may result in temporary lane or street closures. There could be limited short-term increased congestion within the vicinity of the project site. To avoid unnecessary construction-related traffic within the project area, construction vehicles would be limited to designated routes and would be kept in the designated staging area.

In accordance with City laws and regulations, construction work at the project site would generally begin at 7 AM on weekdays, with workers arriving to prepare work areas between 6 and 7 AM, which would be before the school arrival peak traffic hour. Construction work activities would typically finish around 3:30 PM, and workers would depart the site thereafter, which would be after the school dismissal peak traffic hour. The temporal distribution for employee vehicle trips was based on typical work shift allocations and conventional arrival/departure patterns for construction workers, which indicate that 80 percent of the construction workers would arrive during the AM construction peak hour and depart during the PM construction peak hour.

An average of 50 construction personnel is expected to be working on the project site for the duration of the construction period. Modal split and vehicle occupancy rates for construction workers based on the 2000 American Community Survey Means of Transportation to Work by Selected Characteristics, Construction & Excavation Occupations data for workers in Bronx census tracts 279, 283, 285, 287, and 295 indicate that approximately 67 percent of construction

workers are expected to travel by personal automobile at an average occupancy rate of approximately 1.5 persons per vehicle. In total, an estimated 18 construction worker vehicle trips are projected to be made during the peak hours for construction-related trips (see Table 19-1).

Table 19-1: Construction Worker Peak Hour Vehicle Trips

Construction Workers	Peak Hour
Number of Person Trips	50
Travel in Peak Hour	80%
Travel by Private Auto	67%
Average Auto Occupancy	1.5
Total Vehicle Trips	**18**

Each construction worker vehicle was assumed to arrive in the morning and depart in the afternoon or early evening, whereas truck deliveries would occur throughout the construction day. To avoid congestion and ensure that materials are on-site for the start of each shift, construction truck deliveries would often peak during the hour before the regular day shift, overlapping with construction worker arrival traffic. Two construction vehicle deliveries have been assumed during the AM construction peak hour. Each truck delivery was assumed to result in two truck trips during the same hour (one inbound and one outbound), resulting in a total of four truck trips during the peak hour. For analysis purposes, truck trips were converted into Passenger Car Equivalents (PCEs) based on one truck being equivalent to an average of two PCEs thereby resulting in a total of eight PCE trips during the peak hour for construction traffic. Adding the eight PCEs from truck trips to the 18 trips from constructions workers would total 26 PCE trips during the peak hour for construction.

Overall, the construction peak hour would generate fewer than 50 vehicle trips (presented in PCEs); therefore, no detailed traffic analysis for construction activities is needed, as per the *CEQR Technical Manual*.

The construction workers would increase the parking demand in the project area by an estimated 18 vehicles. This would not likely create a parking shortfall.

Less than 200 incremental peak hour walk trips would be generated by construction workers during the school construction; therefore, the construction phase is unlikely to create a significant pedestrian impact. Similarly, less than 200 incremental peak hour transit trips would be generated by construction workers during the school construction; therefore, the construction phase is unlikely to create a significant transit impact.

Construction staging areas, also referred to as "laydown areas," are sites that would be used for the storage of materials and equipment and other construction-related activities. Work zones are those areas where the construction is occurring. Field offices for contractors and construction managers would be situated in temporary job site trailers at staging areas or existing office space near the work areas. Staging areas would typically be fenced and lit for security and would adhere to New York City Building Codes. It is expected that there would be adequate storage available on the project site for the storage of construction materials, and that the public

thoroughfares adjacent to the project site would not be closed or impeded for significant periods of time for this purpose.

No rerouting of traffic is anticipated during construction activities and all moving lanes on streets are expected to be available to traffic at all times. At times, the sidewalks adjacent to the project site may need to close for construction-related activities. Pedestrians would either use a temporary walkway in a sectioned-off portion of the street or be diverted to walk on the opposite side of the street. Detailed Maintenance and Protection of Traffic (MPT) plans for each construction site would be submitted for approval to the DOT Office of Construction Mitigation and Coordination (OCMC), the entity that ensures critical arteries are not interrupted, especially in peak travel periods. Appropriate protective measures for ensuring pedestrian safety surrounding the project site would be implemented under these plans.

Materials deliveries would likely be made from the Major Deegan Expressway, which is designated a New York City Department of Transportation (NYCDOT) through truck route, or from Broadway to Van Cortlandt Park South, which are both designated NYCDOT local truck routes.

Construction Impacts on Air Quality. During construction, emissions of particular matter and other criteria pollutants would temporarily increase due to the generation of fugitive dust from material handling and equipment activities and mobile source emissions from tailpipes. The following standard dust control measures would be undertaken as necessary:

- Minimizing the period and extent of area being exposed or re-graded at any one time.
- Spraying construction areas and haul roads with water, especially during periods of high wind or high levels of construction activity.
- Minimizing the use of vehicles on unpaved surfaces.
- Covering or spraying material stockpiles and truck loads.

Fugitive Dust Emissions. Fugitive dust is airborne particulate matter, generally of a relatively large particle size. Construction-related fugitive dust would be generated by concrete demolition, haul trucks, concrete trucks, delivery trucks and earth-moving vehicles operating around construction sites. This would be due primarily to particulate matter being resuspended ("kicked up") by vehicle movement over paved and unpaved roads and other surfaces, dirt tracked onto paved surfaces from unpaved areas at access points, and material blown from areas of exposed soils.

Generally, the distance particles drift from their sources depends on their size, emission height, and wind speed. Small particles (30- to 100-microns) can travel several hundred feet before settling to the ground, depending on wind speed. Most fugitive dust, however, is made up of relatively large particles (greater than 100 microns in diameter). Given this relatively large size, these particles tend to settle within 20 to 30 feet of their source. The application of various control measures during construction demolition activities would be employed to minimize the amount of construction dust generated. These measures would include applying water or other suitable moisture-retaining agents on dirt roads, covering haul trucks carrying loose materials, or treating materials likely to become airborne and contribute to air pollution if left untreated.

Mobile Source Emissions. CO, PM_{10}, and $PM_{2.5}$ are the principal pollutants of concern when considering localized air quality impacts of motor vehicles. Since emissions of CO, PM_{10}, and $PM_{2.5}$ from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction and construction-generated trucks and worker vehicles could result in short-term elevated concentrations of CO, PM_{10}, and $PM_{2.5}$ from the temporary reduction of roadway capacity and the increased queue lengths. To minimize the amount of emissions generated, maintenance and protection of traffic patterns would be implemented during construction to limit disruption of traffic and to ensure that adequate roadway capacity is available to general traffic during peak travel periods. It is also noted that peak movement of construction workers to and from the site would coincide with shift changes, and would precede most traffic movements by about one hour, thus minimizing the potential for mobile source emissions.

During construction activities for the proposed PS, the primary pollutant of concern would be PM related to soil disturbance and demolition, as well as emissions from heavy duty diesel engines. Other pollutants of concern typically include CO, PM_{10}, and $PM_{2.5}$ related to on-street traffic diversions and NO_X from fuel combustion of diesel and gas fueled equipment.

Mobile Sources. With respect to mobile sources, the maximum number of off-site vehicle trips would be less than the 170 trip CEQR threshold for the detailed CO assessment of mobile sources. In addition, the CEQR $PM_{2.5}$ screening threshold would not be surpassed at any of the studied traffic intersections as a total of 18 auto trips and a maximum of only two peak hour construction-related truck trips are expected during construction. Finally, there would be no traffic diversions from construction. As a result, the school construction would not result in construction-related air quality impacts from mobile sources.

Stationary Sources. With respect to stationary sources, the construction of the proposed PS would involve one building structure that would involve minimal construction activities related to demolition as there are no buildings that currently exist on the site. The construction equipment on-site would include two cherry pickers, one crane, and one backhoe. The proposed building structure would have a maximum height of five floors comprised of approximately 103,654 gsf. The first part of construction would involve several months of moderate intensity construction activities primarily related to land clearing and soil removal. The second part would involve the erection of the superstructure and mechanicals. The most intense construction would utilize a crane for steel, and the two cherry pickers; however, this work would only last for a limited period of time. Interior work would encompass the remaining months of construction.

During the construction of the school, pollutant emissions would temporarily increase at times due to the operation of construction equipment, mobile sources, and the generation of fugitive dust in close proximity to adjacent sensitive receptors. To minimize these emissions during construction, specific mitigation measures based on NYCDEP requirements for city projects would be undertaken as necessary. Examples include but are not limited to the following:

- Minimizing the period and extent of area being exposed or re-graded at any one time;
- Spraying construction areas and haul roads with water, especially during periods of high wind or high levels of construction activity;

- Wheel washing;
- Minimizing the use of vehicles on unpaved surfaces;
- Covering or spraying material stockpiles and truck loads;
- Keeping equipment maintained and operating efficiently in a clean manner to mitigate any exhaust impacts;
- Using ultra-low sulfur diesel ("ULSD") fuel in all non-road diesel construction equipment;
- Banning the idling of diesel-powered construction equipment for longer than three minutes, with some exceptions;
- Protecting air intakes for buildings from diesel exhaust fumes; and
- Including more measures to control dust at the project site.

Construction Noise Impacts. Noise impacts during construction would include noise from construction equipment operation and from construction vehicles traveling in and out of the project site. It is expected that most construction workers would travel by automobile. The construction noise impact on sensitive receptors near the project site depends upon the type and amount of construction equipment as well as the distance from the construction site. Typical noise levels of construction equipment are given in Table 19-2. The noise emission levels for construction equipment are measured at 50 feet (15.2 meters), and decrease over distance.

Construction noise is regulated by the New York City Noise Code and by the EPA noise emission standards for construction equipment. These 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 to not create unnecessary noise. It is understood that the proposed construction site is located in a predominantly residential neighborhood. All reasonable means would be undertaken to avoid unnecessary noise. Sensitivity to the nearby residences in the project study area would be maintained to the maximum extent practicable for the duration of the construction period. Because the project site is of adequate size to accommodate construction staging on site, construction activities would be limited to the project site. For the active construction work of the proposed school facility, construction impacts would be temporary. As a result, significant adverse noise impacts would not result.

For construction-related mobile sources, construction vehicles accessing the site are expected to utilize designated NYCDOT truck routes, such as Van Cortlandt Park Avenue South. Closer to the project site, trucks would use Broadway to Van Cortlandt Park South to access the site. Based on worst-case AM traffic projections for construction, vehicles accessing the site would not result in a doubling of peak hour noise PCEs along any of these roadways. Therefore, significant noise impacts from construction vehicles are not expected.

Table 19-2: Typical Noise Emission Levels for Construction Equipment

Equipment Description	L_{max} @ 50 Feet
All Other Equipment > 5 HP	85
Auger Drill Rig	85
Backhoe	80
Bar Bender	80
Blasting	94
Boring Jack Power Unit	80
Chain Saw	85
Clam Shovel (dropping)	93
Compactor (ground)	80
Compressor (air, less than or equal to 350 cfm)	75[A]
Compressor (air, greater than 350 cfm)	80[A]
Concrete Batch Plant	83
Concrete Mixer Truck	85
Concrete Pump Truck	82
Concrete Saw	90
Crane	85
Dozer	85
Drill Rig Truck	84
Drum Mixer	80
Dump Truck	84
Dumpster / Rubbish Removal	78
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator	82
Generator (< 25 KVA, VMS signs)	70
Gradall	85
Grader	85
Grapple (on Backhoe)	85
Horizontal Boring Hydr. Jack	80
Hydra Break Ram	90
Impact Pile Driver	95
Jackhammer	85
Man Lift	85
Mounted Impact Hammer (Hoe Ram)	90
Pavement Scarafier	85
Paver	85
Pickup Truck	55
Pneumatic Tools	85
Pumps	77
Refrigerator Unit	82
Rivet Buster / Chipping Gun	85
Rock Drill	85

Equipment Description	L_{max} @ 50 Feet
Roller	85
Sand Blasting	85
Scraper	85
Shears (on Backhoe)	85
Slurry Plant	78
Slurry Trenching Machine	82
Soil Mix Drill Rig	80
Tractor	84
Vacuum Excavator (Vac-truck)	85
Vacuum Street Sweeper	80
Ventilation Fan	85
Vibrating Hopper	85
Vibratory Concrete Mixer	80
Vibratory Pile Driver	95
Warning Horn	85
Water Jet Deleading	85
Welder / Torch	73

Notes: As per Local Law 113 §24-228(a)(1) *Construction, Exhausts, and other Devices*, "Sound, other than impulsive sound, attributable to the source or sources, that exceeds 85 dBA as measured 50 or more feet from the source or sources at a point outside the property line where the source or sources are located or as measured 50 or more feet from the source or sources on a public right-of-way" is prohibited.
[A] Indicates the value is from Local Law 113; other values are from 15 RCNY &28-109, Appendix.
Sources: Local Law 113 and the New York City Department of Environmental Protection Notice of Adoption of Rules for Citywide Construction Noise Mitigation: Chapter §28-109, Appendix

For on-site construction that occurs within a defined construction zone, construction noise can be intermittent and responsible for a variety of impulsive, discontinuous noise sources. Resulting noise levels are dependent upon the type of operation, the distance to sensitive receptors, the location and function of the equipment, and the extent to which the equipment is used (expressed as the equipment usage factor). The equipment usage factor represents the percent of time that equipment is assumed to be running at full power while working on site. Some sensitive receptors would be located directly adjacent to the construction zone. Potentially affected noise receptors include the No Build residential buildings located directly east of the proposed school site. There are several noise sensitive residential buildings on Review Place and West 239th Street as well.

For construction projects such as the proposed action, the noisiest phase of construction tends to be the demolition phase where numerous pieces of equipment are involved in building demolition, land clearing and loading activities. For the proposed action, the demolition phase would last several months, but the majority of on-site work would be low intensity since

construction would not include the demolition of an existing building. As such, construction activities related to demolition would be limited to land clearing and excavation. Equipment for demolition would be primarily limited to backhoes. Once the construction phase begins, noise levels would be expected to decrease in comparison to the demolition phase as the building superstructure is erected. The remaining portion of the construction phase would include less noisy activities as the building mechanical and interior fitting process is completed. As a result, the heaviest construction for the project would only last for a portion of the overall construction period. Given that the major noise source during construction - heavy machinery - would move unpredictably within the site and would not be stationary within one portion of the site, no one receptor is expected to be exposed to elevated levels of construction noise for long periods of time.

Because some noise from construction is inevitable, construction noise for the proposed project would be regulated by the NYCDEP Noise Code and by the USEPA noise emission standards for construction equipment. These 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 6:00 AM and 3:30 PM; and that construction material be handled and transported in such a manner as to not create unnecessary noise. It is understood that the proposed construction site is located in a predominantly residential neighborhood. All reasonable means would be undertaken to avoid unnecessary noise. These measures include the use of perimeter fencing to shield on-site activities. Other measures to reduce noise include but are not limited to the following:

- Limits on engine idling in accordance with NYC Administrative Code 24-163;
- Dump trucks shall be equipped with thick rubber bed liners;
- Minimal use of backup alarm devices and when necessary, use of only approved back up devices; and
- Construction material must be handled and transported in such a manner as to not create unnecessary noise.

Sensitivity to the nearby residential buildings in the project study area would be maintained to the maximum extent practicable for the duration of the construction period. For the proposed school facility, construction impacts would be temporary. As a result, significant adverse noise impacts would not result.

Construction Impacts on Water Quality. The foremost potential construction impacts on water resources are soil erosion and sedimentation, which could occur due to grading activities. Exposed soils from these activities could erode during rainfall events, and possibly affect the existing storm sewer systems located on and adjacent to the site. A soil erosion control plan would be implemented during construction activities. Potential contamination of groundwater could possibly occur as a result of leaking construction equipment and/or temporary on-site sanitary storage facilities. Proper maintenance procedures on the construction site would avoid most leaks and mishaps. Any spills (oil, gasoline, brake fluid, transmission fluid) would be contained immediately and disposed of properly, off-site.

Hazardous Waste. Local, state, and federal regulations governing hazardous waste, particularly the Resource Conservation and Recovery Act (RCRA) and the New York Standards Applicable to Generators of Hazardous Waste, would be implemented during construction of the proposed project.

Asbestos Removal. The Phase I ESA identified potential asbestos-containing materials (ACM) as an environmental concern. Regulations as per the New York City Asbestos Control Program require that all applicants for demolition and/or building permits must determine whether friable ACM would be disturbed or removed as a result of construction or demolition activities. If asbestos is present, the applicant must submit an asbestos inspection report and an abatement plan. A New York City-certified asbestos handler must perform all work in accordance with stringent procedures to avoid the emission of asbestos in the air. In addition, to minimize the potential for exposure of construction workers and the surrounding public, standard industry practices, including appropriate health and safety measures, would be utilized.