SUGAR HILL REZONING

Final Environmental Impact Statement (EIS)

CEQR No. 10DCP031M
ULURP Nos.: N100274PPM, N100275PCM, 100277ZMM

Prepared for:
Broadway Housing Communities

Prepared by:
Philip Habib & Associates

September 3, 2010
Sugar Hill Rezoning

Final Environmental Impact Statement

September 3, 2010

CEQR No.: 10DCP031M
ULURP Nos.: N100274PPM, N100275PCM, 100277ZMM
Project Location: New York, New York

LEAD AGENCY:
City Planning Commission
City of New York
Amanda M. Burden, FAICP, Chair

LEAD AGENCY CONTACT:
Robert Dobruskin, Director
Environmental Assessment and Review Division
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York, 10007
(212) 720-3423

PREPARED BY:
Philip Habib & Associates
With: PB Americas, Inc.

PREPARED FOR:
Broadway Housing Communities
Ellen Baxter, Executive Director
583 Riverside Drive
New York, NY 10031
(212) 568-2030
# TABLE OF CONTENTS

**Foreword**

**Executive Summary**  ................................................................................................................................................... S-1

**Chapter 1: Project Description** ........................................................................................................................ ... 1-1

A. Introduction ........................................................................................................................................ 1-1
B. Background and Existing Conditions ............................................................................................... 1-2
   The Proposed Development Site and Area to be Rezoned .................................................................... 1-2
   Surrounding Area .................................................................................................................................... 1-4
C. Project Purpose and Need ....................................................................................................................... 1-5
D. Description of the Proposed Action ........................................................................................................ 1-6
   Zoning Map Change ............................................................................................................................... 1-6
   Acquisition and Disposition of City-Owned Property ........................................................................ 1-7
   Funding/Financing ................................................................................................................................ 1-7
   Restrictive Declaration and (E) Designation ...................................................................................... 1-8
E. Reasonable Worst Case Development Scenario ................................................................................ 1-8
   The Future Without the Proposed Action (No-Action Condition) .................................................. 1-9
   The Future With the Proposed Action (With-Action Condition) ..................................................... 1-9
F. Proposed Actions and Required Approvals ......................................................................................... 1-14

**Chapter 2: Land Use, Zoning, & Public Policy** ................................................................................................. 2-1

A. Introduction ........................................................................................................................................ 2-1
B. Existing Conditions ................................................................................................................................. 2-2
   Land Use ............................................................................................................................................. 2-2
   Zoning .................................................................................................................................................. 2-5
   Public Policy ....................................................................................................................................... 2-6
C. The Future Without the Proposed Action (No-Action) ........................................................................ 2-8
   Land Use ............................................................................................................................................. 2-8
   Zoning .................................................................................................................................................. 2-9
   Public Policy ....................................................................................................................................... 2-10
D. Probable Impacts of the Proposed Action ............................................................................................. 2-10
   Land Use ............................................................................................................................................. 2-10
   Zoning .................................................................................................................................................. 2-12
   Public Policy ....................................................................................................................................... 2-13
E. Conclusion ........................................................................................................................................... 2-14

**Chapter 3: Open Space** .................................................................................................................................. 3-1

A. Introduction ........................................................................................................................................ 3-1
B. Methodology and Open Space Study Area ......................................................................................... 3-2
   Open Space Study Area ....................................................................................................................... 3-2
C. Existing Conditions ................................................................................................................................. 3-3
   Study Area Population ......................................................................................................................... 3-3
   Inventory of Publicly Accessible Open Space Resources .................................................................. 3-5
   Quantitative Analysis of Open Space Adequacy .............................................................................. 3-9
   Qualitative Analysis of Open Space Adequacy .............................................................................. 3-10
D. The Future Without the Proposed Action (No-Action) ....................................................................... 3-11
   Open Space Study Area Population .................................................................................................. 3-11
Chapter 8: Hazardous Materials ................................................................. 8-1
A. Introduction ......................................................................................... 8-1
B. Phase I Environmental Site Assessment ............................................... 8-1
C. The Future Without the Proposed Action (No-Action) ....................... 8-2
D. Probable Impacts of the Proposed Action .......................................... 8-3
E. Conclusion ......................................................................................... 8-4

Chapter 9: Air Quality .................................................................................. 9-1
A. Introduction ......................................................................................... 9-1
B. Pollutants of Concern ......................................................................... 9-1
  Criteria Pollutants ................................................................................ 9-1
  Air Toxic Pollutants ............................................................................ 9-2
C. Mobile Source Analysis ..................................................................... 9-3
  Intersection Analysis .......................................................................... 9-3
D. Analysis of Heating System Emissions ............................................... 9-5
  Emission Sources ............................................................................... 9-5
  Analyses Conducted ........................................................................... 9-5
  Results ................................................................................................ 9-6
E. Health Risk Assessment of Toxic Air Emissions From Existing
  Industrial Sources ............................................................................. 9-7
  Introduction ......................................................................................... 9-7
  Results ................................................................................................ 9-8
F. Conclusion ......................................................................................... 9-8

Chapter 10: Noise ......................................................................................... 10-1
A. Introduction ......................................................................................... 10-1
B. Noise Fundamentals ......................................................................... 10-1
  Introduction ......................................................................................... 10-1
  Human Perception of Noise and Noise Descriptors ......................... 10-2
  Criteria ............................................................................................... 10-3
C. Existing Conditions ........................................................................... 10-3
  Noise Monitoring Locations ............................................................. 10-3
  Equipment Used in Noise Monitoring ............................................. 10-4
  Results of Baseline Noise Measurements ...................................... 10-6
D. The Future Without the Proposed Action (No-Action) ....................... 10-6
E. Probable Impacts of the Proposed Action .......................................... 10-7
F. Sensitive Receptor Assessment ........................................................ 10-8
G. Conclusion ......................................................................................... 10-10

Chapter 11: Construction Impacts ............................................................... 11-1
A. Introduction ......................................................................................... 11-1
B. Construction Schedule and Activities ............................................... 11-1
C. Potential Impacts During Construction ............................................. 11-2
  Historic Resources – Architectural .................................................. 11-2
  Hazardous Materials ........................................................................ 11-3
  Other Technical Areas ..................................................................... 11-4
D. Conclusion ......................................................................................... 11-5

Chapter 12: Mitigation .................................................................................. 12-1
A. Introduction ......................................................................................... 12-1
B. Historic Architectural Resources ...................................................... 12-1
Mitigation for Direct Impact ................................................................. 12-1
Mitigation for Indirect Impact .............................................................. 12-3
C. Hazardous Materials ..................................................................... 12-4

Chapter 13: Alternatives .................................................................... 13-1
A. Introduction .................................................................................... 13-1
B. No-Action Alternative .................................................................... 13-2
  Land Use, Zoning, and Public Policy .............................................. 13-2
  Open Space ....................................................................................... 13-2
  Shadows ............................................................................................ 13-3
  Historic Resources (Architectural) ................................................. 13-3
  Visual Resources ............................................................................. 13-4
  Neighborhood Character .............................................................. 13-4
  Hazardous Materials ..................................................................... 13-4
  Air Quality ....................................................................................... 13-5
  Noise ................................................................................................. 13-5
  Construction Impacts ..................................................................... 13-5
  Conclusion ...................................................................................... 13-5
C. No Impacts/Reduced Impacts Alternative ..................................... 13-6
  Direct Significant Adverse Impact .................................................. 13-6
  Indirect Significant Adverse Impact .............................................. 13-6
  Conclusion ...................................................................................... 13-7

Chapter 14: Unavoidable Adverse Impacts ........................................ 14-1
A. Introduction .................................................................................... 14-1
B. Historic (Architectural Resources) ................................................ 14-1
  Unavoidable Direct Impact ............................................................ 14-1
  Unavoidable Indirect Impact .......................................................... 14-1

Chapter 15: Growth-Inducing Aspects of the Proposed Action ........ 15-1

Chapter 16: Irreversible and Irretrievable Commitment of Resources .... 16-1

Chapter 17: Response to Comments on the DEIS ............................... 17-1

APPENDICES

Appendix A: Agency Correspondence
Environmental Review Letters from NYC Landmarks Preservation Commission
Review Letters from NY State Office of Parks, Recreation and Historic Preservation
Letter Submitted by SLCE Architects to OPRHP (structural evaluation attached)
Review Letter from NYC Department of Environmental Protection

Appendix B: 424 West 155th Street – Historical Background Report, by Higgins Quasebarth & Partners, LLC; February 2009
LIST OF TABLES

ES-1 Lots Within the Proposed Rezoning Area and their Existing FAR and Percent of Proposed R8A Floor Area .......................................................... ES-7

1-1 Existing Land Uses in Directly Affected Area (Area to be Rezoned) .................. 1-3
1-2 Use Groups Allowed in Existing (C8-3 & R7-2) and Proposed (R8A) Zoning Districts ........ 1-6
1-3 Lots Within the Proposed Rezoning Area and their Existing FAR and Percent of Proposed R8A Floor Area ........................................................................... 1-10

2-1 Study Area Zoning Designations .................................................................................... 2-6
2-2 Development Projects in the Future Without the Proposed Action Within an Approximate Half-Mile Radius ................................................................. 2-8
2-3 Comparison of Zoning Regulations: Existing C8-3 and R7-2 with Proposed R8A .......... 2-13

3-1 Study Area Residential Population, Age Group Distribution, and Worker Population .......... 3-4
3-2 Existing Open Space and Recreational Resources in the Study Area ................................ 3-7
3-3 Adequacy of Open Space Resources in the Study Area – Existing Conditions ........ 3-10
3-4 Adequacy of Open Space Resources in the Study Area – No-Action Conditions .... 3-12
3-5 Adequacy of Open Space Resources in the Study Area – 2012 No-Action and With-Action Conditions ............................................................... 3-13

4-1 Shadow Duration on Identified Resources Within Maximum Shadow Radius ............. 4-5

9-1 Applicable National and State Ambient Air Quality Standards ........................................ 9-2

10-1 Noise Exposure Standards for Use in City Environmental Impact Reviews .................. 10-4
10-2 Existing Short-Term Noise Levels at Monitoring Sites 1 through 4 ......................... 10-7
10-3 Required Attenuation Values to Achieve Acceptable Interior Noise Levels .............. 10-8
10-4 CEQR Required Attenuation Values for the Proposed Development Site .................. 10-10
10-5 HUD Required Attenuation Values for the Proposed Development Site .................... 10-10
<table>
<thead>
<tr>
<th>LIST OF FIGURES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-1 Project Location</td>
<td>ES-2</td>
</tr>
<tr>
<td>ES-2 Existing and Proposed Zoning</td>
<td>ES-4</td>
</tr>
<tr>
<td>ES-3 Tax Lots Affected by Proposed Rezoning</td>
<td>ES-4</td>
</tr>
<tr>
<td>ES-4 Preliminary Site Plan for Proposed Development – Illustrating Reciprocal Easements</td>
<td>ES-8</td>
</tr>
<tr>
<td>ES-5 Proposed Development – Illustrative Building Section</td>
<td>ES-8</td>
</tr>
<tr>
<td>ES-6 Proposed Development – Illustrative Rendering (View from St. Nicholas Avenue)</td>
<td>ES-8</td>
</tr>
<tr>
<td>1-1 Project Location</td>
<td>1-2</td>
</tr>
<tr>
<td>1-2a Tax Map of Affected Block</td>
<td>1-2</td>
</tr>
<tr>
<td>1-2b Tax Lots Affected by Proposed Rezoning</td>
<td>1-2</td>
</tr>
<tr>
<td>1-3 Photographs of Proposed Development Site and Rezoning Area</td>
<td>1-2</td>
</tr>
<tr>
<td>1-4 Existing and Proposed Zoning</td>
<td>1-6</td>
</tr>
<tr>
<td>1-5 Preliminary Site Plan for Proposed Development – Illustrating Reciprocal Easements</td>
<td>1-8</td>
</tr>
<tr>
<td>1-6 Proposed Development – Illustrative Building Section</td>
<td>1-12</td>
</tr>
<tr>
<td>1-7 Proposed Development – Illustrative Rendering (View from St. Nicholas Avenue)</td>
<td>1-12</td>
</tr>
<tr>
<td>2-1 Existing Land Use</td>
<td>2-2</td>
</tr>
<tr>
<td>2-2 Existing Zoning</td>
<td>2-6</td>
</tr>
<tr>
<td>2-3 No-Action Developments in Half-Mile Radius</td>
<td>2-8</td>
</tr>
<tr>
<td>2-4 Existing and Proposed Zoning</td>
<td>2-12</td>
</tr>
<tr>
<td>3-1 Open Space Study Area</td>
<td>3-4</td>
</tr>
<tr>
<td>3-2 Open Space Resources</td>
<td>3-6</td>
</tr>
<tr>
<td>4-1 Resources of Concern Within Maximum Shadow Radius for Proposed Development Site</td>
<td>4-2</td>
</tr>
<tr>
<td>4-2a Shadow Diagrams – March 21</td>
<td>4-4</td>
</tr>
<tr>
<td>4-2b Shadow Diagrams – May 6</td>
<td>4-6</td>
</tr>
<tr>
<td>4-2c Shadow Diagrams – June 21</td>
<td>4-6</td>
</tr>
<tr>
<td>4-2d Shadow Diagrams – December 21</td>
<td>4-6</td>
</tr>
<tr>
<td>4-3 Aerial Photo of Open Space Areas Affected by Incremental Shadows</td>
<td>4-8</td>
</tr>
<tr>
<td>5-1 Historic Resources Within 400-Foot Study Area</td>
<td>5-2</td>
</tr>
<tr>
<td>5-2a Sugar Hill Historic District – Examples of Town Houses within S/NR and LPC Historic Districts</td>
<td>5-4</td>
</tr>
<tr>
<td>5-2b Sugar Hill Historic District – Examples of Apartment Buildings within S/NR and LPC Historic Districts</td>
<td>5-4</td>
</tr>
<tr>
<td>5-3a Sugar Hill S/NR Historic District – Examples of Floral and Nature-Inspired Building Details</td>
<td>5-4</td>
</tr>
<tr>
<td>5-3b Sugar Hill S/NR Historic District – Examples of Varied Building Textures, Materials, and Colors</td>
<td>5-4</td>
</tr>
<tr>
<td>5-4 Photographs of Existing Garage on Proposed Development Site in Context with Sugar Hill Historic District</td>
<td>5-6</td>
</tr>
<tr>
<td>5-5 Proposed Development Site – Existing Views vs. Illustrative Future View</td>
<td>5-10</td>
</tr>
<tr>
<td>6-1 Visual Resources Study Area</td>
<td>6-2</td>
</tr>
<tr>
<td>6-2 Bird’s Eye View of Proposed Development Site and Immediate Vicinity</td>
<td>6-2</td>
</tr>
<tr>
<td>6-3 Visual Resources in the Study Area</td>
<td>6-2</td>
</tr>
<tr>
<td>6-4 Building Heights Within Approximate ¼-Mile Radius</td>
<td>6-4</td>
</tr>
<tr>
<td>6-5 Aerial View of Proposed Development Site – Existing View vs. Illustrative Future View With the Proposed Development</td>
<td>6-8</td>
</tr>
</tbody>
</table>
9-1  Project Study Area and Block and Lot Numbers ................................................................. 9-2
10-1 Noise Monitoring Sites ........................................................................................................ 10-5*

* Denotes that the figure is on the specified page
This document is the Final Environmental Impact Statement (FEIS) for the Sugar Hill Rezoning project (the Proposed Action). Acting on behalf of the City Planning Commission (CPC), which is the City Environmental Quality Review (CEQR) lead agency, the New York City Department of City Planning (DCP) determined the Draft Environmental Impact Statement (DEIS) for the proposed project to be complete and issued a Notice of Completion for the DEIS on June 4, 2010. CPC held a public hearing on the DEIS in Spector Hall at 22 Reade Street in Manhattan, on July 28, 2010. Comments were accepted at that hearing and throughout the public comment period, which remained open until August 9, 2010.

This FEIS also reflects all substantive changes to technical analyses resulting from DEIS comments, agency reviews, and material changes in conditions since issuance of the DEIS. As detailed in the EAS for the Proposed Action, dated April 2, 2010, pursuant to CEQR Technical Manual guidelines, the Proposed Action did not trigger a detailed analysis of Socioeconomic Conditions, Community Facilities, Natural Resources, Waterfront Revitalization Program, Infrastructure, Solid Waste and Sanitation Services, Energy, Traffic and Parking, or Transit and Pedestrians. In addition, the EAS screening analysis concluded that the Proposed Action would not result in any significant adverse impacts in the areas of Urban Design, or Public Health. As such, this EIS provides analyses only for those technical areas that were not screened out in the EAS, namely: Land Use, Zoning and Public Policy; Open Space; Historic (architectural) Resources; Shadows; Visual Resources; Neighborhood Character; Hazardous Materials; Air Quality; Noise; and Construction Impacts.

On May 17, 2010, the City released the 2010 City Environmental Quality Review (CEQR) Technical Manual, which updates the methodologies presented in the 2001 CEQR Technical Manual. As of that date, a substantial portion of the Sugar Hill Rezoning DEIS had already been completed. While references to the 2001 Manual and its methodologies remain in some sections of the FEIS, all of the analyses have been reviewed to ensure consistency with the methodologies of the 2010 Technical Manual and some have been updated where substantial changes were merited, or where the 2010 CEQR methodologies could result in potentially different or greater project-related impacts. In particular, the noise analysis has been revised to utilize the new 2010 CEQR methodologies, whereas the shadows analysis in the published DEIS already incorporated the new 2010 CEQR methodologies.

The FEIS includes the following principal changes:

- Chapter 1, “Project Description,” has been revised to include a discussion of the Proposed Development’s design concepts and goals.
- Chapter 4, “Shadows,” has been revised to indicate that subsequent to publication of the DEIS, the New York City Department of Parks and Recreation (DPR) further explored the potential shadows impact identified in the DEIS and confirmed that there would be no significant adverse impact on plant growth in Highbridge Park as a result of the Proposed
Action. Chapter 12, “Mitigation,” and Chapter 13, “Alternatives” have been revised accordingly to eliminate references to any project-related shadows impact.

- Chapter 5, “Historic and Cultural Resources,” has been revised to provide additional information, including more details on the State and National Register listed Sugar Hill Historic District, as well as additional figures and text relating to the Proposed Development’s potential effects on this historic district. The chapter has also been revised to indicate that, in addition to the identified direct impact, the Proposed Development would also result in a significant adverse indirect contextual impact to historic resources.

- Chapter 10, “Noise” of the FEIS has been revised to reflect new required noise attenuation values, in accordance with the guidelines of the 2010 CEQR Technical Manual.

- Chapter 12, “Mitigation,” of the FEIS has been revised to eliminate references to any potential shadows impacts (as noted above), and to provide greater detail on certain mitigation measures identified in the DEIS with respect to historic and cultural resources (for both direct and indirect impacts).

- The appendices have been updated and amended to reflect corresponding changes to the technical analyses in the FEIS where applicable, and to provide additional agency correspondence.

- Chapter 17, “Response to Comments on the DEIS” has been added, although no comments were received during the public comment period.

Except where indicated, all text changes since publication of the DEIS are marked by underlining in this FEIS. No underlining is used for the Foreword or Chapter 17, “Response to Comments on the DEIS,” both of which are entirely new.
A. INTRODUCTION

A set of actions are being proposed, which are intended to facilitate the redevelopment of a site in the Hamilton Heights North neighborhood of West Harlem, in Manhattan Community District 9 (refer to Figure ES-1 for project location). The requested actions include: (1) a zoning map change from C8-3 and R7-2 to a R8A residential zoning district; (2) acquisition/disposition of City-owned property, in the form of an exchange of easements between the applicant and the NYC Department of Citywide Administrative Services (DCAS); (3) construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD); and (4) other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance for the residential component of the Proposed Development. These actions, collectively, comprise the “Proposed Action”. Broadway Housing Communities (BHC, a.k.a., “the applicant”) is the applicant for the proposed rezoning and funding actions; applicants for acquisition/disposition action are BHC, DCAS (for acquisition and disposition), and NYC Department of Environmental Protection (NYCDEP) (for acquisition).

The Proposed Action would enable the applicant, BHC, to construct a mixed-use building on a parcel within the proposed rezoning area, consisting of one privately owned lot (Block 2069, Lot 21) located at 404-414 West 155th Street (the “Proposed Development Site”). The Proposed Development Site, which currently contains a two-story plus cellar public parking garage, is an approximately 21,685 sf lot on the northern portion of the block bounded by West 155th Street to the north, St. Nicholas Avenue to the west, St. Nicholas Place to the east, and West 153rd Street to the south, and is comprised of Lot 21 in its entirety.

The Proposed Development Site and rezoning area are located within the State and National Register-listed (S/NR) Sugar Hill Historic District, and the existing 2-story garage building on the Proposed Development Site has been identified as a contributing building in that district. Lot 14, which falls partially within the rezoning area, also falls within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Historic District.

The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site (the “Proposed Development”). The existing 300-space garage structure currently on the site would be demolished to allow construction of the new building. The Proposed Development would include:

- approximately 124 residential units, all of which would be affordable;
- an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling;
- a 12,196 sf day care facility and early childhood center for approximately 100 children;
- 2,350 sf of non-profit program and office space; and
- an up to 114-space below-grade accessory parking garage.
It is expected that construction on the Proposed Development Site would commence in late 2010 with the demolition of the existing structure and site excavation, and the Proposed Development is expected to be completed by late 2012.

There are no current proposals for development of any of the other properties affected by the proposed zoning map change. Compared to future conditions without the Proposed Action (No-Build), the future with action (Build) condition analyzed in this document consists of 124 residential units, an approximately 18,036 sf museum, a 12,196 sf day care facility (100 children capacity), approximately 2,350 sf of office space, as well as a net reduction of 300 public parking spaces.

B. PROJECT PURPOSE AND NEED

The Proposed Development Site, located at the northern boundary of Harlem’s Sugar Hill, was acquired by Broadway Housing Communities in January, 2008. Broadway Housing Communities (BHC) is a not for profit organization with a 25 year track record of developing and managing nationally recognized, innovative community-based housing and programs to redress poverty and homelessness. The current C8-3 zoning which covers most of the Development Site does not allow residential uses. The Proposed Action would enable the applicant (BHC) to develop this property with a new 13-story mixed-income mixed-use development that is intended to serve the needs of the surrounding community, by providing a range of affordable housing options, an early childhood day care center, the Faith Ringgold Children’s Museum, community not-for profit office space, and accessory parking.

Harlem’s booming real estate market and influx of prosperous professionals that began at the turn of this century is commonly described as Harlem’s Second Renaissance. This rapid force of gentrification in West Harlem and Washington Heights makes low income families especially vulnerable. In this context, the Proposed Development seeks to demonstrate that housing opportunities for households in poverty buttressed by educational and cultural resources can affirmatively contribute to the revitalization of West Harlem. The Proposed Development is expected to provide 124 units of housing of varying sizes, which would serve 51 single adults and 73 families ranging in income from homelessness to 80% of the Area Median Income. Thus the Proposed Development seeks to advance BHC’s mission to provide quality housing and services to the City’s lower-income families, and expand the supply of affordable housing in the City.

The proposed 18,036 sf Faith Ringgold Children’s Museum of Art & Storytelling is intended to serve as a cultural asset that would help revitalize the neighborhood by providing cultural resources and new, healthy opportunities for children and families. The museum is intended to teach children and families from the neighborhood and afar to take pride in themselves and their communities through art and storytelling. The Proposed Development is also expected to include an approximately 12,196 sf Early Childhood day care center serving 100 children, which would serve the surrounding community, and allow low- and moderate-income mothers to secure employment.

By combining a permanent affordable place to live with comprehensive educational, family and cultural resources, the Proposed Development seeks to provide much needed services for New
York’s low-income children and families. In addition, the Proposed Development seeks to transform an underutilized commercial site into a green model of urban community revitalization that integrates affordable housing, education and cultural resources to enrich the neighborhood for generations to come. Best practices at the highest standard of affordable housing, museum based early childhood education, and nonprofit resources for families will also be provided.

Finally, the proposed acquisition/disposition of City-owned property, in the form of an easement exchange, which is described in detail in Section IV below, would enable the applicant to locate its main entrance to the Proposed Development on St. Nicholas Avenue through a landscaped plaza. Currently, this area accommodates NYCDEP vehicle storage, and is restricted in its development potential due to its irregular shape and the presence of the Old Croton Aqueduct running beneath it. NYCDEP would benefit by exchanging use of this parcel for use of the easement from BHC which is more conveniently located to the building on the NYCDEP site. This easement would provide an automobile egress to the NYCDEP site from St. Nicholas Avenue, and would fulfill NYCDEP’s need for vehicle storage and parking as well as emergency staging.

C. DESCRIPTION OF THE PROPOSED ACTION

Zoning Map Change

The Proposed Action includes an amendment of the City’s zoning map for a portion of the northern end of the block bounded by West 155th and West 153rd Streets, St. Nicholas Avenue, and St. Nicholas Place, changing the zoning from C8-3 and R7-2 to a R8A residential district, as illustrated in Figure ES-2. The proposed R8A zoning district would allow residential uses in the entire rezoning area, which are prohibited under the existing C8-3 zoning on the northern portion of the block. It would also allow a wider range of community facility uses, including museums, schools, and libraries. R8A zoning districts permit residential and community facility uses, and in general allow for a more diverse group of residential and community facility uses than those allowed by the existing C8-3 and R7-2 zoning districts.

The proposed R8A district would allow residential and community facility uses within Use Groups 1-4, and establish envelope controls within the new district. Residential Use Groups 1 and 2 and community facilities Use Groups 3 and 4 would be allowed as-of-right under the proposed zoning, while commercial Use Groups 5 through 14, and 16 (automotive and semi-industrial uses) would no longer be permitted. As such, all of the existing uses in the rezoning area are expected to be in conformance with the proposed R8A zoning.

The proposed R8A zoning district is a contextual zoning district, which regulates the height, bulk, and setback of new buildings. The maximum allowable FAR for the proposed R8A district is 6.02 for residential uses, and 6.50 for community facilities. The maximum allowable lot coverage is 70 percent for an interior lot, such as the Proposed Development Site. The minimum building base height is 60 feet, the maximum building base height is 85 feet, and the maximum building height is limited to 120 feet. Compliance with the Quality Housing Program is mandatory for residential buildings in R8A districts. Quality Housing buildings must include amenities relating to the planting of trees, landscaping and recreational space.
EXISTING ZONING

PROPOSED ZONING

Area to be Rezoned

Area to be Rezoned

150' deep
Acquisition and Disposition of City-Owned Property

The Proposed Action includes a pedestrian ingress and egress easement from NYCDEP and the NYC Department of Citywide Administrative Services (DCAS). As noted above, the Proposed Development Site’s frontage along West 155th Street is quite steep, with a difference in elevation of approximately 17 feet between the eastern and western edges of the site. This makes access to the site very challenging, particularly for the museum and day care uses, which require drop-offs and pick-ups at the curb.

As shown in Figure ES-3, the Proposed Development Site is bounded on its western side by a roughly triangular, 4,597 square foot paved portion of the City-owned NYCDEP property on Lot 26 that has frontage along St. Nicholas Avenue. BHC would acquire an easement over this area (shown in Figure ES-3 as “Access Easement for Proposed Development”) for use as a plaza, which Broadway Housing would pave and landscape, to provide access to the primary entrances for the museum, day care and residential spaces of the Proposed Development, and the existing NYCDEP uses would be relocated to the proposed NYCDEP easement area as described below. In exchange, as shown in Figure ES-3 and Figure ES-4 below as “Access Easement for NYCDEP Facility,” the roughly rectangular, 4,321 square foot southern portion of the Proposed Development Site would be the subject of an easement from BHC to NYCDEP for vehicle parking and storage and for emergency staging. BHC would pave this area and construct a curb cut leading to it in connection with the construction of the Proposed Development. In both instances, the easements would be surface easements and would exclude the below grade volumes that encompass the Old Croton Aqueduct on the NYCDEP Site and the future garage on the Proposed Development Site. Other than as described above, permanent above-grade construction would not be permitted on either easement.

The proposed access easement for NYCDEP would not result in any increase in traffic, as this easement would not alter the operation of the existing NYCDEP facility. NYCDEP would benefit from the use of the proposed NYCDEP easement, which is more conveniently located to the building on the NYCDEP site, which would provide an automobile egress to the NYCDEP site from St. Nicholas Avenue, and which would fulfill NYCDEP’s need for vehicle storage and parking as well as emergency staging. In connection with the City’s acquisition of the proposed NYCDEP easement, NYCDEP will request a Mayoral zoning override to permit NYCDEP vehicle parking, storage and emergency staging uses on the proposed NYCDEP easement area, which will be located in the R8A zoning district.

Funding/Financing

The Proposed Action includes construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD), for the residential component of the Proposed Development. NYCHPD, which will be the lead financing agency, has issued a commitment for an $8.7 million loan through their Low Income Rental Program, which is funded primarily with HOME funds from the U.S. Department of Housing and Urban Development (HUD). In addition, an allocation of federal Low Income Housing Tax Credits expected to yield $24.9 million is anticipated to be made by NYCHPD in September 2010.
Tax Lots Affected by Proposed Rezoning
In addition, State funding is also being sought for the subsidized housing, day care center and/or children's museum. At this time, State funding is expected to include approximately $3.9 million in NYS Low Income Housing Tax Credits allocated by the NYC Division of Housing Community Renewal (DHCR), as well as approximately $3.0 million in funding from the NYS Office of Temporary Disability Assistance under their Homeless Assistance Program.

Restrictive Declaration and (E) Designation

Due to the potential presence of hazardous materials at the Proposed Development Site (which is owned by the applicant), a restrictive declaration has been executed and recorded to require the preparation by the applicant of a hazardous materials sampling protocol, including a health and safety plan, which would be submitted to the NYCDEP for approval. The restrictive declaration establishes an agreement to test and identify any potential hazardous materials pursuant to the approved sampling protocol and, if any such hazardous materials are found, submit a hazardous material remediation plan including a health and safety plan to NYCDEP for approval. If necessary, remediation measures would be undertaken pursuant to a NYCDEP-approved remediation plan prior to construction of the Proposed Development. The applicant would also commit to a site specific Health and Safety Plan on the portion of Lot 26 to be used as the entrance plaza in the Reciprocal Easement Agreement with the City.

The restrictive declaration for hazardous materials was executed on August 5, 2010 and submitted for recording on August 31, 2010. Pursuant to an email from NYCDEP dated August 31, 2010, NYCDEP is in receipt of a signed copy of a NYCDEP-approved restrictive declaration with proof of recording for the site.

The Proposed Action also includes the mapping of an (E) designation for noise attenuation on the Proposed Development Site. The (E) designation is a mechanism which ensures that no significant adverse impacts would result from a proposed action because of steps which would be undertaken prior to the development of a rezoned site. The (E) designation would ensure that the Proposed Development Site would not be developed unless necessary remedial measures are implemented. Only one site (the Proposed Development Site) would receive (E) designations under the proposed rezoning.

D. REASONABLE WORST CASE DEVELOPMENT SCENARIO

In order to assess the potential effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) for both “future No-Action” (No-Build) and “future with the Proposed Action” (Build) conditions will be analyzed for an analysis year, or Build year, of 2012. Only one site (Lot 21) would be affected in its entirety by the proposed rezoning, and that site is owned by the applicant, who intends for the site to be redeveloped and fully occupied by 2012. Therefore, 2012 is the Build year for environmental analysis purposes. As such, a RWCDS for both “future No-Action” and “future With-Action” conditions will be analyzed for an analysis year of 2012.
The future With-Action (Build) scenario identifies the amount, type and location of development that is expected to occur by the end of 2012 as a result of the Proposed Action. The future without the action (No-Build) scenario identifies similar development projections for 2012 absent the Proposed Action. The effect of the Proposed Action would be the incremental change in conditions between the No-Build and Build scenarios.

Apart from the applicant-owned Proposed Development Site, the proposed rezoning area includes portions of two other tax lots (Lots 26 and 14) and a small 12 sf lot (Lot 28). Table ES-1 lists each of the four lots on Block 2069 that would be affected by the proposed rezoning action, including the Proposed Development Site. For each lot, the table provides a brief description of the existing use and development on the lot, the approximate lot area, the existing FAR, and the percent of the lot’s maximum allowable floor area under the proposed R8A zoning. As shown in Table ES-1, apart from the Proposed Development Site, none of the other parcels are likely to be redeveloped as a result of the proposed zoning change. Lot 14 was eliminated from further consideration because it would be built to 92% of its allowable floor area with the proposed rezoning, it includes more than 6 rent stabilized residential units, and falls within the NYCLPC-designated Hamilton Heights/Sugar Hill Northeast Historic District. Lot 26 is a City-owned parcel that is occupied by a public facility (a NYC Department of Environmental Protection leak detection facility) and is also located above the Old Croton Aqueduct, and is therefore unlikely to be redeveloped as a result of the Proposed Action. Finally, Lot 28 is a very small parcel consisting of 12 sf, which cannot be feasibly developed.

The Future Without the Proposed Action (No-Action Condition)

In the absence of the Proposed Action, the rezoning area would continue to be zoned C8-3 and R7-2. None of the properties within the proposed rezoning area would be expected to be redeveloped, and the existing land uses would remain. The Proposed Development Site would continue to be occupied by a public parking garage (Lot 21). Therefore, for CEQR analysis purposes, the No-Action condition would be identical to the existing conditions.

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

In the future with the Proposed Action, the rezoning area would be rezoned from C8-3 and R7-2 to R8A. The new land uses that are expected to result from the Proposed Action would represent a continuation of general land use trends in a manner compatible with surrounding land uses. The Proposed Action would allow for the construction of residential development that is consistent with the built character of the area. New development that is projected to result from the Proposed Action would occur on an underutilized site, namely the Proposed Development Site. As discussed above, apart from the Proposed Development Site, no other lots are expected to be developed as a result of the Proposed Action. Therefore, the Proposed Development as described below is the only incremental development expected as a result of the Proposed Action, and represents the reasonable worst case development scenario for analysis purposes. Planned development on the Proposed Development Site is described below.
### TABLE ES-1

Lots within the Proposed Rezoning Area and their Existing FAR and Percent of Proposed R8A Floor Area

<table>
<thead>
<tr>
<th>Block</th>
<th>Lot</th>
<th>Lot Area (sf)</th>
<th>Owner</th>
<th>Existing Use</th>
<th># of Stories</th>
<th>Approx. Building FA</th>
<th>Existing Zoning</th>
<th>Proposed Zoning</th>
<th>Max. Allowable FAR [R/C/CF]</th>
<th>Existing Built FAR</th>
<th>% of Maximum FAR with Proposed R8A Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p/o 14</td>
<td>5,768</td>
<td>79 S N Ltd</td>
<td>Residential</td>
<td>6</td>
<td>23,256</td>
<td>R7-2</td>
<td>R7-2 &amp; R8A</td>
<td>3.44/-/-/6.5</td>
<td>3.75/-/-/6.5</td>
<td>4.03</td>
</tr>
<tr>
<td>21</td>
<td>21,685</td>
<td>Broadway Housing Development Fund Co.</td>
<td>Public Parking</td>
<td>2</td>
<td>65,070</td>
<td>C8-3 &amp; R7-2</td>
<td>R8A</td>
<td>0.89/1.48/6.5</td>
<td>2</td>
<td>6.02/-/-/6.5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>p/o 26</td>
<td>20,500</td>
<td>NYC Dept. of Environmental Protection</td>
<td>Parking and Utility</td>
<td>2</td>
<td>16,779</td>
<td>C8-3 &amp; R7-2</td>
<td>R7-2 &amp; R8A</td>
<td>2.51/0.54/6.5</td>
<td>4.58/-/-/6.5</td>
<td>0.82</td>
</tr>
<tr>
<td>28</td>
<td>12</td>
<td>Leemilts Petroleum Inc</td>
<td>Vacant</td>
<td>N.A.</td>
<td>0</td>
<td>C8-3</td>
<td>R8A</td>
<td>---/2.0/6.5</td>
<td>6.02/-/-/6.5</td>
<td>0.00</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

**Notes:**
- Highlighted bold, italicized text indicates the Proposed Development Site under the control of the applicant.
- Pursuant to ZR Section 77-22, the maximum FAR of the zoning district shall be applied to each portion of the zoning lot within the respective district, and the sum of the product shall be the adjusted maximum FAR applicable to the zoning lot. The following breakdowns were applied:
  - **Lot 14**: Existing Condition: 100% of lot in R7-2 district; With Proposed Rezoning: 88% in R7-2 and 12% in R8A
  - **Lot 21**: Existing Condition: 74% of lot in C8-3 district and 26% in R7-2; With Proposed Rezoning: 100% in R8A
  - **Lot 26**: Existing Condition: 27% of lot in C8-3 district and 73% in R7-2; With Proposed Rezoning: 56% in R7-2 and 44% in R8A
Proposed Development Site

The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site. The existing garage structure currently on the site would be demolished to allow construction of the new building. The proposed new building would include approximately 121,683 gsf (114,878 zsf) of residential floor area, with approximately 124 residential rental units. All 124 units would be affordable to individuals or households earning up to 80% of the Area Median Income (AMI). Although the specific unit mix has not been determined at this time, it is expected that there would be a mix of studios, one-, two-, and three-bedroom units. The proposed development would also include an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling; a 12,196 sf day care facility and early childhood center; 2,350 sf of non-profit program and office space; and a below-grade accessory parking garage with up to 114 spaces. The new development is scheduled to be completed by late 2012.

The site’s gradient/slope along West 155th Street will be used to create separate access points for the Proposed Development’s users, with a separate entrance for residents and children at the St. Nicholas Avenue level, a mid-block entrance for the museum, also off of St. Nicholas Avenue, and an entrance for the proposed garage at the lowest level of the Proposed Development, along West 155th Street (refer to site plan in Figure ES-4). As discussed above and illustrated in Figure ES-4, the Proposed Action includes the acquisition of an access easement on the northern triangular portion of adjacent Lot 26 (which is owned by the City). This easement area would be converted into an entry plaza for the Proposed Development, with entrances for the museum, day care and residential components. In return, the applicant would provide an access easement to NYCDEP along the southern 28 feet of the Proposed Development Site, which would be utilized for parking and vehicular access to NYCDEP’s building.

As shown in the illustrative building section in Figure ES-5, the Proposed Development would consist of 13 stories plus one cellar, with a height of approximately 120 feet from the average curb level to the roof line. As shown in the figure, the preliminary design of the Proposed Development includes a setback at approximately 76 feet, with the upper portion of the building sliding back from the base with a 10-foot cantilever. The cellar level would be occupied mostly by the accessory parking garage, which would accommodate up to 114 spaces utilizing stackers. The first floor would be occupied mostly by the museum, as well as the non-profit office space and the lobbies for the residential and day care uses. As shown in Figure ES-5, residential uses would occupy the third through thirteenth floors. The Proposed Development would be developed in accordance with the Quality Housing regulations, which are mandatory in the proposed R8A zoning district. Quality Housing buildings must include amenities relating to the planting of trees, landscaping and recreational space. The Proposed Development fulfills this requirement by providing a total of approximately 8,026 sf of accessory recreation space, which consists of roof terraces above the second, eighth and thirteenth floors of the building (refer to illustrative building section in Figure ES-5). An illustrative rendering of the Proposed Development is provided in Figure ES-6.

The Proposed Development would increase community use, historic connection, and public access on the site. Given the location of the Faith Ringgold Children’s Museum of Art & Storytelling at the ground level of the Proposed Development, it is expected that historic photographs and art work would be visible to passers-by at the museum’s first floor entrance and would provide substantive historic experiences within the museum. Moreover, the proposed landscaped entry plaza on St. Nicholas Avenue would be a publicly accessible community resource that highlights the presence
Access Easement from NYCDEP for Proposed Development

Source: SLCE Architects / Adjaye Associates

Sugar Hill Rezoning EIS

Preliminary Site Plan for Proposed Development - Illustrating Reciprocal Easements

Figure ES-4
FOR ILLUSTRATIVE PURPOSES ONLY

Source: SLCE Architects / Adjaye Associates
Sugar Hill Rezoning EIS

Proposed Development - Illustrative Rendering (View from St. Nicholas Avenue Looking Southeast)

Source: SLCE Architects / Adjaye Associates

FOR ILLUSTRATIVE PURPOSES ONLY
of the Old Croton Aqueduct underneath that lot (Lot 26). The entry plaza is expected to draw attention to the path of the Old Croton Aqueduct, one of the great engineering feats of the 19th century. Although the plans for the plaza have not yet been finalized, it is expected that the entry plaza would be landscaped, and may include a linear configuration of concrete pavers to locate the Aqueduct, distinguishing it from the surrounding paved open space.

The proposed R8A zoning district requires accessory parking spaces for 12% of the proposed residential units, whereas no accessory parking is required for community facility or museum uses. Therefore, the Proposed Development requires approximately 15 parking spaces. The proposed up to 114-space accessory garage would serve the Proposed Development’s residents, employees and visitors. In addition, as the Proposed Development would displace a 300-space public parking garage, any unutilized spaces in the proposed accessory garage may be rented to area residents on a monthly basis, as permitted by Zoning Resolution section 25-412.

As noted above, the 124 residential units within the Proposed Development are anticipated to serve 51 single adults and 73 families. 2000 Census data for Manhattan Community District 9, where the Proposed Development Site is located, indicate that the average household size for this area is approximately 2.54 persons per household. Conservatively applying this average to the 124 units, the Proposed Development would add a total of approximately 315 new residents to the area. In addition, the Proposed Development would also add a total of approximately 74 employees (33 day care employees, an estimated 24 museum employees, 9 non-profit office employees, up to 3 parking attendants, and an estimated 5 employees associated with the residential component, i.e., maintenance workers, etc.).

In the event that the proposed rezoning is approved but the planned funding for the Proposed Development does not materialize, the Proposed Development described above would not be constructed. In addition, as the acquisition and disposition of City-owned property described above is contingent upon the construction of the Proposed Development planned by BHC, this easement exchange would also not take effect in absence of the Proposed Development. Thus, for environmental analysis purposes, under the proposed zoning it can be assumed that instead of the Proposed Development described above, the development site may be developed with an as-of-right market-rate residential building with ground floor community facility uses, and an accessory garage. Without the easement exchange, such an as-of-right development will be accessible only from West 155th Street. Given the maximum allowable FAR and height limits for R8A districts, such an as-of-right development would be similar in height and bulk to the Proposed Development, and would also contain a similar number of units (or a smaller number of units, if unit sizes are larger), with no museum or day care uses.

With a lot area of 21,685 sf and a maximum allowable FAR of 6.02 for residential uses and 6.5 for community facility or mixed uses, up to approximately 140,953 zsf can be developed on the site on an as-of-right basis under the proposed R8A zoning. Assuming 21,685 sf (one floor) of community facility uses, the site could accommodate up 119,268 sf of residential use, or approximately 119 market rate residential units (based on 1,000 sf per unit). Such a market-rate development would require approximately 24 accessory parking spaces (at 0.2 spaces per unit), which is slightly higher than the requirement for the Proposed Development. However, as the garage capacity would be the same under either scenario, this would not affect the results of traffic or parking analysis for the

---

1 Based on following assumptions: day care – 1 employee per 3 children; museum – 1 employee per 750 sf; non-profit office – 1 employee per 250 sf; residential – 1 employee per 25 units.
Proposed Development (refer to traffic and parking assessment in EAS dated April 2, 2010). It should also be noted that without the easement exchange, such an as-of-right development would not provide the public plaza along St. Nicholas Avenue planned with the Proposed Development, and as such the open space analysis to be conducted for the Proposed Action conservatively excludes that plaza from the quantitative analysis. Therefore, for environmental analysis purposes, the Proposed Development described previously represents the reasonable worst-case development scenario for the EIS, and an analysis of an alternate development scenario is not warranted.

The Proposed Development's Design Concepts and Goals

In designing the Proposed Development, the applicant’s main goal was to design a modern building that would conform to the proposed R8A zoning envelope, and provide innovative interior and exterior features to house the mixed use program of affordable apartments, museum and day care center. Another design goal was to develop a fenestration pattern for all the uses in the building that provided an abundance of natural light and views. It should be noted that the design of the Proposed Development is ongoing and may be modified to the extent required to conform with State and federal funding requirements.

According to the applicant, the proposed building is being designed as an iconic modern building that references but does not imitate certain characteristics of the buildings in the historic district, such as the masonry patterning and articulation of the bays found in many of the historic rowhouses. Similar to the various expressions of nature found throughout the historic district, the Proposed Development’s current design is proposed to have a rose patterning relief on the tinted concrete facades. The varied window patterning, visible in the illustrative rendering in Figure ES-6, are intended to accentuate the vine like qualities of the rose pattern while also providing an abundance of natural light and views into the residences.

The applicant’s inspiration for the design of the Proposed Development was derived from the Sugar Hill neighborhood with its rich and varied architectural heritage. The building’s mass was developed to reference some of the typical built forms in the historic district. Within the district, larger apartment buildings and institutions such as the Masonic Temple on West 155th Street are characterized by a tripartite organization with a base, middle and top. The Proposed Development's massing references this historic massing with its tri-partite elevation incorporating a glass and terrazzo base with a middle and a top section above. Many of the gothic revival rowhouses in the historic district also have sculpted facades with projecting bays and windows. The north and south façades of the Proposed Development above the base have a saw-tooth pattern which is intended to recall this rhythm. This saw-tooth pattern also helps break up the scale of the building's West 155th Street façade and create a massing that is more typical of the residential streets in the historic district. Similarly, the Proposed Development's patterned façade and darker coloration recalls the textured masonry details and facades found in many of the gothic revival and neoclassical buildings in the district. The goal of the Proposed Development was not to recreate the appearance of the historic buildings but to incorporate references to the historic district in a modern building that also reflected a contemporary approach to both materials and form.
E. PROPOSED ACTIONS AND REQUIRED APPROVALS

The Proposed Development described above would require the following actions:

- Approval of the New York City Planning Commission (CPC) for an amendment to the zoning map to change the rezoning area from C8-3 and R7-2 to R8A.
- Property disposition and acquisition in the form of a reciprocal easement for ingress and egress with NYCDEP and/or the NYC Department of Citywide Administrative Services (DCAS).
- Construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD), as well as other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance.

The Proposed Action includes some discretionary public actions (such as the proposed rezoning) that are subject to both the Uniform Land Use Review Procedure (ULURP), as well as the City Environmental Quality Review (CEQR). ULURP is a process that allows public review of proposed actions at four levels: the community board, the Borough President, the City Planning Commission, and if applicable, the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of seven months. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment.

In addition, in order to effectuate the proposed easement exchange, NYCDEP would first need to secure the consent of the New York City Water Board following the appropriate procedures of the Board. The Mayor of the City of New York acting through DCAS would have the authority to effectuate the exchange pursuant to Section 384(a) of the New York City Charter. The City’s simultaneous disposition and acquisition of the easements would be subject to ULURP pursuant to Section 384(b)(5) of the Charter, as described above, and a DCAS public hearing process.

F. THE FUTURE WITH THE PROPOSED ACTION

Land Use, Zoning and Public Policy

The Proposed Action would not result in any significant adverse land use, zoning, or public policy impacts. The Proposed Action would introduce new land uses and increase the density of uses on the Proposed Development Site, but these new uses and increased density would be consistent with the largely residential and mixed uses in the study area. The proposed zoning changes would also represent an opportunity to strengthen the existing residential uses of the Hamilton Heights/Sugar Hill area of Manhattan by allowing a new affordable residential development at a scale and density appropriate for the area. No substantially different or incompatible land uses would be introduced.
to the study area as a result of the Proposed Action. In addition, the Proposed Development facilitated by the proposed rezoning would not result in any non-conforming uses.

The proposed zoning change would permit new residential development as-of-right on the Proposed Development Site, whereas no residential uses are permitted under the existing C8-3 zoning, which is currently mapped on most of the Proposed Development Site. The proposed R8A district would not differ significantly from other zoning districts nearby, and would be compatible with existing land uses in the area. The proposed rezoning would not interfere with existing activities nor would the Proposed Development be affected by incompatible uses in the surrounding area. In connection with the City’s acquisition of the proposed NYCDEP easement, NYCDEP will request a Mayoral zoning override to permit NYCDEP vehicle parking, storage and emergency staging uses on the proposed NYCDEP easement area, which will be located in the R8A zoning district.

The rezoning area is located within the S/NR-listed Hamilton Heights/Sugar Hill Historic District and, as discussed in Chapter 5, “Historic Resources,” demolition of the existing garage structure on the Proposed Development Site, as well as the new building’s potential to alter the general context of West 155th Street, which marks the northern boundary of the S/NR-listed historic district, have been identified as a significant adverse impact on architectural resources. However, the Proposed Action is not expected to result in a significant adverse impact with respect to public policy, as demolition of the existing garage would not create a significant change in the overall context or cohesion of the historic district as compared to existing or No-Action conditions, and therefore would not diminish the special architectural and historic character of the rest of the S/NR historic district. As also described in Chapter 5, “Historic and Cultural Resources,” the Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. The Proposed Action addresses some objectives of the 197-a Plan for Manhattan Community District 9, by establishing a contextual zoning district, and providing affordable housing in the district. Thus the Proposed Action would promote several of the objectives of the 197-a plan. Moreover, The Proposed Action and resulting Proposed Development would also support City goals relating to the creation of affordable housing, as outlined in Mayor’s housing plan and PlaNYC.

Open Space

The Proposed Action would not result in a significant adverse open space impact. As noted above, the Proposed Action would not result in any direct displacement or alteration of existing open space resources in the study area. It would also not result in a decrease in the total open space ratio compared to No-Action conditions. As shown in Chapter 4, “Open Space,” the study area’s total open space ratio is projected to remain unchanged compared to No-Action conditions, at 0.91 acres per 1,000 residents. Likewise, the active open space ratio would remain unchanged at 0.30 acres per 1,000 residents. The combined passive open space ratio for residents and nonresidents in the study area would decrease slightly, to 0.55 acres per 1,000 users (compared to 0.56 acres per 1,000 users in the No-Action), but would continue to be above the recommended weighted average of 0.47 acres per 1,000 users. As such, the Proposed Action is not expected to noticeably diminish the
ability of the study area’s open spaces to serve its residential population in the future with the Proposed Action.

While the ratios of open space to residents would continue to be lower than the measure of open space adequacy and the optimal planning goals furnished by NYCDCP in the future with the Proposed Action, there are a number of qualitative factors that are taken into consideration that would ameliorate the overall deficiency. In addition, as described above, the Proposed Development would include a rooftop accessory recreation space that would add approximately 6,545 sf (0.15 acres) of open space for the exclusive use of the residents, as well as an approximately 0.1-acre publicly accessible landscaped entry plaza. While not included in the quantitative analysis, these facilities would offset some of the additional demand resulting from the new residents. Also, larger open space areas that are located just beyond the open space study area would add considerable accessible active and passive open space for the residential population, whereas community gardens and greenstreets provide additional passive recreational opportunities.

Shadows

According to CEQR guidelines, an adverse shadow impact is considered to occur when a shadow of a structure built as a result of the proposed action falls on publicly accessible open spaces, important natural features, or historic landscapes or other historic resources if the features that make the resource significant depend on sunlight. In general, shadows on City streets and sidewalks or other buildings are not considered significant under CEQR. Therefore, the assessment of potential shadow impacts is limited to new shadows long enough to reach publicly accessible open spaces or sunlight sensitive historic resources. Sensitive features on a historic structure include details or characteristics that make the resource significant. Examples of sensitive features include stained glass windows that are best viewed in the sunlight; buildings containing design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements; buildings distinguished by elaborate, highly carved ornamentation; exterior materials and color that depend on direct sunlight for visual character; historic landscapes; and features in structures where the effect of direct sunlight is described as playing a significant role in the structure’s significance as an historic landmark.

Although portions of two blocks within the NYCLPC-designated Hamilton Heights/Sugar Hill Northwest Historic District fall within the Proposed Development’s maximum shadow radius, only those structures facing St. Nicholas Avenue (i.e., facing east) could potentially be cast in shadows by the Proposed Development, whereas for all remaining buildings on those blocks, any shadows would fall on their roofs or secondary facades (mostly blank walls). None of those structures with east-facing facades contain sunlight-dependent features such as those described above, and therefore, shadows resulting from the Proposed Action would not adversely affect any of the identified historic resources in the area.

Shadow analyses were performed for four days of the year: June 21, May 6, March 21, and December 21. The CEQR Technical Manual defines the temporal limits of a shadow analysis period to fall between an hour and a half after sunrise to an hour and a half before sunset. As detailed in Chapter 5, “Shadows,” the Proposed Development resulting from the Proposed Action would cast incremental shadows on portions of Highbridge Park and Jackie Robinson Park in one or more of the analysis periods. However, in many instances, the incremental shadows cast by the Proposed Development resulting from the Proposed Action would not create a significant adverse
shadow impact on the sunlight-sensitive resources in the study area. All of the affected open space resources assessed are expected to receive more than the minimum of four to six hours of sunlight required during the growing season. The incremental shadows cast would not result in a substantial reduction in sunlight at any of the identified open space resources, would not result in a reduction in sunlight such that it would adversely impact the usability of any of these open spaces over the course of a day, nor would it adversely impact vegetation.

**Historic Resources**

The Proposed Action would not result in any significant adverse impacts to archaeological resources. Although the Proposed Development Site would experience new development that would require ground disturbance, the NYC Landmarks Preservation Commission (NYCLPC) has indicated that all of the lots comprising the rezoning area have no archaeological significance. As such, the Proposed Action and the resulting development on the Proposed Development Site is not expected to result in any significant adverse impacts to archaeological resources.

The Proposed Development Site and rezoning area are located within the State and National Register-listed (S/NR) Sugar Hill Historic District, and Lot 14, which falls partially within the rezoning area, also falls within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Historic District. As the Proposed Action would result in the demolition of an existing 2-story garage which is identified as a contributing structure to the S/NR-listed Sugar Hill historic district, this would constitute a significant adverse direct impact to historic architectural resources. Identified mitigation measures that would minimize or reduce this significant adverse impact are discussed in Chapter 12, “Mitigation” of this EIS.

The Proposed Development would relate in height and bulk to several of the taller apartment buildings in the area, although it would alter the general context of West 155th Street, which forms the northern boundary of the S/NR historic district and would therefore result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. Mitigation measures that would minimize or reduce this potential significant adverse impact are discussed in Chapter 12, “Mitigation” of this document. No incompatible audible or atmospheric elements would be introduced by the Proposed Development to any historic resource’s setting, nor would the Proposed Action result in any significant adverse shadows impacts relating to historic resources. Finally, during construction, designated NYC Landmarks and S/NR-listed historic buildings located within 90 linear feet of the Proposed Development Site would be subject to the protections of NYCDOB’s TPN #10/88, which would ensure that such development resulting from the Proposed Action would not cause any significant adverse construction-related impacts to historic resources. With these protection measures, the Proposed Action and subsequent construction of the Proposed Development would not result in any significant adverse construction-related impacts to historic resources in the area.

**Visual Resources**

The Proposed Development would not result in any significant adverse impacts on visual resources in the study area. The Proposed Development would not block views of any significant visual resources in the surrounding area. Although the Proposed Action would result in the demolition of
the existing garage structure on the site (which has been identified as a contributing building to the S/NR Sugar Hill historic district), it is not expected to result in a significant adverse impact with respect to visual resources as many of the building’s most notable historic features have been altered or removed. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district because it would not create a significant change in the overall context or visual cohesion of the historic district as compared to existing or No-Action conditions.

The proposed new structure would be much more visible than the existing on-site building; however, as the Proposed Development is expected to be consistent with the massing, height, and design of other existing mid- to high-rise multifamily mixed-use residential buildings in the area, particularly along West 155th Street, this added height and greater visibility would not constitute a significant adverse visual impact. Moreover, the Proposed Action would improve and enhance the area’s visual character by facilitating the provision of a landscaped entry plaza on St. Nicholas Avenue. As described above, the Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. Therefore, it is not expected that the Proposed Development would adversely impact views of visual resources in the area, and no significant adverse visual resources impacts are expected as a result of the Proposed Action.

**Neighborhood Character**

The Proposed Development would change the character of the surrounding neighborhood, but not in a significant adverse manner. The development would enliven and improve the streetscape by creating more active uses on the Proposed Development Site, and increasing 24-hour pedestrian activity. The Proposed Development would provide land uses that would be compatible to existing and anticipated uses in the surrounding area, and would further promote and enhance the ongoing revitalization of this area of northern Manhattan.

While demolition of the existing garage structure on the site has been identified as a significant adverse impact on architectural resources, it is not expected to result in a significant adverse impact with respect to neighborhood character. The building is not visually distinguished, as many of its most notable historic features have been altered or removed, and the brick façade shows wear, nor is it typical or characteristic of the surrounding historic district, as it exhibits a different scale, use and style. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district.

Although the Proposed Development would be much more visible than the existing structure on the site, given its location along West 155th Street, a major 2-way roadway lined with many of the taller buildings in the area, this greater visibility would not be an adverse effect on neighborhood character. In addition, the Proposed Action is not anticipated to result in any significant adverse
socioeconomic, urban design, traffic, or noise impacts. Overall, the Proposed Action would alter neighborhood character in beneficial ways, by creating opportunities for new affordable housing and community facility development on an underutilized site.

Therefore, although the Proposed Development would alter the character of the neighborhood by revitalizing the site and its immediate surroundings and adding a taller higher density structure, these changes – individually or cumulatively – would not constitute a significant adverse impact to neighborhood character.

Hazardous Materials

The Phase I ESA conducted for the Proposed Development Site identified some recognized environmental conditions that could affect the property. The Phase I ESA was reviewed by NYCDEP’s Office of Environmental Planning and Assessment, and a restrictive declaration was recommended by NYCDEP, due to the potential presence of hazardous materials on the site as a result of past and present on-site land uses. The declaration requires the preparation of a Phase II Workplan and a Health and Safety Plan for NYCDEP’s review and approval. The restrictive declaration is binding upon the property’s successors and assigns. The declaration serves as a mechanism to assure the potential for hazardous material contamination that may exist in the subsurface soils and groundwater on the project site would be characterized prior to any site disturbance (i.e., site grading, excavation, demolition, or building construction). The restrictive declaration for hazardous materials was executed and recorded by the applicant as a condition of approval of the Proposed Action. As discussed in Chapter 12, “Mitigation,” with the implementation of preventative and remedial measures for the Proposed Development Site (through the use of a restrictive declaration), no significant adverse impacts related to hazardous materials would result from the Proposed Action and resultant construction activities on the Proposed Development Site. Following construction, there would be no potential for the Proposed Development to have significant adverse impacts.

Air Quality

The Proposed Action is not anticipated to result in any significant adverse air quality impacts. The number of vehicle trips generated by the Proposed Development would be below CEQR screening threshold values during both the AM and PM peak periods, and therefore no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of the Proposed Action. In addition, the maximum total estimated 8-hour CO concentrations from the proposed up to 114-space accessory garage were found to be below (within) the CO NAAQS of 9.0 ppm, and the proposed facility would therefore not cause significant air quality impacts.

Two existing residential buildings were identified within 400 feet of the rezoning area that are taller than the Proposed Development; however, the distance between the Proposed Development and the existing buildings exceeds the estimated screening threshold distances for these buildings, and therefore the potential HVAC emission impacts of the Proposed Development’s HVAC emissions on existing land uses are not considered to be significant. One emission source – a 30-story (2,531,677 square foot) building, located on Block 2106, Lot 3 – was identified as a major source within 400 feet of the Proposed Development, however, the impacts on the Proposed Development would be insignificant because it is located further than the threshold distance indicated on the
nomograph. Therefore, no significant air quality impacts associated with “major” emission sources are predicted.

No facilities with active NYCDEP permits were identified within a 400-foot radius of the rezoning area, and therefore, no air toxics analysis is required for the Proposed Action.

**Noise**

There would be no perceptible increases in traffic noise levels at the Proposed Development Site as a result of increases in traffic associated with the Proposed Action. Also, the addition of a below grade accessory parking garage with up to 114 spaces would not result in any increase in noise levels. Any change in the noise levels from the No-Action conditions would be insignificant and imperceptible.

Based on the measured existing noise levels and judged by the CEQR internal noise level requirements, the Proposed Development planned within the proposed rezoning area would require 28 to 31 dBA attenuation of external noise exposure on all facades facing the adjacent roadways to maintain interior noise levels of 45 dBA (refer to Table 10-4 in Chapter 10, “Noise”). Based on the estimated existing noise levels and judged by the HUD external and internal noise level requirements, the Proposed Development planned within the proposed rezoning area would require 25 to 30 dBA attenuation of external noise exposure on all facades facing the adjacent roadways to maintain interior noise levels of $L_{dn} 45$ (refer to Table 10-5 in Chapter 10). As such, the window attenuation required to satisfy CEQR will be more than sufficient to satisfy HUD requirements.

Therefore, the proposed zoning map change would be accompanied by the mapping of an (E) designation on the Proposed Development Site, which would mandate that required noise attenuation of up to 31 dBA be incorporated into the Proposed Development. The noise attenuation required under the Proposed Action would provide the needed attenuation under both CEQR and HUD guidelines, and preclude the potential for significant adverse noise impacts.

**Construction Impacts**

The Proposed Action would facilitate the construction of a new mixed-use building, which is expected to occur over an 18-24 month period. As discussed above, given the relatively small size of the project and the short construction period, the Proposed Action would not result in a significant amount of construction related impacts.

As discussed in more detail in Chapter 5, “Historic Resources,” the Proposed Action has the potential to cause damage to historic architectural resources from ground-borne construction vibrations. The City has two procedures for avoidance of damage to historic structures from adjacent construction. All buildings are provided some protection from accidental damage through New York City Department of Buildings (NYCDOB) controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the requirements of Building Construction Subchapter 7 and Building Code Subchapters 11 and 19.
The second protective measure applies only to designated NYC Landmarks and S/NR-listed historic buildings located within 90 linear feet of the proposed construction site. For these structures, the DOB’s Technical Policy and Procedure Notice (TPPN) #10/88 applies. TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCLPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. By following these measures, which are required for any designated historic resources within 90 feet of the Proposed Development Site, the proposed demolition/construction work would not cause any significant adverse construction-related impacts.

Therefore, historic structures within 90 feet of the Proposed Development Site would be protected, by ensuring that adjacent construction of the Proposed Development adheres to all applicable NYCDOB construction guidelines and regulations.

As discussed in Chapter 11, “Construction Impacts,” construction-related activities resulting from the Proposed Action are also not expected to have any significant adverse impacts on hazardous materials, traffic, air quality, or noise conditions. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized. The construction process requires consultation and coordination with a number of City and/or State agencies, including NYCDOT, NYC Department of Buildings (DOB), NYCDEP, and NYSDEC (where applicable), among others.

G. MITIGATION

Historic Architectural Resources

The Proposed Action would cause significant adverse direct impacts to historic architectural resources. The existing 2-story garage building on the Proposed Development Site, which is identified as a contributing structure in the S/NR-listed Sugar Hill Historic District, would be demolished to facilitate construction of the Proposed Development. This would constitute a significant adverse impact. In addition, the proposed new building would alter the context of West 155th Street, which forms the northern boundary of the S/NR-listed historic district, and would therefore result in a significant adverse indirect impact to historic resources.

Mitigation for Direct Impact

As part of the design process for the Proposed Development, measures to preserve or document the contributing building on the site prior to demolition have been considered, in consultation with the State Historic Preservation Office (SHPO) of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), in order to avoid any potential adverse impacts. In evaluating the possibility of reusing the existing structure, a visual inspection of the existing parking structure was undertaken, which found that portions of the structural slabs of the building are in a state of disrepair, and concluded that reuse of the existing structure is not economically viable. The inspection indicated that exposed reinforcement showed different states of deterioration due to rusting, an occurrence that is not uncommon in structures where water and deicing salts, brought in
by the cars, penetrate the slabs' concrete. Some exposed portions of the structural steel beams also exhibited rusting.

In short, accommodating the existing garage into the Proposed Development was deemed to be infeasible, as it would require demolition of the rear portion of the existing building, removal of the roof and floor plates, and removal of a large portion of the modified exterior. Therefore, it was concluded that there is no logical economical alternative to removing the existing structure in order to provide for the requirements of the proposed 12-story building.

The OPRHP concurred that there are no prudent and feasible alternatives to demolition of the existing garage structure that will meet the project’s requirements, and recommended that the following mitigation measures be incorporated as part of the project:

- Photographically documenting the historic building in accordance with the standards of the Historic American Buildings Survey (HABS). The documentation would be submitted to OPRHP for approval prior to any demolition. Two copies would be submitted to OPRHP, one of which would be for archival storage in the New York State Archives and the other for retention in OPRHP files, and a third copy of the documentation would also be provided to the Museum of the City of New York.
- A survey of the decorative exterior terra cotta elements on the existing building will be conducted and OPRHP would be consulted to determine if any of these elements can be removed and incorporated into the design of the Proposed Development or utilized in the interior public spaces of the new building.
- The applicant would consult with OPRHP regarding the design of the new building, as well as regarding the incorporation of references to the Old Croton Aqueduct in the design of the entrance plaza to the new building.
- A Construction Protection Plan (CPP) would be prepared in coordination with a licensed professional engineer for historic buildings within 90 feet of the Proposed Development Site. The CPP would meet the requirements specified in the New York City Department of Buildings (NYCDOB) Technical Policy Procedure Notice #10/88 concerning procedures for avoidance of damage to historic structures resulting from adjacent construction. This plan would be submitted to OPRHP for review and approval prior to implementation. It should also be noted that the Proposed Development would occur adjacent to a building that is located within a NYCLPC historic district, and its construction would therefore be subject to implementing the same standard construction protection measures required for buildings designated as landmarks, as described further under the “Construction Impacts” section above.

The applicant has agreed to undertake all of the above measures. The HABS documentation was prepared and submitted to OPRHP, which accepted and signed off on it in a letter dated July 8, 2010 (refer to Appendix A). It is also expected that the sponsor would enter into a Memorandum of Understanding (“MOU”) with the OPRHP acting as the State Historic Preservation Officer, the New York City Department of Housing Preservation and Development (NYCHPD) and potentially the Advisory Council on Historic Preservation and other parties. NYCHPD anticipates providing a construction loan to facilitate the proposed project. The construction loan would likely be comprised of federal funding from HUD. Under 24 CFR Part 58, NYCHPD assumes the responsibilities for environmental review, decision-making and action that would otherwise apply to HUD. Accordingly, NYCHPD is required to conduct environmental reviews under the laws and rules which apply to HUD programs and policies, including the National Environmental Policy Act (NEPA) and related Federal Laws, Executive Orders and Rules, including the National Historic
Preservation Act (36 CFR Part 800). The MOU will be executed as the result of the consultation process required pursuant to Section 106 of the National Historic Preservation Act.

NYCLPC, upon review of the OPRHP evaluation, has also concurred that the above measures should be incorporated. With implementation of the above measures, the identified significant adverse direct impact to historic architectural resources would be partially mitigated. However, despite these measures, this impact would not be completely eliminated. Therefore, it would constitute an unavoidable significant adverse impact on this historic resource as a result of the Proposed Action.

**Mitigation for Indirect Impact**

The Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. As such, the Proposed Development results in a significant adverse indirect contextual impact to historic resources. Because the design of the proposed building is still evolving, as noted above, one of the measures identified to partially mitigate the significant adverse direct impact on historic architectural resources is for the applicant to consult with the OPRHP regarding the final design of the new building. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. However, if design changes that are feasible or practicable given the applicant’s goals and objectives are not identified to fully mitigate this impact, it would constitute an unmitigable significant adverse impact on this historic resource as a result of the Proposed Action.

**Hazardous Materials**

The Proposed Development Site has been identified as having recognized environmental conditions that could affect the property. These include the current and historical use of the Proposed Development Site for auto related operations, use of the eastern adjacent property as a gasoline filling station and auto repair shop and the southwestern adjacent property as a garage; suspect petroleum staining on the floor; and the potential presence of underground storage tanks at the site.

In order to avoid significant adverse impacts with respect to hazardous materials, the applicant has executed and recorded a restrictive declaration that conforms with the requirements of the New York City Department of Environmental Protection (NYCDEP). The restrictive declaration requires that the applicant (and any future owner) undertake a testing and sampling protocol to remediate any hazardous materials to the satisfaction of the NYCDEP prior to the issuance of any building permit. Should the testing identify any significant hazardous materials issues requiring remediation, the restrictive declaration would obligate the applicant to perform the remediation work recommended by NYCDEP. The scope of the investigation will be subject to NYCDEP approval, as will the need for any subsequent measures to address potential contamination. The applicant
would also commit to a site specific Health and Safety Plan on the portion of Lot 26 to be used as the entrance plaza in the Reciprocal Easement Agreement with the City.

The restrictive declaration for hazardous materials was executed on August 5, 2010 and submitted for recording on August 31, 2010. Pursuant to an email from NYCDEP dated August 31, 2010, NYCDEP is in receipt of a signed copy of a NYCDEP-approved restrictive declaration with proof of recording for the site.

Accordingly, with the implementation of these preventative and remedial measures for the Proposed Development Site (through the use of a restrictive declaration), no significant adverse impacts related to hazardous materials would result from the Proposed Action and resultant construction activities on the Proposed Development Site. Following construction, there would be no potential for the Proposed Development to have significant adverse impacts.

H. UNAVOIDABLE ADVERSE IMPACTS

Most of the potential significant adverse impacts of the Proposed Action could be avoided or mitigated by implementing a broad range of measures. However, the potential direct impact to historic architectural resources would not be fully mitigated.

Unavoidable Direct Impact

The building on the Proposed Development Site is identified as a contributing structure to the Sugar Hill Historic District listed on State and National Registers of Historic Places (S/NRs). Construction of the Proposed Development would necessitate demolition of this structure, which would constitute a significant adverse impact on architectural resources. As described in Chapter 12, “Mitigation,” measures to partially mitigate the impact of the demolition of this historic resource – which include archival photographic documentation and the possible removal of decorative exterior terra cotta elements on the existing building to be incorporated into the design of the Proposed Development or utilized in the interior public spaces of the new building (if feasible) – have been developed in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP). The archival photographic (HABS) documentation was prepared and submitted to OPRHP, which accepted and signed off on it in a letter dated July 8, 2010, and the applicant has also agreed to undertake applicable construction-related mitigation measures, consult with OPRHP regarding the design of the new building, and conduct a survey of the decorative exterior terra cotta elements on the existing building. However, despite the measures described here and further outlined in Chapter 12, this impact would not be completely eliminated. Therefore, it would constitute an unavoidable significant adverse direct impact on this historic resource as a result of the Proposed Action.

Unavoidable Indirect Impact

The Proposed Development also has the potential to result in an unavoidable contextual impact to historic resources. The Proposed Development would result in a significant adverse indirect
contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. As such, the Proposed Development results in a significant adverse indirect contextual impact to historic resources. Because the design of the proposed building is still evolving, as noted above, one of the measures identified to partially mitigate the significant adverse direct impact on historic architectural resources is for the applicant to consult with the OPRHP regarding the final design of the new building. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. However, if design changes that are feasible or practicable given the applicant’s goals and objectives are not identified to fully mitigate this impact, it would constitute an unmitigable significant adverse impact on this historic resource as a result of the Proposed Action.

I. ALTERNATIVES

No Action Alternative

The No Action Alternative assumes that the proposed zoning change and other land use actions would not be implemented. The No Action Alternative assumes no amendments to the zoning map; no property disposition and acquisition; and no public financing. The No Action Alternative would not require any discretionary actions.

The No Action Alternative assumes no discretionary actions would occur and that the Proposed Development would not be constructed. This alternative would avoid the Proposed Action’s significant adverse impacts relating to historic architectural resources. In all other analysis areas, as with the Proposed Action, the No Action Alternative would not result in significant adverse impacts. However, the benefits expected from the Proposed Action on land use, visual resources, and neighborhood character would not be realized under this alternative. In addition, the No Action Alternative would fall far short of the objectives of the Proposed Action in facilitating opportunities for new affordable housing; and enhancing the public environment, ground-floor uses, and streetscapes to make the surrounding area a more appealing place to live, work, and visit.

No Impact/Reduced Impact Alternative

The Proposed Action is anticipated to result in significant adverse impacts in the area of architectural resources, as the Proposed Development facilitated by the Proposed Action would demolish a building identified as a contributing structure to the S/NR historic district (direct impact), and the new building could alter the visual context of the northern boundary of the S/NR-listed historic district (indirect impact).
**Direct Significant Adverse Impact**

There is partial mitigation to the direct impact to historic resources resulting from the Proposed Action, as discussed in Chapter 12, “Mitigation,” but to completely avoid the impact resulting from demolition, this alternative would require that the existing garage structure on the site be maintained and reused in connection with the Proposed Development.

However, as discussed in Chapter 12, “Mitigation,” a structural assessment of the existing garage building concluded that reuse of the existing garage structure for a high-rise modern building is not economically viable. The assessment indicated that accommodating the existing garage into the Proposed Development was deemed to be infeasible, as it would require demolition of the rear portion of the existing building (to accommodate a 28 foot easement dedicated to NYCDEP at the southern portion of the site), removal of the roof and floor plates, and removal of a large portion of the modified exterior. Therefore, the assessment concluded that there is no logical economical alternative to removing the existing structure in order to provide for the requirements of the proposed 13-story mixed-use building proposed by the applicant.

**Indirect Significant Adverse Impact**

In designing the Proposed Development, the applicant’s main goal was to design a modern building that would conform to the proposed R8A zoning envelope, and provide innovative interior and exterior features to house the mixed use program of affordable apartments, museum and day care center. Another design goal was to develop a fenestration pattern for all the uses in the building that provided an abundance of natural light and views.

Because the design of the proposed building is still evolving, as noted in Chapter 12, “Mitigation,” one of the measures identified to partially mitigate the significant adverse direct impact on historic architectural resources is for the applicant to consult with the OPRHP regarding the final design of the new building. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. As such, an alternative that would reduce or eliminate this indirect impact cannot be identified at this time. It should be noted that the design of the Proposed Development is ongoing and may be modified to the extent required to conform with State and federal funding requirements. However, given the applicant’s design goals and objectives for the Proposed Development, there is only the potential or likelihood for partial mitigation.

**Conclusion**

Given the above, there is no feasible alternative that would eliminate or reduce the Proposed Action’s impact on architectural resources, except for one that maintains the status quo. This would be identical to the No Action Alternative described above.

This No Impacts Alternative, which in this case would be the same as the No Action Alternative described above, would avoid the Proposed Action’s identified significant adverse impact on historic architectural resources. However, this No Impacts Alternative is not an acceptable alternative to the Proposed Action. By preventing redevelopment of the Proposed Development Site, this alternative would fail to meet the objectives of the Proposed Action, which include: providing quality housing and services to the City’s lower-income families; expanding the supply...
of affordable housing in the City; and transforming an underutilized garage site into a green model of urban community revitalization that integrates affordable housing, education and cultural resources.

As such, this alternative would not meet the goals and objectives of the Proposed Action. Accordingly, it is not considered for purposes of further analysis.
A. INTRODUCTION

The applicant, Broadway Housing Communities (BHC), is seeking a set of actions intended to facilitate the redevelopment of a site in the Hamilton Heights North neighborhood of West Harlem, in Manhattan Community District 9 (refer to Figure 1-1 for project location). The requested actions include: (1) a zoning map change from C8-3 and R7-2 to a R8A residential zoning district; (2) acquisition/disposition of City-owned property, in the form of an exchange of easements between the applicant and the NYC Department of Citywide Administrative Services (DCAS); (3) construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD); and (4) other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance for the residential component of the Proposed Development. These actions, collectively, comprise the “Proposed Action”. Broadway Housing Communities is the applicant for the proposed rezoning and funding actions; applicants for acquisition/disposition action are BHC, DCAS (for acquisition and disposition), and NYC Department of Environmental Protection (NYCDEP) (for acquisition).

The Proposed Action would enable the applicant, BHC, to construct a mixed-use building on a parcel within the proposed rezoning area, consisting of one privately owned lot (Block 2069, Lot 21) located at 404-414 West 155th Street (the “Proposed Development Site”). The Proposed Development Site, which currently contains a two-story plus cellar public parking garage, is an approximately 21,685 sf lot on the northern portion of the block bounded by West 155th Street to the north, St. Nicholas Avenue to the west, St. Nicholas Place to the east, and West 153rd Street to the south, and is comprised of Lot 21 in its entirety.

The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site (the “Proposed Development”). The existing 300-space garage structure currently on the site would be demolished to allow construction of the new building. The Proposed Development would include:

- approximately 124 residential units, all of which would be affordable;
- an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling;
- a 12,196 sf day care facility and early childhood center for approximately 100 children;
- 2,350 sf of non-profit program and office space; and
- An up to 114-space below-grade accessory parking garage.

It is expected that construction on the Proposed Development Site would commence in the second half of 2010 with the demolition of the existing structure and site excavation, and the Proposed Development is expected to be completed by late 2012.
Figure 1-1
Project Location

Legend
- Proposed Development Site
- Area to be Rezoned
- Half Mile Radius

Sugar Hill Rezoning EIS

Sugar Hill Rezoning EIS
There are no current proposals for development of any of the other properties affected by the proposed zoning map change. Compared to future conditions without the Proposed Action (No-Build), the future with action (Build) condition analyzed in this document consists of 124 residential units, an approximately 18,036 sf museum, a 12,196 sf day care facility (100 children capacity), approximately 2,350 sf of office space, as well as a net reduction of 300 public parking spaces.

B. BACKGROUND AND EXISTING CONDITIONS

Sugar Hill is one of New York City’s architecturally and historically rich neighborhoods. Since its initial development, the area has been home to a wide variety of New Yorkers, both native and foreign born, of varied ethnicity and races and from various economic levels. During the 1920’s it was an epicenter of the Harlem Renaissance when African American cultural, intellectual and social prominence and wealth flourished. By the 1930s, the area became known as "Sugar Hill," a neighborhood that attracted many of the city's most prestigious African-American residents. W.E.B. Du Bois, founder of the NAACP, writers Zora Neale Hurston and Langston Hughes, Supreme Court Justice Thurgood Marshall, pioneering civil rights activists Roy Wilkins and Rev. Adam Clayton Powell, boxer Joe Louis, actress Lena Horne and musicians Paul Robeson, Cab Calloway, Count Basie and Duke Ellington all resided in Sugar Hill. Known as the foundation of the Civil Rights Movement, much of the area of Sugar Hill was named a historic district by the New York City Landmarks Preservation Commission (NYCLPC) in 2000. Today, the Hamilton Heights/Sugar Hill area remains an architecturally distinguished and culturally significant neighborhood.

The Proposed Development Site and Area to Be Rezoned

The proposed rezoning area covers approximately the northern third of the block bounded by West 155th and West 153rd Street, St. Nicholas Avenue and St. Nicholas Place (Block 2069), extending approximately 150 feet south from West 155th Street, and includes Lots 21 and 28 in their entirety, approximately 44% of Lot 26 and about 12% of Lot 14 (see Figure 1-2). Lots 14, and 28 are not part of the Proposed Development Site, whereas a portion of Lot 26 will contain an access easement for the Proposed Development, as shown in Figure 1-2. Current uses within the area affected by the Proposed Action are shown in Table 1-1 and discussed below.

The Proposed Development Site extends approximately 154 feet along the south side of West 155th Street with a maximum depth of approximately 144 feet. The Site is currently occupied by a two-story plus cellar public parking garage, with a capacity of approximately 300 spaces. Due to the hilly topography in the area, the Proposed Development Site is naturally sloped, sloping down approximately 17 feet from its western boundary to its eastern boundary (refer to photos in Figure 1-3). Due to this steep grade in the site, the existing garage rises three stories at the northeast corner and is one story at the northwest corner.

Most of the Proposed Development Site (about 74% or approximately 16,047 sf) is currently zoned C8-3, with an R7-2 residential district mapped along an area at the southern edge of the site that ranges from 37 to 44 feet wide (approximately 5,638 sf). The C8-3 zoning district allows uses such
Access Easement for Proposed Development

PROPOSED DEVELOPMENT SITE

Access Easement for NYCDEP Facility

Area to be Rezoned
1. View of Proposed Development Site from the corner of West 155th Street and St. Nicholas Place, looking southwest. Lot 20 (not part of rezoning area) is to the left of photo, and Lot 14 is visible in background.

2. View of Proposed Development Site (eastern facade) from adjacent sidewalk on West 155th Street, looking west towards St. Nicholas Avenue.
3. View from the corner of St. Nicholas Place and West 155th Street looking southeast towards northern portion of Lot 26. Proposed Development Site is visible beyond.

4. View from St. Nicholas Avenue looking northeast towards Lot 26. The southern portion of the lot (to the right) is occupied by a NYCDEP leak detection facility, whereas the northern portion (to the left) is enclosed and used for surface parking.
5. View from St. Nicholas Place near West 155th Street, looking west. Lot 20 (which is just to the east of the rezoning area), is occupied by a gas service station, and is located on the corner, with Lot 14 to the left of photo. Proposed Development Site is visible in background.

6. View from West 155th Street near St. Nicholas Avenue, looking south. Proposed Development Site is to the left, and the northern portion of Lot 26 is to the right.
as automotive sales and service facilities and warehouses, with a maximum allowable Floor Area Ratio (FAR) of 2.0 for commercial uses and 6.5 for allowable community facilities. Housing is not permitted in C8-3 zoning districts. R7-2 is a general residence zoning district with a maximum allowable FAR of 3.44 for residential uses and 6.5 for allowable community facilities.

**TABLE 1-1**

**Existing Land Uses in Directly Affected Area (Area to be Rezoned)**

<table>
<thead>
<tr>
<th>Block/Lot</th>
<th>Address</th>
<th># of Stories</th>
<th>Estimated Height (in feet)</th>
<th>Existing Uses</th>
<th>Approx. Lot Area (1)</th>
<th>Estimate Floor Area (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROPOSED DEVELOPMENT SITE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2069/21</td>
<td>404-414 West 155th Street</td>
<td>2</td>
<td>30 max.</td>
<td>300-space attended parking garage</td>
<td>21,685</td>
<td>65,070</td>
</tr>
<tr>
<td><strong>REMAINDER OF REZONING AREA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2069/14 (part)*</td>
<td>87 St. Nicholas Place*</td>
<td>6</td>
<td>60</td>
<td>Residential with ground floor retail</td>
<td>692</td>
<td>2,791</td>
</tr>
<tr>
<td>2069/26 (part)**</td>
<td>416 West 155th Street**</td>
<td>N.A.</td>
<td>N.A.</td>
<td>Surface parking area adjacent to a 2-story NYCDEP building (located on the southern portion of the lot, mostly outside the rezoning area)</td>
<td>9,020</td>
<td>0</td>
</tr>
<tr>
<td>2069/28</td>
<td>89 St. Nicholas Place</td>
<td>N.A.</td>
<td>N.A.</td>
<td>Vacant</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

(1) Lot area and floor area numbers shown in table are only for the portions of each lot that fall within the rezoning area.
* Lot 14 has a lot area of approximately 5,768 sf, and contains a 6-story residential building (23,256 sf). Approximately 12% of this lot (estimated at approximately 692 sf) falls within the rezoning area.
** Lot 26 has a lot area of approximately 20,500 sf, and contains a 2-story commercial building (approximately 16,779 sf) and a paved vehicle storage area. Only part of this lot (estimated at 44% or approximately 9,020 sf) falls within the rezoning area, and is comprised exclusively of the vehicle storage area. This portion of Lot 26 is the easement area to serve as the entry plaza portion of the Proposed Development Site.

Lots 26 and 28, and a portion of Lot 14, are included in the rezoning area but do not comprise part of the Proposed Development Site. Immediately to the west of the Proposed Development Site is Lot 26, which is located partially within the rezoning area (approximately 44%, or 9,020 sf of this lot falls within the rezoning area). Lot 26 is owned by the City and under control of the New York City Department of Environmental Protection (NYCDEP), and includes a 2-story building at the southern portion of the lot, which falls entirely outside the rezoning area. The building is occupied by a NYCDEP leak detection facility and includes offices and a storage and equipment facility with a 2-truck garage. The portion of Lot 26 that falls within the proposed rezoning area, which is entirely enclosed by a brick wall with a fence above (see Figure 1-3, photo #6), is currently used predominantly for vehicle storage and parking and is also available for staging in the event of emergencies. It is entered through the existing NYCDEP building garage entrance. The Old Croton Aqueduct passes underneath Lot 26.

The proposed rezoning area also includes the northern portion of Lot 14 (estimated at 12% of the lot), approximately 11 to 13 feet wide, comprising approximately 692 sf. Lot 14 is occupied by a 6-story elevator apartment building, with approximately 24 units, and it is the only lot within the rezoning area that falls within the NYC Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Northeast Historic District. The rezoning area also includes a very small triangular parcel at the corner of St. Nicholas Avenue, identified as Lot 28, which is comprised of only 12 sf (approximately 2 feet wide and less than 10 feet deep), and is currently vacant.
Surrounding Area

The Proposed Development Site and rezoning area (shown in Figure 1-2) are located in West Harlem, also known as Hamilton Heights. The Proposed Development Site and proposed rezoning area are located at the crossroads of three distinct communities: Washington Heights, a stronghold of the region’s Dominican population; Central Harlem, primarily African American; and West Harlem, a mixed community of blacks, whites and Hispanics. Much of the area to the east, west and south of the rezoning area falls within the NYCLPC Hamilton Heights/Sugar Hill Historic District.

The area surrounding the proposed rezoning area encompasses the northern portion of the Hamilton Heights North neighborhood in West Harlem (Community District 9), Washington Heights South (Community District 12), and the Polo Grounds neighborhood in Central Harlem (Community District 10). Hamilton Heights North and Washington Heights South are separated by West 155th Street, a major crosstown street, and both these neighborhoods are separated from the Polo Grounds and the rest of Central Harlem by the Fordham Cliffs. The historical significance of the area dates back to the Revolutionary War, when Jumel Mansion, approximately five blocks north of the rezoning area, served as George Washington’s headquarters.

The area is predominantly residential, and includes two major parks. To the north of the rezoning area, across West 155th Street, is Highbridge Park, which extends north to Dyckman Street, between Edgecombe and Amsterdam Avenues. This 118.75-acre park is widely known for its important landmarks, the Highbridge tower and the High Bridge (the city's oldest standing bridge), and also offers natural beauty and recreational fun, including a recreation center with pool, open vistas and an unusual geologic makeup. Among its strongest features are the magnificent cliffs and large rock outcroppings that dominate the park. The proposed rezoning area is also located approximately two blocks to the west of Jackie Robinson Park, a 12.77-acre park that extends from West 155th Street south to 145th Street, between Bradhurst and Edgecombe Avenues, which provides ten blocks of recreational resources. It includes a pool and recreation center, as well as baseball diamonds, basketball courts, volleyball courts, and two playgrounds, as well as a bandshell that hosts concerts throughout the warm season.

P.S. 28 is located at the corner of West 155th Street and St. Nicholas Avenue, diagonally across from the rezoning area. The area is largely comprised of prewar buildings up to six stories in height. Newer mid-century buildings, especially those owned by the New York City Housing Authority, are taller, with the Polo Grounds Towers reaching a maximum of 30 stories. Driven in part by the existing infrastructure and housing stock, the area surrounding the proposed rezoning area has experienced greater construction activity in recent years. Within the immediately surrounding area, this has been limited mostly to rehabilitation of residential prewar buildings. However, some new construction projects are in progress or planned near the rezoning area.

The area is well connected by the transit system and regional road network. The area is well connected to the greater region via West 155th Street which connects to the Westside Highway (Route 9A), FDR Drive, and Major Deegan Expressway/New York State Thruway (Interstate Route 87). The C subway line stops adjacent to the rezoning area at the intersection of West 155th Street and St. Nicholas Avenue, and the number 1 subway line stops at West 157th Street and Broadway. Bus routes connect the area to the Bronx, Harlem, and Midtown Manhattan. Yankee Stadium is located directly across the Harlem River, just over a ½-mile from the rezoning area, and is connected to the area by McCombs Dam Bridge.
C. PROJECT PURPOSE AND NEED

The Proposed Development Site, located at the northern boundary of Harlem’s Sugar Hill, was acquired by Broadway Housing Communities in January, 2008. Broadway Housing Communities (BHC) is a not for profit organization with a 25 year track record of developing and managing nationally recognized, innovative community-based housing and programs to redress poverty and homelessness. The current C8-3 zoning which covers most of the Development Site does not allow residential uses. The Proposed Action would enable the applicant (BHC) to develop this property with a new 13-story mixed-income mixed-use development that is intended to serve the needs of the surrounding community, by providing a range of affordable housing options, an early childhood day care center, the Faith Ringgold Children’s Museum, community not-for profit office space, and accessory parking.

Harlem’s booming real estate market and influx of prosperous professionals that began at the turn of this century is commonly described as Harlem’s Second Renaissance. This rapid force of gentrification in West Harlem and Washington Heights makes low income families especially vulnerable. In this context, the Proposed Development seeks to demonstrate that housing opportunities for households in poverty buttressed by educational and cultural resources can affirmatively contribute to the revitalization of West Harlem. The Proposed Development is expected to provide 124 units of housing of varying sizes, which would serve 51 single adults and 73 families ranging in income from homelessness to 80% of the Area Median Income. Thus the Proposed Development seeks to advance BHC’s mission to provide quality housing and services to the City’s lower-income families, and expand the supply of affordable housing in the City.

The proposed Faith Ringgold Children’s Museum of Art & Storytelling is intended to serve as a cultural asset that would help revitalize the neighborhood by providing cultural resources and new, healthy opportunities for children and families. The museum is intended to teach children and families from the neighborhood and afar to take pride in themselves and their communities through art and storytelling. The Proposed Development is also expected to include an Early Childhood day care center serving 100 children, which would serve the surrounding community, and allow low- and moderate-income mothers to secure employment.

By combining a permanent affordable place to live with comprehensive educational, family and cultural resources, the Proposed Development seeks to provide much needed services for New York’s low-income children and families. In addition, the Proposed Development seeks to transform an underutilized commercial site into a green model of urban community revitalization that integrates affordable housing, education and cultural resources to enrich the neighborhood for generations to come. Best practices at the highest standard of affordable housing, museum based early childhood education, and nonprofit resources for families will also be provided.

Finally, the proposed acquisition/disposition of City-owned property, in the form of an easement exchange, which is described in detail in Section IV below, would enable the applicant to locate its main entrance to the Proposed Development on St. Nicholas Avenue through a landscaped plaza. Currently, this area accommodates NYCDEP vehicle storage, and is restricted in its development potential due to its irregular shape and the presence of the Old Croton Aqueduct running beneath it. NYCDEP would benefit by exchanging use of this parcel for use of the easement from BHC which is more conveniently located to the building on the NYCDEP site. This easement would
provide an automobile egress to the NYCDEP site from St. Nicholas Avenue, and would fulfill NYCDEP’s need for vehicle storage and parking as well as emergency staging.

D. DESCRIPTION OF THE PROPOSED ACTION

Zoning Map Change

The Proposed Action includes an amendment of the City’s zoning map for a portion of the northern end of the block bounded by West 155th and West 153rd Streets, St. Nicholas Avenue, and St. Nicholas Place, changing the zoning from C8-3 and R7-2 to a R8A residential district, as illustrated in Figure 1-4. The proposed R8A zoning district would allow residential uses in the entire rezoning area, which are prohibited under the existing C8-3 zoning on the northern portion of the block. It would also allow a wider range of community facility uses, including museums, schools, and libraries. R8A zoning districts permit residential and community facility uses, and in general allow for a more diverse group of residential and community facility uses than those allowed by the existing C8-3 and R7-2 zoning districts.

The proposed R8A district would allow residential and community facility uses within Use Groups 1-4, and establish envelope controls within the new district. Table 1-2 provides a comparison of the zoning use groups allowed in the existing C8-3 and R7-2 districts and the proposed R8A district. As shown in the table, residential Use Groups 1 and 2 and community facilities Use Groups 3 and 4 would be allowed as-of-right under the proposed zoning, while commercial Use Groups 5 through 14, and 16 (automotive and semi-industrial uses) would no longer be permitted. As such, all of the existing uses in the rezoning area are expected to be in conformance with the proposed R8A zoning.

| TABLE 1-2 |
| Use Groups Allowed in Existing (C8-3 & R7-2) and Proposed (R8A) Zoning Districts |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C8-3 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| R7-2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| R8A | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Source: NYCDCP Zoning Handbook |

The proposed R8A zoning district is a contextual zoning district, which regulates the height, bulk, and setback of new buildings. The maximum allowable FAR for the proposed R8A district is 6.02 for residential uses, and 6.50 for community facilities. The maximum allowable lot coverage is 70 percent for an interior lot, such as the Proposed Development Site. The minimum building base height is 60 feet, the maximum building base height is 85 feet, and the maximum building height is limited to 120 feet. Compliance with the Quality Housing Program is mandatory for residential buildings in R8A districts. Quality Housing buildings must include amenities relating to the planting of trees, landscaping and recreational space.
EXISTING ZONING

Area to be Rezoned

PROPOSED ZONING

Area to be Rezoned

150' deep
Acquisition and Disposition of City-Owned Property

The Proposed Action includes an easement for pedestrian ingress and egress from NYCDEP and the NYC Department of Citywide Administrative Services (DCAS). As noted above, the Proposed Development Site’s frontage along West 155th Street is quite steep, with a difference in elevation of approximately 17 feet between the eastern and western edges of the site. This makes access to the site very challenging, particularly for the museum and day care uses, which require drop-offs and pick-ups at the curb.

As shown in Figure 1-5, the Proposed Development Site is bounded on its western side by a roughly triangular, 4,597 square foot paved portion of the City-owned NYCDEP property on Lot 26 that has frontage along St. Nicholas Avenue. BHC would acquire an easement over this area (shown in Figure 1-5 as the “Easement from DEP for Broadway Housing”) for use as a plaza, which Broadway Housing would pave and landscape, to provide access to the primary entrances for the museum, day care and residential spaces of the Proposed Development, and the existing NYCDEP uses would be relocated to the proposed NYCDEP easement area as described below. In exchange, as shown in Figure 1-5 as the “Easement from Broadway Housing for DEP Use,” the roughly rectangular, 4,321 square foot southern portion of the Proposed Development Site would be the subject of an easement from BHC to NYCDEP for vehicle parking and storage and for emergency staging. BHC would pave this area and construct a curb cut leading to it in connection with the construction of the Proposed Development. In both instances, the easements would be surface easements and would exclude the below grade volumes that encompass the Old Croton Aqueduct on the NYCDEP Site and the future garage on the Proposed Development Site. Other than as described above, permanent above-grade construction would not be permitted on either easement.

The proposed access easement for NYCDEP would not result in any increase in traffic, as this easement would not alter the operation of the existing NYCDEP facility. NYCDEP would benefit from the use of the proposed NYCDEP easement, which is more conveniently located to the building on the NYCDEP site, which would provide an automobile egress to the NYCDEP site from St. Nicholas Avenue, and which would fulfill NYCDEP’s need for vehicle storage and parking as well as emergency staging. In connection with the City’s acquisition of the proposed NYCDEP easement, NYCDEP will request a Mayoral zoning override to permit NYCDEP vehicle parking, storage and emergency staging uses on the proposed NYCDEP easement area, which will be located in the R8A zoning district.

Funding/Financing

The Proposed Action includes construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD), for the residential component of the Proposed Development. NYCHPD, which will be the lead financing agency, has issued a commitment for an $8.7 million loan through their Low Income Rental Program, which is funded primarily with HOME funds from the U.S. Department of Housing and Urban Development (HUD). In addition, an allocation of federal Low Income Housing Tax Credits expected to yield $24.9 million is anticipated to be made by NYCHPD in September 2010.
Access Easement from NYCDEP for Proposed Development

Source: SLCE Architects / Adjaye Associates
In addition, State funding is also being sought for the subsidized housing, day care center and/or children's museum. At this time, State funding is expected to include approximately $3.9 million in NYS Low Income Housing Tax Credits allocated by the NYC Division of Housing Community Renewal (DHCR), as well as approximately $3.0 million in funding from the NYS Office of Temporary Disability Assistance under their Homeless Assistance Program.

**Restrictive Declaration and (E) Designation**

As described in greater detail in Chapter 8, “Hazardous Materials,” due to the potential presence of hazardous materials at the Proposed Development Site (which is owned by the applicant), a restrictive declaration has been executed and recorded to require the preparation by the applicant of a hazardous materials sampling protocol, including a health and safety plan, which would be submitted to the NYCDEP for approval. The restrictive declaration establishes an agreement to test and identify any potential hazardous materials pursuant to the approved sampling protocol and, if any such hazardous materials are found, submit a hazardous material remediation plan including a health and safety plan to NYCDEP for approval. If necessary, remediation measures would be undertaken pursuant to a NYCDEP-approved remediation plan prior to construction of the Proposed Development. The applicant would also commit to a site specific Health and Safety Plan on the portion of Lot 26 to be used as the entrance plaza in the Reciprocal Easement Agreement with the City.

The restrictive declaration for hazardous materials was executed on August 5, 2010 and submitted for recording on August 31, 2010. Pursuant to an email from NYCDEP dated August 31, 2010, NYCDEP is in receipt of a signed copy of a NYCDEP-approved restrictive declaration with proof of recording for the site.

As also described in greater detail in Chapter 10, “Noise,” the Proposed Action includes the mapping of an (E) designation for noise attenuation on the Proposed Development Site. The (E) designation is a mechanism which ensures that no significant adverse impacts would result from a proposed action because of steps which would be undertaken prior to the development of a rezoned site. The (E) designation would ensure that the Proposed Development Site would not be developed unless necessary remedial measures are implemented. Only one site (the Proposed Development Site) would receive (E) designations under the proposed rezoning.

**E. REASONABLE WORST CASE DEVELOPMENT SCENARIO**

In order to assess the potential effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) for both “future No-Action” (No-Build) and “future with the Proposed Action” (Build) conditions will be analyzed for an analysis year, or Build year, of 2012. Only one site (Lot 21) would be affected in its entirety by the proposed rezoning, and that site is owned by the applicant, who intends for the site to be redeveloped and fully occupied by 2012. Therefore, 2012 is the Build year for environmental analysis purposes. As such, a RWCDS for both “future No-Action” and “future With-Action” conditions will be analyzed for an analysis year of 2012.
The future With-Action (Build) scenario identifies the amount, type and location of development that is expected to occur by the end of 2012 as a result of the Proposed Action. The future without the action (No-Build) scenario identifies similar development projections for 2012 absent the Proposed Action. The effect of the Proposed Action would be the incremental change in conditions between the No-Build and Build scenarios.

Apart from the applicant-owned Proposed Development Site, the proposed rezoning area includes portions of two other tax lots (Lots 26 and 14) and a small 12 sf lot. Table 1-3 lists each of the four lots on Block 2069 that would be affected by the proposed rezoning action, including the Proposed Development Site. For each lot, the table provides a brief description of the existing use and development on the lot, the approximate lot area, the existing FAR, and the percent of the lot’s maximum allowable floor area under the proposed R8A zoning. As shown in Table 1-3, apart from the Proposed Development Site, none of the other parcels are likely to be redeveloped as a result of the proposed zoning change. Lot 14 was eliminated from further consideration because it would be built to 92% of its allowable floor area with the proposed rezoning, it includes more than 6 rent stabilized residential units, and falls within the NYCLPC-designated Hamilton Heights/Sugar Hill Northeast Historic District. Lot 26 is a City-owned parcel that is occupied by a public facility (a NYC Department of Environmental Protection leak detection facility) and is also located above the Old Croton Aqueduct, and is therefore unlikely to be redeveloped as a result of the Proposed Action. Finally, Lot 28 is a very small parcel consisting of 12 sf, which cannot be feasibly developed.

**The Future Without the Proposed Action (No-Action Condition)**

In the absence of the Proposed Action, the rezoning area would continue to be zoned C8-3 and R7-2. None of the properties within the proposed rezoning area would be expected to be redeveloped, and the existing land uses would remain. The Proposed Development Site would continue to be occupied by a public parking garage (Lot 21). Therefore, for CEQR analysis purposes, the No-Action condition would be identical to the existing conditions.

**The Future With the Proposed Action (With-Action Condition)**

In the future with the Proposed Action, the rezoning area would be rezoned from C8-3 and R7-2 to R8A. The new land uses that are expected to result from the Proposed Action would represent a continuation of general land use trends in a manner compatible with surrounding land uses. The Proposed Action would allow for the construction of residential development that is consistent with the built character of the area. New development that is projected to result from the Proposed Action would occur on an underutilized site, namely the Proposed Development Site. As discussed above, apart from the Proposed Development Site, no other lots are expected to be developed as a result of the Proposed Action. Therefore, the Proposed Development as described below is the only incremental development expected as a result of the Proposed Action, and represents the reasonable worst case development scenario for analysis purposes. Planned development on the Proposed Development Site is described below.
### Table 1-3
Lots within the Proposed Rezoning Area and their Existing FAR and Percent of Proposed R8A Floor Area

<table>
<thead>
<tr>
<th>Block</th>
<th>Lot</th>
<th>Lot Area (sf)</th>
<th>Owner</th>
<th>Existing Use</th>
<th># of Stories</th>
<th>Approx. Building FA</th>
<th>Existing Zoning</th>
<th>Proposed Zoning</th>
<th>Max. Allowable FAR [R/C/CF]</th>
<th>Existing Built FAR</th>
<th>% of Maximum FA with Proposed R8A Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2069</td>
<td>p/o 14</td>
<td>5,768</td>
<td>79 S N Ltd</td>
<td>Residential</td>
<td>6</td>
<td>23,256</td>
<td>R7-2</td>
<td>R7-2 &amp; R8A</td>
<td>3.44/---/6.5</td>
<td>3.75/---/6.5</td>
<td>4.03 [R]</td>
</tr>
<tr>
<td>21</td>
<td>21,685</td>
<td>Broadway Housing Development Fund Co.</td>
<td>Parking</td>
<td>2</td>
<td>65,070</td>
<td>C8-3 &amp; R7-2</td>
<td>R8A</td>
<td></td>
<td>0.89/1.48/6.5</td>
<td>6.02/---/6.5</td>
<td>3 [CF]</td>
</tr>
<tr>
<td></td>
<td>p/o 26</td>
<td>20,500</td>
<td>NYC Dept. of Environmental Protection</td>
<td>Parking and Utility</td>
<td>2</td>
<td>16,779</td>
<td>C8-3 &amp; R7-2</td>
<td>R7-2 &amp; R8A</td>
<td>2.51/0.54/6.5</td>
<td>4.58/---/6.5</td>
<td>0.82 [CF]</td>
</tr>
<tr>
<td>28</td>
<td>12</td>
<td>Leemilts Petroleum Inc</td>
<td>Vacant</td>
<td>N.A.</td>
<td>0</td>
<td>C8-3</td>
<td>R8A</td>
<td>---/2.0/6.5</td>
<td>6.02/---/6.5</td>
<td>0.00 [N.A.]</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Highlighted bold, italicized text indicates the Proposed Development Site under the control of the applicant.
- Pursuant to ZR Section 77-22, the maximum FAR of the zoning district shall be applied to each portion of the zoning lot within the respective district, and the sum of the product shall be the adjusted maximum FAR applicable to the zoning lot. The following breakdowns were applied:
  - **Lot 14:** Existing Condition: 100% of lot in R7-2 district; With Proposed Rezoning: 88% in R7-2 and 12% in R8A
  - **Lot 21:** Existing Condition: 74% of lot in C8-3 district and 26% in R7-2; With Proposed Rezoning: 100% in R8A
  - **Lot 26:** Existing Condition: 27% of lot in C8-3 district and 73% in R7-2; With Proposed Rezoning: 56% in R7-2 and 44% in R8A
Proposed Development Site

The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site. The existing garage structure currently on the site would be demolished to allow construction of the new building. The proposed new building would include approximately 121,683 gsf (114,878 zsf) of residential floor area, with approximately 124 residential rental units.

All 124 units would be affordable to individuals or households earning up to 80% of the Area Median Income (AMI). Although the specific unit mix has not been determined at this time, it is expected that there would be a mix of studios, one-, two-, and three-bedroom units. The proposed development would also include an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling; a 12,196 sf day care facility and early childhood center; 2,350 sf of non-profit program and office space; and a below-grade accessory parking garage with up to 114 spaces. The new development is scheduled to be completed by late 2012.

The site’s gradient/slope along West 155th Street will be used to create separate access points for the Proposed Development’s users, with a separate entrance for residents and children at the St. Nicholas Avenue level, a mid-block entrance for the museum, also off of St. Nicholas Avenue, and an entrance for the proposed garage at the lowest level of the Proposed Development, along West 155th Street (refer to site plan in Figure 1-5). As discussed above and illustrated in Figure 1-5, the Proposed Action includes the acquisition of an access easement on the northern triangular portion of adjacent Lot 26 (which is owned by the City). This easement area would be converted into an entry plaza for the Proposed Development, with entrances for the museum, day care and residential components. In return, the applicant would provide an access easement to NYCDEP along the southern 28 feet of the Proposed Development Site, which would be utilized for parking and vehicular access to NYCDEP’s building.

As shown in the illustrative building section in Figure 1-6, the Proposed Development would consist of 13 stories plus one cellar, with a height of approximately 120 feet from the average curb level to the roof line. As shown in the figure, the preliminary design of the Proposed Development includes a setback at approximately 76 feet, with the upper portion of the building sliding back from the base with a 10-foot cantilever. The cellar level would be occupied mostly by the accessory parking garage, which would accommodate up to 114 spaces utilizing stackers. The first floor would be occupied mostly by the museum, as well as the non-profit office space and the lobbies for the residential and day care uses. As shown in Figure 1-6, residential uses would occupy the third through thirteenth floors. The Proposed Development would be developed in accordance with the Quality Housing regulations, which are mandatory in the proposed R8A zoning district. Quality Housing buildings must include amenities relating to the planting of trees, landscaping and recreational space. The Proposed Development fulfills this requirement by providing a total of approximately 8,026 sf of accessory recreation space, which consists of roof terraces above the second, eight and thirteenth floors of the building (refer to illustrative building section in Figure 1-6). An illustrative rendering of the Proposed Development is provided in Figure 1-7.

The Proposed Development would increase community use, historic connection, and public access on the site. Given the location of the Faith Ringgold Children’s Museum of Art & Storytelling at the ground level of the Proposed Development, it is expected that historic photographs and art work would be visible to passers-by at the museum’s first floor entrance and would provide substantive historic experiences within the museum. Moreover, the proposed landscaped entry plaza on St.
FOR ILLUSTRATIVE PURPOSES ONLY

Source: SLCE Architects / Adjaye Associates
Proposed Development - Illustrative Rendering (View from St. Nicholas Avenue Looking Southeast)

Source: SLCE Architects / Adjaye Associates

FOR ILLUSTRATIVE PURPOSES ONLY
Nicholas Avenue would be a publicly accessible community resource that highlights the presence of the Old Croton Aqueduct underneath that lot (Lot 26). The entry plaza is expected to draw attention to the path of the Old Croton Aqueduct, one of the great engineering feats of the 19th century. Although the plans for the plaza have not yet been finalized, it is expected that the entry plaza would be landscaped, and may include a linear configuration of concrete pavers to locate the Aqueduct, distinguishing it from the surrounding paved open space.

The proposed R8A zoning district requires accessory parking spaces for 12% of the proposed residential units, whereas no accessory parking is required for community facility or museum uses. Therefore, the Proposed Development requires approximately 15 parking spaces. The proposed up to 114-space accessory garage would serve the Proposed Development’s residents, employees and visitors. In addition, as the Proposed Development would displace a 300-space public parking garage, any unutilized spaces in the proposed accessory garage may be rented to area residents on a monthly basis, as permitted by Zoning Resolution section 25-412.

As noted above, the 124 residential units within the Proposed Development are anticipated to serve 51 single adults and 73 families. 2000 Census data for Manhattan Community District 9, where the Proposed Development Site is located, indicate that the average household size for this area is approximately 2.54 persons per household. Conservatively applying this average to the 124 units, the Proposed Development would add a total of approximately 315 new residents to the area. In addition, the Proposed Development would also add a total of approximately 74 employees (33 day care employees, an estimated 24 museum employees, 9 non-profit office employees, up to 3 parking attendants, and an estimated 5 employees associated with the residential component, i.e., maintenance workers, etc.).

In the event that the proposed rezoning is approved but the planned funding for the Proposed Development does not materialize, the Proposed Development described above would not be constructed. In addition, as the acquisition and disposition of City-owned property described above is contingent upon the construction of the Proposed Development planned by BHC, this easement exchange would also not take effect in absence of the Proposed Development. Thus, for environmental analysis purposes, under the proposed zoning it can be assumed that instead of the Proposed Development described above, the development site may be developed with an as-of-right market-rate residential building with ground floor community facility uses, and an accessory garage. Without the easement exchange, such an as-of-right development will be accessible only from West 155th Street. Given the maximum allowable FAR and height limits for R8A districts, such an as-of-right development would be similar in height and bulk to the Proposed Development, and would also contain a similar number of units (or a smaller number of units, if unit sizes are larger), with no museum or day care uses.

With a lot area of 21,685 sf and a maximum allowable FAR of 6.02 for residential uses and 6.5 for community facility or mixed uses, up to approximately 140,953 zsf can be developed on the site on an as-of-right basis under the proposed R8A zoning. Assuming 21,685 sf (one floor) of community facility uses, the site could accommodate up 119,268 sf of residential use, or approximately 119 market rate residential units (based on 1,000 sf per unit). Such a market-rate development would require approximately 24 accessory parking spaces (at 0.2 spaces per unit), which is slightly higher than the requirement for the Proposed Development. However, as the garage capacity would be the

---

1 Based on following assumptions: day care – 1 employee per 3 children; museum – 1 employee per 750 sf; non-profit office – 1 employee per 250 sf; residential – 1 employee per 25 units.
same under either scenario, this would not affect the results of traffic or parking analysis for the Proposed Development (refer to traffic and parking assessment in EAS dated April 2, 2010). It should also be noted that without the easement exchange, such an as-of-right development would not provide the public plaza along St. Nicholas Avenue planned with the Proposed Development, and as such the open space analysis to be conducted for the Proposed Action conservatively excludes that plaza from the quantitative analysis. Therefore, for environmental analysis purposes, the Proposed Development described previously represents the reasonable worst-case development scenario for the EIS, and an analysis of an alternate development scenario is not warranted.

The Proposed Development’s Design Concepts and Goals

In designing the Proposed Development, the applicant’s main goal was to design a modern building that would conform to the proposed R8A zoning envelope, and provide innovative interior and exterior features to house the mixed use program of affordable apartments, museum and day care center. Another design goal was to develop a fenestration pattern for all the uses in the building that provided an abundance of natural light and views. It should be noted that the design of the Proposed Development is ongoing and may be modified to the extent required to conform with State and federal funding requirements.

According to the applicant, the proposed building is being designed as an iconic modern building that references but does not imitate certain characteristics of the buildings in the historic district, such as the masonry patterning and articulation of the bays found in many of the historic rowhouses. Similar to the various expressions of nature found throughout the historic district (as discussed in Chapter 5, “Historic Resources”), the Proposed Development’s current design is proposed to have a rose patterning relief on the tinted concrete facades. The roses are set to varying sizes and depths to enhance the play of light across the surface. The varied window patterning, visible in the illustrative rendering in Figure 1-7, are intended to accentuate the vine like qualities of the rose pattern while also providing an abundance of natural light and views into the residences.

The applicant’s inspiration for the design of the Proposed Development was derived from the Sugar Hill neighborhood with its rich and varied architectural heritage. The building’s mass was developed to reference some of the typical built forms in the historic district. Within the district, larger apartment buildings and institutions such as the Masonic Temple on West 155th Street are characterized by a tripartite organization with a base, middle and top. The Proposed Development's massing references this historic massing with its tri-partite elevation incorporating a glass and terrazzo base with a middle and a top section above. Many of the gothic revival rowhouses in the historic district also have sculpted facades with projecting bays and windows. The north and south façades of the Proposed Development above the base have a saw-tooth pattern which is intended to recall this rhythm. This saw-tooth pattern also helps break up the scale of the building's West 155th Street façade and create a massing that is more typical of the residential streets in the historic district. Similarly, the Proposed Development's patterned façade and darker coloration recalls the textured masonry details and facades found in many of the gothic revival and neoclassical buildings in the district. The goal of the Proposed Development was not to recreate the appearance of the historic buildings but to incorporate references to the historic district in a modern building that also reflected a contemporary approach to both materials and form.

The proposed building also has a continuous streetwall which is characteristic of many of the larger apartment buildings in the district. The proposed building’s base, at 76 feet, would be similar in height to the 6-story apartment buildings along St. Nicholas Place as well as Edgecombe Avenue.
one block to the east. In the front portion of the building facing West 155th Street, the 5 uppermost floors of the building are set back from the street wall by ten feet. In the rear portion of the building, the top 5 floors cantilever over the base by ten feet.

The Proposed Development's design would replace the fenced in area of the Old Croton Aqueduct, occupied with a private parking lot, with a publicly accessible plaza. The plaza would be compatible with the Old Croton Aqueduct below and is intended to provide a more welcoming passageway into the historic district to the south.

F. PROPOSED ACTIONS AND REQUIRED APPROVALS

The Proposed Development described above would require the following actions:

- Approval of the New York City Planning Commission (CPC) for an amendment to the zoning map to change the rezoning area from C8-3 and R7-2 to R8A.
- Property disposition and acquisition in the form of a reciprocal easement for ingress and egress with NYCDEP and/or the NYC Department of Citywide Administrative Services (DCAS).
- Construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD), as well as other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance.

The Proposed Action includes some discretionary public actions (such as the proposed rezoning) that are subject to both the Uniform Land Use Review Procedure (ULURP), as well as the City Environmental Quality Review (CEQR). ULURP is a process that allows public review of proposed actions at four levels: the community board, the Borough President, the City Planning Commission, and if applicable, the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of seven months. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment.

In addition, in order to effectuate the proposed easement exchange, NYCDEP would first need to secure the consent of the New York City Water Board following the appropriate procedures of the Board. The Mayor of the City of New York acting through DCAS would have the authority to effectuate the exchange pursuant to Section 384(a) of the New York City Charter. The City’s simultaneous disposition and acquisition of the easements would be subject to ULURP pursuant to Section 384(b)(5) of the Charter, as described above, and a DCAS public hearing process.
A. INTRODUCTION

This application is for a set of actions intended to facilitate the redevelopment of a site in the Hamilton Heights North neighborhood of West Harlem, in Manhattan Community District 9. The requested actions include: (1) a zoning map change from C8-3 and R7-2 to a R8A residential zoning district; (2) acquisition/disposition of City-owned property, in the form of an exchange of easements between the applicant and the NYC Department of Citywide Administrative Services (DCAS); (3) construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD); and (4) other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance for the residential component of the Proposed Development. These actions, collectively, comprise the “Proposed Action”.

The Proposed Action would enable the applicant, Broadway Housing Communities (BHC), to construct a mixed-use building on a parcel within the proposed rezoning area, consisting of one privately owned lot (Block 2069, Lot 21) located at 404-414 West 155th Street (the “Proposed Development Site”). The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site (the “Proposed Development”). The existing 300-space garage structure currently on the site would be demolished to allow construction of the new building. The Proposed Development would include: approximately 124 residential units, all of which would be affordable; an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling; a 12,196 sf day care facility and early childhood center for approximately 100 children; 2,350 sf of non-profit program and office space; and an up to 114-space below-grade accessory parking garage.

It is expected that construction on the Proposed Development Site would commence in the second half of 2010 following demolition of the existing structure and site excavation, and the Proposed Development is expected to be completed by late 2012.

There are no current proposals for development of any of the other properties affected by the proposed zoning map change. As such, the RWCDS analyzed in this document consists of the proposed development as described above.

This chapter considers the effects of the Proposed Action on the land use study area as well as the Proposed Action’s potential effects on zoning and public policy in the study area. The land use study area for this analysis includes the area within approximately one quarter-mile radius of the rezoning area, which has been modified and expanded as appropriate to include entire blocks (see Figure 2-1). As shown in Figure 2-1, the study area is roughly bounded by West 145th, West 149th, and West 150th Streets to the south, Bradhurst Avenue, Macombs Place, and Harlem River Drive.
to the east, Amsterdam Avenue and Broadway to the west, and West 159th and West 160th Streets to the north. As detailed below, the Proposed Action is not anticipated to result in any significant adverse impacts on land use, zoning, or public policy.

B. EXISTING CONDITIONS

Land Use

Figure 2-1 shows the existing land uses within the rezoning area, as well as in the land use and zoning study area, based on March 2009 field visits, as well as secondary sources.

Proposed Rezoning Area

The area to be rezoned includes the Proposed Development Site as well as a portion of the northern third of the block bounded by West 155th and West 153rd Street, St. Nicholas Avenue and St. Nicholas Place (Block 2069). The rezoning area extends approximately 150 feet south from West 155th Street, and includes Lots 21 and 28 in their entirety, approximately 44% of Lot 26 and about 12% of Lot 14. Lots 14 and 28 are not part of the Proposed Development Site, whereas a portion of Lot 26 will contain an access easement for the Proposed Development (refer to Figure 1-2 in Chapter 1, “Project Description”).

The approximately 21,685 sf Proposed Development Site is currently occupied by a two-story plus cellar public parking garage, with a capacity of approximately 300 spaces. Due to the hilly topography in the area, the Proposed Development Site is naturally sloped, sloping down approximately 17 feet from its western boundary to its eastern boundary. Due to this steep grade in the site, the existing garage rises three stories at the northeast corner and is one story at the northwest corner.

Lots 26 and 28, and a portion of Lot 14, are included in the rezoning area but do not comprise part of the Proposed Development Site. Lot 26, located to the west of the Proposed Development Site, is located partially within the rezoning area (approximately 44%, or 9,020 sf of this lot falls within the rezoning area). Lot 26 is owned by the City and under control of the New York City Department of Environmental Protection (NYCDEP), and includes a 2-story building at the southern portion of the lot, which falls mostly outside the rezoning area. The building is occupied by a NYCDEP leak detection facility and includes a 2-truck garage. The portion of Lot 26 that falls within the proposed rezoning area, which is entirely enclosed by a brick wall with a fence above, is currently used predominantly for vehicle storage and parking and is also available for staging in the event of emergencies. It is entered through the existing NYCDEP building garage entrance.

The proposed rezoning area also includes the northern portion of Lot 14 (estimated at 12% of the lot), approximately 11 to 13 feet wide, comprising approximately 692 sf. Lot 14 is occupied by a 6-story elevator apartment building, with approximately 24 units, and it is the only lot within the rezoning area that falls within the NYC Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Northeast Historic District. The rezoning area also includes a very small triangular parcel at the corner of St. Nicholas Avenue, identified as Lot 28,
which is comprised of only 12 sf (approximately 2 feet wide and less than 10 feet deep), and is currently vacant.

**Land Use Study Area**

As shown in Figure 2-1, the land use study area has been roughly defined by a quarter-mile radius extending from the proposed rezoning area. The study area is generally bounded by West 145th, West 149th, and West 150th Streets to the south, Bradhurst Avenue, Macombs Place, and Harlem River Drive to the east, Amsterdam Avenue and Broadway to the west, and West 159th and West 160th Streets to the north.

Land uses in the vicinity of the rezoning area include a mix of residential, mixed-use, institutional, commercial, and open space, with some vacant lots located to the north, south, and east of the proposed rezoning area. Residential uses are predominant in the area and are typically located in all directions surrounding the proposed rezoning area. Commercial uses are mainly limited to the lots directly adjacent to the rezoning area to the north, east and west, while further away commercial uses are found along Amsterdam Avenue, Broadway, St. Nicholas Avenue, Frederick Douglass Boulevard, and Macombs Place – usually in the form of ground floor retail in mixed-use residential buildings. Open space is abundant in the study area and is located in all directions; while mixed-uses, and institutional uses are scattered throughout the study area. Transportation related uses, including parking facilities, are located on the Proposed Development Site as well as directly to the east of the rezoning area, as shown in Figure 2-1.

Immediately to the east of the Proposed Development Site is Lot 20, which is currently occupied by a gas station with a one-story structure housing a convenience store. The southern portion of the block containing the rezoning area is occupied by four 6-story multifamily elevator buildings, one contains ground floor retail uses; one 5-story multifamily building; and a 2-story Temple of Joy Sounds of Praise Church, which is a City-owned property under lease to the institutional facility.

To the north of the rezoning area, across West 155th Street, is Highbridge Park, which extends north to Dyckman Street, between Edgecombe and Amsterdam Avenues. This 118.75-acre park is widely known for its important landmarks, the Highbridge tower and the High Bridge (the city's oldest standing bridge), and also offers natural beauty and recreational fun, including a recreation center with pool, open vistas and an unusual geologic makeup. Among its strongest features are the magnificent cliffs and large rock outcroppings that dominate the park. Located to the northwest of the proposed rezoning area is Public Elementary School 28: Wright Brothers, along West 155th Street between St. Nicholas Avenue and Amsterdam Avenue, which also contains the Orville and Wilbur Playground. Also located on this block is a 6-story multifamily elevator building, and a 22-story New York Housing Authority (NYCHA) multifamily elevator building.

Across West 155th Street from the rezoning area and along St. Nicholas Avenue, is a series of 1-story commercial use buildings containing a delicatessen and grocery store, a laundromat, a check cashing store, and a pizza parlor. A 3-story mixed-use residential building contains a take-out restaurant and a vacant storefront on the ground floor. The remainder of the block contains 3-story rowhouse residential buildings, 5-story multifamily elevator buildings, and the Mount Sinai Church. The remainder of the northern portion of the land use study area contains a mix of 3-story rowhouse residential buildings, 5- to 6-story multifamily elevator buildings, some mixed-use residential buildings with ground floor retail, a large segment of Highbridge Park, and a number of community gardens and public parks.
To the east of the rezoning area is a 1-story commercial use building, between St. Nicholas Place and Edgecombe Avenue, containing a flat fix auto shop, Kennedy Fried Chicken and Pizza, a delicatessen and grocery store, Bud’s Sports Bar, a Central-American restaurant, a laundromat, and a taqueria. Further south on the remainder of that block is a long series of 5 to 6-story multifamily residential buildings, as well as the 13-story historic landmark building located at 409 Edgecombe Avenue. This historic multifamily brick building sits on a bluff overlooking the Bronx and was once home to the intellectual and civil rights activist William Edward Burghardt Du Bois (1868-1963), poet Stanley Braithwaite, civil rights activist Paul Robeson, poet Countee Cullen, explorer Matthew Henson, musician Cab Calloway and union organizer and civil rights activist Asa Philip Randolph. This block also contains the Broadway Housing Development Fund, a non-profit low-income development company housed in a 3-story single-family home, and the M. Marshall Blake Funeral Home, both at the southernmost extent of the block.

Just beyond Edgecombe Avenue the topography drops off substantially, this is the location of Jackie Robinson Park, a 12.77-acre park that extends from West 155th Street south to 145th Street, between Bradhurst and Edgecombe Avenues, which provides ten blocks of recreational resources. It includes a pool and recreation center, as well as baseball diamonds, basketball courts, volleyball courts, and two playgrounds, as well as a bandshell that hosts concerts throughout the warm season. East of the park is a predominantly residential area characterized by 3 to 6-story multifamily buildings, some with ground floor retail along Bradhurst Avenue and Frederick Douglass Boulevard. On the north side of West 155th Street between Bradhurst Avenue and Frederick Douglass Boulevard is the Polo Grounds Towers, a 30-story four building NYCHA development with 1,612 apartments. Also located on this block is an Associated Supermarket and Public Elementary School 46: Arthur Tappan School. The NYCHA Rangel Houses are located at the northern extent of this block, containing eight 14-story buildings with 984 apartments. On the south side of West 155th Street is a 145-space public parking garage, an auto body shop, and local ground floor retail along Frederick Douglass Boulevard. Across Frederick Douglass Boulevard is Public Elementary School 156: Eugene Piercy Roberts School; and Holcombe Rucker Park, a 3.12-acre public park that features a baseball field, handball courts, and a playground, though the park is most well-known for its basketball courts, as many famous basketball players started their career at this famous neighborhood institution.

The blocks south of West 155th Street and east of Frederick Douglass Boulevard contain a 100-space parking lot, a plumbing supply company, an auto storage lot, some vacant lots, 3- to 6-story multifamily buildings with ground floor retail located along Frederick Douglass Boulevard, and commercial and local services along Macombs Place including a United States Post Office and a gas station.

Directly west of the proposed rezoning area is a block that contains the 6-story St. Nicholas Hotel with a delicatessen and grocery store on the ground floor, the adjacent lot is the Prince Hall Masonic Temple. The Prince Hall Masons are a benevolent service organization dedicated to uplifting people of color. The remainder of the block is occupied by 3- to 6-story multifamily residential buildings, and a 20-story NYCHA building containing 168 apartments that faces Amsterdam Avenue. Further west is the landmark Trinity Cemetery and Rector Church. The blocks to the north and south of the cemetery contain a number of churches as well as 3- to 6-story multifamily residential buildings, with a few single family buildings, and one 15-story elevator building located on West 155th Street and Amsterdam Avenue. Amsterdam Avenue contains a number of small local retail and commercial establishments but ground floor retail in mixed-use residential buildings are predominant.
The area further to the south and west of the proposed rezoning area is mainly composed of 3 to 6-story multifamily residential buildings, with a small number of single family buildings. Carmanville Playground, a 0.58-acre park, serves this area of the community. There are a small number of institutional facilities (mainly churches), community gardens and open spaces, mixed-use residential buildings with ground floor retail, and vacant lots scattered throughout this portion of the study area, in addition to two commercial lots that are occupied by the Harlem Dance Theatre and a cultural affairs office.

The study area is well connected by the transit system and regional road network. The area is well connected to the greater region via West 155th Street which connects to the Westside Highway (Route 9A), FDR Drive, and Major Deegan Expressway/New York State Thruway (Interstate Route 87). The C subway line stops adjacent to the rezoning area at the intersection of West 155th Street and St. Nicholas Avenue, and the number 1 subway line stops at West 157th Street and Broadway. Bus routes connect the area to the Bronx, Harlem, and Midtown Manhattan. Yankee Stadium is located directly across the Harlem River, just over a ½-mile from the rezoning area, and is connected to the area by Macombs Dam Bridge.

Lastly, the landmark Old Croton Aqueduct, a significant physical feature in the study area, is located adjacent to the Proposed Development Site, passing underneath the adjacent Lot 26 to the west. The portion of land over the Old Croton Aqueduct between West 153rd Street and West 152nd Street is utilized as a community garden known as the Senior Citizens Sculpture Garden.

Zoning

The Proposed Development Site, which is located in the northeastern portion of the rezoning area, is currently zoned C8-3 (about 74% or approximately 16,047 sf), with an R7-2 residential district mapped along an area at the southern edge of the site that ranges from 37 to 44 feet wide (approximately 5,638 sf). The remainder of the rezoning area is also zoned C8-3 and R7-2. The existing C8-3 zoning district is mapped at a depth of 100 feet from West 155th Street. As shown in Table 2-1, the C8-3 zoning district allows uses such as automotive sales and service facilities and warehouses, with a maximum allowable Floor Area Ratio (FAR) of 2.0 for commercial uses and 6.5 for allowable community facilities. Housing is not permitted in C8-3 zoning districts (refer to Table 2-1 below). R7-2 is a general residence zoning district with a maximum allowable FAR of 3.44 for residential uses and 6.5 for allowable community facilities.

Zoning classifications within a ¼-mile radius include R7-2 to the north, south and west; R8, R7-2 and C8-3 to the east, and R8 and C4-4 further to the northwest. Commercial overlays are mapped along the major thoroughfares in the area, including Amsterdam Avenue, Broadway, and Fredrick Douglas Boulevard, as well as the block of west 155th Street to the west of the rezoning area. The blocks in the immediate vicinity of the rezoning area are mostly zoned R7-2 with C2-4 commercial overlays (see Figure 2-2). The C2-4 overlay extends over most of the lots with frontage on Amsterdam Avenue and West 155th Street. The C2-4 commercial zoning overlay is widely mapped within residence districts and allows such retail uses as grocery stores, restaurants and beauty parlors, with a maximum allowable FAR of 2.0 for commercial uses.

There is an R8 residential zoning district located to the east of the rezoning area, along Bradhurst Avenue, and another one block to the west of the rezoning area on the stretch of block fronting on Amsterdam Avenue and bound by West 155th and West 156th Streets. As shown in Table 2-1, R8 is
a mid- to high-density residential zoning district that allows mid- to high-rise buildings, with a maximum allowable FAR of up to 6.02 for residential uses, and 6.5 for community facilities. In addition, a two block wide C8-3 commercial zoning district is also located to the east of the study area.

**TABLE 2-1**

**Study Area Zoning Designations**

<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>DEFINITION/GENERAL USE</th>
<th>MAXIMUM FAR</th>
</tr>
</thead>
</table>
| R7-2     | R7-2 districts are medium-density apartment house districts. Building heights are governed by sky exposure planes. Parking is required for 50% of the dwelling units and waived if 15 or fewer spaces are required. | R: 3.44 maximum  
C: 2.0 as overlay  
CF: 6.5  
M: Not permitted |
| R8       | R8 zones are appropriate for mid-rise, eight to ten-story buildings. Building heights are governed by sky exposure planes. Parking is required for 50% of the dwelling units and waived if 15 or fewer spaces are required, or the lot is 10,000 square feet or less. | R: 6.02 maximum  
C: 2.0 as overlay  
CF: 6.5  
M: Not permitted |
| C8-3     | C8-3 districts are usually buffers between commercial and manufacturing uses, usually services that require large amounts of land. Semi-industrial general service uses permitted in Use Groups 11A and 16. These districts are mainly mapped along major traffic arteries and parking requirements vary with use. | R: Not permitted  
C: 2.0  
CF: 6.5  
M: Not permitted |
| C2-4 (Overlay) | C2 are commercial overlays mapped in residential districts. They permit local retail and service establishments. Regulations limit commercial use to one or two floors. | R: Same as underlying R zone  
C: 1.0 in R1- R5 Districts  
2.0 in R6 – R10 Districts  
CF: Same as underlying R zone  
M: Not permitted |

R: Residential; C: Commercial; CF: Community Facility; & M: Manufacturing

**Public Policy**

The rezoning area is not located within the designated boundaries of New York City’s Coastal Zone. As discussed in Chapter 1, “Project Description,” the area affected by the proposed zoning map changes is located adjacent to and partially (Lot 14) within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Historic District, and the entire rezoning area falls within the State and National Register-listed (S/NR) Sugar Hill Historic District. In addition, as the Proposed Development Site is located within Community District 9 of Manhattan, it is subject to the development guidelines outlined in the District’s approved 197-a plan. Additionally, while there are not specific initiatives and goals in PlaNYC that relate to the study area, it is a citywide initiative that would be applicable to the Proposed Action and is therefore included in this analysis. Each of these public policies is discussed below.

**Hamilton Heights/Sugar Hill Historic District**

As detailed in Chapter 5, “Historic Resources,” the Proposed Development Site and rezoning area are located within the S/NR Sugar Hill Historic District, and Lot 14, which falls partially within the rezoning area, also falls within the NYCLPC designated Hamilton Heights/Sugar Hill Historic District. The intent of both the S/NR and LPC historic districts is to protect the neighborhood character and unique architectural value of the Hamilton Heights and Sugar Hill neighborhoods, known as the foundation of the Civil Rights Movement. Landmarking status prohibits any demolition or major upgrade to the buildings within the NYCLPC-designated district without consent by the NYCLPC. Historic resources that are listed on the S/NR are given a measure of
protection from the effects of Federally sponsored or Federally assisted projects under Section 106 of the National Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Properties listed on the S/NR are similarly protected against impacts resulting from State-sponsored or State-assisted projects under the State Historic Preservation Act. Private owners of properties that are eligible for, or even listed on, the S/NR using private funds, can, however, alter or demolish their properties without such a review process.

Community District 9 Manhattan 197-a Plan: Hamilton Heights, Manhattanville, Washington Heights

The 197-a plan covers Manhattan’s Community District 9, an area generally bounded by West 110th Street, the Hudson River, West 155th Street and Jackie Robinson, St. Nicholas, and Morningside parks. The plan’s stated goals are to: build on the strong social, economic and cultural base of the district through a sustainable agenda that would reinforce and reinvigorate the ethnically diverse and culturally diverse community; ensure that future development is compatible with the existing and historic urban fabric and complements the neighborhood’s character; create the conditions necessary to generate good jobs for its residents; provide housing and services that are affordable to the community; and provide for future growth while preserving the district’s physical and demographic character without displacement of existing residents.

This public policy document does not provide any recommendations specifically pertaining to the Proposed Development Site. However, some of the Plan’s district-wide recommendations that are relevant to the Proposed Action include the following:

- Study and adopt contextual zoning in appropriate areas of Community District 9;
- Mandate affordable housing in the district, preserve existing affordable housing, and increase the number of housing opportunities for low, moderate- and middle income residents, including seniors;
- Explore the development of underbuilt sites for housing, community facilities, or mixed residential/commercial buildings. It should be noted that Lot 26, which is occupied by the NYCDEP facility within the proposed rezoning area, was identified as an underbuilt site in the 197-a Plan.

PlaNYC

PlaNYC is a city plan that focuses on the five key dimensions of the City’s environment – land, air, water, energy, and transportation. The plan outlines several goals including: the efficient use of land to enable the City to absorb tremendous growth while creating affordable, sustainable housing and open spaces in every neighborhood; initiatives to improve the quality of air across the City; the protection of the purity of the City’s water, ensuring its reliable supply throughout the City; a new approach to energy planning in New York; and the expansion and funding of the City’s transportation network.
C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

Land Use

Proposed Rezoning Area

In the absence of the Proposed Action, the rezoning area would continue to be zoned C8-3 and R7-2. None of the properties within the proposed rezoning area would be expected to be redeveloped in the absence of the Proposed Action, and the existing land uses would remain. The Proposed Development Site would continue to be occupied by a 300-space public parking garage. Therefore, for CEQR analysis purposes, the No-Action condition would be identical to the existing conditions.

Land Use Study Area

In the future without the Proposed Action, it is expected that the current land use trends and general development patterns in the area would continue. These trends are characterized by moderate levels of additional residential and commercial growth. There are two proposed developments anticipated to be constructed or under construction within the defined study area by 2012 (#1 and 4 in Figure 2-3 and Table 2-2).

TABLE 2-2
Development Projects in the Future Without the Proposed Action
Within an Approximate Half-Mile Radius

<table>
<thead>
<tr>
<th>Key #</th>
<th>Address</th>
<th>Housing Units</th>
<th>Retail Floor Area</th>
<th>Community Facility Floor Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>West 155th Street Rezoning</td>
<td>272</td>
<td>32,844</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Public School 186 - 525 West 145th Street</td>
<td>120</td>
<td>0</td>
<td>7,000</td>
</tr>
<tr>
<td>3</td>
<td>Public School 90 - 217 West 147th Street</td>
<td>75</td>
<td>0</td>
<td>7,000</td>
</tr>
<tr>
<td>4</td>
<td>Community Health Academy of the Heights – 1970 Amsterdam Avenue</td>
<td>0</td>
<td>0</td>
<td>16,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>467</td>
<td>32,844 gsf</td>
<td>30,000 gsf</td>
</tr>
</tbody>
</table>

Source: NYC Department of City Planning

In the future without the Proposed Action, parts of two blocks to the east of the proposed rezoning area are expected to be rezoned from C8-3 to R8/C1-4, which would facilitate the planned redevelopment of the site of a 125-space parking facility with a new mixed-use building (#1 in Table 2-2 below). This development (Block 2040, Lots 48, 61 and 62), according to available information, is expected to be completed by 2012 and is planned to consist of a 12-story mixed-use building that would include approximately 272 residential units and 32,800 sf of retail uses, as well as 144 public parking spaces. In addition, the School Construction Authority (SCA) has proposed to construct the Community Health Academy of the Heights, a proposed 572-seat intermediate school, on a site located at 1970 Amsterdam Avenue between West 157th and West 158th streets (Block 2116, Lot 33), which comprises a NYCHA development (#4 in Figure 2-3 and Table 2-2).
Two other planned developments fall just outside the defined land use and zoning study area, but are within a half-mile radius of the proposed rezoning area (see Figure 2-3). These include a proposal by the ML Wilson Boys and Girls Club to redevelop PS 186, a vacant public school located on the north side of West 145th Street between Amsterdam Avenue and Broadway (#2 in Figure 2-3 and Table 2-2). The proposed build program calls for approximately 80-120 residential units, a community facility to accommodate the ML Wilson Boys and Girls Club and space to accommodate a new postal facility. In order to achieve their overall development objective, the school would be demolished and the development site would need to be rezoned from R7-2 to an R8 density. To date, no land use or CEQR applications have been filed.

Additionally, L & M Equities and Harlem Congregations for Community Improvement are seeking to renovate the former Public School 90, located on West 148th Street between Adam Clayton Powell Jr. and Frederick Douglass boulevards (Block 2033, Lot 12, #2 in Figure 2-3 and Table 2-2). PS 90 is city-owned has been vacant for over twenty years. The project was approved by the City Planning Commission and the City Council in 2007. The proposed build program would convert the building into 75 residential units with community facility space. No commercial space or accessory parking is proposed for this project. In order to meet the overall development objective, the applicant obtained BSA zoning variances for height, setback and use (135-05-BZ, CEQR No. 05-BSA-135M). PS 90 is designated as Site 27 in the Bradhurst Urban Renewal Plan. Accordingly, NYCHPD prepared a final Environmental Assessment Statement (06HPD004M) for this project.

Overall, the existing mix of land uses in the area surrounding the proposed rezoning area is expected to persist in 2012 without the Proposed Action.

Zoning

As noted above, two of the planned developments that are expected within or just beyond the defined study area would require zoning map changes. The rezoning action associated with No-Build site # 1 in Table 2-2 would affect the northern portions of the two blocks on the south side of West 155th Street between Bradhurst Avenue and Macombs Place, which would be rezoned from C8-3 to R8/C1-4. Additionally, the planned redevelopment of PS 186 would require that site to be rezoned from R7-2 to an R8 density.

In addition, there is currently a NYC Department of City Planning (NYCDCP) proposal for a rezoning of West Harlem. The study area comprises the northern portion of Community District 9, a 95-block area generally bounded by West 126th and West 155th streets, St. Nicholas and Jackie Robinson parks and the Hudson River. The study area for this rezoning does not include the Manhattanville Houses, the City College campus or recently established Special Manhattanville Mixed Use District, which was created to advance Columbia University’s long-term build program for the area. Although still in a preliminary stage, the study would produce a zoning framework that protects the existing built context of areas with a strong rowhouse/brownstone character, such as the Hamilton Heights and Sugar Hill Historic Districts. The plan would also identify areas that could accommodate modest increases in density to support future growth, such as the M-zoned area generally bounded by Amsterdam and Convent avenues, West 126th and West 130th streets.
Public Policy

In the future without the Proposed Action, no changes to public policy are expected to occur in the study area.

D. PROBABLE IMPACTS OF THE PROPOSED ACTION

In the future with the Proposed Action, the rezoning area would be rezoned from C8-3 and R7-2 to R8A. The new land uses that are expected to result from the Proposed Action would represent a continuation of general land use trends in a manner compatible with surrounding land uses. The Proposed Action would allow for the construction of a mixed-use residential and community facility development on the Proposed Development Site that is consistent with the built character of the area. New development is not projected to result from the Proposed Action on any other sites within the proposed rezoning area. The potential effect of planned development on the Proposed Development Site is assessed below.

Land Use

Proposed Rezoning Area

The Proposed Action would enable construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site. The existing garage structure currently on the site would be demolished to allow construction of the new building. The proposed new building would include approximately 121,683 gsf (114,878 zsf) of residential floor area, with approximately 124 residential rental units, all of which would be affordable, as well as an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling, a 12,196 sf day care facility and early childhood center for approximately 100 children, 2,350 sf of non-profit program and office space, and an up to 114-space below-grade accessory parking garage.

The up to 114 accessory parking spaces represent a net reduction of 300 public parking spaces compared to No-Action conditions.

As described in Chapter 1, “Project Description,” the Proposed Development Site is bounded on its western side by a roughly triangular, 4,597 square foot paved portion of the City-owned NYCDEP property on Lot 26 that has frontage along St. Nicholas Avenue. The applicant would acquire an easement over this area as part of the Proposed Action for use as a plaza, which would be paved and landscaped, to provide access to the primary entrances for the museum, day care and residential spaces of the Proposed Development. The existing NYCDEP uses on that triangular potion of Lot 26 would be relocated to the proposed NYCDEP easement area as described below. In exchange, the roughly rectangular, 4,321 square foot southern portion of the Proposed Development Site would be the subject of an easement from BHC to NYCDEP for vehicle parking and storage and for emergency staging. BHC would pave this area and construct a curb cut leading to it in connection with the construction of the Proposed Development. In both instances, the
easements would be surface easements and would exclude the below grade volumes that encompass the Old Croton Aqueduct on the NYCDEP Site and the future garage on the Proposed Development Site. Other than as described above, permanent above-grade construction would not be permitted on either easement.

**Assessment**

The Proposed Action is not expected to affect existing land use patterns in the study area except on the Proposed Development Site, nor is it expected to affect the viability of land uses in the surrounding area. The blocks immediately to the north, south and west of the rezoning area support predominately residential uses, as well as a few institutional uses, and commercial uses along the main thoroughfares. To the east and north are large public open spaces. The Proposed Development would provide quality housing and services to the City’s struggling families, and expand the supply of affordable housing in the City, while providing valuable community services, including a day care center and a children’s museum.

The Proposed Development would be constructed in accordance with all applicable regulations of the new R8A zoning. It would consist of one 13-story plus cellar building that would rise approximately 120 feet tall from the average curb level to the roof line and extend along West 155th Street with an entry plaza on St. Nicholas Avenue (see Figures 1-6 and 1-7 in Chapter 1, “Project Description” for illustrative building section and rendering of the proposed building). The Proposed Development, occupying the central portion of the rezoning area, would require excavation to remove the existing garage structure.

The site’s gradient/slope along West 155th Street will be used to create separate access points for the Proposed Development’s users, with a separate entrance for residents and children at the St. Nicholas Avenue level, a mid-block entrance for the museum, also off of St. Nicholas Avenue, and an entrance for the proposed garage at the lowest level of the Proposed Development, along West 155th Street (refer to site plan in Figure 1-5 of Chapter 1). As discussed in Chapter 1 and illustrated in Figure 1-5, the Proposed Action includes the acquisition of an access easement on the northern triangular portion of adjacent Lot 26 (which is owned by the City). This easement area would be converted into an entry plaza for the Proposed Development, with entrances for the museum, day care and residential components. In return, the applicant would provide an access easement to NYCDEP along the southern 28 feet of the Proposed Development Site, which would be utilized for vehicular storage and vehicular access to NYCDEP’s building.

The Proposed Development, at 13-stories, would be taller than most buildings immediately to the south of the rezoning area, which fall within the Sugar Hill historic district. However, there are several buildings within the study area that are of similar height or taller than the Proposed Development. These include the 13-story landmark building at 409 Edgecombe Avenue, as well as newer mid-century buildings, especially those owned by the New York City Housing Authority, such as the 22-story NYCHA development at Amsterdam Avenue and West 156th Street, the 20-story NYCHA building at the southeast corner of Amsterdam Avenue and West 155th Street, one block to the west of the Proposed Development, and the 30-story Polo Grounds Towers to the northeast of the rezoning area. Moreover, the Proposed Development would be located along West 155th Street, which is a major two-way thoroughfare that divides the historic district to the south and the open spaces and the 30-story Polo Ground residential complex to the north. Most of the taller structures noted above are located along West 155th Street, similar to the Proposed
Development. As such, the Proposed Development would relate well to the taller contemporary buildings in the study area.

The Proposed Action would introduce new land uses and increase the density of uses on the Proposed Development Site, but these new uses and increased density would be consistent with the largely residential and mixed uses in the study area. The proposed zoning changes would represent an opportunity to strengthen the existing residential uses of the Hamilton Heights/Sugar Hill area of Manhattan by allowing a new affordable residential development at a scale and density appropriate for the area. No substantially different or incompatible land uses would be introduced to the study area as a result of the Proposed Action. In addition, the Proposed Development facilitated by the proposed rezoning would not result in any non-conforming uses.

The proposed access easement for NYCDEP would not result in any increase in traffic, as this easement would not alter the operation of the existing NYCDEP facility. NYCDEP would benefit from the use of the proposed NYCDEP easement, which is more conveniently located to the building on the NYCDEP site, which would provide an automobile egress to the NYCDEP site from St. Nicholas Avenue, and which would fulfill NYCDEP’s need for vehicle storage and parking as well as emergency staging. In connection with the City’s acquisition of the proposed NYCDEP easement, NYCDEP will request a Mayoral zoning override to permit NYCDEP vehicle parking, storage and emergency staging uses on the proposed NYCDEP easement area, which will be located in the R8A zoning district.

The Proposed Development would provide land uses that would be consistent with and compatible to existing and anticipated uses in the surrounding area, and would further promote and enhance the ongoing revitalization of this area of northern Manhattan. The Proposed Action is also expected to advance the City’s public policies of providing affordable housing and introducing new jobs and drawing visitors to the area, as well as generating economic activity. Therefore, the Proposed Action is not anticipated to result in any significant adverse land use impacts.

**Zoning**

The Proposed Action includes an amendment of the City’s zoning map for the northern portion of the block bounded by West 155th and West 153rd Streets, St. Nicholas Avenue, and St. Nicholas Place, changing the zoning from C8-3 and R7-2 to a R8A residential district (see Figure 2-4). The Proposed Action, if approved, would represent a change in zoning on Block 2069, Lots 21 and 28 in their entirety, and approximately 44% of Lot 26 and about 12% of Lot 14. The area to be rezoned would be approximately 205 feet along the south side of West 155th Street, and would extend to a depth of 150 feet south of West 155th Street.

The proposed R8A district would allow residential and community facility uses within Use Groups 1-4, and establish envelope controls within the new district. Table 2-3 provides a comparison of the pertinent zoning regulations for the existing C8-3 and R7-2 districts and the proposed R8A district. As shown in the table, residential Use Groups 1 and 2 and community facilities Use Groups 3 and 4 would be allowed as-of-right under the proposed zoning, while commercial Use Groups 5 through 14, and 16 (automotive and semi-industrial uses) would no longer be permitted as they are currently in the C8-3 portion of the rezoning area. As such, all of the existing uses in the rezoning area are expected to be in conformance with the proposed R8A zoning.
EXISTING ZONING

Area to be Rezoned

PROPOSED ZONING

Area to be Rezoned

150' deep
The proposed R8A zoning district is a contextual zoning district, which regulates the height, bulk, and setback of new buildings. The maximum allowable FAR for the proposed R8A district is 6.02 for residential uses, 6.5 for community facilities, and does not allow commercial uses. The maximum allowable lot coverage is 70 percent for an interior lot, such as the Proposed Development Site. The minimum building base height is 60 feet, the maximum building base height is 85 feet, and the maximum building height is limited to 120 feet. Compliance with the Quality Housing Program is mandatory for residential buildings in R8A districts. Quality Housing buildings must include amenities relating to the planting of trees, landscaping and recreational space.

**TABLE 2-3**
Comparison of Zoning Regulations: Existing C8-3 and R7-2 with Proposed R8A

<table>
<thead>
<tr>
<th></th>
<th>Existing C8-3</th>
<th>Existing R7-2</th>
<th>Proposed R8A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use Groups</strong></td>
<td>4 - 14, and 16</td>
<td>1 - 4</td>
<td>1 – 4</td>
</tr>
<tr>
<td><strong>Maximum FAR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Facility</td>
<td>6.5</td>
<td>Residential: 0.87-3.44</td>
<td>Residential: 6.02</td>
</tr>
<tr>
<td>Commercial</td>
<td>2.0</td>
<td>Community Facility: 6.5</td>
<td>Community Facility: 6.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commercial: N/A (only in zoning overlays)</td>
<td>Commercial: N/A (only in zoning overlays)</td>
</tr>
<tr>
<td><strong>Height and Setback</strong></td>
<td>Sky Exposure Plane</td>
<td>Sky Exposure Plane</td>
<td>120 ft maximum height, setback after 60 ft base</td>
</tr>
</tbody>
</table>

* Sky exposure plane is an imaginary inclined plane beginning above the street line at a height set forth in the district regulations and which rises over a zoning lot at a ratio of vertical distance to horizontal distance set forth in the district regulations, which a building may not penetrate.

The proposed zoning change would permit new residential development as-of-right on the Proposed Development Site, whereas no residential uses are permitted under the existing C8-3 zoning, which is currently mapped on most of the Proposed Development Site. The proposed R8A district would not differ significantly from other zoning districts nearby, and would be compatible with existing land uses in the area. The proposed rezoning would not interfere with existing activities nor would the Proposed Development be affected by incompatible uses in the surrounding area. In connection with the City’s acquisition of the proposed NYCDEP easement, NYCDEP will request a Mayoral zoning override to permit NYCDEP vehicle parking, storage and emergency staging uses on the proposed NYCDEP easement area, which will be located in the R8A zoning district.

Therefore, no significant adverse zoning impacts are expected to result from the Proposed Action.

**Public Policy**

The proposed mixed-use and residential developments resulting from the Proposed Action would be consistent with the objectives of the public policies established for the study area. The Proposed Action would facilitate the development of an underutilized site with active residential, community facility, commercial and public parking uses, which would help to accommodate the growing need for affordable housing in this area of Manhattan. The Proposed Development would serve to enliven the surrounding area and contribute to the mixed-use environment by introducing low-income residential units, museum space, a childcare facility, and non-profit office space.
The Proposed Action would not involve any new public policy actions. In terms of existing public policies, it would not result in significant adverse public policy impacts. The rezoning area is located within the S/NR-listed Hamilton Heights/Sugar Hill Historic District and, as discussed in Chapter 5, “Historic Resources,” demolition of the existing garage structure on the Proposed Development Site, as well as the new building’s potential to alter the visual context of the northern boundary of the historic district, have been identified as a significant adverse impact on architectural resources. However, the Proposed Action is not expected to result in a significant adverse impact with respect to public policy, as demolition of the existing garage would not create a significant change in the overall context or cohesion of the historic district as compared to existing or No-Action conditions, and therefore would not diminish the special architectural and historic character of the rest of the S/NR historic district. As also described in Chapter 5, “Historic and Cultural Resources,” the Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources.

The Proposed Action does, however, address some objectives of the 197-a Plan for Manhattan Community District 9, which includes recommendations for contextual zoning in appropriate areas of Community District 9, increasing the number of housing opportunities for low, moderate- and middle income residents, and development of underbuilt sites. The Proposed Action would establish a contextual zoning district, and provide affordable housing in the district. Thus the Proposed Action would promote several of the objectives of the 197-a plan and implement some of its recommendations.

The Proposed Action and resulting Proposed Development would also support City goals relating to the creation of affordable housing, as outlined in Mayor’s housing plan and PlaNYC.

Therefore, the Proposed Action is not expected to cause any significant adverse public policy impacts.

**E. CONCLUSION**

The Proposed Action would introduce new land uses and increase the density of uses on the Proposed Development Site, but these new uses and increased density would be consistent with the largely residential and mixed uses in the study area. The proposed zoning changes would also represent an opportunity to strengthen the existing residential uses of the Hamilton Heights/Sugar Hill area of Manhattan by allowing a new affordable residential development at a scale and density appropriate for the area. No substantially different or incompatible land uses would be introduced to the study area as a result of the Proposed Action. In addition, the Proposed Development facilitated by the proposed rezoning would not result in any non-conforming uses.

The proposed zoning change would permit new residential development as-of-right on the Proposed Development Site, whereas no residential uses are permitted under the existing C8-3
zoning, which is currently mapped on most of the Proposed Development Site. The proposed R8A district would not differ significantly from other zoning districts nearby, and would be compatible with existing land uses in the area. The proposed rezoning would not interfere with existing activities nor would the Proposed Development be affected by incompatible uses in the surrounding area.

The rezoning area is located within the S/NR-listed Hamilton Heights/Sugar Hill Historic District and, as discussed in Chapter 5, “Historic Resources,” demolition of the existing garage structure on the Proposed Development Site, as well as the new building’s potential to alter the visual context of the northern boundary of the historic district, have been identified as a significant adverse impact on architectural resources. However, the Proposed Action is not expected to result in a significant adverse impact with respect to public policy, as demolition of the existing garage would not create a significant change in the overall context or cohesion of the historic district as compared to existing or No-Action conditions, and therefore would not diminish the special architectural and historic character of the rest of the S/NR historic district. The Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. The Proposed Action addresses some objectives of the 197-a Plan for Manhattan Community District 9, by establishing a contextual zoning district, and providing affordable housing in the district. Thus the Proposed Action would promote several of the objectives of the 197-a plan. Moreover, The Proposed Action and resulting Proposed Development would also support City goals relating to the creation of affordable housing, as outlined in Mayor’s housing plan and PlaNYC.

Therefore, the Proposed Action would not result in any significant adverse land use, zoning, or public policy impacts.
A. INTRODUCTION

An open space assessment may be necessary if a proposed project could potentially have a direct or indirect effect on open space resources in the area. According to the New York City Environmental Quality Review Technical Manual (*CEQR Technical Manual*), a direct open space impact would “physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value.” An indirect effect may occur when the population generated by a proposed project would be sufficient to noticeably diminish the ability of an area’s open space to serve the existing or future population. According to the guidelines established in the *CEQR Technical Manual*, a project that would add more than 200 residents or 500 employees, or a similar substantial number of other users to an area, is typically assessed for any potential indirect effects on open space. The Proposed Action would add new residents to the area, and therefore has the potential to affect the way residents of the surrounding community use parks, playgrounds, and other open spaces in the area.

The Proposed Action would not result in a direct effect on open space. As described in Chapter 1, “Project Description,” compared to future conditions without the Proposed Action, the reasonable worst case developments scenario (RWCDS) analyzed in this document consists of 124 residential units, an approximately 18,036 sf museum, a 12,196 sf day care facility (100 children capacity), approximately 2,350 sf of office space, as well as a net reduction of 300 public parking spaces. The RWCDS associated with the Proposed Action would add a total of approximately 315 new residents to the area, as well as an estimated 74 workers.

This increase in new residents exceeds the *CEQR Technical Manual* threshold of 200 residents for indirect effects, and therefore a detailed quantitative open space assessment was conducted to determine whether the increase in user population due to the Proposed Action would significantly reduce the amount of open space available for the area’s population. This entails the calculation of the existing open space ratio, as well as the open space ratios in the future without and with the Proposed Action in place. The open space ratio is expressed as the amount of public open space acreage per 1,000 user population.

The Proposed Action would not exceed the 500-employee (or other daytime user) CEQR screening threshold, and therefore an assessment of the effects of the new worker population associated with the Proposed Action is not warranted. As such, this chapter focuses exclusively on the Proposed Action’s residential demands on open space resources. Although the number of workers/daytime population added by the Proposed Action does not trigger the CEQR threshold for analysis, the open space needs of the worker/daytime population within the defined residential study area are accounted for in the analysis, as discussed below.
B. METHODOLOGY AND OPEN SPACE STUDY AREA

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

- Characteristics of the two open space user groups; residents and workers. To determine the number of residents in the study area, census data have been compiled for census tracts comprising the open space study area. Because the study area is characterized by a workforce that may also use open spaces, the number of employees in the study area has also been calculated, based on reverse journey-to-work census data.
- An inventory of all publicly accessible passive and active recreational facilities in the study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidelines. For the residential population, there are generally two guidelines that are used to evaluate residential open space ratios. The New York City Department of City Planning (NYCDCP) generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres per 1,000 residents. Alternately, NYCDCP has established an optimal level, or planning goal, of 2.5 acres per 1,000 residents. To determine the adequacy of open space resources for the working, or daytime, population, NYCDCP has established a ratio of 0.15 acres of passive open space per 1,000 workers as representing a reasonable amount of open space. The needs of workers and residential populations are also considered together in the study area because it is assumed that both will use the same passive open spaces. Therefore, a weighted average of the amount of passive open space necessary to meet the NYCDCP guideline of 0.5 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis.
- An evaluation of qualitative factors affecting open space use, including barriers to access, description of active and passive uses, and characteristics of user groups.
- A final determination of the adequacy of open space in the study area.

Open Space Study Area

In accordance with the guidelines established in the CEQR Technical Manual, a reasonable walking distance that users would travel to reach local open space and recreational resources generally defines the open space study area. That distance is typically a half-mile radius for residential projects, and a quarter-mile radius for commercial projects with a substantial worker population. Because the worker population generated by the Proposed Action falls below the threshold of 500 additional employees, a half-mile radius around the boundaries of the proposed rezoning area is the appropriate study area boundary for the Proposed Action.
Per *CEQR Technical Manual* guidelines, census tracts with 50 percent or more of their area located within a half-mile radius of the proposed rezoning area were included in the calculation of population and open space; those with less than 50 percent of their area in the half-mile radius were excluded. Figure 3-1 shows the resultant open space study area for the Proposed Action. The study area does not include the Bronx because it is largely inaccessible due to the natural boundaries formed by the Harlem River. As shown in Figure 3-1, the open space study area includes 13 census tracts in their entirety.

### C. EXISTING CONDITIONS

#### Study Area Population

**Residential Population**

To determine the residential population served by existing open space resources, 2000 Census data were compiled for the census tracts comprising the study area. In addition, in order to more accurately reflect the study area’s current estimated population, a 0.5 percent annual background growth rate, was applied. As shown in Figure 3-1, the open space study area is comprised of 13 census tracts in their entirety, as well as a portion of a 14th tract.\(^1\) Table 3-1 shows the 2000 Census total population figures for each census tract in the study area, as well as for the study area as a whole. As noted above, in order to more accurately reflect 2009 conditions, the study area’s total 2000 population was increased by 4.5 percent (0.5 percent per year).

As shown in Table 3-1, 2000 Census data indicate that the study area had a residential population of approximately 76,158 people in 2000, and it is estimated that the study area’s 2009 adjusted population is approximately 79,585 residents. Although the census data presented in Table F-1 do not include the new population added since 2000, for analysis purposes, it is assumed that these new residents have a similar age breakdown to the rest of the sub-area.

As shown in Table 3-1, the median population age for individual census tracts within the study area ranges from a high of 40.4 years (census tract 236) to a low of 30.0 years (census tract 243.02). The average median age for the census tracts comprising the study area is 32.6 years, which is younger than the 35.7 median age for Manhattan as a whole. Approximately 58.7 percent of the study area’s population falls between the ages of 20 and 64, similar to the percentage for Manhattan as a whole (58.8 percent). Approximately 11.1 percent of the study area’s residents are 65 years of age and older, slightly less than the average for Manhattan (11.5 percent). As shown in Table 3-1, approximately 7.2 percent of the study area’s residents are under the age of 5, and 23 percent are between the ages of five and nineteen. These percentages are similar to the percentages for Manhattan in the same age groups (7.4 and 22.3 percent, respectively).

---

\(^1\) Census tract 311, which is comprised of Highbridge Park, extends all the way to Dyckman Street in northern Manhattan. Therefore, only the portion of block 1016 of census tract 311 that falls within a half-mile radius is included in the study area.
TABLE 3-1
Study Area Residential Population, Age Group Distribution, and Worker Population

<table>
<thead>
<tr>
<th>Census Tract</th>
<th>Residential Population (2000)</th>
<th>Under 5 Years</th>
<th>5 - 19 Years</th>
<th>20 - 64 Years</th>
<th>65+ Years</th>
<th>Median Age</th>
<th>Worker/Daytime Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>231.01</td>
<td>5,961</td>
<td>367 6.2%</td>
<td>1,127 18.9%</td>
<td>3,752 62.9%</td>
<td>715 12.0%</td>
<td>34.1</td>
<td>870</td>
</tr>
<tr>
<td>231.02</td>
<td>990</td>
<td>110 11.1%</td>
<td>249 25.2%</td>
<td>581 58.7%</td>
<td>50 5.1%</td>
<td>30.1</td>
<td>55</td>
</tr>
<tr>
<td>233</td>
<td>6,054</td>
<td>430 7.1%</td>
<td>1,316 21.7%</td>
<td>3,738 61.7%</td>
<td>570 9.4%</td>
<td>32.8</td>
<td>830</td>
</tr>
<tr>
<td>234</td>
<td>3,530</td>
<td>276 7.8%</td>
<td>893 25.3%</td>
<td>2,112 59.8%</td>
<td>249 7.1%</td>
<td>30.3</td>
<td>550</td>
</tr>
<tr>
<td>235.01</td>
<td>6,134</td>
<td>440 7.2%</td>
<td>1,373 22.4%</td>
<td>3,625 59.1%</td>
<td>696 11.3%</td>
<td>33.2</td>
<td>640</td>
</tr>
<tr>
<td>235.02</td>
<td>2,040</td>
<td>189 9.3%</td>
<td>480 23.5%</td>
<td>1,165 57.1%</td>
<td>206 10.1%</td>
<td>30.3</td>
<td>110</td>
</tr>
<tr>
<td>236</td>
<td>5,688</td>
<td>321 5.6%</td>
<td>1,130 19.9%</td>
<td>2,963 52.1%</td>
<td>1,274 22.4%</td>
<td>40.4</td>
<td>435</td>
</tr>
<tr>
<td>237</td>
<td>7,260</td>
<td>530 7.3%</td>
<td>1,620 22.3%</td>
<td>4,432 61.0%</td>
<td>678 9.3%</td>
<td>31.5</td>
<td>550</td>
</tr>
<tr>
<td>239</td>
<td>2,686</td>
<td>206 7.7%</td>
<td>590 22.0%</td>
<td>1,500 55.8%</td>
<td>390 14.5%</td>
<td>33.8</td>
<td>265</td>
</tr>
<tr>
<td>241</td>
<td>8,295</td>
<td>517 6.2%</td>
<td>1,583 19.1%</td>
<td>4,870 58.7%</td>
<td>1,325 16.0%</td>
<td>35.9</td>
<td>930</td>
</tr>
<tr>
<td>243.01</td>
<td>4,296</td>
<td>288 6.7%</td>
<td>994 23.1%</td>
<td>2,702 62.9%</td>
<td>312 7.3%</td>
<td>31.3</td>
<td>625</td>
</tr>
<tr>
<td>243.02</td>
<td>7,386</td>
<td>567 7.7%</td>
<td>2,282 30.9%</td>
<td>3,745 50.7%</td>
<td>792 10.7%</td>
<td>30.0</td>
<td>310</td>
</tr>
<tr>
<td>245</td>
<td>15,838</td>
<td>1,229 7.8%</td>
<td>3,880 24.5%</td>
<td>9,517 60.1%</td>
<td>1,212 7.7%</td>
<td>30.4</td>
<td>1,480</td>
</tr>
<tr>
<td>311*</td>
<td>N.A.*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N.A.*</td>
</tr>
<tr>
<td>Study Area Total:</td>
<td>76,158</td>
<td>5,470 7.2%</td>
<td>17,517 23.0%</td>
<td>44,702 58.7%</td>
<td>8,469 11.1%</td>
<td>32.6</td>
<td>7,650</td>
</tr>
<tr>
<td>Adjusted 2009 Population (1)</td>
<td>79,585</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7,994</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Census Data; Summary File 1, Tables P-1 and P-104; and CTPP, Table P-1.

* Only that portion of block 1016 of census tract 311 falling within a half-mile radius is included in the study area. Census tract 311, which extends all the way to Dyckman Street in northern Manhattan, is comprised of Highbridge Park, and has a total of 19 residents and 35 workers associated with it.

(1) 2009 resident and worker population estimated by increasing 2000 population by 4.5% (0.5 percent per year).

With these demographic characteristics, the study area has need for a range of active and passive recreation facilities, including those geared toward both children and adults. A population’s age characteristics can affect the use of open space and the type of open space that would be most appropriate for that population. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and har3-surfaced open spaces, which are important for ball playing, running, skipping rope, etc. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers’ and young adults’ needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad-hoc active sports such as frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.
**Non-Residential/Worker Population**

Although there is no quantitative analysis dedicated exclusively to the non-residential population within the defined study area, the *CEQR Technical Manual* calls for a quantitative analysis of the passive open space needs of the non-residential population within the residential study area. Therefore, a combined passive open space ratio for the entire study area population (including both residents and non-residents) is calculated to assess the adequacy of the passive open space resources during the day when both of these user groups could be utilizing the spaces.

As shown in Table 3-1, based on 2000 Census Journey to Work data compiled by NYCDCP, the worker population for the study area is estimated at approximately 7,650 workers. Using a 0.5 percent annual background growth rate, the current (2009) worker population is estimated at approximately 7,994 for the study area.

**Total User Population**

As detailed above, within the defined study area, the current total residential and non-residential population is estimated at 87,579. This count conservatively assumes that the residential and non-residential populations are entirely distinct from each other. It is possible that some area residents may also work in the study area, and as such there is likely to be some double-counting of the daily user population in the study area, resulting in a more conservative analysis.

**Inventory of Publicly Accessible Open Space Resources**

According to the *CEQR Technical Manual*, open space may be public or private, and may be used for active or passive recreational purposes. Public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR guidelines. Private open space is not accessible to the general public on a regular basis, and should only be considered qualitatively.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise, and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation with benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation, such as a lawn or promenade with benches, which can also be used for ball playing, jogging or rollerblading.

Publicly accessible open space facilities within the study area were inventoried in March 2009 and identified by their location, size, owner, type, utilization, equipment, hours, and condition of available open space. The condition of each open space facility was categorized as “Excellent,” “Good”, “Fair”, or “Poor.” A facility was considered in excellent condition if the area was clean, attractive, and all equipment was present and in good repair. A good facility had minor problems such as litter, or older but operative equipment. A fair facility was one which was poorly maintained, had broken or missing equipment, or other factors which would diminish the facility’s attractiveness. A poor facility exhibited characteristics such as serious deficiencies in cleanliness, security, and landscaping. Determinations were made subjectively, based on a visual assessment of the facilities.
Similarly, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization. If a facility seemed to be at or near capacity, i.e., the majority of benches or equipment was in use, then utilization was considered heavy. If the facility or equipment was in use, but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light.

Table 3-2, “Open Space Inventory”, identifies the address, ownership, hours, acres of active and passive open spaces in the study area, and their condition and utilization. Figure 3-2 provides a map of their locations. The Map Key number provided in the first column of Table 3-2 indicates the appropriate marker for each open space in Figure 3-2.

As shown in Table 3-2, the study area has a number of publicly accessible open space facilities, ranging from large neighborhood parks to playgrounds and small community gardens. In total, 26 resources have been identified for quantitative analysis purposes, totaling about 74.72 acres, within the study area boundary. Of these 74.72 acres, approximately 33% (or 24.50 acres) is dedicated to active recreation, such as jogging, ball playing, and playground activities. The other 67% (or 50.22 acres) is devoted to passive pursuits. Approximately 41% of the study area’s total acreage is located within two open space facilities, Highbridge Park and Jackie Robinson Park.

Highbridge Park is a 118.75-acre park that extends from West 155th Street north to Dyckman Street, between Edgecombe and Amsterdam Avenues. This park derives its name from New York City’s oldest standing bridge, the High Bridge (1848), which was built to carry the Old Croton Aqueduct over the Harlem River, and was assembled piecemeal between 1867 and the 1960s, with the bulk being acquired through condemnation from 1895 to 1901. The park is widely known for its important landmarks, the Highbridge tower and the High Bridge (the city’s oldest standing bridge), and also offers natural beauty and recreational fun, including a recreation center with pool, open vistas and an unusual geologic makeup. Among its strongest features are the magnificent cliffs and large rock outcroppings that dominate the park. The Highbridge Recreation Center and Pool were erected on the site of the former reservoir in 1936. The facility at Highbridge Park was one of eleven city pools built with labor supplied by the Works Progress Association and opened during the hot summer of 1936. Several playgrounds and ballfields have been constructed throughout the park over the last century.

The open space study area includes that portion of Highbridge Park that extends north from West 155th Street to approximately 165th Street, which falls within a half-mile radius. For analysis purposes, approximately 15% of the park’s land acreage (an estimated 17.81 acres) is assumed to be included within the defined open space study area.

Jackie Robinson Park is a 12.77-acre park that extends from West 155th Street south to 145th Street, between Bradhurst and Edgecombe Avenues, which provides ten blocks of recreational resources. Originally built as a neighborhood playground to encourage organized play for city children, and one of the ten original parks to receive a City pool, Jackie Robinson Park’s history is steeped with efforts to bring the neighborhood together in recreational fun. Along with its pool opening in 1936, a recreation center was created the same year. Equipped with traditional cardiovascular equipment, weight room, and gymnasium, the recreation center also boasts a library, Computer Resource Center, and an arts & crafts room, among other features. The park’s other features two baseball diamonds, basketball courts, volleyball courts, and two playgrounds, one with a water play area. In addition, the park includes a bandshell that hosts concerts throughout the warm season. One
### TABLE 3-2
Existing Open Space and Recreational Resources in the Study Area

<table>
<thead>
<tr>
<th>MAP KEY #</th>
<th>NAME</th>
<th>ADDRESS</th>
<th>OWNER/AGENCY</th>
<th>DESCRIPTION</th>
<th>HOURS OF ACCESS</th>
<th>TOTAL ACRES</th>
<th>ACTIVE % Acres</th>
<th>PASSIVE % Acres</th>
<th>CONDITION &amp; UTILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Highbridge Park</td>
<td>W. 156th &amp; Dyckman Sts., Edgecombe &amp; Amsterdam Aves.</td>
<td>NYCPR</td>
<td>Trees, benches, paths, playground, handball, basketball, baseball field, volleyball court, pool, exercise equipment, dog run, BBQ areas, picnic area, historic bridge</td>
<td>closes at dusk</td>
<td>17.81</td>
<td>20</td>
<td>3.56</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>Jackie Robinson Park</td>
<td>Bradhurst &amp; Edgecombe Aves., W. 145th to W. 155th Sts.</td>
<td>NYCPR</td>
<td>Trees, benches, paths, playground, basketball, baseball field, pool, recreation center</td>
<td>closes at dusk</td>
<td>12.77</td>
<td>80</td>
<td>10.22</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Trinity Cemetery</td>
<td>W. 155th St., Amsterdam Ave., W. 153rd, Riverside Drive</td>
<td>Trinity Church Corp.</td>
<td>Historic cemetery, trees, benches, paths</td>
<td>Sun-Sat 9am-5pm</td>
<td>24.00</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Harlem River Driveway</td>
<td>W. 155th St., 10th Ave. &amp; Harlem River</td>
<td>NYCPR</td>
<td>Bikeway/greenway</td>
<td></td>
<td>5.33</td>
<td>50</td>
<td>2.67</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Orville and Wilbur Playground</td>
<td>St. Nicholas Ave &amp; W. 156th St.</td>
<td>NYCPR</td>
<td>Benches, playground, basketball, handball court, volleyball court</td>
<td>closes at dusk</td>
<td>0.58</td>
<td>100</td>
<td>0.58</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Holcombe Rucker Playground</td>
<td>W 155th St., 8th Ave. to Harlem River Drive</td>
<td>NYCPR</td>
<td>Benches, playground, basketball, handball court, baseball field</td>
<td>closes at dusk</td>
<td>3.13</td>
<td>100</td>
<td>3.13</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Powell Malls</td>
<td>7th Ave., W. 110 to W. 152nd Sts.</td>
<td>NYCPR</td>
<td>Plantings, benches, paths, trees</td>
<td>24 hours/day</td>
<td>0.35</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>Col. Charles Young Triangle</td>
<td>7th Ave., Macombs Pl, at W. 153rd St.</td>
<td>NYCPR</td>
<td>Trees, benches, walking path, plantings</td>
<td>24 hours/day</td>
<td>1.15</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>Harlem Lane Playground</td>
<td>Harlem River, W. 151st to W. 154th Sts.</td>
<td>NYCPR</td>
<td>Basketball court, playground, trees, benches</td>
<td>closes at dusk</td>
<td>1.64</td>
<td>100</td>
<td>1.64</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Bill &quot;Bojangle&quot; Robinson Playground</td>
<td>W. 150th St., 7th Ave.</td>
<td>NYCPR</td>
<td>Playground, Basketball court, benches</td>
<td>closes at dusk</td>
<td>0.17</td>
<td>100</td>
<td>0.17</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Frederick Johnson Park</td>
<td>7th Ave., W. 150th to W. 151st Sts.</td>
<td>NYCPR</td>
<td>Tennis courts, handball courts, playground, chess tables, benches, paths</td>
<td>closes at dusk</td>
<td>2.45</td>
<td>80</td>
<td>1.96</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>Carmansville Playground</td>
<td>Amsterdam Ave., W. 151st to W. 152nd Sts.</td>
<td>NYCPR</td>
<td>Playground, handball courts, benches</td>
<td>closes at dusk</td>
<td>0.57</td>
<td>100</td>
<td>0.57</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td>Morris Jumel Ecological Garden</td>
<td>455-457 W. 162nd St. &amp; Edgecombe &amp; St. Nicholas/ Amsterdam Aves.</td>
<td>NYCPR / CENYC</td>
<td>Community garden with plantings, benches</td>
<td>M:12-2PM, Sat:12-4PM, Sun:12-4PM</td>
<td>0.10</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>Roger Morris Park</td>
<td>Jumel Terr. to Edgecombe Ave., W. 160th to W. 162nd Sts.</td>
<td>NYCPR</td>
<td>Historic mansion and open space</td>
<td>We3-Sun 10am-4pm</td>
<td>1.52</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>Broadway Malls (3)</td>
<td>Broadway, W. 156th to W. 168th Sts.</td>
<td>NYCPR</td>
<td>Plantings, benches, paths, trees</td>
<td>24 hours/day</td>
<td>0.86</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>16</td>
<td>Broadway Malls (3)</td>
<td>Broadway, W. 135th to W. 156th Sts.</td>
<td>NYCPR</td>
<td>Plantings, benches, paths, trees</td>
<td>24 hours/day</td>
<td>1.10</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>Senior Citizens Sculpture Garden</td>
<td>W. 153rd St. &amp; St. Nicholas &amp; Amsterdam Aves.</td>
<td>CENYC/NYCDPR/NYCDERP</td>
<td>Trees, benches, path, garden, sculptures</td>
<td>M-F 9am-4pm</td>
<td>0.41</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>Mo' Pals</td>
<td>545 W. 147th St. &amp; Broadway and Amsterdam Aves.</td>
<td>TPL/CENYC</td>
<td>Community garden</td>
<td>M-Sat 10:00am-12:00pm, 2:00-4:00pm</td>
<td>0.04</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
</tbody>
</table>
## TABLE 3-2
Existing Open Space and Recreational Resources in the Study Area

<table>
<thead>
<tr>
<th>MAP KEY #</th>
<th>NAME</th>
<th>ADDRESS</th>
<th>OWNER/AGENCY</th>
<th>DESCRIPTION</th>
<th>HOURS OF ACCESS</th>
<th>TOTAL ACRES</th>
<th>ACTIVE Acres</th>
<th>PASSIVE Acres</th>
<th>CONDITION &amp; UTILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Garden Beautiful/W. 153rd Harlemites</td>
<td>263-265 W. 153rd St. &amp; Macombs Place</td>
<td>NYCHPD / CENYC</td>
<td>Community Garden, plantings, benches</td>
<td>M-Sat. 12pm-7pm</td>
<td>0.09</td>
<td>0</td>
<td>0.00</td>
<td>good condition / low utilization</td>
</tr>
<tr>
<td>20</td>
<td>Bradhurst Avenue Garden</td>
<td>Bradhurst Ave. &amp; W. 152nd St.</td>
<td>NYCDPR / NYCHPD / CENYC</td>
<td>Community garden, picnic area, benches</td>
<td>M-F 12pm-5pm</td>
<td>0.09</td>
<td>0</td>
<td>0.00</td>
<td>moderate condition/low utilization</td>
</tr>
<tr>
<td>21</td>
<td>William A. Harris Garden</td>
<td>W. 153rd Street &amp; St. Nicholas Ave.</td>
<td>CENYC/ NYCDPR / NYCDPR</td>
<td>Garden, trees, benches, trellis, picnic bench</td>
<td>M-F 12:00-8:00pm, Sat-Sun 12:00-8:00pm</td>
<td>0.09</td>
<td>0</td>
<td>0.00</td>
<td>good condition / moderate utilization</td>
</tr>
<tr>
<td>22</td>
<td>Donnellan Square</td>
<td>St Nicholas Ave., W.150th St to St Nicholas Pl</td>
<td>NYCDPR</td>
<td>Community garden with plantings, trees, benches</td>
<td>closes at dusk</td>
<td>0.04</td>
<td>0</td>
<td>0.00</td>
<td>good condition / low utilization</td>
</tr>
<tr>
<td>23</td>
<td>Greenstreets</td>
<td>W. 155th St. &amp; St. Nicholas Place</td>
<td>NYCDPR</td>
<td>Planted triangle</td>
<td>24 hours/day</td>
<td>0.12</td>
<td>0</td>
<td>0.00</td>
<td>good condition</td>
</tr>
<tr>
<td>24</td>
<td>Greenstreet</td>
<td>W. 157th St. &amp; Broadway</td>
<td>NYCDPR</td>
<td>Planted triangle</td>
<td>24 hours/day</td>
<td>0.08</td>
<td>0</td>
<td>0.00</td>
<td>good condition / low utilization</td>
</tr>
<tr>
<td>25</td>
<td>Greenstreet</td>
<td>Riverside Drive and W. 156th St.</td>
<td>NYCDPR</td>
<td>Planted triangle</td>
<td>24 hours/day</td>
<td>0.18</td>
<td>0</td>
<td>0.00</td>
<td>good condition / low utilization</td>
</tr>
<tr>
<td>26</td>
<td>Greenstreet</td>
<td>W. 161st St. &amp; Amsterdam Ave.</td>
<td>NYCDPR</td>
<td>Planted triangle</td>
<td>24 hours/day</td>
<td>0.05</td>
<td>0</td>
<td>0.00</td>
<td>good condition / low utilization</td>
</tr>
<tr>
<td></td>
<td>TOTAL FOR QUANTITATIVE ANALYSIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>74.72</td>
<td>33</td>
<td>24.50</td>
<td>67</td>
</tr>
</tbody>
</table>

**RESOURCES NOT INCLUDED IN QUANTITATIVE ANALYSIS**

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>LOCATION</th>
<th>OWNER/AGENCY</th>
<th>DESCRIPTION</th>
<th>HOURS OPERATION</th>
<th>TOTAL ACRES</th>
<th>ACTIVE Acres</th>
<th>PASSIVE Acres</th>
<th>CONDITION &amp; UTILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Convent Garden Convent &amp; St. Nicholas Aves. &amp; W. 151st &amp; 152nd Sts</td>
<td>NYCDPR / CENYC</td>
<td>Community garden, plantings, gazebos, picnic benches</td>
<td>Sat: 10am-2pm</td>
<td>0.13</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>B</td>
<td>Maggie's Garden 564 W. 149th St. Between Amsterdam Ave. &amp; Broadway</td>
<td>NYRP / CENYC</td>
<td>Gravel path, shrubs, trees, vegetables, benches</td>
<td>Summer: Sun-M: 10-4:30PM, Fall: Sun-M: 11-4:30PM</td>
<td>0.08</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>C</td>
<td>Edgecombe Park/Edgecombe Avenue Garden Park Sanctuary 339-341 Edgecombe Ave. &amp; W. 149th &amp; W. 150th Sts</td>
<td>NYCDPR / CENYC</td>
<td>Community garden, benches</td>
<td>Sat. 8am-1pm</td>
<td>0.22</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>D</td>
<td>C.S.46 - &quot;Tappan School Garden of Heroes&quot; 2987 Frederick Douglass Blvd. &amp; Harlem River Drive</td>
<td>NYCDOE / CENYC</td>
<td>School community garden</td>
<td>N/A</td>
<td>2.00</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>E</td>
<td>P.S. 4/Duke Ellington Harmony Garden 500 W. 160th St.</td>
<td>NYCDOE / CENYC</td>
<td>School community garden</td>
<td>N/A</td>
<td>0.15</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
<tr>
<td>F</td>
<td>Lucille Mcleany Garden 499 W. 150th St. Amsterdam Ave. &amp; Broadway</td>
<td>NYRP</td>
<td>Garden, gravel path, picnic area</td>
<td>N/A</td>
<td>0.03</td>
<td>0</td>
<td>0.00</td>
<td>100</td>
</tr>
</tbody>
</table>

**NOTES:**

1. As Highbridge Park extends all the way to Dyckman Avenue in northern Manhattan, only that portion that falls within a half-mile radius, estimated at 15%, is included in the quantitative analysis.
2. As the Harlem River Driveway extends all the way to Sherman Creek in northern Manhattan, only that portion that falls within a half-mile radius, estimated at 16%, is included in the quantitative analysis.
3. Portions of two segments of the Broadway Malls fall within the study area, estimated at 75% of the segment between W. 156th and W. 168th Streets, and 50% of the segment between W. 135th and W. 156th Streets.
of four spaces designated Historic Harlem Parks, the park is noted for its strong connection with the community.

The study area also includes the 24-acre Trinity Cemetery, which lies on both sides of Broadway between 153rd and 155th Streets. Calvert Vaux, co-designer of Central Park in Manhattan and Prospect Park in Brooklyn, designed a Gothic-style bridge across Broadway on the south side of 155th Street, which linked the two properties owned by Trinity Church. The bridge stood from 1872 to 1911, when it was demolished to make way for a large chapel on the eastern corner. The only remaining active cemetery in Manhattan, this quiet retreat includes giant hundred-year-old oaks and elms overlooking grassy knolls and manicured walkways, and provides seating and views of the Hudson River.

A portion of the 32.7-acre Harlem River Driveway also falls within the study area. This greenway/bikeway extends from West 155th Street to 10th Avenue along the Harlem River. The open space study area includes that portion of that extends north from West 155th Street to approximately 173rd Street. For analysis purposes, approximately 16% of the Harlem River Driveway's acreage (an estimated 5.33 acres) is assumed to be included within the defined open space study area. Another resource in the study area is Roger Morris Park, which includes Manhattan’s oldest surviving house, Morris-Jumel Mansion. Today, Morris-Jumel Mansion and Roger Morris Park are part of the Jumel Terrace Historic District. The house features nine restored, period rooms including George Washington’s office. Morris-Jumel Mansion is owned by NYCDPR, is a member of the Historic House Trust of New York City, and operated by Morris-Jumel Mansion, Inc.

The remaining open spaces within the study area are comprised mostly of neighborhood playgrounds, smaller parks, seating areas or community gardens. Playgrounds in the study area include the 3.13-acre Holcombe Rucker Playground, the 1.64-acre Harlem Lane Playground, the 0.58-acre Orville and Wilbur Playground, and the 0.57-acre Carmansville Playground.

In addition to the above resources, there are several community gardens within the study area (identified by letters A through F in Figure 3-1 and Table 3-2), as well as two larger open space resources located just outside the study area boundaries, which are not included in the quantitative analysis. These facilities are discussed in the qualitative assessment below.

Quantitative Analysis of Open Space Adequacy

The NYC Department of City Planning (DCP) has established quantitative measures for determining the adequacy of open and recreational space within a neighborhood. As 1.5 acres of total open space per 1,000 residents is the median community district ratio in New York City, it generally represents adequate open space conditions and is used as the CEQR standard for this project. As an optimal planning goal, the City tries to achieve an overall residential open space ratio (OSR) of 2.5 acres per 1,000-user population (80 percent active and 20 percent passive) for large-scale plans and proposals. However, this goal is often not feasible for many areas of the city (especially higher density ones), but serves as a benchmark that represents an area that is well served by open spaces.

In the study area, there are a total of 74.72 acres of open space, including 50.22 acres of passive open space and 24.50 acres of active open space. Based on the current residential population of
79,585, the overall residential open space ratio is 0.94 acres of open space per 1,000 residents. However, the study area’s residential population is particularly underserved with respect to active open space. The active open space ratio is 0.31 acres per 1,000-residents (see Table 3-3), which is substantially less than the planning goal of 2.0 acres per 1,000 residents.

With a combined residential and worker population of 87,579, the combined passive open space ratio in the study area is 0.57, which is higher than the recommended weighted average ratio of 0.47 acres per 1,000 residents and workers (refer to Table 3-3). Thus, with respect to the guidelines, it can be summarized that the study area in total is relatively well served by its amount of open space, it has abundant passive space and less than adequate active space.

**TABLE 3-3**

<table>
<thead>
<tr>
<th>Adequacy of Open Space Resources in the Study Area – Existing Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
</tr>
<tr>
<td>Residents</td>
</tr>
<tr>
<td>Combined Non-Residents &amp; Residents</td>
</tr>
</tbody>
</table>

Notes:

* Weighted average combining 0.15 acres per 1,000-non-residents and 0.50 acres per 1,000-residents.

**Qualitative Analysis of Open Space Adequacy**

The apparent deficiency of open space resources within the defined study area may be ameliorated by several factors. First, all 26 sites are considered to be in good or excellent condition. The study area contains a good mix of recreational facilities, with 33 percent dedicated to active uses and 67 percent to passive recreation. A wide variety of options to the open space user are available, from sitting areas and walking paths to jungle gyms, basketball and handball courts, ball fields, dog runs, wading pools and sprinklers.

Second, it should be noted that only 15% of Highbridge Park’s acreage was included in the quantitative analysis, as well as only 16% of the Harlem River Driveway. While only a small portion of these two resources fall within the defined study area, it is likely that residents in this area make use of greater portions of these significant resources, particularly for active recreational activities, such as biking and jogging. Moreover, several open space facilities located within the open space study area were not taken into account as part of the quantitative analysis but their presence should be noted. As shown in Table 3-2, there are a number of community gardens that were not included in the quantitative assessment because they either had limited hours or did not have posted hours. Although they are not included in the quantitative analysis, these community gardens are open to the public by appointment or on special occasions, and provide additional passive recreational opportunities. Similarly, open spaces associated with NYCHA housing developments also provide some passive and active open space, but are conservatively not included in the quantitative analysis.

In addition, there are number of open space resources that fall just outside the study area boundary, which are not included in the quantitative analysis but could be used by people willing to travel slightly farther. These include portions of Riverside Park and Fort Washington Park (50 acres and
160 acres, respectively) along the Hudson River, as well as the 6.42-acre Col. Charles Young Playground, located just to the south of the study area boundary. Although these open spaces are located just outside the open space study area boundary, it is likely that both residents and workers at least occasionally take advantage of the recreational resources that these parks have to offer.

D. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

Open Space Study Area Population

As described in Chapter 2, “Land Use, Zoning, and Public Policy,” in the 2012 future without the Proposed Action, there are a number of planned and proposed developments expected to be constructed within an approximate ½-mile radius of the proposed rezoning area. These new developments would increase both the residential and non-residential populations in the study area. Some of the larger projects include a rezoning on West 155th Street that is expected to result in a new development with approximately 272 new residential units and 32,800 sf of retail, which is expected to add approximately 1,293 residents and 60 workers to the study area. In addition, in order to account for other developments that are expected in the area, an annual background growth rate of 0.5% per year (1.5 percent total) was applied to the 2009 residential and daytime populations to estimate the 2012 populations in the future without the Proposed Action.

As such, the defined study area’s residential population is estimated at 82,072 in the future without the Proposed Action, and the worker population is estimated at approximately 8,174. Therefore, within the defined study area, the total residential and non-residential population in 2012 is estimated at 90,246.

Open Space Resources

The existing open space resources in the study area are expected to remain essentially unchanged in the future without the Proposed Action. Therefore, the open space acreage in the study area is conservatively assumed to remain unchanged in the future without the Proposed Action, at 74.72 total acres, with approximately 50.22 acres for passive recreation, and 24.50 acres for active recreation.

Quantitative Assessment of Open Space Adequacy

As discussed above, it is anticipated that new development in the study area will result in an increase in the population in the future without the Proposed Action, whereas the open space acreage would remain unchanged. Therefore, as shown in Table 3-4, the total open space ratio in the study area would decrease, from 0.94 acres/1,000 residents under existing conditions to 0.91 acres per 1,000 residents in the No-Action. The active open space ratio would also decrease slightly, from 0.31 acres per 1,000 residents under existing conditions to 0.30 acres per 1,000 residents, which would remain significantly below the NYCDCP planning goal of 2.0 acres per 1,000 residents.
With a combined residential and non-residential population of 90,246, the combined passive open space ratio in the study area would decrease from 0.57 acres per 1,000 persons under existing conditions to 0.56 acres per 1,000 persons, which would continue to be higher than the recommended weighted average ratio of 0.47 acres per 1,000 residents and non-residents (refer to Table 3-4).

The open space ratios in the study area would remain significantly below the guidelines for adequacy in the future without the Proposed Action. However, as noted above, the calculated ratios are somewhat conservative, as there are a few significant resources both within and just outside the defined study area, which are conservatively not included in this quantitative analysis.

**TABLE 3-4**

| Adequacy of Open Space Resources in the Study Area – No-Action Conditions |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total Population | Open Space Acreage | Open Space Ratios Per 1,000-People | DCP Open Space Guidelines |
| Residents | Total | Active | Passive | Total | Active | Passive | Total | Active | Passive |
| 82,072 | 74.72 | 24.50 | 50.22 | 0.91 | 0.30 | 0.61 | 2.50 | 2.00 | 0.50 |
| Combined Non-Residents & Residents | 90,246 | N.A. | N.A. | 0.56 | N.A. | N.A. | 0.47* |

Notes:
* Weighted average combining 0.15 acres per 1,000-non-residents and 0.50 acres per 1,000-residents.

**Qualitative Analysis of Open Space Adequacy**

The open space ratios would remain substantially below the guideline of adequacy in the future without the Proposed Action. As under existing conditions, larger open space areas that are located just beyond the open space study area would add considerable accessible active and passive open space for the residential population, whereas community gardens and greenstreets provide additional passive recreational opportunities.

**E. PROBABLE IMPACTS OF THE PROPOSED ACTION**

The Proposed Action would facilitate the construction of a new mixed-use building on the Proposed Development Site. The Proposed Development would consist of a 13-story building containing approximately 124 residential units, all of which would be affordable; an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling; a 12,196 sf day care facility and early childhood center; 2,350 sf of non-profit program and office space; and an up to 114-space below-grade accessory parking garage.

**Study Area Population**

As detailed in Chapter 1, “Project Description,” compared to future conditions without the Proposed Action, the RWCDs analyzed in this document consists of 124 residential units, an
approximately 18,036 sf museum, a 12,196 sf day care facility (100 children capacity), approximately 2,350 sf of office space, as well as a net reduction of 300 public parking spaces. The RWCDS associated with the Proposed Action would add a total of approximately 315 new residents to the area, as well as an estimated 74 workers.

**Open Space Resources**

No new open space resources are anticipated to be developed as part of the RWCDS. Therefore, the open space resources within the study area would remain unchanged from No-Action conditions. However, it should be noted that the Quality Housing Program, which provides specific requirements for outdoor and indoor recreational space, is required in the proposed R8A zoning district, as discussed in the qualitative assessment below. Pursuant to the Quality Housing requirements, the Proposed Development is expected to contain an approximately 6,545 sf roof terrace, which would provide accessible private open space to the additional residents associated with the Proposed Development, and which tends to partially offset demands on area public open spaces. In addition, as described in Chapter 1, “Project Description,” the Proposed Action would include a reciprocal easement swap that would enable the applicant to locate its main entrance to the Proposed Development on St. Nicholas Avenue through a publicly-accessible landscaped plaza, estimated at approximately 4,597 (0.10 acre).

**Quantitative Analysis of Open Space Adequacy**

As the Proposed Action would not add any new public open space, the study area’s total open space acreage would remain unchanged. The additional population introduced by the Proposed Action would generate minimal additional demand for open space resources, which would not noticeably affect the open space ratios. As shown in Table 3-5, with approximately 74.72 acres of total open space serving a residential population of 82,539, the total open space ratio is projected to remain unchanged compared to No-Action conditions, at 0.91 acres per 1,000 residents. Likewise, the active open space ratio would remain unchanged at 0.30 acres per 1,000 residents.

**TABLE 3-5**

| Adequacy of Open Space Resources in the Study Area – 2012 No-Action and With-Action Conditions |
|---------------------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                  | Total Population | Open Space Acreage | Open Space Ratios Per 1,000-People | DCP Open Space Guidelines |
|                                  |                 |                  | Total | Active | Passive | Total | Active | Passive | Total | Active | Passive |
| NO-BUILD CONDITIONS              |                 |                  |       |        |         |       |        |         |       |        |         |
| Residents                        | 82,072          | 74.72            | 24.50 | 50.22  |         | 0.91  | 0.30  | 0.61   | 2.50  | 2.00  | 0.50    |
| Combined Non-Residents & Residents | 90,246          | N.A.             | N.A.  | 0.56   |         | N.A.  | N.A.  | 0.47*  | N.A.  | N.A.  | 0.47*   |
| BUILD CONDITIONS                 |                 |                  |       |        |         |       |        |         |       |        |         |
| Residents                        | 82,387          | 74.72            | 24.50 | 50.22  |         | 0.91  | 0.30  | 0.61   | 2.50  | 2.00  | 0.50    |
| Combined Non-Residents & Residents | 90,635          | N.A.             | N.A.  | 0.55   |         | N.A.  | N.A.  | 0.47*  | N.A.  | N.A.  | 0.47*   |

Notes:
* Weighted average combining 0.15 acres per 1,000-non-residents and 0.50 acres per 1,000-residents.
As shown in Table 3-5, the recommended weighted average passive open space ratio for the study area would continue to be 0.47 acres per 1,000 users in the future with the Proposed Action. The combined passive open space ratio for residents and nonresidents in the study area would decrease slightly, to 0.55 acres per 1,000 users (compared to 0.56 acres per 1,000 users in the No-Action), but would continue to be above the recommended weighted average.

**Qualitative Analysis of Open Space Adequacy**

Given that the total open space ratio and active open space ratio resulting from the Proposed Action would remain unchanged compared to No-Action conditions, the introduction of new population resulting from the action would not noticeably affect the utilization of the area’s open spaces. In the future with the Proposed Action, ratios of open space to residents would continue to be lower than the measure of open space adequacy and the optimal planning goals furnished by NYCDCP. However, the population to be generated by the Proposed Action is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific user groups. Moreover, because residents in the future with the Proposed Action are expected to exhibit similar characteristics to the current residents of the study area, the breakdown in population by age group is expected to remain the same.

The 2000 Census indicates that approximately 59 percent of the population in the study area falls between the ages of 20 and 64. According to the *CEQR Technical Manual* this population uses “court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging. Adults also gather with families for pick-nicking, ad-hoc active sports such as Frisbee, and recreational activities in which all ages can participate.” Per this definition, open space resources in the future with the Proposed Action would generally be suitable to meet the needs of the user population.

It should also be noted that the proposed zoning district would require that any new residential development adhere to Quality Housing Program regulations. These regulations require the residential developments to include amenities such as tree plantings, landscaping, and recreational space. These open space amenities would improve open space conditions on the site and help alleviate future open space shortfalls. However, as this recreational space would not be public space, it would not improve the study area’s open space ratios and the shortfalls in the open space ratios in the quantitative analysis described above would remain.

**F. CONCLUSION**

According to the *CEQR Technical Manual*, a proposed action may result in a significant adverse impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in overburdening existing facilities or further exacerbates a deficiency in open space. The *CEQR Technical Manual* also states, “if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect.” A five percent or greater decrease
in the open space ratio is considered to be “substantial,” and a decrease of less than one percent is generally considered to be insignificant unless open space resources are extremely limited.

The Proposed Action would not result in a significant adverse open space impact. As noted above, the Proposed Action would not result in any direct displacement or alteration of existing open space resources in the study area. It would also not result in a decrease in the total open space ratio compared to No-Action conditions. As such, the Proposed Action is not expected to noticeably diminish the ability of the study area’s open spaces to serve its residential population in the future with the Proposed Action.

While the ratios of open space to residents would continue to be lower than the measure of open space adequacy and the optimal planning goals furnished by NYCDCP in the future with the Proposed Action, there are a number of qualitative factors that are taken into consideration that would ameliorate the overall deficiency. In addition, as described above, the Proposed Development would include a rooftop accessory recreation space that would add approximately 6,545 sf (0.15 acres) of open space for the exclusive use of the residents, as well as an approximately 0.1-acre publicly accessible landscaped entry plaza. While not included in the quantitative analysis, these facilities would offset some of the additional minimal demand resulting from the new residents. Also, larger open space areas that are located just beyond the open space study area would add considerable accessible active and passive open space for the residential population, whereas community gardens and greenstreets provide additional passive recreational opportunities. Therefore, the Proposed Action would not result in a significant adverse impact on open space resources.
A. INTRODUCTION

According to the CEQR Technical Manual, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the incremental shadow from a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public’s use of the resource or threatening the viability of vegetation or other resources. Sunlight-sensitive resources include publicly accessible open space, historic architectural resources if the features that make the resource significant depend on sunlight, natural resources, and greenstreets. In general, shadows on city streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are also not considered significant under CEQR.

In accordance with CEQR guidelines, this chapter provides a shadows assessment to determine whether the Proposed Action would result in new shadows long enough to reach any sunlight-sensitive resources (except within an hour and a half of sunrise or sunset). As discussed below, the Proposed Action would result in minimal new shadows being cast on three open space resources and one greenstreet to the north and east of the rezoning area, which would not be significant either in terms of frequency or duration.

B. METHODOLOGY

According to the CEQR Technical Manual, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. For actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight).

The Proposed Action would facilitate the construction of the Proposed Development, with a height of approximately 120 feet (refer to Chapter 1, “Project Description”). Therefore, the longest shadow that could be cast by the Proposed Development would be approximately 516 feet. These incremental shadows would be cast to the north, east, and west of the site. Because of the path that the sun travels across the sky, no shadows can be cast in the triangular area between –108 degrees from true north and 108 degrees from true north. Therefore, open space and historic resources located in the area to the south of the site (where no project shadows could fall) are excluded from further assessment. The maximum shadow radius is illustrated in Figure 4-1.
Figure 4-1

Resources of Concern Within Maximum Shadow Radius for Proposed Development Site

Legend

- Proposed Rezoning Area
- Proposed Development Site
- Radius of Potential Shadows
- Architectural Resources (Table 4-1)
- Open Space Resources (Table 4-1)
- State/National Register Sugar Hill Historic District

LPC Designated Historic Districts
- Hamilton Heights/Sugar Hill Northeast
- Hamilton Heights/Sugar Hill Northwest

Open Space Resources (Table 4-1)
- 3

Architectural Resources (Table 4-1)
- 8

State/National Register Sugar Hill Historic District

Proposed Rezoning EIS

Sugar Hill Rezoning EIS

Resources of Concern Within Maximum Shadow Radius for Proposed Development Site
Resources of Concern

In coordination with Chapter 3, “Open Space,” and Chapter 5, “Historic Resources,” publicly accessible open spaces, greenstreets, and sunlight-sensitive architectural resources within an approximate 516-foot radius to the north, east, and west of the Proposed Development Site were identified, as shadows created by the Proposed Development could fall in the direction of these resources. According to the CEQR Technical Manual, historic resources that need to be considered in a shadows analysis must have sunlight-dependent features such as stained glass windows, historic landscapes, design elements that are part of a recognized architectural style that depends on contrast between light and dark design features, exterior materials and color that depend on direct sunlight for visual character, or elaborate, highly carved ornamentation. As discussed below, there are no historic resources with sunlight-dependent features in the immediate vicinity of the Proposed Development Site, but several open space resources have been identified within the applicable maximum shadow radius.

Open Space Resources

As illustrated in Figure 4-1, six open space resources fall within the maximum shadow radius for the Proposed Development Site. As shown in Figure 4-1, these include the southern portion of Highbridge Park, located to the north of West 155th Street (which has been divided into three segments for analysis purposes - east, central and west), the southern portion of the Harlem River Parkway, the northern portion of Jackie Robinson Park located one block to the east of the rezoning area, Orville and Wilbur Playground located to the northwest, the northernmost portion of the William A. Harris Garden, located to the southwest, and a small greenstreet/plaza area encompassing Maher Circle at West 155th Street.

Highbridge Park, located just north of the rezoning area, has the greatest potential to be affected by shadows from the Proposed Development Site. The segment of the park that falls within the defined maximum shadow radius is comprised mostly of vegetated areas with paths and benches. Similarly, the small portion of Jackie Robinson Park that falls within the defined shadow radius also consists mostly of vegetated areas with paths and benches, and does not include any of the park’s most notable recreational facilities (pool, playground, etc.).

As noted above, a greenstreet, a.k.a. Maher Circle, falls within the shadow radius (#7 in Figure 4-1). Maher Circle is a traffic island at the intersection of Edgecombe Avenue, St. Nicholas Place and West 155th Street. It contains the Hooper Fountain, and a small fenced planted area, with one tree. The Circle does not host any recreational activity, and is more of a visual marker. Although this area functions as a traffic island and does not host any recreational activity, nor does it contain benches, it is included in the detailed shadows assessment below because the CEQR Technical Manual lists greenstreets as sunlight-sensitive resources.

Historic Resources

According to the CEQR Technical Manual, historic resources are considered to be sunlight-sensitive if the features that make the resource significant depend on sunlight. The following architectural features are identified by the CEQR Technical Manual in as being sunlight sensitive: (a) buildings containing design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements (e.g. deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication);
Chapter 4: Shadows

(b) buildings distinguished by elaborate, highly carved ornamentation; (c) buildings with stained glass windows; (d) exterior materials and color that depend on direct sunlight for visual character; (e) historic landscapes; and (f) features in structures where the effect of direct sunlight is described as playing a significant role in the structure’s significance as an historic landmark.

A shadow impact on a historic resource would occur if shadows cast by a proposed building obscures the features or details that make that resource significant.

Historic resources that could potentially be affected by shadows from the Proposed Development are those located mostly to the north, east and west of the rezoning area. As shown in Figure 4-1, these include small areas of the S/NR-listed Sugar Hill Historic District and the NYCLPC-designated Hamilton Heights/Sugar Hill Northwest Historic District, and the West 155th Street Viaduct. However, none of these resources within the defined shadow radius have significant sunlight-dependent features that contribute to their historic importance, and they were therefore excluded from further analysis. In addition, as shown in Figure 4-1, the NYCLP-designated Hamilton Heights/Sugar Hill Northeast Historic District and the landmark 409 Edgecombe Avenue are located to the south of the rezoning area and are not within the defined shadow radius.

Although Figure 4-1 shows that portions of two blocks within the NYCLPC-designated Hamilton Heights/Sugar Hill Northwest Historic District fall within the Proposed Development’s maximum shadow radius, it should be noted that only resources facing the Proposed Development (i.e., facing east) could be covered by shadows created by the proposed building. Therefore, only those structures facing St. Nicholas Avenue could potentially be cast in shadows by the Proposed Development, whereas for all remaining buildings on those blocks, any shadows would fall on their roofs or secondary facades (mostly blank walls). Buildings on the west side of St. Nicholas Avenue (i.e., facing east) between West 155th and West 153rd Street consist mostly of 4-story rowhouses and mid-rise apartment buildings, including a 6-story limestone, brick, and terra-cotta neoclassical revival apartment building at the corner of West 155th Street (889 St. Nicholas Avenue), three 3-story brick and cut-brick Queen Anne style houses, a 6-story neoclassical brick apartment house, and five 4-story limestone rowhouses. A review of photographic images of those structures with east-facing facades indicates that none of them contain sunlight-dependent features, such as stained glass windows, design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements, elaborate, highly carved ornamentation that depend on sunlight for visual character, exterior materials and color that depend on direct sunlight for visual character, or features where the effect of direct sunlight is described as playing a significant role in the structure’s significance as an historic landmark.

Therefore, shadows resulting from the Proposed Action would not adversely affect any of the identified historic resources in the area.

C. ASSESSMENT OF POTENTIAL SHADOW IMPACTS

An adverse shadow impact is considered to occur when the incremental shadow from a development falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public’s use of the resource or threatening the viability of vegetation or other resources. The uses and vegetation in an open
space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by a loss of sunlight during the growing season; and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include: passive use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season (defined as March to October), is often a minimum requirement.

The shadow analysis considers the times when development anticipated as a result of the Proposed Action would increase shadows falling on identified resources of concern. As the sun travels across the sky during the day, shadows fall in a curve on the ground opposite the sun. When the sun rises, shadows fall to the west. As the sun travels across the southern part of the sky throughout the day, shadows move in a clockwise direction until they stretch east, as the sun sets in the west. Midday shadows are always shorter than those at other times of the day because the sun is highest in the sky at that time. Further, because of the tilt of the earth’s axis, the angle at which the sun’s rays strike the earth varies throughout the year, so that during the summer, the sun is higher in the sky and shadows are shorter than during the winter. Winter shadows, although longest, move the most quickly along their paths (because of the earth’s tilt) and do not affect the growing season of outdoor trees and plants.

As directed by the CEQR Technical Manual, shadow analyses were performed for the three open space resources and one greenstreet identified in Section B above, for four representative days of the year: March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and the longest day of the year; and December 21, the winter solstice and shortest day of the year. The CEQR Technical Manual defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset. The results of the shadow analysis on the open space resources of concern are summarized in Table 4-1 and discussed below. All times referenced in this section are eastern standard time (EST); daylight savings time is not considered.

March 21/September 21

On the equinoxes, incremental shadows from the development resulting from the Proposed Action would reach Highbridge Park and the Harlem River Parkway, as shown in Table 4-1. As shown in Figure 4-2a, incremental shadows would be cast on the western segment of Highbridge Park for a duration of approximately 4 hours and 16 minutes, and would exit this segment entirely by 4:29 PM. Incremental shadows would also be cast on the central portion of Highbridge Park (1:53 PM to 4:29 PM) for a duration of approximately 2 hours and 36 minutes. In the afternoon, the incremental shadows would be cast on parts of the eastern segment of Highbridge Park and the Harlem River Parkway from 3:10 PM to 4:29 PM, for a duration of 1 hour and 19 minutes. No incremental shadows would be cast on any of the other resources in Table 4-1 on this analysis day.
Figure 4-2a
Shadow Diagrams - March 21

8:00 AM

9:00 AM

10:00 AM

11:00 AM

1 Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)
Figure 4-2a (cont'd)

Shadow Diagrams - March 21

12:00 PM

1:00 PM

2:00 PM

2:50 PM

1 Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)
Sugar Hill Rezoning EIS

Figure 4-2a (cont'd)

Shadow Diagrams - March 21

1 Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)

3:00 PM

3:38 PM

4:00 PM

4:29 PM

Proposed Development
Shadow Increment from Proposed Development
### TABLE 4-1

<table>
<thead>
<tr>
<th>Analysis Day</th>
<th>March 21/ Sept. 21</th>
<th>May 6/August 6</th>
<th>June 21</th>
<th>December 21</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources Assessed For Potential Shadow Impacts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Highbridge Park – western area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shadow enter – exit time</td>
<td>12:13 PM – 4:29 PM</td>
<td>2:50 PM – 4:00 PM</td>
<td>N.A.</td>
<td>9:45 AM – 2:53 PM</td>
</tr>
<tr>
<td>Incremental shadow duration</td>
<td>4 hrs 16 min</td>
<td>1 hr 10 min</td>
<td>N.A.</td>
<td>5 hrs 8 min</td>
</tr>
<tr>
<td><strong>2. Highbridge Park – central area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incremental shadow duration</td>
<td>2 hrs 36 min</td>
<td>2 hrs 56 min</td>
<td>27 min</td>
<td>1 hr 43 min</td>
</tr>
<tr>
<td><strong>3. Harlem River Parkway and Highbridge Park – eastern area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incremental shadow duration</td>
<td>1 hr 19 min</td>
<td>1 hr 3 min</td>
<td>1 hr 51 min</td>
<td>10 min</td>
</tr>
<tr>
<td><strong>4. Jackie Robinson Park</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shadow enter – exit time</td>
<td>N.A.</td>
<td>N.A.</td>
<td>5:30 PM – 6:01 PM</td>
<td>N.A.</td>
</tr>
<tr>
<td>Incremental shadow duration</td>
<td>N.A.</td>
<td>N.A.</td>
<td>31 min</td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>5. Greenstreet / Maher Circle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shadow enter – exit time</td>
<td>N.A.</td>
<td>5:06 PM – 5:18 PM</td>
<td>4:19 PM – 5:56 PM</td>
<td>N.A.</td>
</tr>
<tr>
<td>Incremental shadow duration</td>
<td>N.A.</td>
<td>12 min</td>
<td>1 hr 37 min</td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>6. Orville and Wilbur Playground</strong></td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>7. William A. Harris Garden</strong></td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>Resources Screened Out From Further Assessment (Non-Sunlight Sensitive)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8. West 155th Street Viaduct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>9. 409 Edgecombe Avenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar Hill Historic District (areas of the S/NR and NYCLPC districts that fall within maximum shadow radius)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: Daylight savings time not used, times shown are eastern standard time (EST)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### May 6/August 6

Between the equinoxes and the summer solstice, incremental shadows cast by the development resulting from the Proposed Action would reach Highbridge Park and the Harlem River Parkway, as well as the Maher Circle greenstreet, as shown in Table 4-1 and Figure 4-2b, mostly in the late afternoon hours. Incremental shadows would be cast on the western segment of Highbridge Park for a duration of approximately 1 hour and 10 minutes, from 2:50 PM to 4:00 PM. Incremental shadows would also be cast on the central portion of Highbridge Park (2:13 PM to 5:09 PM) for a duration of approximately 2 hours and 56 minutes, as well as on a small area of the eastern segment of Highbridge Park and the Harlem River Parkway (4:15 PM to 5:18 PM), for a duration of just over one hour. Incremental shadows would also be cast briefly on the Maher Circle greenstreet for a duration of approximately 12 minutes, from 5:06 PM to the end of the analysis period at 5:18 PM. No incremental shadows would be cast on any of the other resources in Table 4-1 on this analysis day.

### June 21

On the summer solstice, June 21, the sun is most directly overhead and shadows are shortest for most of the day. As illustrated in Figure 4-2c, incremental shadows cast by the development resulting from the Proposed Action would be cast on a very small area at the tip of the central...
1 Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)
Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)
Figure 4-2c (cont’d)
Shadow Diagrams - June 21

5:15 PM

5:45 PM

5:56 PM

1 Highbridge Park - western area
2 Highbridge Park - central area
3 Harlem River Parkway and Highbridge Park - eastern area
4 Jackie Robinson Park
5 Greenstreet (Maher Circle)

Proposed Development
Shadow Increment from Proposed Development
Segment of Highbridge Park for a duration of approximately 27 minutes, from 4:05 PM to 4:32 PM and on a very small area along the edge of the eastern segment of Highbridge Park and the Harlem River Parkway (3:54 PM to 5:45 PM) for a duration of approximately 1 hour and 516 minutes. Incremental shadows would also be cast on part of Jackie Robinson Park (5:30 PM to 6:01 PM), for a duration of 31 minutes, as well as on the Maher Circle greenstreet for a duration of 1 hour and 37 minutes (4:19 PM to 5:56 PM). No incremental shadows would be cast on any of the other resources in Table 4-1 on this analysis day.

December 21

On the shortest day of the year (winter solstice) when the sun is low in the sky, shadows are the longest they will be all year, although they travel quickly. As shown in Table 4-1 and Figure 4-2d, incremental shadows would be cast on the western segment of Highbridge Park for a duration of approximately 5 hours and 8 minutes, from 9:45 AM to 2:53 PM. Incremental shadows would also be cast on the central portion of Highbridge Park (1:10 PM to 2:53 PM) for a duration of approximately 1 hour and 43 minutes, as well as on the eastern segment of Highbridge Park and the Harlem River Parkway (2:43 PM to 2:53 PM), for a short duration of 10 minutes. No incremental shadows would be cast on any of the other resources in Table 4-1 on this analysis day.

Assessment

According to the CEQR Technical Manual, trees, many plants, and many activities can require a minimum of four to six hours of sunlight, particularly between March and October (the growing season). As indicated in Table 4-1 and discussed above, the Proposed Development resulting from the Proposed Action would cast incremental shadows on several resources in one or more of the analysis periods (no incremental shadows would be cast on Orville and Wilbur Playground or the William A. Harris community garden in any of the analysis days).

Jackie Robinson Park

Given its location relative to the rezoning area, the incremental shadows resulting from the Proposed Action would reach a small area at the edge of Jackie Robinson Park only on June 21, and only for a duration of 31 minutes. As noted above, the area affected consists mostly of vegetated areas with paths and benches, and does not include any of the park’s most notable recreational facilities (pool, playgrounds, etc.). As new incremental shadows cast by the Proposed Action on Jackie Robinson Park would only occur on one of the analysis days, and would last for a very short duration and cover a negligible portion of the park, there would be no noticeable reduction in the usability of this open space resource nor a reduction in the sunlight to sunlight-sensitive uses or features as a result of the Proposed Action.

Highbridge Park and Harlem River Parkway

The three segments of Highbridge Park, and the Harlem River Parkway, given their location relative to the rezoning area, would experience some incremental shadows from the Proposed Development on most or all of the analysis days.
Figure 4-2d
Shadow Diagrams - December 21

1:42 PM

2:53 PM

1: Highbridge Park - western area
2: Highbridge Park - central area
3: Harlem River Parkway and Highbridge Park - eastern area
4: Jackie Robinson Park
5: Greenstreet (Maher Circle)
Western Area

The western segment of the park would experience incremental shadows on March 21, May 6, and December 21. Whereas incremental shadows cast in the summer would be of the shortest duration (1 hour and 10 minutes on May 6/August 6), those cast in the spring and winter months would be of longer durations, 4 hours and 16 minutes on March 21, and 5 hours and 8 minutes on December 21. As shown in Figure 4-3, the western segment of Highbridge Park consists mostly of vegetated areas, and does not contain any playgrounds or other recreational activities that may be adversely affected by a reduction in sunlight during these periods. Although the western segment of the park would experience shadows for 4 hours and 16 minutes on March 21, which falls within the plant growing season, this segment would continue to receive more than the minimum amount of sunlight required for plant growth. As illustrated in Figure 4-2a, this segment of the park receives direct sunlight from the beginning of the analysis period in the morning until at least 12:30 or 1:00 PM, when shadows from the Proposed Development begin to be cast on a small area of this segment. As such, the majority of the western segment of Highbridge Park would receive at least 5 hours of direct sunlight on this analysis day, which is more than the minimum of 4 hours required during the plant growing season.

The specific nature of the vegetation of the shadowed areas were explored by the NYC Department of Parks and Recreation (NYCDPR) between the Draft and Final Environmental Impact Statement (EIS). The NYCDPR evaluated the existing conditions of the trees and landscaped area at the southern end of the western parcel of Highbridge Park with forestry personnel and confirmed that the incremental shadows will not have a detrimental effect on the park landscape due to the following reasons: The southern portion of the western segment of Highbridge Park is comprised of London Plane trees and the Sugar Hill Luminaries Lawn, and a planted garden area at the southeastern tip. Because the garden is already cast in shade from the tree canopy, the majority of the shadows will be cast at the beginning and end of the growing season, when trees are just emerging from and entering their dormancy stage, and in the winter when trees are dormant, and because the trees are well established, it is not believed that the trees, lawn area or plantings will be adversely impacted by the incremental shadows.

As December falls outside of the growing period between March and October, new incremental shadows cast by the Proposed Action in winter would not create significant adverse impacts on the trees and vegetation that are located in this segment of the park. Moreover, this segment of the park does not contain any benches, playgrounds or other active recreation areas that require winter sunlight. Therefore, the new incremental shadows cast by the Proposed Action on this analysis day would not adversely affect the utilization or enjoyment of this western segment, as it does not contain features that could be affected by the loss of winter sunlight.

Central Area

The central segment of Highbridge Park would experience incremental shadows on all four of the analysis days, with the longest durations experienced on March 21 and May 6 (2 hours and 36 minutes, and 2 hours and 56 minutes, respectively). Although both March 21 and May 6 fall within the plant growing season, the incremental shadows cast on those days would only be cast beginning at approximately 2:00 in the afternoon, allowing this park segment to receive more than 8 hours of sunlight before the incremental shadows enter this segment. Moreover, this central segment of Highbridge Park consists mostly of vegetated areas (refer to Figure 4-3), and does not contain any playgrounds or other recreational activities that may be adversely affected by a...
Aerial Photo of Open Space Areas Affected by Incremental Shadows

- Highbridge Park - western area
- Harlem River Parkway
- Highbridge Park - western area
- Jackie Robinson Park

Image © 2009 Google
© 2009 Tele Atlas
reduction in sunlight during these periods. Therefore, new incremental shadows cast by the Proposed Action are not expected to create significant adverse impacts on the trees and vegetation that are located in this segment of the park, nor would they adversely affect this segment’s utilization.

**Eastern Area**

The eastern segment of Highbridge Park and the Harlem River Parkway would also experience incremental shadows on each of the four analysis days, with durations ranging from 10 minutes on December 21 to 1 hour and 51 minutes on June 21. Although March 21, May 6 and June 21 fall within the plant growing season, the incremental shadows cast on those days would only be cast beginning in the late afternoon (at 3:10 PM on March 21, 4:15 PM on May 6, and 3:54 on June 21), allowing this park segment to receive approximately 8 to 10 hours of sunlight on each day before the incremental shadows enter this park segment. Moreover, as shown in Figure 4-3, the eastern segment of Highbridge Park consists mostly of vegetated areas, and does not contain any playgrounds or other recreational activities that may be adversely affected by a reduction in sunlight during these periods, whereas the Harlem River Parkway is essentially a bikeway that likewise not be adversely affected by a reduction in sunlight during these periods. Therefore, new incremental shadows cast by the Proposed Action are not expected to create significant adverse impacts on the trees and vegetation that are located in the eastern segment of Highbridge Park or the Harlem River Parkway, nor would they adversely affect their utilization.

**Greenstreet – Maher Circle**

Given its location relative to the rezoning area, the incremental shadows resulting from the Proposed Action would reach a portion of the Maher Circle greenstreet only on May 6 (12 minutes) and June 21 (1 hour and 37 minutes). As noted above, Maher Circle is a traffic island containing the Hooper Fountain, and is mostly paved except for a small fenced planted area, with one tree. The Circle does not include any benches nor does it host any recreational activity. The incremental shadows cast on May 6 and June 21 would only be cast beginning in the late afternoon, at the end of the analysis period, and therefore the planted area is expected to receive more than the minimum of 4 to 6 hours of sunlight required for plant growth. Therefore, new incremental shadows cast by the Proposed Action would not create significant adverse impacts on the Maher Circle greenstreet.

**D. CONCLUSION**

As detailed above, in many instances, the incremental shadows cast by Proposed Development resulting from the Proposed Action would not create a significant adverse shadow impact on the sunlight-sensitive resources in the study area. All of the affected open space resources assessed above are expected to receive more than the minimum of four to six hours of sunlight required during the growing season. The incremental shadows cast would not result in a substantial reduction in sunlight at any of the identified open space resources, would not result in a reduction in sunlight such that it would adversely impact the usability of any of these open spaces over the course of a day, nor would it adversely impact vegetation. The NYCDPR evaluated the existing conditions of the trees and landscaped area at the southern end of the western parcel of Highbridge.
Park with forestry personnel and confirmed that the incremental shadows will not have a detrimental effect on the park landscape, as the majority of the shadows will be cast at the beginning and end of the growing season, when trees are just emerging from and entering their dormancy stage, and in the winter when trees are dormant, and because the trees are well established.
A. INTRODUCTION

Historic resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated as or are under consideration as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places or contained within a district listed on or formally determined eligible for the State and/or National Register of Historic Places; and National Historic Landmarks. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

Archaeological resources are assessed only in areas where excavation is likely and would result in new in-ground disturbance. The Proposed Development Site, which is expected to be redeveloped as a result of the Proposed Action, would experience new development that would require ground disturbance. However, in a letter dated 4/3/2009, the NYC Landmarks Preservation Commission (NYCLPC) indicated that all of the lots comprising the rezoning area have no archaeological significance (refer to Appendix A to this EIS). As such, the Proposed Action and the resulting development on the Proposed Development Site is not expected to result in any significant adverse impacts to archaeological resources. Therefore, an archaeological analysis is not warranted and this chapter focuses exclusively on historic architectural resources.

Designated historic resources have been identified within and adjacent to the proposed rezoning area. The Proposed Development Site and the larger rezoning area are located within the State and National Register-listed (S/NR) Sugar Hill Historic District, and Lot 14, which falls partially within the rezoning area, also falls within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Northeast Historic District. In addition, designated individual landmarks located within a 400-foot radius include the 155th Street Viaduct (NYCLPC-designated and S/NR-listed), 409 Edgecombe Avenue (NYCLPC-designated and S/NR-listed), and a portion of Jackie Robinson Park, which encompasses the NYCLPC-designated and S/NR-listed Jackie Robinson (Colonial Park) Play Center. Therefore, this chapter assesses the Proposed Action’s potential to impact historic architectural resources in the area. In accordance with CEQR guidelines, both "direct" impacts (i.e., a physical change to a historic property) and "indirect" impacts (such as a physical change to the setting or context of a historic resource) are assessed.

Based on potential impacts that would result from proposed construction activities, and also to account for contextual effects, the study area for architectural resources is defined as the area within approximately 400 feet of the proposed rezoning area (see Figure 5-1). Whereas this chapter
Figure 5-1

Historic Resources Within 400-Foot Study Area

Legend
- Lots Within Rezoning Area
- 400-Foot Historic Resources Study Area
- Proposed Rezoning Area
- 409 Edgecombe Apartments
- 155th Street Viaduct
- State/National Register Sugar Hill Historic District

LPC Designated Historic Districts
- Hamilton Heights/Sugar Hill Northeast
- Hamilton Heights/Sugar Hill Northwest
- Hamilton Heights/Sugar Hill Historic District and Extension
focuses specifically on the Proposed Action’s effects on the general context of historic resources in the immediate vicinity, an assessment of the Proposed Action’s effects on the physical character of a broader ¼-mile study area, including the general context of the historic district, is provided separately in Chapter 6, “Visual Resources.”

As described more fully below, because the existing building on the Proposed Development Site, which is identified as a contributing structure to the S/NR-listed Sugar Hill Historic District, would be demolished to facilitate construction of the Proposed Development, and the new building would alter the general context of West 155th Street, which marks the northern boundary of the S/NR-listed historic district, the Proposed Action would result in a significant adverse impact with respect to historic architectural resources. Partial mitigation measures that would minimize or reduce this significant adverse impact are discussed in Chapter 12, “Mitigation” of this EIS.

B. EXISTING CONDITIONS

As shown in Figure 5-1, the Proposed Development Site and rezoning area are located at West 155th Street, which marks the northern boundary of the State and National Register-listed (S/NR) Sugar Hill Historic District, and Lot 14, which falls partially within the rezoning area, also falls within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Northeast Historic District. Notably, the remainder of the proposed rezoning area, including the Proposed Development Site, is excluded from the NYCLPC-designated historic District. In addition, the western edge of the 155th Street Viaduct is located diagonally across from the rezoning area, and 409 Edgecombe Avenue and the northernmost area of Jackie Robinson Park (which encompasses the Jackie Robinson Play Center) are located within a 400-foot radius of the rezoning area. Each of these resources is discussed briefly below. It should be noted that the Old Croton Aqueduct passes underneath Lot 26; however, this portion is not part of the National Historic Landmark designation, which applies to the portions of the aqueduct that fall mainly within Westchester County, stretching from the Old Croton Dam in Cortlandt to Van Cortlandt Park at the Bronx County/City of Yonkers border.

S/NR Sugar Hill Historic District¹

The S/NR Sugar Hill Historic District, designated in 2002, consists of 414 contributing buildings, which are primarily late nineteenth and early twentieth century row houses and apartment buildings. As shown in Figure 5-1, it is bounded to the south by West 145th Street and to the north by West 155th Street, running irregularly along the side streets west of Convent Avenue and in some cases as far west as Amsterdam Avenue. The hilly topography, parks, and numerous trees create vistas that juxtapose the natural and urban environments.

Along the district’s southern and northern boundaries, marked by West 145th Street and West 155th Street, respectively, the distant eastern aspect terminates on an historic bridge (the 145th Street

¹ Information in this section is from the Sugar Hill Historic District National Register of Historic Places Registration Form, February 2002, as well as a Historical Context Study prepared by Adjaye Associates in June 2009.
Bridge and the Macombs Dam Bridge). At both boundaries, the steep climb necessary to reach the Sugar Hill neighborhood is fully expressed. On West 145th Street, the park gives way to ascending buildings while on the north, at West 155th Street, one is always conscious of the seemingly limitless eastern view toward Yankee Stadium, over the one-time Polo Grounds’ immensely tall, but still dwarfed by the scenery, housing project and the haze of the unseen Long Island Sound.

Given the historic district’s large area covering more than 15 irregularly-shaped blocks, it can be accessed from a number of different streets, and does not have a defined “gateway”. West 155th Street, a wide two-way street which forms the northern boundary of the historic district, exhibits an eclectic mix of building types and bulks. The south side of West 155th Street, which falls within the historic district boundary, is characterized by the following (from east to west): Jackie Robinson Park, Maher Circle, two 2-story commercial use buildings, a gas station with a one-story structure housing a convenience store, the garage building on the Proposed Development Site, a vehicle storage and parking area that is entirely enclosed by a brick wall with a fence above, the 6-story St. Nicholas Hotel with commercial uses on the ground floor, the Prince Hall Masonic Temple, a 12-story multifamily residential building, and a 20-story residential building at Amsterdam Avenue. The north side of West 155th Street, which falls outside the historic district boundary, is characterized by the following (from west to east): a public school and playground at Amsterdam Avenue, two 3-story commercial use buildings, a strip of vacant land, Highbridge Park, and the Polo Grounds Towers residential development consisting of four 30-story buildings.

On the district’s eastern edge between West 145th and West 155th Streets, Jackie Robinson Park forms the area’s defining rocky hillside. Here, between taller bookend-like apartment houses located at 145th and 155th Streets (as discussed below, Bowery Savings Bank Apartments ca. 1956, and Colonial Parkway Apartments ca. 1916), there are a range of five and six-story multiple dwellings. They are as uniform in the ca. 1900-1927 date and exhibit similar cornice height and neoclassical ornamentation.

The S/NR district’s period of significance – ca. 1865 to ca. 1956 – incorporates the complex historical and architectural development of the neighborhood. Beginning in the mid-1880s, the district evolved from a rural retreat of widely-spaced freestanding mansions to a middle- to upper-middle-class neighborhood of attached single-family homes. A later period of expansion (ca. 1876 to 1906) occurred when a proliferation of free-standing villas and row house groups were built in the neighborhood. They were created in response to transportation improvements including the Eighth Avenue Elevated (1879), the Amsterdam Avenue Cable Car (ca. 1880), and the West 155th Street Viaduct (ca. 1890s). The completion of the Broadway IRT subway (ca. 1904) gave rise to the next phase of significant Sugar Hill development (ca. 1906 to 1926), as middle-class tenants eagerly flocked to the new apartment buildings being constructed in Sugar Hill, which were now easily accessible by mass transit.

The district is recognized by the National Register as significant under Criteria A, B, and C for evaluation of historic properties. Criterion A identifies the buildings of the district as important due to their association with events that have made a significant contribution to the broad patterns of history in the areas of community planning and development, ethnic heritage, and social history. The district achieves its exceptional significance as the nation’s foremost African-American urban community (ca. 1925-ca. 1956). Criterion B recognizes buildings in the Sugar Hill Historic District for their association with lives of significant individuals, notably central figures in the cultural history of Harlem who have played an important role in local and national history, including such illustrious figures as future Supreme Court Justice Thurgood Marshall, sociologist W.E.B. DuBois.
painter Aaron Douglas, composers and jazz musicians Edward Kennedy “Duke” Ellington and C. Luckeyth (“Luckey”) Roberts, civil rights leaders Walter Francis White and Adam Clayton Powell Sr., and writers Ralph Ellison and Langston Hughes. Criterion C focuses on the diverse architectural character of the buildings in the Sugar Hill Historic District and recognizes it as representative or embodying distinctive characteristics of various styles that resulted from distinct periods of growth and development. The district is significant under Criterion C for its intact late 19th and early 20th century residential architecture including row houses and apartment buildings.

According to the S/NR Historic District Registration Form, two types of residential buildings, the row house and the apartment building, give the district its special architectural character. Many of the late 19th century row houses were speculatively-built and were treated as block-long compositions in which the various materials and architectural features were arranged to create a distinct sense of place. Built in a succession of popular historical styles, these private residences display remarkable neo-Grec, Romanesque and Renaissance Revival style details of high quality materials, including elaborate brickwork, stone carvings, and metalwork (refer to examples in Figure 5-2a). During the early decades of the 20th century, apartment houses were erected along St. Nicholas Avenue, and later, Convent Avenue. Many of the apartment buildings in the district reflect the Beaux-Arts and “City Beautiful” movements, as illustrated in some of the examples in Figure 5-2b. Popular styles include the Beaux Arts, Renaissance Revival, French Renaissance Revival, Colonial Revival, and neo-Gothic.

The historic structures within the Sugar Hill Historic District exhibit a variety of accenting building elements, colors, and textures. As shown in Figure 5-3a, various expressions of nature are inscribed onto buildings throughout the district, including fern leaves, flowers, twisted vines, roses, thistle and scrolls. The details shown in the figure are largely attributable to nature as opposed to geometric patterning. The district’s historic buildings also exhibit colors and materials that vary greatly within a range from deep brown/purple brownstone to terracotta to limestone. In terms of building textures, Gothic Revival and neoclassical buildings in this district in general have highly articulated facades from intricately detailed carvings to variegated surface textures (see Figure 5-3b). The carvings and textures run across building facades providing a wide spectrum of shadow and light play. Neo classical buildings tend to work with a flattened striping and variations of achitraves, keystones, cornices and bases. Gothic revival buildings tend to use organic forms in both their material and design. Materially the buildings are picturesque with rough cut stone patterns and integral use of natural carving.

In terms of massing, the historic district exhibits a range of building types and heights. While the row houses prevalent in the midblocks are typically 3 to 4 stories in height (refer to Figure 5-2a), apartment buildings are typically 6 stories in height, although taller apartment buildings can also be found, particularly at the northern, and southern edges of the S/NR historic district, such as the 13-story landmark building at 409 Edgecombe Avenue (a.k.a. Colonial Parkway Apartments, and the 13-story building at the southeastern boundary of the historic district, a.k.a. Bowery Savings Bank Apartments), as shown in Figure 5-2b.

This S/NR historic district encompasses the proposed rezoning area in its entirety and the 2-story garage on the Proposed Development Site is identified as a contributing structure, as discussed below.
Sugar Hill Rezoning EIS

Sugar Hill Historic District - Examples of Town Houses within S/NR and LPC Historic Districts

**Above:** View of eastern blockfront of St. Nicholas Avenue between W. 152nd and W. 153rd Streets. (S/NR district and LPC Hamilton Heights/Sugar Hill Northwest HD)

**Below:** View of town houses on West 147th Street between St. Nicholas and Convent Avenues. (S/NR district and LPC Hamilton Heights/Sugar Hill Northwest HD)

**Above:** View of northern blockfront of W. 145th Street between St. Nicholas and Amsterdam Avenues. (S/NR district and LPC Hamilton Heights/Sugar Hill HD & Extension)

**Below:** View of western blockfront of St. Nicholas Avenue between W. 152nd and W. 153rd Streets. (S/NR district and LPC Hamilton Heights/Sugar Hill Northwest HD)
Above:
A pair of Beaux Arts style apartment houses known as the "Montvale" (#83 St. Nicholas Place, to the left) and the "Non Pared" (#87 St. Nicholas Place, to the right). The building to the right occupies Lot 14, which falls partially within the proposed rezoning area. Both buildings fall within the S/NR HD and the LPC Hamilton Heights/Sugar Hill Northeast HD.

Left:
A 14-story apartment building at the northwest corner of West 145th Street and St. Nicholas Avenue, at the southern boundary of the S/NR historic district. The building is within the boundaries of the S/NR HD, but outside the LPC Hamilton Heights/Sugar Hill HD & Extension.

Above:
409 Edgecombe Avenue - an individual LPC landmark, which also falls within the S/NR HD and the LPC Hamilton Heights/Sugar Hill Northeast HD.

Below:
Arundel Court, at 772-778 St. Nicholas Avenue which falls within the S/NR HD and the LPC Hamilton Heights/Sugar Hill Northeast HD.
Sugar Hill S/NR Historic District - Examples of Floral and Nature-Inspired Building Details

Source: Adjaye Associates
Sugar Hill Rezoning EIS

Sugar Hill S/NR Historic District - Examples of Varied Building Textures, Materials, and Colors

Source: Adjaye Associates
Proposed Development Site

The Proposed Development Site (414 West 155th Street) comprises a large lot located just within the northern boundary of the Sugar Hill National Register Historic District, which is marked by West 155th Street. The National Register Nomination notes it as a contributing structure to the district and describes it as a two-story neo-Gothic brick and terra-cotta parking garage with Oxford embellishments. According to the nomination report, “Erected in 1901 as The Speedway Livery Stable … at half its current size, this building became a garage by 1915. … In 1927 it was transformed into its current state in which the embellishments of Oxford lend dignity to an otherwise utilitarian structure.” Due to the steep grade in the site to the west, the garage rises three stories at the northeast corner and is one story at the northwest corner. 414 West 155th Street has continuously been used as a parking garage, but has had numerous tenants over time.

The Proposed Development Site’s immediate neighbors are a noncontributing gas station and a noncontributing late 1960’s utilitarian garage structure used by the Department of Environmental Protection. The existing garage is distinct from and differs in scale and use from the rowhouses and apartment buildings that characterize the Sugar Hill Historic District. The project site is considerably larger than most other sites in the historic district, and is also located on and oriented to West 155th Street, which is a major two-way street that forms the northern boundary of the historic district.

Higgins Quasebarth & Partners, LLC (“Higgins”) was retained by the applicant, Broadway Housing Communities, to compile a report (“Higgins report”) to assist in assessing the history, context and physical fabric of 414 West 155th Street. The report was intended for use as part of the historic preservation review by the State Historic Preservation Office (SHPO) of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in connection with the planned new construction on the site. The report indicates that the structure, which is clad in buff brick with tan-colored mortar joints and finished with white glazed terra-cotta details, has been modified over time with alterations to the entries and window bays, including: modifications to the ground-floor openings on the West 155th Street elevation, non-original glass block infill at the second-floor windows on both facades, paint on the brick facade, and the removal of historic signage.

414 West 155th Street has two street elevations: the north, primary, facade on West 155th Street and the east facade, visible from St. Nicolas Place (see photos in Figure 5-4), which are articulated in a tri-partite composition defined by the terra-cotta details at the parapet. There are thirteen bays on each facade, divided into three sections: a center section of seven bays with flanking sections of three bays. The ground floor of the north elevation is composed of numerous entries. At the second floor, both facades have large window bays divided by brick piers. White glazed terra-cotta tiles clad the center bay of each section and are defined by a raised parapet marked with tile-clad pinnacles at the center and terminus of each bay (see Figure 5-4). The pinnacles are all linked by a terra-cotta crenelated parapet.

As also shown in Figure 5-4, the ground floor of the north elevation is marked by openings that step up in height as the grade increases. There are five vehicle entries (Bays 1, 3, 7, 11, and 13).

---

2 Information in this section, including detailed description of Proposed Development Site, is from 424 West 155th Street – Historical Background Report, Higgins Quasebarth & Partners, LLC; February 2009, which is attached as Appendix B to this EIS document.
View of northern and eastern facades of Proposed Development Site from the corner of West 155th Street and St. Nicholas Place, looking southwest.

Close-up view of northern facade (western end of building).

Close-up view of northern facade (eastern end of building).
Figure 5-4 (cont’d)
Photographs of Existing Garage on Proposed Development Site
in Context with Sugar Hill Historic District

View from corner of W. 155th Street and St. Nicholas Place, looking south. Gas station adjacent to the Proposed Development Site is on the corner to the right, existing garage visible in the far right center.

View from corner of W. 155th Street and St. Nicholas Avenue, looking south. Fenced-in parking area dominated the corner, existing garage building is visible to the left.

View looking southeast down W. 155th Street. Secondary facade of 409 Edgecombe Avenue is visible in the distance.
and two doors (Bays 2 and 6). The brick is painted black and white at this level. The Higgins report indicates that all of the bays have been altered over time with non-historic infill (concrete and glass block) and non-historic metal windows. The large second-floor window bays have also been altered and are occupied by non-original glass block surrounding non-historic metal windows and louvers. The Higgins report states that the glass block is in very poor condition. The terra-cotta details begin between the center windows of the three sections and rise up to the parapet. Original rounded terra-cotta pinnacles extend above the crenelated parapet emphasizing these bays.

The east elevation exhibits similar changes over time. The ground floor has a nonoriginal entry and window. Large exposed steel beams, which originally functioned as signage armature, extend from the ground floor to the first floor. The first floor level, which originally was obscured by signage, is clad in common red brick topped by the buff brick of the second floor. The second-floor window bays have the same nonoriginal infill as found on the north elevation. Three of the bays however are clad with the original buff brick.

Historically, 414 West 155th Street had large spans of glazing on the first and second floors. The typical unit consisted of a four-over-four center pivot steel window with four lights above and below. At the first floor this unit was used in the transoms and storefronts. At the second floor, the large bays had two of these units. The Higgins report indicates that non-original infill at the first and second floors has changed the overall transparency and symmetry of the 1920s design. The exposed common red brick and non-original entry on the east elevation have also changed the original character of this facade.

The Higgins report indicates that the condition of the buff brick and white glazed terra cotta is fair. The brick shows wear. It is cracked and spalled, notably on the east elevation. The tan-colored joints are eroded. The terra cotta has some surface cracking and spalling. There are also sections of soiling and stains on the terra cotta.

The rolled roof of the garage, which is not original, appears to be in good condition. Eight skylights project from the center of the roof and a bulkhead sits just off center on the rear south elevation. On the interior, one staircase provides non-vehicular circulation. The concrete of the interior shows typical signs of wear such as cracking and areas of efflorescence on the surface. Building management notes concern for the condition of the concrete structure in the eastern half of the garage based on significant cracking in the floor slab.

When the existing garage is viewed from directly across the street, the only view of a contributing building in the historic district is the secondary façade of 79 St. Nicholas Place (on Lot 14), as shown in the first photo in Figure 5-4. At the intersection of St. Nicholas Place and West 155th Street, the view south is dominated by the gas station. At the intersection of St. Nicholas Avenue and West 155th Street, the view south is dominated by the fenced-in portion of the Old Croton Aqueduct. Looking west up West 155th Street from St. Nicolas Place, the street façade of 889 St. Nicholas Avenue is visible primarily over the fenced in portion of the Old Croton Aqueduct and only the top floor of a portion of this building is visible over the garage. Looking east down West 155th Street from the corner of St. Nicholas Avenue there is only a view of the secondary façade of 409 Edgecombe Avenue and the building located at the southeast corner of West 155th Street and St. Nicholas Place which is noncontributing. These views are illustrated in Figures 5-4. In general, given the width of West 155th Street and the somewhat irregular street grid in this area, views of the main facades of buildings within the historic district are limited and are not readily available to pedestrians walking along West 155th Street.
**Other Lots Within Rezoning Area**

The proposed rezoning area also includes Lot 28 and parts of Lots 14 and 26, which are all located within the S/NR Sugar Hill Historic District. The S/NR nomination report identifies Lot 26 as a non-contributing one-story garage building for NYCDEP, c. 1960, with an address of 882 St. Nicholas Avenue. Lot 14 is identified as one of two six-story Beaux Arts style apartment houses (this building is further described in the discussion of the NYCLPC-designated historic district in the section below).

**NYCLPC’s Hamilton Heights/Sugar Hill Historic District (Northeast and Northwest)**

The boundaries of the NYCLPC-designated Hamilton Heights/Sugar Hill Historic District (Northeast and Northwest) are different from the S/NR district discussed above, as illustrated in Figure 5-1. The rezoning area is included within the boundaries of the S/NR district but is mostly excluded from the NYCLPC-designated district, with the exception of the portion of Lot 14 located within the rezoning area, which falls within both districts. The Proposed Development Site is excluded from the NYCLPC-designated historic district.

**Hamilton Heights/Sugar Hill Northeast Historic District**

The Hamilton Heights/Sugar Hill Northeast Historic District was designated in 2001. Nearly all of the buildings in this historic district were constructed between 1905 and 1930, a period when developers ceased building single-family houses and began to build medium-size apartment buildings. These structures are located on uninterrupted block fronts that extend along St. Nicholas Place and Edgecombe Avenue, from West 150th to West 155th Streets. Nearly all of the thirty-two buildings in this historic district are apartment houses; two attached single-family residences are also included in the district. Most of the buildings are five or six stories tall, and generally have brick and stone facades, reflecting popular neoclassical styles, especially Renaissance and Colonial Revival.

Visible from central Harlem, where most tenants occupied older tenements and crowded rooming houses, these recently-constructed apartment houses represented a world of domestic comfort and personal success. Many African-American professionals were attracted to the area, including jazz composer and big band leader Duke Ellington whose family occupied a five-room apartment at 381 Edgecombe Avenue, from 1929 to 1939. He and his frequent collaborator Billy Strayhorn celebrated the neighborhood in song, urging listeners to "Take the A Train . . . to go to Sugar Hill." Other important residents were the composer and music publisher W. C. Handy and the poet and playwright Langston Hughes. During the 1930s and 1940s, the most prestigious address in the district was 409 Edgecombe Avenue (see Figure 5-2), near West 155th Street, which is also a designated individual landmark (see discussion below).

As noted above, this historic district incorporates Lot 14 (a.k.a. 87 St. Nicholas Place), which falls partially within the proposed rezoning area. This building is one of a pair of Beaux Arts style

---

3 Information in this section is from NYCLPC’s *Hamilton Heights/Sugar Hill Northeast Historic District Designation Report* (October 23, 2001), and *Hamilton Heights/Sugar Hill Northwest Historic District Designation Report* (June 18, 2002).
apartment houses (the other being #83 St. Nicholas Place). Known as the "Montvale" and the "Non Pared," the pair was built in 1905 at a time when the area was rapidly developing with five- and six-story apartment houses. Typical of apartment buildings of that period, 87 St. Nicholas Place features standard floor plans intended to attract middle-class residents and is constructed of inexpensive materials. The facades are enlivened through the inventive use of mass-produced facade ornament and popular revival styles (see Figure 5-2). According to promotional literature published in 1908, each building originally had apartments of four to six rooms and a bath, which could easily be combined into larger apartments with eleven rooms and two bathrooms. The designation report indicates that Nos. 83 and 87 St. Nicholas Place, which are distinguished by their limestone bases, columnar porticos with surmounting balustrades, and splayed lintels, remain largely intact. The words "Non Pared" are incised in the frieze of 87 St. Nicholas place.

**Hamilton Heights/Sugar Hill Northwest Historic District**

The Hamilton Heights/Sugar Hill Northwest Historic District was designated in 2002. The historic district includes approximately 97 buildings and extends from the southwest corner of Convent Avenue and West 151st Street and the west side of St. Nicholas Avenue, just south of West 151st Street, north to the southwest corner of St. Nicholas Avenue and West 155th Street. Buildings in this historic district face on Convent Avenue, St. Nicholas Avenue, St. Nicholas Place, and West 152nd, West 153rd, West 154th, and West 155th Streets. The area of the historic district remained largely rural until the last two decades of the nineteenth century. Beginning in 1881 speculative builders started erecting handsome residential structures in the historic district, most of which were single-family row houses. Between 1881 and 1898, 62 extant row houses were erected. These row houses were designed in several popular late nineteenth-century styles, including Neo-Grec, Queen Anne, Neo-Renaissance, and Beaux-Arts. They are faced with various materials, notably brick, brownstone, and limestone, and are trimmed with finely crafted terra cotta, cast iron, wrought iron, stained glass, and wood (refer to Figures 5-2 and 5-3 above for examples).

Besides the row houses, there is one freestanding mansion, dating from 1887, in the district. A few middle-class apartment buildings were also erected during the late nineteenth century, but most of the district's multiple dwellings date from the early twentieth century. In total, there are 33 apartment houses in the district. These apartment houses are either five or six stories tall and almost all have brick facades with limestone bases and terra-cotta trim. In addition, this district includes a 2-story building containing a store with residence above and a masonic lodge, the only institutional building within the boundaries.

**409 Edgecombe Avenue**

This 13-story building (see Figure 5-2), originally called the Colonial Parkway Apartments, was designated by NYCLPC in 1993, and falls within the S/NR-listed Sugar Hill Historic District as well as the LPC-designated Hamilton Heights/Sugar Hill Northeast Historic District. Constructed in 1916-1917 and set on a ridge overlooking central Harlem, this was the most prestigious address for African-American New Yorkers from the 1930s through the 1950s. Notable for its conspicuous height and illustrious tenants, the curving thirteen-story apartment house attracted such luminaries as Thurgood Marshall, Aaron Douglass, and W.E.B. Dubois. The E-shaped building dominates the block and the wide façade curves to follow the route of Edgecombe Avenue as it turns west. At the time of completion, it was intended for upper middle class white tenants, who occupied spacious
soundproof apartments with as many as six rooms. Units were fitted with dumbwaiters, gas stoves, and other modern amenities, and the two passenger elevators were staffed by uniformed operators.

**Macomb’s Dam Bridge and 155th Street Viaduct**

Spanning the Harlem River between West 155th Street and St. Nicholas Place in Manhattan, and Jerome Avenue and East 162nd Street in the Bronx, Macomb’s Dam Bridge and 155th Street Aqueduct were designated by NYCLPC in 1992. Known until 1902 as Central Bridge, this is the oldest metal truss swing bridge and the third-oldest bridge in the city. The ensemble consists of a swing bridge over the Harlem River with an intricate latticework of steel crowned with four finials; stone end piers capped by shelter houses; a camelback span over the railroad tracks in the Bronx; the 155th Street steel viaduct with tall stairways in Manhattan; and a shorter steel approach road in the Bronx.

**Jackie Robinson Play Center**

The Jackie Robinson (Colonial Park) Play Center was designated by NYCLPC in April 2007, including the swimming pool, bath house, former diving pool, band shell, dance floor terrace and extension between West 148th and West 150th Streets, retaining walls, fencing, stairways, linking pathways, playground, former wading pool and comfort station. NYCLPC also granted landmark protection to the interior of the complex’s bath house. As shown in Figure 5-1, only a small portion of Jackie Robinson Park falls within the 400-foot study area, and none of the designated features described below fall within that area.

Originally named the Colonial Park Play Center, the complex stretches from Wet 145th to West 155th Streets along Edgecombe and Bradhurst avenues in Manhattan, and is set within a 1.28-acre, narrow hillside. The exterior of the imposing two-story bath house features Romanesque Revival-inspired details, and incorporates elements of the Art Moderne style. The exterior of the bath house features a series of recessed bays, a parapet embellished with a cast-stone balustrade, and several large round towers that rise above the roof line of the building. The pool, which measures 82 feet by 236 feet and owes its unusual shape to the narrow site, is located above the grade of Bradhurst Avenue. The lobby includes two cascading stairways that lead in opposite directions to the men’s and women’s locker room, bas-relief panels of water-related activities, floral limestone corbels supporting the concrete Gothic arches, an original flagged bluestone floor and a ticket booth that resembles the prow of a ship.

**C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)**

In the future without the Proposed Action, the RWCDS assumes none of the properties within the proposed rezoning area would be redeveloped, and the existing land uses would remain. The Proposed Development Site would continue to be occupied by a public parking garage (Lot 21). It is expected that the study area’s current land use trends and general development patterns would continue. Although no developments are anticipated within the defined historic resources study area, as discussed in Chapter 2, “Land Use, Zoning, and Public Policy,” several other
developments are expected to occur outside the 400-foot study area in the future without the Proposed Action. None of these developments would directly affect designated architectural resources, and all of the identified landmark structures and historic districts within the study area would remain in their current state.

D. PROBABLE IMPACTS OF THE PROPOSED ACTION

As detailed in Attachment A, “Project Description,” the Proposed Action includes: (1) a zoning map change from C8-3 and R7-2 to a R8A residential zoning district; (2) acquisition/disposition of City-owned property, in the form of an exchange of easements between the applicant and the NYC Department of Citywide Administrative Services (DCAS); (3) construction financing from the NYC Department of Housing Preservation and Development (NYCHPD), an Involved Agency for CEQR purposes, which will likely be comprised of federal funding from the U.S. Department of Housing and Urban Development (HUD); and (4) other financing from the New York State Division of Housing & Community Renewal (DHCR), and the New York State Office of Temporary Disability Assistance for the residential component of the Proposed Development. Approval of all City actions (rezoning and acquisition/disposition) is a pre-requisite for any grant of the federal or state funding.

The Proposed Action would facilitate construction of a 13-story mixed-use building on the Proposed Development Site (refer to illustrative rendering in Figure 5-5). As described in Chapter 1, “Project Description,” in designing the Proposed Development, the applicant’s main goal was to design a modern building that would conform to the proposed R8A zoning envelope, and provide innovative interior and exterior features to house the mixed use program of affordable apartments, museum and day care center. Another design goal was to develop a fenestration pattern for all the uses in the building that provided an abundance of natural light and views. It should be noted that the design of the Proposed Development is ongoing and may be modified to the extent required to conform with State and federal funding requirements.

As presented in Chapter 1, “Project Description,” in the future with the Proposed Action, the existing 2-story garage on the Proposed Development Site, which is identified as a contributing building in the S/NR district, would be demolished in order to construct the Proposed Development. The Proposed Development would consist of a mixed-use building that is 13 stories plus one cellar, with a height of approximately 120 feet from the average curb level to the roof line. The proposed building would incorporate the required setback at 76 feet, with the upper portion of the building sliding back from the base with a 10’ cantilever. The Proposed Development would be completed and occupied in late 2012.

Assessment

The Proposed Action was assessed in accordance with guidelines established in the CEQR Technical Manual (Chapter 9, Part 420), to determine (a) whether there would be a physical change to any designated property or its setting as a result of the Proposed Action, and (b) if so, is the change likely to diminish the qualities of the resource that make it important (including nonphysical changes such as context).
Proposed Development Site - Existing Views vs. Illustrative Future View

View from corner of W. 155th Street and St. Nicholas Avenue looking southeast towards proposed Development Site. Existing view above, illustrative future view below.
Privately owned properties that are NYC landmarks or S/NR-listed, or are pending designation as landmarks, are protected under the New York City Landmarks Law, which requires NYCLPC review and approval before any alteration or demolition can occur. Similarly, developments occurring within NYCLPC-designated historic districts require a Certificate of Appropriateness (COA) from NYCLPC. As noted above, the Proposed Development Site is excluded from the NYCLPC-designated historic district, and therefore does not require a COA from NYCLPC. In addition, the city has procedures for avoiding damage to historic structures from adjacent construction, as discussed in the “Construction” section below.

Likewise, historic resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection from the effects of federally sponsored or federally assisted projects under Section 106 of the National Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Properties listed on the S/NR are similarly protected against impacts resulting from State-sponsored or State-assisted projects under the State Historic Preservation Act. However, private owners of properties that are eligible for – or even listed on – the S/NR can, using private funds, alter or demolish their properties without such a review process. Because the Proposed Development is expected to utilize State and/or Federal funding (including NYS Low Income Housing Tax Credits allocated by the NYC Division of Housing Community Renewal (DHCR), as well as funding from the NYS Office of Temporary Disability Assistance under their Homeless Assistance Program) and is located in a S/NR-listed historic district, the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) was consulted during the preliminary design process in order to determine whether the Proposed Development may adversely affect the S/NR historic district.

As discussed in the assessment below, the Proposed Development would relate in height and bulk to several of the taller apartment buildings in the area, although it could alter the context of West 155th Street, which marks the northern boundary of the S/NR historic district and would therefore result in a significant adverse indirect impact to historic resources. In addition, as the Proposed Action would result in the demolition of the existing garage structure, which is identified as a contributing structure to the S/NR historic district, OPRHP has indicated that this would constitute a significant adverse impact. Mitigation measures that would minimize or reduce impacts to historic resources are discussed in Chapter 12 of this EIS.

According to the CEQR Technical Manual, generally, if a proposed action would affect those characteristics that make a resource eligible for NYC Landmark designation or S/NR listing, this could be a significant adverse impact. The designated historic resources in the study area are significant both for their architectural quality as well as for their historical value as part of the City’s development. This section assesses the potential for the Proposed Action to result in significant adverse impacts on identified architectural resources, including effects resulting from construction of the Proposed Development, or contextual effects on existing historic resources in the study area once construction is completed.

**Direct Effects**

Historic resources can be directly affected by physical destruction, demolition, damage, alteration, or neglect. Direct effects also include changes to an architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.
The Proposed Development Site is excluded from the NYCLPC-designated historic District. Although the existing garage structure on the Proposed Development Site falls within the S/NR-listed historic district, which identifies it as a contributing structure, an architectural assessment report conducted by Higgins Quasebarth & Partners LLC indicates that the building has been modified over time since its construction and transformation into its current form in 1927 (see discussion under “Existing Conditions” above). The report found that alterations have been made to the structure’s entries and window bays, including: modifications to the ground-floor openings on the West 155th Street elevation, non-original glass block infill at the second-floor windows on both facades, paint on the brick facade, and the removal of historic signage. The report also indicates that non-original infill at the first and second floors has changed the overall transparency and symmetry of the structure’s 1920s design. The exposed common red brick and non-original entry on the east elevation have also changed the original character of this facade.

Nevertheless, as the Proposed Action would result in the demolition of the existing garage structure, which is identified as a contributing structure to the S/NR historic district, this would constitute a significant adverse direct impact to historic architectural resources. Identified mitigation measures that would minimize or reduce this significant adverse impact are discussed in Chapter 12, “Mitigation” of this document.

**Indirect Effects**

Indirect effects, also referred to as contextual effects, can occur when development results in the isolation of a property from or alteration of its setting or visual relationship with the streetscape; introduction of incompatible visual, audible, or atmospheric elements to a resource’s setting; replication of aspects of a resource so as to create a false historic appearance; or elimination or screening of publicly accessible views of the resource.

The Proposed Development, at 13-stories, would be taller than most buildings immediately to the south of the rezoning area, which fall within the S/NR historic district and partially within the NYCLPC historic district. However, there are several buildings within a 400-foot radius that are of similar height or taller than the Proposed Development. These include the 13-story landmark building at 409 Edgecombe Avenue, which is located within the boundaries of both the S/NR and LPC historic districts, as well as newer mid-century buildings, especially those owned by the New York City Housing Authority, such as the 22-story NYCHA development at Amsterdam Avenue and West 156th Street, the 20-story NYCHA building at the southeast corner of Amsterdam Avenue and West 155th Street, one block to the west of the Proposed Development, and the 30-story Polo Grounds Towers to the northeast of the rezoning area. Moreover, the Proposed Development would be located along West 155th Street, which is a major two-way thoroughfare that divides the historic district to the south and the open spaces and the 30-story Polo Ground residential complex to the north. Most of the taller structures noted above are located along West 155th Street, similar to the Proposed Development. As such, the Proposed Development would relate well to the taller contemporary buildings in the study area, while respecting the context of historic structures to the south.

It should be noted that the Proposed Development, at a height of 120 feet, would be shorter than the approximately 140-foot tall landmark building at 409 Edgecombe Avenue. Moreover, 409 Edgecombe Avenue is set on a ridge overlooking central Harlem, which contributes to its prominent visual presence in the neighborhood. The Proposed Development, by being lower in height than the nearby historic building at 409 Edgecombe Avenue, would maintain physical and
visual deference to this historically significant structure. The Proposed Development would have a continuous streetwall and high lot coverage, in keeping with the character of many of the area’s historic buildings. The proposed new building is expected to use modern materials and design and would not create an ersatz historic building that would detract from the original historic character of the area. In addition, it would not eliminate any public views of other historic resources. As such, the Proposed Development would not impair distinguishing architectural and decorative characteristics and views to nearby historic resources. These historic resources and their distinguishing characteristics are oriented to and viewed from the public streets and these views would not be obstructed by the Proposed Development.

As illustrated in the photos in Figure 5-4 above, there is no point where the existing garage building (or the proposed new building) is seen in the context of the historic rowhouses that give the Sugar Hill Historic District its distinct sense of place. Moreover, the uniform street walls in much of the Sugar Hill Historic District, and the presence of intervening developments in the vicinity of the site, limit views of the Proposed Development Site from street level at the core of the historic district further to the south. However, the upper portion of the Proposed Development would be visible from some locations, similar to how the upper portions of the building at 409 Edgecombe Avenue are currently visible in some views from street level. Thus, the slightly altered views to and from the historic district would not affect the characteristics that make it eligible for listing on the S/NR or designation by the LPC, either in terms of its architectural quality or historic significance.

Moreover, the proposed landscaped entry plaza on St. Nicholas Avenue would be a publicly accessible community resource that highlights the presence of the Old Croton Aqueduct underneath that lot (Lot 26). The entry plaza is expected to draw attention to the path of the Old Croton Aqueduct, one of the great engineering feats of the 19th century. Although the plans for the plaza have not yet been finalized, it is expected that the entry plaza would be landscaped, and may include a linear configuration of concrete pavers to locate the Aqueduct, distinguishing it from the surrounding paved open space. The proposed building with its landscaped plaza will open up the views along St. Nicholas Avenue from the south because the walled in area with a fence above that currently exists will be eliminated and replaced with a landscaped publicly-accessible plaza.

Overall, while some elements of the Proposed Development would be considerably different from those of neighboring buildings, these changes would be compatible as the area has a wide range of building types, sizes, and architectural styles. Just as existing buildings from different historic periods contribute to the layers of history evident in the area, the proposed building would add to this mixture by creating a new purpose-built mixed-use building representing the early twenty-first century.

In reviewing the proposed building design, SHPO has concluded that the scale of the building is not out of context with existing conditions found at the northern end of the Sugar Hill Historic District (for example, the contributing apartment building at 409 Edgecombe Avenue, which is an individual LPC landmark, is of similar height). However, given its unique massing and modern design details, the Proposed Development would likely alter views from some sidewalks within the historic district, thereby altering the setting and general context of some of these structures. As such, the Proposed Development has the potential to result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. In a letter dated August 25, 2010 (refer to Appendix A of this document), SHPO concurred with
this conclusion. Mitigation measures that would minimize or reduce this potential significant adverse impact are discussed in Chapter 12, “Mitigation” of this document.

Shadows

As described in Chapter 4, “Shadows,” historic resources that could potentially be affected by shadows from the Proposed Development are those located mostly to the north, east and west of the rezoning area. These include small areas of the S/NR-listed Hamilton Heights Historic District, and the West 155th Street Viaduct. The NYCLP-designated Hamilton Heights/Sugar Northeast Historic District and the landmark 409 Edgecombe Avenue are located to the south of the rezoning area and are not within the defined shadow radius. The resources falling within the maximum shadow radius display distinctive architectural styles relevant to the history of New York City. However, the architectural details of these resources are not dependent on sunlight during the day to the extent that shadows from the Proposed Development would obscure their significance. Therefore, while the Proposed Development facilitated by the Proposed Action could potentially cast shadows on portions of some of the historic resources identified above, the Proposed Action is not expected to result in significant adverse shadows impacts related to historic resources.

Construction

The Proposed Development would entail demolition of an existing structure and the construction of a new building adjacent to a historic structure, namely, the building on Block 2069/Lot 14, which falls within both the NYCLPC-designated Hamilton Heights/Sugar Hill Northeast Historic District and the S/NR-listed Sugar Hill Historic District. Therefore, the Proposed Action has the potential to cause damage to this historic architectural resource from ground-borne construction vibrations.

There are two mechanisms to protect buildings in New York City from potential indirect damage caused by construction activities. All buildings are provided some protection from accidental damage through New York City Department of Buildings controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the requirements of Building Construction Subchapter 7 and Building Code Subchapters 11 and 19.

The second protective measure applies only to designated NYC Landmarks and S/NR-listed historic buildings located within 90 linear feet of the proposed construction site. For these structures, the DOB’s Technical Policy and Procedure Notice (TPPN) #10/88 applies. TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCLPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. By following these measures, which are required for any designated historic resources within 90 feet of the Proposed Development Site, the proposed demolition/construction work would not cause any significant adverse construction-related impacts.
E. CONCLUSION

The Proposed Action would not result in any significant adverse impacts to archaeological resources. Although the Proposed Development Site would experience new development that would require ground disturbance, the NYCLPC has indicated that all of the lots comprising the rezoning area have no archaeological significance. As such, the Proposed Action and the resulting development on the Proposed Development Site is not expected to result in any significant adverse impacts to archaeological resources.

As the Proposed Action would result in the demolition of an existing 2-story garage which is identified as a contributing structure to the S/NR historic district, this would constitute a significant adverse direct impact to historic architectural resources. Identified mitigation measures that would minimize or reduce this significant adverse impact are discussed in Chapter 12, “Mitigation” of this EIS.

The Proposed Development would relate in height and bulk to several of the taller apartment buildings in the area, although it would alter the general context of West 155th Street, which forms the northern boundary of the S/NR historic district and would therefore result in a significant adverse indirect impact to historic resources. Mitigation measures that have the potential to minimize or reduce this significant adverse impact are discussed in Chapter 12, “Mitigation” of this document. No incompatible, audible or atmospheric elements would be introduced by the Proposed Development to any historic resource’s setting, nor would the Proposed Action result in any significant adverse shadows impacts relating to historic resources. Finally, designated NYC Landmarks and S/NR-listed historic buildings located within 90 linear feet of the Proposed Development Site would be subject to the protections of NYCDOB’s TPPN #10/88, which would ensure that such development resulting from the Proposed Action would not cause any significant adverse construction-related impacts to historic resources. With these protection measures, the Proposed Action and subsequent construction of the Proposed Development would not result in any significant adverse construction-related impacts to historic resources in the area.
A. INTRODUCTION

According to the CEQR Technical Manual, an analysis of urban design and visual resources is appropriate if a proposed project would; a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use or arrangement than exists in an area; b) change block form, demap an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or street space elements; or c) would result in above-ground development in an area that includes significant visual resources.

An assessment of the Proposed Development’s potential effects on urban design was provided in the EAS document dated April 2, 2010, which concluded that the Proposed Development facilitated by the Proposed Action would not result in any significant adverse impacts on urban design in the study area. As the Proposed Development would be constructed on an existing developed block, it would not alter any natural features, street patterns, or block shapes in the study area. In addition, the Proposed Development would enhance the area’s streetscape by replacing a fenced and underutilized area along St. Nicholas Avenue with a landscaped publicly-accessible plaza, which would also serve as the entrance to the proposed building. The Proposed Development would infill the low-rise streetwall along West 155th Street with a taller mid-rise mixed-use residential building. The museum and child care uses proposed along West 155th and St. Nicholas Avenue would further revitalize this currently inactive and blank blockfront, and the Proposed Development would enliven the surrounding streets with street plantings and trees, and greater pedestrian activity. The Proposed Development, at 13-stories tall, would not be substantially different in bulk, scale, height, or form than many other mid to high-rise buildings located within the area, including the 22, 20, and 15-story residential buildings located one block to the west of the Proposed Development Site on Amsterdam Avenue and West 155th Street.

However, as the Proposed Action would result in new development within or adjacent to a designated historic district, as well as the demolition of an existing building within a S/NR-listed historic district, an assessment of visual resources was deemed to be warranted and is provided in this chapter. As detailed below, the Proposed Action and subsequent construction of the Proposed Development is not expected to result in any significant adverse impacts on visual resources.

An area’s visual resources are its unique or important public view corridors, vistas, or natural or built features. For CEQR analysis purposes, this includes only views from public and publicly accessible locations and does not include private residences or places of business. Visual resources could include views of the waterfront, public parks, landmark structures and districts, or natural resources. As recommended by the CEQR Technical Manual, the study area for the visual resources analysis is coterminous with the study area used for the analysis in Chapter 2, “Land Use, Zoning, and Public Policy,” delineated by an approximate ¼-mile radius around the proposed rezoning area (refer to Figure 6-1, “Urban Design and Visual Resources Study Area”). As per the guidelines of CEQR, only views of visual resources from public and publicly accessible locations are assessed.
Visual Resources Study Area
B. EXISTING CONDITIONS

Proposed Development Site

The Proposed Development Site is currently occupied by a low-rise commercial structure, which is identified as a contributing building to the S/NR Sugar Hill Historic District. Given the extensive width of West 155th Street and the area’s change in elevation, the garage building is visible from a distance along that corridor, although given its low height it is not particularly prominent (see Figure 6-2). However, as described in Chapter 5, “Historic Resources,” an architectural assessment report conducted by Higgins Quasebarth & Partners LLC indicates that the building has been modified over time, with alterations made to the structure’s entries and window bays, including: modifications to the ground-floor openings on the West 155th Street elevation, non-original glass block infill at the second-floor windows on both facades, paint on the brick facade, and the removal of historic signage. The report indicates that non-original infill at the first and second floors has changed the overall transparency and symmetry of the structure’s 1920s design. The exposed common red brick and non-original entry on the east elevation have also changed the original character of this facade. Thus, the building is not visually distinguished, as many of its most notable historic features have been altered or removed, nor does there appear to be any especially notable historic events associated with this garage.

Surrounding Study Area

There are a number of visual resources in the vicinity of the proposed rezoning area, including views of significant historic and architectural landmarks within historic districts and views of open spaces, as well as one natural resource. These include two major parks, Highbridge Park and Jackie Robinson Park, Fordham Cliffs, the area’s most notable natural feature, as well as several designated historic resources, including the S/NR Sugar Hill Historic District and NYCLPC Hamilton Heights/Sugar Hill Historic District, the 155th Street Viaduct and Macomb’s Dam Bridge, and 409 Edgecombe Avenue. Additional visual resources located further away include Trinity Cemetery to the west and the Harlem River to the east. Each of these resources is described briefly below, and their locations are indicated in Figure 6-1. Figure 6-3 provides illustrative photos of these visual resources.

S/NR Sugar Hill Historic District and NYCLPC Hamilton Heights/Sugar Hill Historic District

The boundaries of the NYCLPC-designated Hamilton Heights/Sugar Hill Historic District (Northeast and Northwest) are different from the S/NR district, as illustrated in Figure 6-1. The rezoning area is included within the boundaries of the S/NR district but is mostly excluded from the NYCLPC-designated district, with the exception of the approximately 692 sf portion of Lot 14 located within the rezoning area, which falls within both districts. The S/NR Sugar Hill Historic District, designated in 2002, consists of 414 contributing buildings, which are primarily late nineteenth and early twentieth century row houses and apartment buildings. It is bounded to the south by West 145th Street and to the north by West 155th Street, running irregularly along the side streets west of Convent Avenue and in some cases as far west as Amsterdam Avenue. The hilly
View from the roof of a high-rise building to the north of 155th Street looking southwest towards Proposed Development Site. Historic district buildings are in the center of photo and to the left of site, Highbridge Park is visible in foreground right, and northern portion of Jackie Robinson Park visible in foreground left.
1. View from West 155th Street at St. Nicholas Avenue, looking west towards the 155th Street Viaduct (in the distance), and the Bronx beyond. Proposed Development Site is to the right of photo.

2. View of rowhouses on the south side of West 154th Street, west of St. Nicholas Avenue. These buildings fall within both the S/NR historic district and the NYCLPC Hamilton Heights/Sugar Hill Northwest historic district.

3. View of Jackie Robinson Park from Edgecombe Avenue, looking south-east. The difference in grade caused by the Fordham Cliffs is clearly visible in photo (Bradhurst Avenue visible in the background, at the lower elevation).

4. View from Bradhurst Avenue looking west through Jackie Robinson Park, illustrating difference in grade caused by the Fordham Cliffs. The building at 409 Edgecombe Avenue, a NYCLPC-designated and S/NR-listed individual landmark, is visible in the background, located above of the cliff.

5. View of the perimeter of Trinity Cemetery, with its trees and vegetation clearly visible beyond. View from Amsterdam Avenue and West 155th Street looking southwest.

6. View of Highbridge Park. View is from Edgecombe Avenue at West 157th Street, looking southeast.

Source: Google Street View
topography, parks, and numerous trees create vistas that juxtapose the natural and urban environments.

Two types of residential buildings give the S/NR historic district its special architectural character, the row house and the apartment building. The historic structures within the Sugar Hill Historic District exhibit a variety of accenting building elements, colors, and textures. In terms of massing, the historic district exhibits a range of building types and heights. While the row houses prevalent in the midblocks are typically 3 to 4 stories in height, apartment buildings are typically 6 stories in height, although taller apartment buildings can also be found, particularly at the northern, and southern edges of the S/NR historic district, such as the 13-story landmark building at 409 Edgecombe Avenue (a.k.a. Colonial Parkway Apartments, and the 13-story building at the southeastern boundary of the historic district, a.k.a. Bowery Savings Bank Apartments). Figure 6-4 illustrates the range of building heights within the portion of the historic district that falls within the ¼-mile study area.

The NYCLPC Hamilton Heights/Sugar Hill Northeast Historic District was designated in 2001. Nearly all of the buildings in this historic district were constructed between 1905 and 1930, a period when developers ceased building single-family houses and began to build medium-size apartment buildings. These structures are located on uninterrupted block fronts that extend along St. Nicholas Place and Edgecombe Avenue, from West 150th to West 155th Streets. Nearly all of the thirty-two buildings in this historic district are apartment houses; two attached single-family residences are also included in the district. Most of the buildings are five or six stories tall, and generally have brick and stone facades, reflecting popular neoclassical styles, especially Renaissance and Colonial Revival.

The NYCLPC Hamilton Heights/Sugar Hill Northwest Historic District, designated in 2002, includes approximately 97 buildings and extends from the southwest corner of Convent Avenue and West 151st Street and the west side of St. Nicholas Avenue, just south of West 151st Street, north to the southwest corner of St. Nicholas Avenue and West 155th Street. Buildings in this historic district face on Convent Avenue, St. Nicholas Avenue, St. Nicholas Place, and West 152nd, West 153rd, West 154th, and West 155th Streets. Besides the row houses, there is one freestanding mansion, dating from 1887, in the district. A few middle-class apartment buildings were also erected during the late nineteenth century, but most of the district's multiple dwellings date from the early twentieth century. In total, there are 33 apartment houses in the district. These apartment houses are either five or six stories tall and almost all have brick facades with limestone bases and terra-cotta trim. In addition, this district contains a taxpayer containing a store with residence above and a masonic lodge, the only institutional building within the boundaries.

As illustrated in Figure 6-1, the northern portion of the NYCLPC-designated Hamilton Heights/Sugar Hill Historic District and Extension also falls with the ¼-mile study area. Designated in 2000 and 2001, this district contains residential buildings of great architectural and cultural merit. The finest row houses were treated as block-long compositions in which materials and decorative features were arranged to create unusually coherent streetscape.

**Fordham Cliffs**

One of the most unique natural feature of the study area is the topographic drop known as the Fordham Cliffs. This geological rupture creates a formidable topographic shift in the landscape all the way from Inwood Hill Park at the tip of Manhattan to Morningside Park at the south end of
Building Heights within Approximate 1/4-Mile Radius

Legend

- Proposed Rezoning Area
- Proposed Development Site
- Building Height Study Area
- Tax Block Number 2081

Lots in Study Area

- 0 to 3 Stories
- 3 to 6 Stories
- 6 to 10 Stories
- 10 to 15 Stories
- 15 to 25 Stories
- Greater than 25 Stories

Enlarged Area
Harlem. Caused by a geological rupture and a shift of the eastern plates of the Northern Manhattan Plateau, the Fordham Cliffs drop more than 70 feet, contributing to the unique physical characteristics of several Harlem parks – Morningside, St. Nicholas, Jackie Robinson and Highbridge. In the study area, the Cliffs present an obstacle in terms of access and connectivity between neighborhoods. There is a drop varying between 60 to 70 feet from Edgecombe to Bradhurst Avenue (Jackie Robinson Park – refer to photos 3 and 4 in Figure 6-3) and a drop of more than seventy feet from Edgecombe Avenue to the Polo Grounds (Highbridge Park). The Cliffs essentially separate the immediate environs of the Proposed Development Site on high ground from the Polo Grounds/Ralph Rangel Houses and Bradhurst neighborhoods at the bottom (to the east).

**Highbridge Park**

Highbridge Park is a 118.75-acre park that extends from West 155th Street north to Dyckman Street, between Edgecombe and Amsterdam Avenues. This park derives its name from New York City’s oldest standing bridge, the High Bridge (1848), which was built to carry the Old Croton Aqueduct over the Harlem River, and was assembled piecemeal between 1867 and the 1960s, with the bulk being acquired through condemnation from 1895 to 1901. The park is widely known for its important landmarks, the Highbridge tower and the High Bridge (the city's oldest standing bridge), and also offers natural beauty and recreational fun, including a recreation center with pool, open vistas and an unusual geologic makeup. Among its strongest features are the magnificent cliffs and large rock outcroppings that dominate the park.

**Jackie Robinson Park and Play Center**

Jackie Robinson Park is a 12.77-acre park that extends from West 155th Street south to 145th Street, between Bradhurst and Edgecombe Avenues, which provides ten blocks of recreational resources. There is a topographical difference of approximately 70 feet from Edgecombe Avenue, the western boundary of the park, to Bradhurst Avenue, its eastern boundary, as illustrated in photos 3 and 4 of Figure 6-3. Along with its pool opening in 1936, a recreation center was created the same year. The park’s other features include two baseball diamonds, basketball courts, volleyball courts, and two playgrounds, one with a water play area In addition, the park includes a bandshell that hosts concerts throughout the warm season. The Jackie Robinson (Colonial Park) Play Center was designated by NYCLPC in April 2007, including the swimming pool, bath house, former diving pool, band shell, dance floor terrace and extension between West 148th and West 150th Streets, retaining walls, fencing, stairways, linking pathways, playground, former wading pool and comfort station. NYCLPC also granted landmark protection to the interior of the complex’s bath house.

**155th Street Viaduct and Macomb’s Dam Bridge**

Spanning the Harlem River between West 155th Street and St. Nicholas Place in Manhattan, and Jerome Avenue and East 162nd Street in the Bronx, Macomb’s Dam Bridge and 155th Street Aqueduct were designated in 1992. Known until 1902 as Central Bridge, this is the oldest metal truss swing bridge and the third-oldest bridge in the city. The ensemble consists of a swing bridge over the Harlem River with an intricate latticework of steel crowned with four finials; stone end piers capped by shelter houses; a camelback span over the railroad tracks in the Bronx; the 155th Street steel viaduct with tall stairways in Manhattan; and a shorter steel approach road in the Bronx.
409 Edgecombe Avenue

This 13-story building, originally called the Colonial Parkway Apartments, was designated in 1993. Constructed in 1916-1917 and set on a ridge overlooking central Harlem (see photo 4 in Figure 6-3), this was the most prestigious address for African-American New Yorkers from the 1930s through the 1950s. Notable for its conspicuous height and illustrious tenants, the curving thirteen-story apartment house attracted such luminaries as Thurgood Marshall, Aaron Douglass, and W.E.B. Dubois. The E-shaped building dominates the block and the wide façade curves to follow the route of Edgecombe Avenue as it turns west.

Trinity Cemetery

The study area also includes the 24-acre Trinity Cemetery, which lies on both sides of Broadway between 153rd and 155th Streets (see photo 5 in Figure 6-3). Calvert Vaux, co-designer of Central Park in Manhattan and Prospect Park in Brooklyn, designed a Gothic-style bridge across Broadway on the south side of 155th Street, which linked the two properties owned by Trinity Church. The bridge stood from 1872 to 1911, when it was demolished to make way for a large chapel on the eastern corner. The only remaining active cemetery in Manhattan, this quiet retreat includes giant hundred-year-old oaks and elms overlooking grassy knolls and manicured walkways, and provides seating and views of the Hudson River.

Harlem River

The Harlem River is an approximately 8-mile long waterway separating the boroughs of Manhattan and the Bronx, and flows between the Hudson River and the East River. The Harlem River is located approximately five blocks to the east of the rezoning area and falls outside the ¼-mile study area. However, due to the area’s elevation changes, the Harlem River is visible from the eastern portion of the view corridor along West 155th Street, as well as other east-west through streets in the study area.

C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

In the future without the Proposed Action, the RWCDS assumes none of the properties within the proposed rezoning area would be redeveloped, and the existing visual character of the rezoning area would remain unchanged. The Proposed Development Site would continue to be occupied by a 2-story public parking garage (Lot 21). It is expected that the study area’s current land use trends and general development patterns would continue. As discussed in Chapter 2, “Land Use, Zoning, and Public Policy,” two developments are expected to occur within the ¼-mile study area in the future without the Proposed Action.

Parts of two blocks to the east of the proposed rezoning area are expected to be rezoned from C8-3 to R8/C1-4, which would facilitate the planned redevelopment of a 125-space parking facility with a new mixed-use building. This development, according to available information, is expected to be completed by 2012 and is planned to consist of a 12-story mixed-use building that would include approximately 272 residential units and 32,800 sf of retail uses, as well as 144 public parking
spaces. In addition, the School Construction Authority (SCA) has proposed to construct the Community Health Academy of the Heights, a proposed 572-seat intermediate school, on a site located at 1970 Amsterdam Avenue between West 157<sup>th</sup> and West 158<sup>th</sup> streets, which comprises a NYCHA development.

Thus, in the future without the Proposed Action, the overall visual character of the study area is anticipated to remain similar to existing conditions due to the limited amount of development projected to occur. In the future without the Proposed Action, existing views of visual resources in the study area are not expected to undergo substantial change. Planned developments within the study area are not anticipated to affect the area’s visual resources or eliminate or obstruct view corridors. Nor would they affect views of significant historical or architectural resources.

D. PROBABLE IMPACTS OF THE PROPOSED ACTION

The Proposed Development Site contains a 2-story garage that has been identified as a contributing building to the S/NR Sugar Hill historic district, which would be demolished to allow for construction of the Proposed Development. Although demolition of this structure has been identified as a significant adverse impact on architectural resources (refer to Chapter 5, “Historic Resources”), it is not expected to result in a significant adverse impact with respect to visual resources. As described above, the garage is not visually distinguished, as many of its most notable historic features have been altered or removed, and the brick façade shows wear, nor is it typical or characteristic of the surrounding historic district, as it exhibits a different scale, use and style. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district because it would not create a significant change in the overall context or cohesion of the historic district as compared to existing or No-Action conditions. This is particularly due to the site’s location on the northern periphery of the historic district and the core of historic and architecturally significant buildings.

The existing garage would be replaced by a new 13-story mixed-use building, as described in Chapter 1, “Project Description”. The building mass of the Proposed Development has been developed by the project architects to complement the historic forms of the surrounding historic districts, and is expected to use modern materials and design. The Proposed Development, at 13-stories (120 feet high), would be taller than the existing structure on the site, and would therefore be more prominent in views along the adjacent streets, particularly along West 155<sup>th</sup> Street. However, it would not eliminate any public views of visual resources, including historic resources, in the surrounding area.

As described in Chapter 1, “Project Description,” the Proposed Action would allow the location of the main entrance to the Proposed Development on St. Nicholas Avenue through a landscaped plaza, which would improve and enhance the area’s visual character. The proposed landscaped entry plaza on St. Nicholas Avenue would be a publicly accessible community resource that highlights the presence of the Old Croton Aqueduct underneath. Although the plans for the plaza have not yet been finalized, it is expected that the entry plaza would be landscaped, and may include a linear configuration of concrete pavers to locate the Aqueduct, distinguishing it from the
surrounding paved open space. This proposed plaza would be a visual asset to the neighborhood, and would greatly enhance the area’s visual character.

In the future with the Proposed Action, views of visual resources in the vicinity of the rezoning area would not experience any significant adverse changes. Although the site’s geological height will make the Proposed Development visible from a distance, the new building would relate well to the taller contemporary buildings in the study area, particularly those along the West 155th Street corridor, as illustrated in Figure 6-5. The Proposed Development, at a height of 13 stories (120 feet), would provide a visual connection between the taller contemporary buildings along West 155th Street, some of which are as tall as 30 stories, while respecting the visual context of the historic structures to the south. The proposed building also has a continuous streetwall which is characteristic of many of the larger apartment buildings in the district. The proposed building’s base, at 76 feet, would be similar in height to the 6-story building at the southwest corner of West 155th Street and St. Nicholas Avenue directly across from the rezoning area, as well as other 6-story apartment buildings along St. Nicholas Place and along Edgecombe Avenue one block to the east. As illustrated in Figure 6-5, the upper portion of the building is set back from the base with a 10’ cantilever, making it less prominent to pedestrians on West 155th Street.

In addition, the Proposed Action would not eliminate any public views of historic resources in the area, as these resources and their distinguishing characteristics are oriented to and viewed from the public streets, and these views would not be obstructed by the Proposed Development. View corridors along West 155th Street, St. Nicholas Avenue, and St. Nicholas Place, would not change as a result of the Proposed Development. While views of the study area from locations to the north, east and west would change, the Proposed Development would not block views of any visual resources from these vantage points. The uniform street walls in much of the Sugar Hill Historic District, and the presence of intervening developments in the vicinity of the site, limit views of the Proposed Development Site from street level at the core of the historic district further to the south. However, the upper portion of the Proposed Development would be visible from some locations, similar to how the upper portions of the building at 409 Edgecombe Avenue are currently visible in some views from street level.

As described in Chapter 5, Historic Resources, the Proposed Development would result in an indirect, significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources.

By redeveloping a currently underutilized garage site, the Proposed Action and resultant Proposed Development would alter the visual environment of historic resources and historic districts in the vicinity of the site. However, it would not affect the architectural characteristics that make these resources eligible for inclusion on the State and National Registers or designation as a New York City Landmark, either in terms of their architectural quality or historic significance. The Proposed Development would also not block any view corridors along public streets or sidewalks.

Given the above, no significant adverse visual resources impacts are expected as a result of the Proposed Action.
View from the roof of a high-rise building to the north of 155th Street looking southwest towards Proposed Development Site. Historic district buildings are in the center of photo and to the left of site, Highbridge Park is visible in foreground right, and northern portion of Jackie Robinson Park visible in foreground left.

Same view with Illustrative Rendering of the Proposed Development

Source: Adjaye Associates
It should also be noted that one of the measures identified to partially mitigate the significant adverse impact on historic architectural resources calls for the applicant to consult with the New York State Office of Parks, Recreation and Historic Preservation regarding the design of the new building (refer to Chapter 12, “Mitigation”). This would help ensure that the Proposed Development would be visually complementary with its historic surroundings. If the significant adverse indirect contextual impact to historic resources identified in Chapter 5 cannot be fully mitigated, the Proposed Action would result in an unavoidable significant adverse impact on historic resources (refer to Chapter 14, “Unavoidable Adverse Impacts”).

E. CONCLUSION

The Proposed Development would not result in any significant adverse impacts on visual resources in the study area. The Proposed Development would not block views of any significant visual resources in the surrounding area. Although the Proposed Action would result in the demolition of the existing garage structure on the site (which has been identified as a contributing building to the S/NR Sugar Hill historic district), it is not expected to result in a significant adverse impact with respect to visual resources as many of the building’s most notable historic features have been altered or removed. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district because it would not create a significant change in the overall context or visual cohesion of the historic district as compared to existing or No-Action conditions.

The proposed new structure would be much more visible than the existing on-site building; however, as the Proposed Development is expected to be consistent with the massing, height, and design of other existing mid- to high-rise multifamily mixed-use residential buildings in the area, particularly along West 155th Street, this added height and greater visibility would not constitute a significant adverse visual impact. Moreover, the Proposed Action would improve and enhance the area’s visual character by facilitating the provision of a landscaped entry plaza on St. Nicholas Avenue. Therefore, given the above, it is not expected that the Proposed Development would adversely impact views of visual resources in the area, and no significant adverse visual resources impacts are expected as a result of the Proposed Action.
A. INTRODUCTION

As defined in the CEQR Technical Manual, neighborhood character is considered to be an amalgam of the various elements that give a neighborhood its distinct personality. These elements can include land use, urban design, visual resources, historic resources, socioeconomics, traffic, and noise, as well as any other physical or social characteristics that help to distinguish the community in question from another. According to the CEQR Technical Manual, an assessment of neighborhood character may be appropriate if a proposed action could result in adverse impacts to one or more of the elements comprising neighborhood character. It is also possible that several moderate changes in the elements that contribute to neighborhood character, while not significant adverse impacts by themselves, could collectively lead to a significant impact on neighborhood character. Potential effects on neighborhood character may include:

- **Land Use.** Development resulting from a proposed action could alter neighborhood character if it introduces new land uses, conflicts with land use policy or other public plans for the area, changes land use character, or generates significant land use impacts.

- **Socioeconomic Conditions.** Changes in socioeconomic conditions have the potential to affect neighborhood character when they result in substantial direct or indirect displacement or addition of population, employment, or businesses; or substantial differences in population or employment density.

- **Historic Resources.** When an action would result in substantial direct changes to a historic resource or substantial changes to public views of a resource, or when a historic resource analysis identifies a significant impact in this category, there is a potential to affect neighborhood character.

- **Urban Design and Visual Resources.** In developed areas, urban design changes have the potential to affect neighborhood character by introducing substantially different building bulk, form, size, scale, or arrangement. Urban design changes may also affect block forms, street patterns, or street hierarchies, as well as streetscape elements such as streewalls, landscaping, curbcuts, and loading docks. Visual resource changes could affect neighborhood character if they directly alter key visual features such as unique and important public view corridors and vistas, or block public visual access to such features.

- **Transportation.** Changes in traffic and pedestrian conditions can affect neighborhood character in a number of ways. For traffic to have an effect on neighborhood character, it must be a contributing element to the character of the neighborhood (either by its absence or its presence), and it must change substantially as a result of the action. According to the CEQR Technical Manual, such substantial traffic changes can include: changes in level of service (LOS) to C or below; change in traffic patterns; change in roadway classifications; change in
vehicle mixes, substantial increase in traffic volumes on residential streets; or significant traffic impacts, as identified in the technical traffic analysis. Regarding pedestrians, when a proposed action would result in substantially different pedestrian activity and circulation, it has the potential to affect neighborhood character.

- **Noise.** According to the *CEQR Technical Manual*, for an action to affect neighborhood character with respect to noise, it would need to result in a significant adverse noise impact and a change in acceptability categories.

This chapter of the EIS examines neighborhood character within the area to be rezoned and its surrounding blocks, and the Proposed Action’s effects on that character. The study area for the visual resources analysis is coterminous with the study area used for the analysis in Chapter 2, “Land Use, Zoning, and Public Policy,” and Chapter 6, “Visual resources,” delineated by an approximate ¼-mile radius around the proposed rezoning area. The chapter’s impact analysis focuses on changes to neighborhood character resulting from changes in the technical areas discussed above, since changes to these technical areas are most relevant to potential changes in neighborhood character.

As described elsewhere in this EIS, as well as in the Environmental Assessment Statement dated April 2, 2010, the Proposed Action would not result in any significant adverse impacts to land use, socioeconomic conditions, urban design and visual resources, traffic, or noise. Significant adverse impacts on historic architectural resources, one of the components that contribute to neighborhood character, have been identified. Overall, while the Proposed Development Site would be more intensely developed in the future with the Proposed Action, the character of the surrounding neighborhood would not be adversely affected. The analysis concludes that neighborhood character would change with new land uses and a higher density structure on the garage site, increases in residents and employees, but the change would not be adverse, as discussed below.

### B. EXISTING CONDITIONS

The Proposed Development Site and rezoning area are located at the crossroads of three distinct communities: Washington Heights, a stronghold of the region’s Dominican population; Central Harlem, primarily African American; and West Harlem, a mixed community of blacks, whites and Hispanics. Much of the area to the east, west and south of the rezoning area falls within the State and National Register listed Sugar Hill Historic District and/or the NYCLPC- designated Hamilton Heights/Sugar Hill Historic District. These historic districts are comprised primarily of late nineteenth and early twentieth century row houses and apartment buildings. They are designated both for their architectural as well as historic significance, most notably with respect to the cultural history of Harlem. During the 1920’s, the area developed as an epicenter of the Harlem Renaissance when African American cultural, intellectual and social prominence and wealth flourished. By the 1930s, the area became known as "Sugar Hill," a neighborhood that attracted many of the city's most prestigious African-American residents. Since its initial development, the Sugar Hill area has been home to a wide variety of New Yorkers, both native and foreign born, of varied ethnicity and races and from various economic levels.
The area to be rezoned includes the Proposed Development Site as well as a portion of the northern third of the block bounded by West 155th and West 153rd Street, St. Nicholas Avenue and St. Nicholas Place, and is occupied mostly by automotive and commercial/light industrial uses. The approximately 21,685 sf Proposed Development Site is currently occupied by a two-story plus cellar public parking garage, with a capacity of approximately 300 spaces. The Proposed Development Site is located just within the northern boundary of the Sugar Hill National Register Historic District, but does not fall within the NYCLPC district. However, as noted in Chapter 6, “Visual Resources,” the existing garage building on the site is not a distinguished visual resource, as many of its most notable historic features have been altered or removed, nor does there appear to be especially notable historic events associated with this building in particular.

Lot 26, located to the west of the Proposed Development Site and owned by the City (under control of the New York City Department of Environmental Protection (NYCDEP)), includes a 2-story building at the southern portion of the lot, which falls mostly outside the rezoning area. The building is occupied by a NYCDEP leak detection facility and includes a 2-truck garage. The portion of Lot 26 that falls within the proposed rezoning area is currently used predominantly as a surface parking lot, which is entirely enclosed by a brick wall with a fence above. The proposed rezoning area also includes the northern portion of Lot 14, which is occupied by a 6-story elevator apartment building, with approximately 24 units, and it is the only lot within the rezoning area that falls within the NYC Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Northeast Historic District. The rezoning area also includes a very small triangular parcel at the corner of St. Nicholas Avenue, identified as Lot 28, which is comprised of only 12 sf, and is currently vacant.

A most unique natural feature of the study area is the topographic drop known as the Fordham Cliffs. This geological rupture creates a formidable topographic shift in the landscape all the way from Inwood Hill Park at the tip of Manhattan to Morningside Park at the south end of Harlem. Caused by a geological rupture and a shift of the eastern plates of the Northern Manhattan Plateau, the Fordham Cliffs drop more than 70 feet, contributing to the unique physical characteristics of several Harlem parks – Morningside, St. Nicholas, Jackie Robinson and Highbridge. In the study area, the Cliffs present an obstacle in terms of access and connectivity between neighborhoods. The Cliffs essentially separate the immediate environs of the Proposed Development Site on high ground from the Polo Grounds/Ralph Rangel Houses and Bradhurst neighborhoods at the bottom.

Land uses in the vicinity of the rezoning area include a mix of residential, mixed-use, institutional, commercial, and open space, with some vacant lots located to the north, south, and east of the proposed rezoning area. Residential uses are predominant in the area and are typically located in all directions surrounding the proposed rezoning area. Commercial uses are mainly limited to the lots directly adjacent to the rezoning area to the north, east and west, while further away commercial uses are found along Amsterdam Avenue, Broadway, St. Nicholas Avenue, Frederick Douglass Boulevard, and Macombs Place – usually in the form of ground floor retail in mixed-use residential buildings. Mixed-uses and institutional uses are scattered throughout the study area. Transportation related uses, including parking facilities, are located on the Proposed Development Site as well as directly to the east of the rezoning area.

Open space is abundant in the study area and is located in all directions. To the north of the rezoning area, across West 155th Street, is Highbridge Park, which extends north to Dyckman Street, between Edgecombe and Amsterdam Avenues. This 118.75-acre park is widely known for its important landmarks, the Highbridge tower and the High Bridge (the city's oldest standing
bridge). Among its strongest features are the magnificent cliffs and large rock outcroppings that dominate the park. Just beyond Edgecombe Avenue (approximately 1 block east of the rezoning area) the topography drops off substantially, this is the location of Jackie Robinson Park, a 12.77-acre park that extends from West 155th Street south to 145th Street, between Bradhurst and Edgecombe Avenues, which provides ten blocks of recreational resources.

The study area is well connected by the transit system and regional road network. The area is well connected to the greater region via West 155th Street which connects to the Westside Highway (Route 9A), FDR Drive, and Major Deegan Expressway/New York State Thruway (Interstate Route 87). The C subway line stops adjacent to the rezoning area at the intersection of West 155th Street and St. Nicholas Avenue, and the number 1 subway line stops at West 157th Street and Broadway. Bus routes connect the area to the Bronx, Harlem, and Midtown Manhattan. Yankee Stadium is located directly across the Harlem River, just over a ½-mile from the rezoning area, and is connected to the area by Macombs Dam Bridge.

The housing typology of the area generally consists of three types – row houses (3 to 4 stories), apartment buildings (6 to 8 stories), and high-rise apartment buildings (over 15 stories). The built form varies from small courtyard entrances to 6-storey buildings on Edgecombe Avenue, to stepped entrances to individual row houses on St. Nicholas Avenue. A majority of the buildings in the study area were built from 1900-1920, with the oldest developments dating back to the 1880s. The area is largely comprised of prewar buildings up to six stories in height. Newer mid-century buildings, especially those owned by the New York City Housing Authority, are taller, with the Polo Grounds Towers reaching a maximum of 30 stories. Located on the north side of West 155th Street, between Bradhurst Avenue and Frederick Douglass Boulevard, the Polo Grounds Towers consists of four buildings with 1,612 apartments. The NYCHA Rangel Houses are located at the northern extent of this block, containing eight 14-story buildings with 984 apartments.

Driven in part by the existing infrastructure and housing stock, the area surrounding the proposed rezoning area has experienced greater construction activity in recent years. Within the immediately surrounding area, this has been limited mostly to rehabilitation of residential prewar buildings. However, some new construction projects are in progress or planned near the rezoning area, as further discussed in Section C below.

C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

In the future without the Proposed Action, the RWCDS assumes none of the properties within the proposed rezoning area would be redeveloped, and the existing visual character of the rezoning area would remain unchanged. The Proposed Development Site would continue to be occupied by a 2-story public parking garage (Lot 21). It is expected that the study area’s current land use trends and general development patterns would continue. As discussed in Chapter 2, “Land Use, Zoning, and Public Policy,” two developments are expected to occur within the ¼-mile study area in the future without the Proposed Action.

Parts of two blocks to the east of the proposed rezoning area are expected to be rezoned from C8-3 to R8/C1-4, which would facilitate the planned redevelopment of the site of a 125-space parking facility with a new mixed-use building. This development, according to available information, is
expected to be completed by 2012 and is planned to consist of a 12-story mixed-use building that would include approximately 272 residential units and 32,800 sf of retail uses, as well as 144 public parking spaces. In addition, the School Construction Authority (SCA) has proposed to construct the Community Health Academy of the Heights, a proposed 572-seat intermediate school, on a site located at 1970 Amsterdam Avenue between West 157th and West 158th streets, which comprises a NYCHA development. While these developments would affect the areas immediately surrounding the proposed rezoning area, these planned developments would not change the character of the neighborhood significantly and it would remain essentially the same as it is today.

D. PROBABLE IMPACTS OF THE PROPOSED ACTION

The Proposed Action would enable construction of a new 13-story mixed use building on the Proposed Development Site, with residential, museum, community facility and accessory parking uses. In the future with the Proposed Action, the existing 2-story garage on the Proposed Development Site would be replaced by the Proposed Development, which would consist of a 13-story plus cellar mixed-use building, with a height of approximately 120 feet from the average curb level to the roof line. The Proposed Development would include approximately 124 residential units, all of which would be affordable; the Faith Ringgold Children’s Museum of Art and Storytelling; a day care facility and early childhood center for approximately 100 children; approximately 2,350 sf of non-profit program and office space; and an up to 114-space below-grade accessory parking garage.

The Proposed Action is not expected to affect existing land use patterns in the study area except on the Proposed Development Site, nor is it expected to affect the viability of land uses in the surrounding area. The blocks immediately to the north, south and west of the rezoning area support predominately residential uses, as well as a few institutional uses, and commercial uses along the main thoroughfares. To the east and north are large public open spaces. The Proposed Development would provide quality housing and services to the City’s lower-income families, and expand the supply of affordable housing in the City, while providing valuable community services, including a day care center and a children’s museum.

Although demolition of the existing garage structure has been identified as a significant adverse impact on architectural resources (refer to Chapter 5, “Historic Resources”), it is not expected to result in a significant adverse impact with respect to neighborhood character. The building is not visually distinguished, as many of its most notable historic features have been altered or removed, and the brick façade shows wear. Moreover, the building is not typical or characteristic of the surrounding historic district, as it exhibits a different scale, use and style. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district because it would not create a significant change in the overall context or cohesion of the historic district as compared to existing or No-Action conditions. This is particularly due to the site’s location on the northern periphery of the historic district and the core of historic and architecturally significant buildings. Moreover, the existing garage structure does not represent a defining element of the neighborhood’s character.
In the future with the Proposed Action, views of visual resources in the vicinity of the rezoning area would not experience any significant adverse changes. View corridors along West 155th Street, St. Nicholas Avenue, and St. Nicholas Place, would not be expected to change as a result of the Proposed Development. While views of the study area from locations to the north, east and west would change, the Proposed Development would not block views of any visual resources from these vantage points. The Proposed Development would also not block any view corridors along public streets or sidewalks. Although the site’s geological height will make the Proposed Development visible from a distance, the new building would relate well to the taller contemporary buildings in the neighborhood, particularly along the West 155th Street corridor. In addition, the Proposed Action would not eliminate any public views of historic resources in the area, as these resources and their distinguishing characteristics are oriented to and viewed from the public streets, and these views would not be obstructed by the Proposed Development.

Therefore, the 13-story Proposed Development would change the character of the surrounding neighborhood, but not in a significant adverse manner. The new uses resulting from the Proposed Action would enliven and improve the streetscape by creating more active uses on the Proposed Development Site, and increasing 24-hour pedestrian activity. Although the Proposed Development would be much more visible than the existing structure on the site, given its location along West 155th Street, a major 2-way roadway lined with many of the taller buildings in the area, this greater visibility would not be an adverse effect on neighborhood character. The Proposed Development would provide land uses that would be compatible to existing and anticipated uses in the surrounding area, and would further promote and enhance the ongoing revitalization of this area of northern Manhattan.

In addition, as discussed in other chapters of this EIS and/or in the EAS document dated April 2, 2010, the Proposed Action is not anticipated to result in any significant adverse socioeconomic, urban design, traffic, or noise impacts. As discussed in Chapter 10, “Noise,” the Proposed Action would have no effect on ambient noise levels, although noise levels in the area would remain somewhat high due to the presence of traffic on nearby streets. However, the (E) designation placed on the zoning map for the Proposed Development Site as part of the Proposed Action would ensure that the required noise attenuation of up to 35 dBA would be provided when the Proposed Development is constructed.

E. CONCLUSION

The Proposed Development would change the character of the surrounding neighborhood, but not in a significant adverse manner. The development would enliven and improve the streetscape by creating more active uses on the Proposed Development Site, and increasing 24-hour pedestrian activity. The Proposed Development would provide land uses that would be compatible to existing and anticipated uses in the surrounding area, and would further promote and enhance the ongoing revitalization of this area of northern Manhattan.

While demolition of the existing garage structure on the site has been identified as a significant adverse impact on architectural resources, it is not expected to result in a significant adverse impact with respect to neighborhood character. The building is not visually distinguished, as many of its most notable historic features have been altered or removed, and the brick façade shows
wear, nor is it typical or characteristic of the surrounding historic district, as it exhibits a different scale, use and style. With the loss of many of the historic features that make this building a contributing resource, its demolition would not diminish the special architectural and historic character of the rest of the S/NR historic district.

Although the Proposed Development would be much more visible than the existing structure on the site, given its location along West 155th Street, a major 2-way roadway lined with many of the taller buildings in the area, this greater visibility would not be an adverse effect on neighborhood character. In addition, the Proposed Action is not anticipated to result in any significant adverse socioeconomic, urban design, traffic, or noise impacts. Overall, the Proposed Action would alter neighborhood character in beneficial ways, by creating opportunities for new affordable housing and community facility development on an underutilized site.

Therefore, although the Proposed Development would alter the character of the neighborhood by revitalizing the site and its immediate surroundings and adding a taller higher density structure, these changes – individually or cumulatively – would not constitute a significant adverse impact to neighborhood character.
A. INTRODUCTION

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

As described in Chapter 1, “Project Description,” the Proposed Action would allow for construction of a mixed-use building on the Proposed Development Site (Block 2069, Lot 21). Portions of the adjacent Lot 26 would serve as an easement for the Proposed Development’s entry plaza from St. Nicholas Avenue. None of the other lots affected by the proposed rezoning action would be redeveloped as a result of the Proposed Action.

This chapter presents the findings of the Phase I Environmental Site Assessment (ESA) prepared for the Proposed Development Site and addresses the potential for the Proposed Action to pose a hazard to workers and others and/or the environment during or after development because of hazardous materials. With the execution of a restrictive declaration for the Proposed Development Site, the Proposed Action and subsequent construction of the Proposed Development would not result in significant adverse impacts with respect to hazardous substances (refer to Chapter 12, “Mitigation” for details).

B. PHASE I ENVIRONMENTAL SITE ASSESSMENT

A Phase I Environmental Site Assessment (ESA) was prepared for the Proposed Development Site, which is owned by the applicant, to determine potential on-site environmental conditions. The Phase I ESA was conducted by ATC Associates in March 2008, and included all analyses as specified in the American Society for Testing and Materials (ASTM) Method E 1527-05.

The goal of the Phase I Environmental Site Assessment process is to identify “Recognized Environmental Conditions” (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. Per the ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps; topographic maps and aerial photographs; historical land title records and city directories; state and federal environmental regulatory databases
identifying listed sites; and local environmental records. The Phase I ESA also included reconnaissance of the site and surrounding neighborhood and interviews with the owner and building manager.

The scope of the assessment also included consideration of environmental issues or conditions that are beyond the scope of ASTM Standard Practice E 1527-05, including mold screening; visual observation of suspect asbestos containing materials (ACM); radon document review; lead in drinking water data review; visual observation of lead-based paint (LBP); wetlands document review; and flood plain document review.

The Phase I identified the following Recognized Environmental Conditions (“RECs”) that could affect the property:

- The current and historical use of the Proposed Development Site for auto related operations, use of the eastern adjacent property as a gasoline filling station and auto repair shop and the southwestern adjacent property as a garage, represent a recognized environmental condition for the site.

- ATC observed suspect petroleum staining on the floor (approximately 12’x18’) in the east-northeastern portion of the cellar along the eastern wall by the door. ATC reviewed a drawing of proposed modification of the building dated June 25, 1969, which indicated the presence of two (2) 275-gallon lube oil tank location in the east-northeastern portion of the cellar, where suspect petroleum staining was observed. Based on the observed conditions, ATC concluded that this condition represents an environmental concern for the site.

- ATC did not observe evidence of underground storage tanks (USTs) on the Proposed Development Site. However, the historical Sanborn maps revealed the presence of four (4) 550-gallon gasoline USTs at the site from at least 1939 through 1996. The site was not identified as a LTANKS (Leaking Storage Tank Incident Reports) facility, New York Petroleum Bulk Storage (PBS) tank facility, or New York Spill site. Furthermore, the drawing dated June 25, 1969 indicated the presence of a fill port in the vicinity of the ramp in the cellar that might be associated with potential USTs. Based on the potential presence of these USTs at the site and the lack of current information regarding these USTs, ATC concluded that they represent a recognized environmental condition.

- At the time of the site reconnaissance, ATC observed the presence of an out-of service approximately 550-gallon aboveground storage tank (AST) located underneath the second floor ramp on the eastern side of the first floor. ATC observed an inactive fuel oil fill port on the second floor right above the tank and an inactive vent pipe associated with this tank. ATC also observed the presence of an inactive small AST located underneath the staircase in the south-southwestern portion of the cellar. No evidence of spills or leaks was observed in the vicinity of the ASTs at the time of the site reconnaissance.

C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

In the future without the Proposed Action, the RWCDS assumes none of the properties within the proposed rezoning area would be redeveloped, and the existing land uses would remain. The Proposed Development Site would continue to be occupied by a public parking garage (Lot 21),
and the gas station adjacent to the site would continue to be in operation. It is expected that the study area’s current land use trends and general development patterns would continue. No potential new issues related to hazardous materials would result.

**D. PROBABLE IMPACTS OF THE PROPOSED ACTION**

A Phase I Environmental Site Assessment (ESA) was prepared in March 2008 for the Proposed Development Site. The Phase I ESA was reviewed by NYCDEP’s Office of Environmental Planning and Assessment, and a restrictive declaration was recommended by NYCDEP, due to the potential presence of hazardous materials on the site as a result of past and present on-site land uses. The declaration requires the preparation of a Phase II Workplan and a Health and Safety Plan for NYCDEP’s review and approval. The restrictive declaration is binding upon the property’s successors and assigns. The declaration serves as a mechanism to assure the potential for hazardous material contamination that may exist in the sub-surface soils and groundwater on the project site would be characterized prior to any site disturbance (i.e., site grading, excavation, demolition, or building construction).

A Phase II ESI Work Plan was prepared in January 2009, which included the Phase II ESI Subsurface Testing Scope of Work for the Proposed Development Site. The Phase II Scope of Work includes the creation of a Site-Specific Health and Safety Plan (SSHASP) consistent with applicable and appropriate requirements, and calls for borings and temporary well points (TWPs) throughout the site to facilitate the collection of soil and groundwater samples. Both the Phase I ESA and Phase II ESI Work Plan were submitted to the New York City Department of Environmental Projection (NYCDEP) for review and approval. In a letter dated July 9, 2010, NYCDEP indicated that it finds the Phase II Workplan acceptable, as long as additional information is incorporated relating to the analysis of collected samples and submission of the Phase II report to NYCDEP for review and approval (refer to letter in Appendix A).

The scope of the investigation will be subject to NYCDEP approval, as will the need for any subsequent measures to address potential contamination. The obligation to conduct sampling prior to the start of construction and undertake any necessary subsequent measures has been set forth in a restrictive declaration, which was executed and recorded by the applicant as a condition of approval of the Proposed Action. The restrictive declaration for hazardous materials was executed on August 5, 2010 and submitted for recording on August 31, 2010. Pursuant to an email from NYCDEP dated August 31, 2010, NYCDEP is in receipt of a signed copy of a NYCDEP-approved restrictive declaration with proof of recording for the site. In addition, as part of the Reciprocal Easement Agreement described in Attachment A, “Project Description,” the applicant would also commit to a site specific Health and Safety Plan on the portion of Lot 26 to be used as the entrance plaza, which will prevent significant adverse hazardous materials impacts for activities on Lot 26. As discussed in Chapter 12, “Mitigation,” based on the obligations set forth in the restrictive declaration there would be no potential for significant adverse hazardous materials impacts from the Proposed Action.
E. CONCLUSION

The Phase I ESA conducted for the Proposed Development Site identified some recognized environmental conditions that could affect the property. As discussed in Chapter 12, “Mitigation,” with the implementation of the preventative and remedial measures outlined above for the Proposed Development Site (through the use of a restrictive declaration), no significant adverse impacts related to hazardous materials would result from the Proposed Action and resultant construction activities on the Proposed Development Site. Following construction, there would be no potential for the Proposed Development to have significant adverse impacts.
A. INTRODUCTION

The Proposed Action would facilitate construction of a 13-story, 120-foot tall (129 feet to top of mechanical bulkhead) mixed-use building (approximately 169,333 square feet). This Proposed Development, which is shown on Figure 9-1, would be located at 404-414 West 155th Street in Manhattan (on Block 2069, Lot 21).

The Proposed Action would alter land uses in the study area and allow residential uses on sites where the existing zoning permits only commercial and industrial uses. Air quality, which is a general term used to describe pollutant levels in the atmosphere, would be affected by these changes. The air quality impacts that are addressed in this analysis of the Proposed Action are:

1. Potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts;
2. The potential for emissions from the heating, ventilation and air conditioning (HVAC) system of the proposed development site to significantly impact existing land uses;
3. Potential impacts from the exhaust of the proposed parking garage on nearby land uses;
4. The potential for significant air quality impacts from the emissions of “major” existing emission sources (i.e., HVAC systems with 20 or more million Btu/hr heat input) on the proposed residential development; and
5. The potential for significant air quality impacts from air toxic emissions generated by nearby existing industrial sources on the Proposed Development.

Air quality analyses were conducted, following the procedures outlined in the New York City Environmental Quality Review (CEQR) Technical Manual, to determine whether the Proposed Action would result in violations of ambient air quality standards or health-related guideline values. The methodologies and procedures utilized in these analyses are described below.

B. POLLUTANTS OF CONCERN

Criteria Pollutants

The following air pollutants have been identified by the U.S. Environmental Protection Agency (EPA) as being of concern nationwide: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone, particulate matter (PM₁₀ and PM₂.₅), sulfur dioxide (SO₂), and lead. National Ambient Air Quality Standards (NAAQS) are concentrations set for each of the criteria pollutants specified by the United States Environmental Protection Agency (USEPA) that have been developed to protect
human health and welfare. New York has adopted the NAAQS as state ambient air quality standards. These standards, together with their health-related averaging periods, are presented in Table 9-1.

### TABLE 9-1

**Applicable National and State Ambient Air Quality Standards**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Period</th>
<th>National and NY State Standards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Primary</strong></td>
<td><strong>Secondary</strong></td>
</tr>
<tr>
<td>Ozone</td>
<td>8 Hour</td>
<td>0.075 ppm (147 µg/m³)</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>8 Hour</td>
<td>9 ppm (10 mg/m³)</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>35 ppm (40 mg/m³)</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>Annual Average</td>
<td>0.053 ppm (100 µg/m³)</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>Annual Average</td>
<td>80 µg/m³ (0.03 ppm)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>365 µg/m³ (0.14 ppm)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>-</td>
<td>1300 µg/m³ (0.5 ppm)</td>
</tr>
<tr>
<td>Suspended Particulate Matter (PM₁₀)</td>
<td>24 Hour</td>
<td>150 µg/m³</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td>Suspended Fine Particulate Matter (PM₂.₅)</td>
<td>24 Hour</td>
<td>35 µg/m³</td>
<td>Same as Primary Standard</td>
</tr>
<tr>
<td>Lead</td>
<td>Calendar Quarter</td>
<td>1.5 µg/m³</td>
<td>Same as Primary Standard</td>
</tr>
</tbody>
</table>

Notes: ppm: parts per million  
µg/m³: micrograms per cubic meter  

The following air pollutants were considered for analysis:
- CO for localized impacts of action-generated mobile source emissions; and
- SO₂ and NO₂ for impacts of action-related HVAC emissions.

### Air Toxic Pollutants

In addition to criteria pollutants, small quantities of a wide range of the non-criteria air pollutants, known as toxic air pollutants, which are emitted from nearby industrial and commercial facilities, are also of concern. These pollutants can be grouped into two categories: carcinogenic air pollutants, and non-carcinogenic air pollutants. These include hundreds of pollutants, ranging from high to low toxicity. No federal standards have been promulgated for toxic air pollutants. However, the USEPA and the New York State Department of Environmental Conservation (NYSDEC) have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure criteria.
In order to evaluate short-term and annual impacts of carcinogenic and non-carcinogenic toxic air pollutants, the NYSDEC has established short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) for exposure limits. These are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. Based on SGCs and AGCs, USEPA also developed methodologies that can be used to estimate the potential impacts of air toxic pollutants from multiple emission sources. The "Hazard Index Approach" can be used to estimate the potential impacts of non-carcinogenic pollutants. If the combined ratio of estimated pollutant concentrations divided by the respective SGCs or AGCs value for each of the toxic pollutants is found to be less than 1, no significant air quality impacts are predicted to occur. Estimated overall incremental cancer risk should be compared with the one-to-one million threshold established by USEPA to determine if significant air quality impacts from the carcinogenic pollutants are predicted.

C. MOBILE SOURCE ANALYSIS

Intersection Analysis

Localized increases in CO levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the Proposed Action. According to the CEQR Technical Manual screening threshold criteria for this area of the City, if 100 or more action-generated vehicles pass through a signalized intersection in any given peak period, there is a potential for mobile air quality impacts and a detailed analysis is required.

As discussed in the EAS document dated April 2, 2010, the trip generation conducted for the RWCDS associated with the Proposed Action indicates that the number of action-generated vehicles, would be below CEQR screening threshold values during both the AM and PM peak periods at any potentially affected intersection. Therefore, no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of the Proposed Action. Moreover, the proposed access easement for NYCDEP would not result in any increase in traffic, as this easement would not alter the operation of the existing NYCDEP facility.

Garage Analysis

An accessory parking below-grade garage, with up to 114-spaces, is proposed as a part of the Proposed Development. Vehicular emissions would be generated by the vehicles utilizing this facility, and these emissions could affect pollutant level near its exhaust vent(s). To estimate the potential air quality impacts from the emissions of this facility, an analysis was conducted following the CEQR guidelines for a mechanically ventilated, enclosed garage. Parking garage utilization data presented in Attachment B of the EAS document dated April 2, 2010 were utilized for this analysis.

Because the garage would be used almost exclusively by gasoline-powered automobiles and not diesel-fueled trucks, CO will be the only pollutant considered for this analysis. Potential PM$_{10}$ and
PM$_{2.5}$ impacts were not considered because the concentrations of these pollutants would not be materially affected by the operation of this facility.

Pollutants from the garage were assumed to be exhausted through one garage vent that cause pollutant levels to be elevated near the vent outside of the garage. For concentrations near the garage vent, the CO concentrations predicted within the garage were used to estimate concentrations near the facility. Estimates were performed following guidelines provided in the CEQR Technical Manual for a mechanically ventilated, enclosed garage.

CO emission factors under different vehicles operating modes (cold/hot start/idle) for the future 2012 build scenario were estimated using MOBILE 6.2.03. Maximum hourly CO emission rates within the facility were calculated for the PM time period with the maximum number of departing autos in an hour, since departing autos are assumed to be “cold” and arriving cars are assumed to be “hot” (“cold” autos emit CO at considerably higher rates than “hot” autos). Maximum hourly CO emission rates over a consecutive 8-hour period were computed for the 8-hour time period that averages the largest number of departing autos per hour. The maximum emission rate was determined based on the ins/outs for the 8-hour time period and the mean traveling distance within the garage. The analysis assumed that all departing autos would idle for one minute before traveling to the exits of the garage, and all arriving and departing autos would travel at 5 miles per hour within the garage.

Estimates of off-site CO impacts are based on EPA’s equation for dispersion of pollutants from a stack. The garage vents are converted into “virtual point sources” and the concentrations within the garage are used to estimate the initial dispersion at the garage vents. The initial horizontal and vertical distributions are assumed to be equal and calculated by setting CO concentration at the exit of the vent equal to the CO level within the facility. Eight-hour CO impacts are estimated at a receptor near the vent (5 feet from the vent, 6 feet below the midpoint height of the vent) and at a receptor across a street on the far sidewalk from the vent (50 feet away, also 6 feet below the vent midpoint). Cumulative CO impacts on the near and far sidewalks adjacent to the garage vent were calculated by adding the impact from the garage exhaust to on-street sources, and background levels (2.9 ppm).

This analysis was conducted for the 2012 analysis year for the PM peak period, when estimated garage emissions would be greatest because exiting vehicles would be operating in the higher-polluting, cold-start mode.

A maximum total 8-hour CO concentration of 4.9 ppm was estimated at a receptor located 5 feet from the vent by adding the estimated garage impact and the background concentration; a maximum total 8-hour CO concentration of 4.8 ppm was estimated at the receptor located 50 feet from the vent by adding the garage impact, street traffic impacts, and the background concentration. The maximum total estimated 8-hour CO concentrations are therefore below the 8-hour CO NAAQS of 9.0 ppm.

The result of this analysis is that emissions from the proposed garage would not cause significant air quality impacts.
D. ANALYSIS OF HEATING SYSTEM EMISSIONS

Emission Sources

Emissions from the HVAC systems of the Proposed Development may affect air quality levels at nearby existing land uses. The impact of these HVAC emissions would be a function of fuel type, stack height, building size (gross floor area), and location of each emission source relative to a sensitive land use. It was conservatively assumed that the building would use fuel oil #2 for its heating demands.

The following information and assumptions were applied:

- The size (gross floor area and height) and location (block and lot number) for the Proposed Development were provided by the architects for the project.
- The size and location of existing buildings were determined using the New York City Open Accessible Space Information System Cooperative (OASIS) data base.

Analyses Conducted

Impacts on Existing Land Uses

A screening level analysis was conducted, using the CEQR Technical Manual procedures, to determine the potential impacts of the HVAC emissions of the Proposed Development on the existing sensitive land uses. All nearby existing buildings of similar or greater height were considered as potential sensitive receptor sites. If the distance from the Proposed Development to the nearest building of similar or greater height is less than the threshold distance provided in the CEQR Technical Manual nomograph, there is a potential for significant air quality impacts, and a detailed dispersion modeling analysis with the EPA’s AERMOD model has to be conducted. Otherwise, the source passes the screening analysis, and no further analysis is required.

The maximum floor area of the Proposed Development was used as input for the screening analysis. It was assumed that the HVAC system of the Proposed Development would utilize a single stack with the height 3 feet above roof height (as per CEQR Technical Manual guidance).

To conduct this analysis, a survey of existing land uses within 400 feet of the rezoning area was conducted using the New York City OASIS mapping network system to identify residential land uses and other sensitive receptor sites.

Methodology

The CEQR Technical Manual provides a nomographic procedure, based on the square footage and height of each building (provided that buildings are at least 30 feet apart), that was used to determine the threshold distance between each proposed and/or projected non-adjacent development heated by oil or natural gas and a nearby building of similar or greater height. If more than one taller building is located near a shorter building, the potential impacts from the HVAC emissions of the shorter building on the closest taller building were considered.
The following procedures were conducted:

- Figures 3Q-5, 3Q-7 and 3Q-9 of the CEQR Technical Appendix were used to determine potential for significant SO\textsubscript{2} (i.e., the critical pollutant for fuel oil) and NO\textsubscript{2} (i.e., the critical pollutant for natural gas) impacts.

- The estimated maximum size of the building was plotted on the nomograph against the distance to a potentially affected nearby taller building.

- The threshold distance at which a potentially significant impact is likely to occur was estimated and compared to the actual distance between the shorter building and the nearest taller building.

- If the distance between buildings is greater than the threshold distance indicated on the nomograph, no potentially significant impact is anticipated, and no detailed analysis is conducted.

- If the distance was less than the threshold distance indicated on the nomograph, a potentially significant impact is possible, and a detailed dispersion modeling analysis is conducted.

**Impacts from “Major” Existing Emission Sources**

Following CEQR Technical Manual guidelines, a survey of land uses and building heights was conducted to determine whether there are any existing “major” sources of HVAC emissions (i.e., emissions from boiler facilities with heat inputs 20 million Btu per hour or greater) located within 1,000 feet of the Proposed Development Site. The result of this survey is that one emission source – a 30-story (2,531,677 square foot) building, located on Block 2106, Lot 3 – was identified as a major source requiring analysis.

**Results**

**Impacts on Existing Land Uses**

A survey of the land uses surrounding the proposed rezoning area identified two existing residential buildings within 400 feet of the rezoning area that are taller than the Proposed Development. These existing buildings, which are the closest taller buildings to the rezoning area, are:

- A 30-story building located on Block 2106 (Lot 3); and
- A 14-story building located on Block 2054 (Lot 62).

The distance between the Proposed Development and the existing buildings exceeds the estimated screening threshold distance, which is 95 feet for the Proposed Development. The measured distance between Proposed Development and the 30-story building on Block 2106 is approximately 267 feet. Therefore, the potential HVAC emission impacts of the Proposed Development’s HVAC emissions on existing land uses are not considered to be significant.
Impacts from “Major” Existing Emission Sources

Following CEQR Technical Manual guidelines, an initial screening analysis was conducted using the manual’s nomographs to determine whether emissions from the nearby 30-story building would significantly impact the Proposed. The impacts on the Proposed Development would be insignificant because this building is further from the 30-story building than the threshold distance indicated on the nomograph. Therefore, no significant air quality impacts associated with “major” emission sources are predicted.

An additional examination was conducted to determine if there is any “large” combustion emission source (e.g., power plant, co-generation facility, etc.) located within 1,000 feet of the Proposed Development Site. The result of this survey is that no large boiler emission sources are located within 1,000 feet of the Proposed Development and therefore no further analysis is required.

E. HEALTH RISK ASSESSMENT OF TOXIC AIR EMISSIONS FROM EXISTING INDUSTRIAL SOURCES

Introduction

The Proposed Action would allow development of residential uses in an area historically occupied by automotive uses. As such, emissions of toxic pollutants from the operation of existing industrial emission sources might affect proposed residential uses.

An analysis was therefore conducted to determine whether the impacts of these emissions would be significant. Data necessary to perform this analysis, which include facility type, source identification and location, pollutant emission rates, and exhaust stack parameters, were obtained from regulatory agencies (e.g., from existing air permits). All existing industrial facilities located within 400 feet of the rezoning area that are permitted to exhaust toxic pollutants were considered in this analysis.

Data Sources

Information regarding emissions of toxic air pollutants from existing industrial sources was obtained from New York City Clean Air Tracking System database as follows:

- The boundaries of the rezoning area were used to identify the extent of the study area for determining air quality impacts associated with the Proposed Action. All permitted industrial toxic air pollutant emission sources located within a 400-foot radius of the proposed development site were included in this analysis.
- A search was performed to identify NYSDEC Title V permits and permits listed in the EPA Envirofacts database.
- The field survey was conducted to validate the existence of the permitted facilities.
- Air permits for active (currently permitted) industrial facilities within the analysis area that are included in the New York City Department of Environmental Protection (NYCDEP)
Clean Air Tracking System database were acquired and reviewed to obtain pollutant emission rates and stack parameters.

**Results**

No facilities with active NYCDEP permits were identified within a 400-foot radius of the rezoning area. Therefore, no air toxics analysis is required for the Proposed Action.

**F. CONCLUSION**

The Proposed Action is not anticipated to result in any significant adverse air quality impacts. The number of vehicle trips generated by the Proposed Development would be below CEQR screening threshold values during both the AM and PM peak periods, and therefore no detailed air quality analysis is required and no significant mobile source air quality impacts are expected as a result of the Proposed Action. In addition, the maximum total estimated 8-hour CO concentrations from the proposed up to 114-space accessory garage were found to be below (within) the CO NAAQS of 9.0 ppm, and the proposed facility would therefore not cause significant air quality impacts.

Two existing residential buildings were identified within 400 feet of the rezoning area that are taller than the Proposed Development; however, the distance between the Proposed Development and the existing buildings exceeds the estimated screening threshold distances for these buildings, and therefore the potential HVAC emission impacts of the Proposed Development’s HVAC emissions on existing land uses are not considered to be significant. One emission source – a 30-story (2,531,677 square foot) building, located on Block 2106, Lot 3 – was identified as a major source within 400 feet of the Proposed Development, however, the impacts on the Proposed Development would be insignificant because it is located further than the threshold distance indicated on the nomograph. Therefore, no significant air quality impacts associated with “major” emission sources are predicted.

No facilities with active NYCDEP permits were identified within a 400-foot radius of the rezoning area, and therefore, no air toxics analysis is required for the Proposed Action.
A. INTRODUCTION

As described in Chapter 1, “Project Description,” the Proposed Development facilitated by the Proposed Action would include 124 residential units, a children’s museum of art and storytelling, a day care facility, an office space and an up to 114-space below-grade accessory garage in the Harlem Heights North neighborhood of West Harlem in Manhattan Community District 9.

An analysis was performed to evaluate the potential effect of the Proposed Action on noise levels at existing and potential future noise sensitive locations, including areas that may be redeveloped for residential and other noise sensitive uses. The predicted increases in noise levels would potentially affect the proposed introduction of sensitive receptors into an area with existing ambient noise levels classified as “Marginally Unacceptable”, as defined in the CEQR Technical Manual and in the HUD noise guidelines. The noise analysis addresses the following two factors:

- The change in noise levels from future No-Action conditions in the area as a result of the Proposed Action; and
- The location of new sensitive receptors and the degree to which window/wall attenuation would provide acceptable interior noise levels at these receptors.

B. NOISE FUNDAMENTALS

Introduction

Noise is “unwanted sound” and, by this definition, the perception of noise is a subjective process. Noise in our environment can be characterized by three distinguishing characteristics: loudness, pitch, and time variation.

- The loudness or magnitude of noise is a measure of its intensity, and it is measured in units called decibels (dB). The decibel unit is based on a logarithmic scale, and it compresses a large range of sound pressures into manageable numbers. For example, on the decibel scale, environmental noise ranges from 40 dB from the rustling of leaves to over 80 dB from a truck passage and up to 100 dB at the front rows of a rock concert. The louder the sound, the greater is its decibel value.

- Pitch describes the character and frequency content of noise. Measured in Hertz (Hz), the pitch is used to identify annoying characteristics of noise and help in determining appropriate mitigation to minimize annoyance. The human ear is sensitive to noise frequencies between 20 Hz (low-pitched noise) and 20,000 Hz (high-pitched noise). For
example, a noise may be characterized as a low-pitched “rumble” from stereo sub-woofers or a high-pitched “whine” from a train whistle or a train wheel squeal.

- Time variation describes the pattern of the sound over the observation period. Time variation of environmental noise can be characterized as: 1) continuous, such as noise from a building ventilation fan; 2) intermittent, such as noise from a train passage; or 3) impulsive, like noise from a car backfire. Time variation is used in combination with loudness and pitch to determine the sound energy exposure from a particular noise during a period of time, such as a 24-hour day.

### Human Perception of Noise and Noise Descriptors

Since the human ear does not respond equally to all frequencies, measured sound levels (in decibel units at standard frequency bands) are often adjusted or weighted to correspond to the frequency response of human hearing. The weighted sound level is expressed in units called “A”-weighted decibels (dBA) and is measured with a calibrated noise meter. A 10 dBA increase in noise level is generally perceived as a doubling of loudness, while a 3 dBA increase in noise is just barely perceptible to the human ear. Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived. A change in sound level of 5 dBA is subjectively noticeable. Typical A-weighted noise levels in the environment lie in the range of 0 dBA (approximate threshold of hearing) to 120 dBA (jet aircraft at 500 feet).

The following A-weighted noise descriptors (noise metrics) are typically used to determine impacts from noise sources.

- $L_{eq}$ represents the level of a constant noise containing the same acoustical energy as a fluctuating noise (e.g., highway traffic) observed during a given interval, typically one hour. The $L_{eq}$ is commonly used to describe energy average levels at places with primarily daytime uses such as offices, schools, and churches. $L_{eq}$ (1 h) represents the cumulative noise exposure from all events averaged over one hour.
- $L_{90}$: Noise level in dBA exceeded 90 percent of the observation time. $L_{90}$ is often considered to represent the “background” noise in a community.
- $L_{10}$: Noise level in dBA exceeded 10 percent of the observation time. This unit is used in CEQR regulations and establishes threshold levels for acceptable noise exposure.
- $L_{1}$: Noise level in dBA exceeded 1 percent of the observation time. This unit is often taken to approximate the “maximum” noise level in the community over a period of time, since it is likely to be more representative than a single, instantaneous maximum level.
- $L_{dn}$: Day-night average sound level that describes a receiver’s cumulative noise exposure from all events over a full 24 hours, with events between 10 pm and 7 am increased by 10 decibels to account for greater nighttime sensitivity to noise. This unit is used in the Federal Department of Housing and Urban Development’s (HUD) noise guidelines and establishes threshold for acceptable noise exposure.

Outdoor A-weighted sound levels were used in the measurements and analysis of the noise effects from the proposed action, as dBA correlates well with the human perception of noise. The one-hour equivalent continuous noise level ($L_{eq}$ (1h) in dBA), the tenth percentile level $L_{10}$ and the day-night average sound level $L_{dn}$ were selected as the noise descriptors for this analysis.
Criteria

The NYCDEP, Division of Noise Abatement, sets standards for external noise exposure. These standards are classified into four main categories: “Acceptable”; “Marginally Acceptable”; “Marginally Unacceptable”; and “Clearly Unacceptable” (see Table 10-1). The 2010 CEQR Technical Manual provides guidance for assessing project-generated noise impacts at sensitive receptors based on the category of external noise exposure at these receptor sites. These guidelines are used in this analysis to determine the applicable interior noise levels of sensitive uses, including potential future residential sites based on external noise exposure. For example, at proposed residential sites located within areas with “Marginally Unacceptable” external noise levels, a minimum of 28 to 35 dBA reduction below daytime external noise level would be required according to CEQR Technical Manual guidelines to satisfy the interior noise level criteria.

Under the CEQR Technical Manual, increases in daytime noise levels as a result of the proposed action are not considered significant unless the resulting noise levels exceed 65 dBA. At night and during the day where No Build noise levels exceed 65 dBA, a 3 dBA increase from the No Build condition is considered a significant adverse impact. In addition, the introduction of sensitive uses such as residences into an area with noise levels above 70 dBA constitutes a significant adverse impact unless interior noise levels for the buildings are attenuated to 45 dBA.

While HUD has no specific responsibility to reduce the noise levels at the source the way the U.S. Environmental Protection Agency (EPA) and the federal Aviation Administration (FAA) do, it does have the responsibility to be aware of the noise problem and its impact on the housing environment. In general, HUD requirements establish three zones: an acceptable zone where all projects could be approved, a normally acceptable zone where mitigation measures would be required and where each project would have to be individually evaluated, and an unacceptable zone in which projects would not, as a rule, be approved. It is HUD’s goal that the interior auditory environment at the residences shall not exceed a day-night average sound level of 45 L_{dn}. For housing developments in high noise areas, HUD noise guidance specifies an exterior day-night average sound level of L_{dn} 65 and below are acceptable and are allowable for residential development.

C. EXISTING CONDITIONS

Noise Monitoring Locations

Information about land uses in the rezoning area and trip assignment for potential future uses was reviewed to select monitoring sites and for assessing the future noise impacts on sensitive sites. The four monitoring sites depicted in Figure 10-1 are representative of the future sensitive land uses in the area and of locations where additional new vehicle trips are expected, which could result in an increase in noise. Measured noise levels at the four monitoring sites represent the existing noise exposure conditions at these locations. Noise monitoring was performed during March 2009 during different daytime periods. Time periods chosen for sampling included AM peak, Midday peak, and PM peak. In addition to L_{eq(h)} and L_{10} noise levels, other statistical noise
TABLE 10-1
Noise Exposure Standards for Use in City Environmental Impact Reviews

<table>
<thead>
<tr>
<th>Receptor Type</th>
<th>Time Period</th>
<th>Acceptable General External Exposure</th>
<th>Marginally Acceptable General External Exposure</th>
<th>Marginally Unacceptable General External Exposure</th>
<th>Clearly Unacceptable General External Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Outdoor area requiring serenity and quiet</td>
<td>7 AM to 11 PM</td>
<td>L_{10} less or equal 55 dBA</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2. Hospital, Nursing Home</td>
<td>7 AM to 11 PM</td>
<td>L_{10} less or equal 55 dBA</td>
<td>55&lt;L_{10} but less or equal 70 dBA</td>
<td>65&lt;L_{10} but less or equal 80 dBA</td>
<td>L_{10}&gt; 80 dBA</td>
</tr>
<tr>
<td>3. Residence, Residential Hotel or Motel</td>
<td>7 AM to 11 PM</td>
<td>L_{10} less or equal 65 dBA</td>
<td>65&lt;L_{10} but less or equal 70 dBA</td>
<td>70&lt;L_{10} but less or equal 80 dBA</td>
<td>L_{10}&gt; 80 dBA</td>
</tr>
<tr>
<td>4. School, Museum, Library, Court, House of Worship, Transient Hotel or Motel, Public Meeting Room, Auditorium, Out-Patient Public Health Facility</td>
<td>7 AM to 11 PM</td>
<td>L_{10} less or equal 55 dBA</td>
<td>55&lt;L_{10} but less or equal 70 dBA</td>
<td>70&lt;L_{10} but less or equal 80 dBA</td>
<td>L_{10}&gt; 80 dBA</td>
</tr>
<tr>
<td>5. Commercial or Office</td>
<td>Note 4</td>
<td>Same as Residential Day (7AM-11PM)</td>
<td>Same as Residential Day (7AM-11PM)</td>
<td>Same as Residential Day (7AM-11PM)</td>
<td>Same as Residential Day (7AM-11PM)</td>
</tr>
<tr>
<td>6. Industrial, Public Areas Only</td>
<td>Note 4</td>
<td>Note 4</td>
<td>Note 4</td>
<td>Note 4</td>
<td>Note 4</td>
</tr>
</tbody>
</table>


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

(II) Noise standards for train noise are similar to the aircraft noise standards: the category for train noise is derived by taking the \( L_{dn} \) value for such train noise to be an \( L_{dn} \) (\( L_{dn} \) contour) value.

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

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

3. Either the FAA-approved \( L_{dn} \) contours supplied by the Port Authority or the noise contours may be computed from the federally approved INM Computer Model, using 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).
Figure 10-1
Noise Monitoring Sites
descriptors (L₁, L₅₀, and L₉₀) were also sampled at all locations for all time periods. Ldn noise levels, as required by HUD guidance, were calculated. The monitored noise levels are summarized in Table 10-2. For noise assessment purposes, L₁₀ and Ldn values were used in this report, consistent with guidelines contained in the CEQR Technical Manual and HUD guidance.

Equipment Used in Noise Monitoring

A calibrated Bruel and Kjaer Type 2231 sound level meter with a Type 4165 condenser microphone and windshield was used at the noise-monitoring sites. The noise meter was calibrated before and after each reading. The sound level meter was mounted on a tripod at a height of approximately 5.5 feet above ground level. At the end of the preset time period of twenty minutes, the statistical levels and the Lₐeq noise levels were read on the digital display of the meter. (For traffic noise measurements 20 minute readings at the monitoring sites are adequate and they are representative of one hour statistical and Leq noise levels). Noise monitoring was performed under acceptable weather and road surface conditions: low wind speed (less than 20 mph) and dry road surface.

Results of Baseline Noise Measurements

The results of baseline noise measurements are presented in Table 10-2. Daytime noise levels at all of the receptor sites (see Figure 10-1) are fairly typical of noise levels in the study area. A steady background noise exists at all locations due to constant traffic on nearby streets. The background noise level L₉₀ (lowest average minimum level) is in the range of 58 to 68 dBA. The highest L₁₀ monitored noise level was measured during the PM peak period at Site 3 (404-414 West 155th Street Receptor in front of parking garage) and it is represented by an L₁₀ noise level of 76 dBA. Noise level, in terms of twenty minutes Lₐeq at the same location during the same time period, was 73.2 dBA. This level of exposure places this site under CEQR defined “Marginally Unacceptable” category. Sites 1 (886 St. Nicholas Avenue), 2 (404-414 West 155th Street Receptor west end of West 155th Street), and 4 (79 St. Nicholas Place) also fall under the “Marginally Unacceptable” category. The categorization of these monitoring sites is based on the results of baseline noise monitoring and CEQR Technical Manual Attenuation Level Exposure Guidelines (Table 3.6-1 and Table 3.6-6).

Following HUD guidelines, all of the noise monitoring sites would fall under the unacceptable category since the existing exterior Ldn levels are higher than the HUD threshold of 65 -- Sites 1 and 4 would register an estimated Ldn of 67, and sites 2 and 4 would register an estimated Ldn of 71.

D. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

As indicated in Table 10-2, the existing noise levels are in the “Marginally Unacceptable” category at the Proposed Development Site. Future No-Action noise levels at the four monitoring sites would be higher than the existing noise levels. CEQR noise analysis impacts account only for changes from No-Action to With-Action noise levels.
Under the future No-Action conditions, 300 public parking spaces would continue to be available on the Proposed Development Site. It was determined that parking noise levels would not contribute to significant increases in No-Action $L_{eq}$, $L_{10}$ or $L_{dn}$ noise levels at the Proposed Development Site.

### TABLE 10-2
**Existing Short-Term Noise Levels at Monitoring Sites 1 through 4**
(March 19 through March 31, 2009)

<table>
<thead>
<tr>
<th>Site #</th>
<th>Location</th>
<th>Measurement Times</th>
<th>Existing Noise Level</th>
<th>Estimated $L_{dn}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$L_{eq}$</td>
<td>$L_{10}$</td>
</tr>
<tr>
<td>1</td>
<td>886 St. Nicholas Avenue</td>
<td>AM</td>
<td>69.3</td>
<td>79.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Midday</td>
<td>68.1</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td>84.1*</td>
<td>69.8</td>
</tr>
<tr>
<td>2</td>
<td>404-414 W. 155 St. Receptor west end of W. 155 Street</td>
<td>AM</td>
<td>70.9</td>
<td>81.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Midday</td>
<td>72.8</td>
<td>84.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td>72.6</td>
<td>81</td>
</tr>
<tr>
<td>3</td>
<td>404-414 W. 155 St. Receptor in front of parking garage</td>
<td>AM</td>
<td>72.4</td>
<td>80.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Midday</td>
<td>72.4</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td>73.2</td>
<td>82.5</td>
</tr>
<tr>
<td>4</td>
<td>79 St. Nicholas Place</td>
<td>AM</td>
<td>67.4</td>
<td>75.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Midday</td>
<td>66.3</td>
<td>74.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td>69</td>
<td>77.5</td>
</tr>
</tbody>
</table>

Note:

1. Noise Exposure Category Classification (Table 10-1) is based on the highest $L_{10}$ noise level measured during any of the four time periods. The highest $L_{10}$ noise levels monitored during the noted time periods are underlined.

2. *some unusual activity during this time period resulted in higher $L_{eq}$ levels and this measurement was rejected.

Future No-Action noise levels at the other monitoring sites are also not expected to be very different from the existing noise levels and, therefore, any change in noise level from the existing conditions would likely be insignificant and imperceptible under the No-Action conditions.

### E. PROBABLE IMPACTS OF THE PROPOSED ACTION

There would be no perceptible increases in traffic noise levels at the Proposed Development Site as a result of increases in traffic associated with the Proposed Action. Also, the addition of an up to 114-space below grade accessory parking garage would not result in any increase in noise levels. Any change in the noise levels from the No-Action conditions would be insignificant and imperceptible.
F. SENSITIVE RECEPTOR ASSESSMENT

Existing $L_{10}$ noise levels at the four monitoring sites and the future noise levels at the proposed residential site would exceed 70 dBA and existing $L_{dn}$ levels at the proposed residential site are estimated to range between 67 and 71. The procedure for estimating the $L_{dn}$ from measured hourly $L_{eq}$ noise levels is provided in the FTA’s “Transit Noise and Vibration Impact Assessment” Manual (May 2006) Appendix D Option 4.

Following both CEQR (Table 10-1) and HUD guidelines, existing noise levels are in the “Marginally Unacceptable” range at the proposed residential site. The Proposed Action would introduce new sensitive receptors into an area with high existing ambient noise levels.

According to the CEQR guidance, the Proposed Development Site would be suitable for residential uses with window-wall attenuation of 28 dBA for the exterior facades of the affected residences on St. Nicholas Avenue and 31 dBA for the exterior faces of the affected building on West 155th Street. Wall attenuation required to satisfy the requirements of HUD guidance would be lower -- 25 dBA for the exterior facades of the affected residences on St. Nicholas Avenue and 30 dBA for the exterior facades of the affected buildings facing West 155th Street. Window attenuation as indicated in Table 10-3 would be required to achieve a 45 dBA interior noise level. As such, an (E) designation for the Proposed Development Site was developed to preclude the potential for significant adverse noise impacts.

**TABLE 10-3**
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

<table>
<thead>
<tr>
<th>Noise level with the Proposed Action</th>
<th>Marginally Acceptable</th>
<th>Marginally Unacceptable</th>
<th>Clearly Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>$65 &lt; L_{10} \leq 70$</td>
<td>$70 &lt; L_{10} \leq 73$</td>
<td>$73 &lt; L_{10} \leq 76$</td>
<td>$76 &lt; L_{10} \leq 78$</td>
</tr>
<tr>
<td>AttenuationA</td>
<td>25 dB(A)</td>
<td>(I) 28 dB(A)</td>
<td>(II) 31 dB(A)</td>
</tr>
</tbody>
</table>

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

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

Source: New York City Department of Environmental Protection


Window attenuation requirements for the four noise monitoring sites are shown in the following bulleted items. The required closed window condition at these sites can be maintained by providing an alternate means of ventilation for the interior spaces.

- To satisfy the requirements of the HUD guidelines sound attenuation of 25 dBA would be needed for sites in the area of noise monitoring sites 1 and 4, where future $L_{dn}$ levels are estimated to be 67 dBA. The required window attenuation can be achieved through installing standard ¼ inch thick single glazed window.
• To satisfy the requirements of the HUD guidelines sound attenuation of 30 dBA would be needed for sites in the area of noise monitoring sites 2 and 3, where future L_{dn} levels are estimated to be 71 L_{dn}. The required window attenuation can be achieved through installing ¼ inch laminated single glazed window or double-glazed windows with 1/8 inch glass panes with ¼ inch air space between them mounted in a heavy frame.

• To satisfy the CEQR requirements sound attenuation of 28 dBA would be needed for sites in the area of noise monitoring Sites 1 and 4, where the future maximum L_{10} noise levels would be between 70 and 73 dBA. The required window attenuation can be achieved through installing ¼ inch laminated single glazed window or double-glazed windows with 1/8 inch glass panes with ¼ inch air space between them mounted in a heavy frame.

• To satisfy the CEQR requirements sound attenuation of 31 dBA would be required for sites in the area of noise monitoring Sites 2 and 3, where the future maximum L_{10} noise levels would be between 73 and 76 dBA. This can be achieved through installing double glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass

Therefore, the proposed zoning map change would be accompanied by the mapping of an (E) designation on the Proposed Development Site, which following the CEQR requirements would mandate that required noise attenuation of up to 31 dBA be incorporated into the Proposed Development. The (E) designation would require that windows on the front facade of the Proposed Development facing West 155th Street should be provided with window attenuation of 31 dBA; whereas windows on the facade of the Proposed Development facing St. Nicholas Avenue should be provided with window attenuation of 28 dBA. The (E) designations would also state that if any portion of the Proposed Development on this site is federally assisted with funding from HUD, the attenuation requirements would be reduced to 25 dBA on the facade facing St. Nicholas Avenue, and 30 dBA on the facade facing West 155th Street.

The text for the (E) designation for sites requiring 31 dBA is as follows:

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed window condition with a minimum of 31 dB window/wall attenuation on the West 155th Street façade in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. If any portion of the project is federally assisted with funding from the U.S. Department of Housing and Urban Development (made available through HPD) the attenuation requirements for the West 155th Street façade would be 30 dBA in order to satisfy HUD guidelines. If any portion of the project is federally assisted with funding from HUD (made available through HPD), an alternate means of ventilation found acceptable to HPD should be incorporated into the proposed project.

The text for the (E) designation for sites requiring 28 dBA is as follows:

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed window condition with a minimum of 28 dBA window/wall attenuation on all remaining façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. If any portion of the project is federally assisted with funding from the U.S. Department of Housing and Urban Development (made available through HPD) the attenuation requirements on all
remaining façades would be 25 dBA in order to satisfy HUD guidelines. If any portion of the project is federally assisted with funding from HUD (made available through HPD), an alternate means of ventilation would be considered for the proposed project in accordance with HUD’s noise guidelines.

With the attenuation measures specified above and summarized in Tables 10-4 and 10-5, the proposed rezoning would not result in any significant adverse noise impacts, and would meet CEQR Technical Manual guidelines.

### TABLE 10-4
**CEQR Required Attenuation Values for the Proposed Development Site**

<table>
<thead>
<tr>
<th>Address (Monitoring Site Number)</th>
<th>Block Number</th>
<th>Lot Number</th>
<th>Build L₁₀ (dBA)</th>
<th>Attenuation Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Development Site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>886 St. Nicholas Avenue (1)</td>
<td>2069</td>
<td>21</td>
<td>72.5</td>
<td>28 dBA</td>
</tr>
<tr>
<td>North Side of 414 West 155th Street (western end) (2)</td>
<td>2069</td>
<td>21</td>
<td>76.0</td>
<td>31 dBA</td>
</tr>
</tbody>
</table>

### TABLE 10-5
**HUD Required Attenuation Values for the Proposed Development Site**

<table>
<thead>
<tr>
<th>Address (Monitoring Site Number)</th>
<th>Block Number</th>
<th>Lot Number</th>
<th>Build Lₐₙ (dBA)</th>
<th>Attenuation Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Development Site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>886 St. Nicholas Avenue (1)</td>
<td>2069</td>
<td>21</td>
<td>67</td>
<td>25 dBA</td>
</tr>
<tr>
<td>North Side of 414 West 155th Street (western end) (2)</td>
<td>2069</td>
<td>21</td>
<td>71</td>
<td>30 dBA</td>
</tr>
</tbody>
</table>

### G. CONCLUSION

There would be no perceptible increases in traffic noise levels at the Proposed Development Site as a result of increases in traffic associated with the Proposed Action. Also, the addition of an up to 114-space below grade accessory parking garage would not result in any increase in noise levels. Any change in the noise levels from the No-Action conditions would be insignificant and imperceptible.

Based on the measured existing noise levels and judged by the CEQR internal noise level requirements, the Proposed Development planned within the proposed rezoning area would require 28 to 31 dBA attenuation of external noise exposure on all facades facing the adjacent roadways to maintain interior noise levels of 45 dBA (Table 10-4). Based on the estimated existing noise levels and judged by the HUD external and internal noise level requirements, the Proposed Development planned within the proposed rezoning area would require 25 to 30 dBA attenuation of external noise exposure on all facades facing the adjacent roadways to maintain interior noise levels of Lₐₙ 45 (Table 10-5). As such, the window attenuation required to satisfy CEQR will be more than sufficient to satisfy HUD requirements.
Therefore, the proposed zoning map change would be accompanied by the mapping of an (E) designation on the Proposed Development Site, which would mandate that required noise attenuation of up to 31 dBA be incorporated into the Proposed Development. The noise attenuation required under the Proposed Action would provide the needed attenuation under both CEQR and HUD guidelines, and preclude the potential for significant adverse noise impacts.
A. INTRODUCTION

Construction impacts, although temporary, can include disruptive and noticeable effects of a project. Determination of their significance and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

The Proposed Action would facilitate the construction of a new mixed-use building, which is expected to occur over an 18-24 month period. The first section of this chapter describes the general schedule and type of construction activity, and the second section provides an assessment of the Proposed Action’s potential impacts associated with these construction related activities. As detailed below, the Proposed Action is not expected to result in any significant adverse construction impacts.

B. CONSTRUCTION SCHEDULE AND ACTIVITIES

The Proposed Action is intended to facilitate construction of the Proposed Development. As with all construction projects in the city, construction activities would normally take place Monday through Friday, although the delivery/installation of certain critical equipment could occur on weekend days (with special permission from NYCDOB). Construction staging would most likely occur on the Proposed Development Site itself and may occasionally extend within portions of the sidewalks, and curb and travel lanes of public streets adjacent to the sites (mainly West 155th Street and St. Nicholas Avenue). Any sidewalk or street closures require the approval of the New York City Department of Transportation’s Office of Construction Management and Coordination (NYCDOT-OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. Builders would be required to plan and carry out noise and dust control measures during construction. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all applicable construction safety measures.

Assuming the Proposed Action is approved, construction of the Proposed Development would commence shortly after ULURP review and is expected to be completed by late 2012. Construction work would comprise four general stages: demolition; below-grade construction; shell and core construction; and interior construction. In the first phase of construction, abatement of any hazardous materials on the site would occur. This is expected to consist of the removal of asbestos-containing materials commonly found in the building materials of older structures as well as any underground storage tanks. As part of this effort, any potential on-site presence of hazardous materials would be identified through a NYCDEP-approved testing program and, if
necessary, remediation measures would then be implemented to ensure that there are no impacts to construction workers or the general public as a result of this construction activity.

Following is a general outline of the anticipated scheduling for construction of the Proposed Development, which is expected to be completed within approximately 18 to 24 months.

- Months 1-6: Demolition of existing building, site clearance, excavation, and foundation. The first 6 months of construction would entail demolition of the existing 2-story garage on the site and site clearance; digging, pile-driving, pile capping, and excavation for the foundation; dewatering (to the extent required), and reinforcing and pouring of the foundation. Typical equipment used for these activities would include excavators, backhoes, tractors, pile-drivers, hammers, and cranes. Trucks would arrive at the site with pre-mixed concrete and other building materials, and would remove any excavated material and construction debris.

- Months 7-10: Erection of the superstructure and underground parking foundation (for accessory garage). Once the foundations have been completed, the construction of the building’s steel framework, parking ramp, and decking would take place. This process involves the installation of beams, columns and decking, and would require the use of cranes, derricks, hoists, and welding equipment.

- Months 11-24: Façade and roof construction, mechanical installation, interior and finishing work. This would include the assembly of exterior walls and cladding; installation of heating, ventilation and air conditioning (HVAC) equipment and ductwork; installation and checking of elevator, utility, and life safety systems; and work on interior walls and finishes. During these activities, hoists and cranes would continue to be used, and trucks would remain in use for material supply and construction waste removal.

C. POTENTIAL IMPACTS DURING CONSTRUCTION

Historic Resources – Architectural

As discussed in more detail in Chapter 5, “Historic Resources,” new construction taking place on the Proposed Development Site would entail demolition of an existing structure and the construction of a new building adjacent to a historic structure, namely, the building on Block 2069/Lot 14, which falls within both the NYCLPC-designated Hamilton Heights/Sugar Hill Northeast Historic District and S/NR-listed Sugar Hill Historic District (refer to Figure 5-1 in Chapter 5, “Historic Resources”). Therefore, the Proposed Action has the potential to cause damage to historic architectural resources from ground-borne construction vibrations.

The City has two procedures for avoidance of damage to historic structures from adjacent construction. All buildings are provided some protection from accidental damage through New York City Department of Buildings (NYCDOB) controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas
be protected and supported in accordance with the requirements of Building Construction Subchapter 7 and Building Code Subchapters 11 and 19.

The second protective measure applies only to designated NYC Landmarks and S/NR-listed historic buildings located within 90 linear feet of the proposed construction site. For these structures, the DOB’s Technical Policy and Procedure Notice (TPPN) #10/88 applies. TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCLPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. By following these measures, which are required for any designated historic resources within 90 feet of the Proposed Development Site, the proposed demolition/construction work would not cause any significant adverse construction-related impacts.

Therefore, historic structures within 90 feet of the Proposed Development Site would be protected, by ensuring that adjacent construction of the Proposed Development adheres to all applicable NYCDOB construction guidelines and regulations.

**Hazardous Materials**

As described in Chapter 8, “Hazardous Materials,” due to the potential presence of hazardous materials at the Proposed Development Site, which is owned by the applicant, a restrictive declaration has been executed and recorded which requires, prior to construction, the preparation of a hazardous materials sampling protocol including a health and safety plan, which would be submitted to the NYCDEP for approval. The restrictive declaration establishes an agreement to test and identify any potential hazardous material impacts pursuant to the approved sampling protocol and, if any such impact is found, submit a hazardous material remediation plan including a health and safety plan to NYCDEP for approval prior to construction activities. If necessary, remediation measures would be undertaken pursuant to a NYCDEP-approved remediation plan. The restrictive declaration is binding upon the property’s successors and assigns. The declaration serves as a mechanism to assure the potential for hazardous material contamination that may exist in the sub-surface soils and groundwater on the project site would be characterized prior to any site disturbance (i.e., site grading, excavation, demolition, or building construction). With the measures in place described in Chapter 8, “Hazardous Materials,” and Chapter 12, “Mitigation,” there would be no significant adverse impacts with respect to hazardous materials during the construction process.

In addition, demolition of interiors, portions of buildings or entire buildings are regulated by the NYC Building Department requiring abatement of asbestos prior to any intrusive construction activities including demolition. The Occupational Safety and Health Administration (OSHA) regulates construction activities to prevent excessive exposure of workers to contaminants in the building materials including lead in paint. New York State Solid Waste regulations control where demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these existing regulations would prevent impacts from development activities at the Proposed Development Site.
Other Technical Areas

Construction of the Proposed Development would result in temporary disruption to the surrounding area, including some noise, and traffic associated with the delivery of materials, construction machinery, and arrival of workers on the site. As discussed below, given the relatively small size of the project, it would not result in a significant amount of construction related traffic or mobile source emissions from construction vehicles, and construction of the Proposed Development would be subject to compliance with the New York City Noise Code.

Traffic and Parking

Construction of the Proposed Development facilitated by the Proposed Action would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and removal of construction waste. Construction would probably occur between 7 AM and 4 PM. Construction workers would typically arrive before the typical AM peak commuter period and depart before the PM peak hour, and would therefore not represent a substantial increment during the area’s peak travel periods. Truck movements would typically be spread throughout the day on weekdays, and would generally occur between the hours of 7:00 AM and 4:30 PM. Wherever possible, the scheduling of deliveries and other construction activities would take place during off-peak travel hours.

Construction activities may result in short-term disruption of both traffic and pedestrian movements at the Proposed Development Site. This would occur primarily due to the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the site. Additionally, construction would at times result in temporary closings of sidewalks adjacent to the site. These conditions would be temporary and not result in significant adverse impacts on traffic and transportation conditions. NYCDOT-OCMC issues permits for any street/sidewalk closures after evaluation of traffic and pedestrian conditions.

Construction workers would use both public transportation and private automobile. Parking is typically done off-site for the larger development sites, and at curbside in the vicinity of the smaller ones. These curbside spaces are typically available as area residents use their autos to travel to work and elsewhere, and are vacated by construction workers in the afternoon before resident demand increases after the typical workday.

Air Quality

Possible impacts on local air quality during construction of the Proposed Development include: fugitive dust (particulate) emissions from land clearing operations; and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions could occur from land clearing, excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of the land clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures – including watering of
exposed areas and dust covers for trucks – would be employed during construction of the Proposed Development.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers’ private vehicles, or occasional disruptions in traffic near the construction site. Localized increases in mobile source emissions would be minimized by following standard traffic maintenance requirements, such as: construction requiring temporary street closings would be performed during off-peak hours wherever possible; the existing number of traffic lanes would be maintained to the maximum extent possible; and idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times.

**Noise**

Impacts on noise levels during construction of the Proposed Development would include noise and vibration from the operation of construction equipment. The severity of impacts from these noise sources would depend on the noise characteristics of the equipment and activities involved, the construction schedule, and the distance to potentially sensitive noise receptors. Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance from the construction site. Noise caused by construction activities would vary widely, depending on the phase of construction – demolition, land clearing and excavation, foundation and capping, erection of structural steel, construction of exterior walls, etc. – and the specific task being undertaken. Increased noise levels caused by construction activities can be expected to be most significant during the early phases of construction before the building is enclosed. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. Small increases in noise levels are expected to be found near a few defined truck routes and the streets in the immediate vicinity of the Proposed Development Site.

Construction noise is regulated by the New York City Noise Control Code and by EPA noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. These regulations would be carefully followed. In addition, appropriate low-noise emission level equipment and operational procedures would be used. Compliance with noise control measures would be ensured by directives to the construction contractor.

**D. CONCLUSION**

The Proposed Action would facilitate the construction of a new mixed-use building, which is expected to occur over an 18-24 month period. As discussed above, given the relatively small size of the project and the short construction period, the Proposed Action would not result in a significant amount of construction related impacts. Construction-related activities resulting from the Proposed Action are not expected to have any significant adverse impacts on historic resources,
hazardous materials, traffic, air quality, or noise conditions. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized. The construction process requires consultation and coordination with a number of City and/or State agencies, including NYCDOT, NYC Department of Buildings (DOB), NYCDEP, and NYSDEC (where applicable), among others.
A. INTRODUCTION

The preceding chapters of this environmental impact statement (EIS) examine the potential for significant adverse impacts as a result of the Proposed Action. Where such impacts have been identified in accordance with the CEQR Technical Manual guidelines – in the areas of historic architectural resources and hazardous materials – measures are examined to minimize or eliminate the anticipated impacts. These mitigation measures are discussed below. Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are also identified and discussed in Chapter 14, “Unavoidable Adverse Impacts.”

B. HISTORIC ARCHITECTURAL RESOURCES

As discussed in Chapter 5, “Historic and Cultural Resources,” the Proposed Action would cause significant adverse direct impacts to historic architectural resources. The existing 2-story garage building on the Proposed Development Site, which is identified as a contributing structure in the S/NR-listed Sugar Hill Historic District, would be demolished to facilitate construction of the Proposed Development. This would constitute a significant adverse impact. As also discussed in Chapter 5, the proposed new building would alter the context of West 155th Street, which forms the northern boundary of the S/NR-listed historic district, and would therefore result in a significant adverse indirect impact to historic resources.

Mitigation for Direct Impact

The Proposed Action was assessed for possible mitigation measures in accordance with CEQR guidelines. The CEQR Technical Manual identifies several ways in which impacts on potential archaeological resources can be mitigated, including:

- Redesigning the action so that it does not disturb the resource;
- Relocating the action to avoid the resource altogether;
- Contextual redesign of a project that does not actually physically affect an architectural resource but would alter its setting;
- Adaptive reuse to incorporate the resource into the project rather than demolishing it;
- A construction protection plan to protect historic resources that may be affected by construction activities related to a proposed action;
- Data recovery or recordation of historic structures that would be significantly altered or demolished; and
- Relocating architectural resources.
As part of the design process for the Proposed Development, measures to preserve or document the contributing building on the site prior to demolition have been considered, in consultation with the State Historic Preservation Office (SHPO) of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), in order to avoid any adverse impacts. In evaluating the possibility of reusing the existing structure, the project architects, SLCE Architects, retained a structural engineering firm Ysrael A. Seinuk, P.C., to undertake a visual inspection of the existing parking structure. The visual inspection, performed in March of 2009 by Ysrael A. Seinuk, P.C. (Seinuk report is included in Appendix A to this EIS), found that portions of the structural slabs of the building are in a state of disrepair, and concluded that reuse of the existing structure is not economically viable. The inspection indicated that exposed reinforcement showed different states of deterioration due to rusting, an occurrence that is not uncommon in structures where water and deicing salts, brought in by the cars, penetrate the slabs' concrete. Some exposed portions of the structural steel beams also exhibited rusting. The Seinuk report therefore indicated that keeping the present use of the building is possible, although achieving a proper long lasting repair would be costly, and concluded that the intended use of the site conflicts with the wisdom of such repair due to the following:

- A 28 foot easement dedicated to NYCDEP at the southern portion of the site will require carrying vehicular traffic, not only NYCDEP trucks, but also fire engines. The loading requirement cannot be accommodated by the present structure. This part of the existing structure would have to be removed up to the first column line, which is approximately 45 feet north of the south property line, and substituted with a bona fide elevated road design.
- The new residential structure requires a distribution of columns that deny the utilization of the rest of the parking structure. Preliminary studies indicate that at least 35 columns and 3 shear walls would be needed to support the new addition above.
- Neither the existing garage columns, nor their respective footings can be used to carry a structure above them. They were not designed for the heavy loads coming from a 12-story structure above.

In short, accommodating the existing garage into the Proposed Development was deemed to be infeasible, as it would require demolition of the rear portion of the existing building, removal of the roof and floor plates, and removal of a large portion of the modified exterior. Therefore, the Seinuk report concluded that there is no logical economical alternative to removing the existing structure in order to provide for the requirements of the proposed 12-story building.

In a letter dated February 10, 2010 (provided in Appendix A to this EIS), the OPRHP concurred that there are no prudent and feasible alternatives to demolition of the existing garage structure that will meet the project’s requirements, and recommended that the following mitigation measures be incorporated as part of the project:

- Photographically documenting the historic building in accordance with the standards of the Historic American Buildings Survey (HABS). The documentation would be submitted to OPRHP for approval prior to any demolition. Two copies would be submitted to OPRHP, one of which would be for archival storage in the New York State Archives and the other for retention in OPRHP files, and a third copy of the documentation would also be provided to the Museum of the City of New York.
- A survey of the decorative exterior terra cotta elements on the existing building will be conducted and OPRHP would be consulted to determine if any of these elements can be removed and incorporated into the design of the Proposed Development or utilized in the interior public spaces of the new building.
The applicant would consult with OPRHP regarding the design of the new building, as well as regarding the incorporation of references to the Old Croton Aqueduct in the design of the entrance plaza to the new building.

A Construction Protection Plan (CPP) would be prepared in coordination with a licensed professional engineer for historic buildings within 90 feet of the Proposed Development Site. The CPP would meet the requirements specified in the New York City Department of Buildings (NYCDOB) Technical Policy Procedure Notice #10/88 concerning procedures for avoidance of damage to historic structures resulting from adjacent construction. This plan would be submitted to OPRHP for review and approval prior to implementation. It should also be noted that the Proposed Development would occur adjacent to a building that is located within a NYCLPC historic district, and its construction would therefore be subject to implementing the same standard construction protection measures required for buildings designated as landmarks, as described further under the “Construction” section of Chapter 5, “Historic Resources”.

The applicant has agreed to undertake all of the above measures. The HABS documentation was prepared and submitted to OPRHP, which accepted and signed off on it in a letter dated July 8, 2010 (refer to Appendix A).

It is also expected that the sponsor would enter into a Memorandum of Understanding (“MOU”) with the OPRHP acting as the State Historic Preservation Officer, the New York City Department of Housing Preservation and Development (NYCHPD) and potentially the Advisory Council on Historic Preservation and other parties. NYCHPD anticipates providing a construction loan to facilitate the proposed project. The construction loan would likely be comprised of federal funding from HUD. Under 24 CFR Part 58, NYCHPD assumes the responsibilities for environmental review, decision-making and action that would otherwise apply to HUD. Accordingly, NYCHPD is required to conduct environmental reviews under the laws and rules which apply to HUD programs and policies, including the National Environmental Policy Act (NEPA) and related Federal Laws, Executive Orders and Rules, including the National Historic Preservation Act (36 CFR Part 800). The MOU will be executed as the result of the consultation process required pursuant to Section 106 of the National Historic Preservation Act.

NYCLPC, upon review of the OPRHP evaluation, has also concurred that the above measures should be incorporated. With implementation of the above measures, the identified significant adverse direct impact to historic architectural resources would be partially mitigated. However, despite these measures, this impact would not be completely eliminated. Therefore, it would constitute an unavoidable significant adverse impact on this historic resource as a result of the Proposed Action (refer to Chapter 14, “Unavoidable Adverse Impacts”).

**Mitigation for Indirect Impact**

As described in Chapter 5, “Historic and Cultural Resources,” the Proposed Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse
impact to visual resources. As such, the Proposed Development results in a significant adverse indirect contextual impact to historic resources. Because the design of the proposed building is still evolving, as noted above, one of the measures identified to partially mitigate the significant adverse direct impact on historic architectural resources is for the applicant to consult with the OPRHP regarding the final design of the new building. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. However, if design changes that are feasible or practicable given the applicant’s goals and objectives are not identified to fully mitigate this impact, it would constitute an unmitigable significant adverse impact on this historic resource as a result of the Proposed Action (refer to Chapter 14, “Unavoidable Adverse Impacts”).

In a letter dated August 25, 2010 (refer to Appendix A of this document), SHPO indicated that they have no further comments on the above mitigation measures.

C. HAZARDOUS MATERIALS

As discussed in Chapter 8, “Hazardous Materials,” a Phase I Environmental Site Assessment (ESA) was prepared in March 2008 for the Proposed Development Site, which identified the site as having recognized environmental conditions that could affect the property. These include the current and historical use of the Proposed Development Site for auto related operations, use of the eastern adjacent property as a gasoline filling station and auto repair shop and the southwestern adjacent property as a garage; suspect petroleum staining on the floor; and the potential presence of underground storage tanks at the site.

The Phase I ESA was reviewed by NYCDEP’s Office of Environmental Planning and Assessment, and a restrictive declaration was recommended by NYCDEP, due to the potential presence of hazardous materials on the site as a result of past and present on-site land uses. The declaration requires the preparation of a Phase II Workplan and a Health and Safety Plan for NYCDEP’s review and approval. The restrictive declaration is binding upon the property’s successors and assigns. The declaration serves as a mechanism to assure the potential for hazardous material contamination that may exist in the sub-surface soils and groundwater on the project site would be characterized prior to any site disturbance (i.e., site grading, excavation, demolition, or building construction).

In order to avoid significant adverse impacts with respect to hazardous materials, the applicant has executed and recorded a restrictive declaration that conforms with the requirements of NYCDEP. The restrictive declaration requires that the applicant (and any future owner) undertake a testing and sampling protocol to remediate any hazardous materials to the satisfaction of the NYCDEP prior to the issuance of any building permit. Should the testing identify any significant hazardous materials issues requiring remediation, the restrictive declaration would obligate the applicant to perform the remediation work recommended by NYCDEP. The scope of the investigation will be subject to NYCDEP approval, as will the need for any subsequent measures to address potential contamination. The applicant would also commit to a site specific Health and Safety Plan on the portion of Lot 26 to be used as the entrance plaza in the Reciprocal Easement Agreement with the City.
The restrictive declaration for hazardous materials was executed on August 5, 2010 and submitted for recording on August 31, 2010. Pursuant to an email from NYCDEP dated August 31, 2010, NYCDEP is in receipt of a signed copy of a NYCDEP-approved restrictive declaration with proof of recording for the site.

Accordingly, with the implementation of the preventative and remedial measures for the Proposed Development Site (through the use of a restrictive declaration), no significant adverse impacts related to hazardous materials would result from the Proposed Action and resultant construction activities on the Proposed Development Site. Following construction, there would be no potential for the Proposed Development to have significant adverse impacts.
A. INTRODUCTION

This chapter analyzes alternatives to the Proposed Action. The purpose of an analysis of alternatives, as set forth in the City Environmental Quality Review (CEQR) Technical Manual, is to provide the decision makers with the opportunity to consider reasonable alternatives to the Proposed Action that avoid or reduce Action-related significant adverse impacts identified in the EIS and may still allow for the achievement of the stated goals and objectives of the Proposed Action.

Consideration of a No Action Alternative is mandated by the State Environmental Quality Review Act (SEQRA) and CEQR, and is intended to provide the lead and involved agencies with an assessment of the consequences of not selecting the Proposed Action. The No Action Alternative assumes no zoning changes or other proposed actions for the site and no development on the Proposed Development Site. This alternative also provides a baseline against which impacts of the Proposed Action may be compared.

As described in Chapter 5, “Historic Resources,” the Proposed Development facilitated by the Proposed Action would result in a significant adverse impact with respect to historic architectural resources, as it would demolish an existing 2-story garage on the site that has been identified as a contributing building to the S/NR Sugar Hill historic district, and the new building could alter the context of West 155th Street, which forms the northern boundary of the S/NR-listed historic district. A No Impact or Reduced Impact Alternative examines a scenario in which there is a change in density or building design in order to avoid or reduce the potential significant adverse impacts associated with the Proposed Action. However, as described under the “No Impacts/Reduced Impacts Alternative” below, no feasible alternatives to the Proposed Action were found that would reduce or eliminate this impact to historic architectural resources.

As detailed in the EAS for the Proposed Action, dated April 2, 2010, pursuant to CEQR Technical Manual guidelines, the Proposed Action did not trigger a detailed analysis of Socioeconomic Conditions, Community Facilities, Natural Resources, Waterfront Revitalization Program, Infrastructure, Solid Waste and Sanitation Services, Energy, Traffic and Parking, or Transit and Pedestrians. In addition, the EAS screening analysis concluded that the Proposed Action would not result in any significant adverse impacts in the areas of Urban Design, or Public Health. As such, this targeted EIS provides analyses only for those technical areas that were not screened out in the EAS, namely: Land Use, Zoning and Public Policy; Open Space; Historic (architectural) Resources; Shadows; Visual Resources; Neighborhood Character; Hazardous Materials; Air Quality; Noise; and Construction Impacts. For each of the technical areas presented in this targeted environmental impact statement, the anticipated effects of the Proposed Action are compared to those that would result from each of the alternatives.
B. NO ACTION ALTERNATIVE

The No Action Alternative assumes that the proposed zoning change and other land use actions would not be implemented. This alternative is discussed and analyzed as “The Future Without the Proposed Action” in each of the technical areas of Chapters 2 through 10. This analysis compares conditions under the No Action Alternative to conditions with the Proposed Action. The No Action Alternative assumes no amendments to the zoning map; no property disposition and acquisition; and no public financing. The No Action Alternative would not require any discretionary actions. The effects of this alternative are summarized below for each of the technical areas presented in this targeted environmental impact statement, and compared to those of the Proposed Action.

Land Use, Zoning, and Public Policy

The No Action Alternative, like the Proposed Action, would not result in significant adverse impacts related to land use, zoning, and public policy. Under the No Action Alternative the rezoning area would continue to be zoned C8-3 and R7-2, and the Proposed Development Site would remain in its current condition and would continue to be occupied by a 300-space, 2-story public parking garage. No new residential, museum, or community facility uses would be introduced on the Proposed Development Site. Unlike the Proposed Action, this alternative would not promote and enhance the ongoing revitalization of this area of northern Manhattan nor provide affordable housing to the community.

Unlike the proposed project, this alternative would not seek zoning map amendments or other discretionary actions sought by the Proposed Action. Without a zoning change, the residential and community facility uses envisioned under the Proposed Action would not be allowed on the Proposed Development Site. The No Action Alternative would not meet the proposed project’s goals of transforming an underutilized commercial site into a green model of urban community revitalization that integrates affordable housing, education and cultural resources to enrich the neighborhood and serving the needs of the surrounding community, particularly New York’s low-income children and families.

Open Space

The Proposed Action would introduce new residents and workers to the study area, but would not result in any significant adverse open space impacts. Like the Proposed Action, the No Action Alternative would not result in significant adverse impacts to open space. Unlike the Proposed Action, the No Action Alternative would neither introduce new residents and workers to the open space study area, nor create approximately 0.11 acres of publicly-accessible open space in the form of a landscaped entry plaza along St. Nicholas Avenue.

The ½-mile study area open space ratio for the No Action Alternative, 0.91 acres per 1,000 residents (same as with the Proposed Action), will be below the average city-wide community district median of 1.5 acres per 1,000 residents as well as the CEQR Technical Manual guideline of 2.5 acres. In addition, the active open space ratio in the study area will continue to be well below DCP’s optimal planning goal of 2.0 acres per 1,000 residents, with an active open space ratio of 0.30 acres per 1,000 residents (same as with the Proposed Action). The passive open space
ratio for the No Action Alternative will be higher than DCP’s optimal planning goal of 0.5, with a passive open space ratio of 0.61 acres per 1,000 residents (same as with the Proposed Action), while the weighted passive open space ratio for residents and workers, at 0.56 acres per 1,000 user, would also be above the recommended weighted average.

Neither the No Action Alternative nor the Proposed Action would result in any significant adverse effects on open space in the study area.

**Shadows**

Without a new building on the Proposed Development Site, no new shadows would be cast on the open spaces and historic resources in the study area. Under the No Action Alternative, the Proposed Development Site would not be redeveloped, and therefore there would be no change with respect to shadows on sunlight-sensitive resources in the study area. Under the Proposed Action, new shadows would be cast by the Proposed Development on local open spaces. Neither the No Action Alternative nor the Proposed Action would result in any significant adverse shadows impacts.

**Historic Resources (Architectural)**

The Proposed Development Site and rezoning area are located within the State and National Register-listed (S/NR) Sugar Hill Historic District, and Lot 14, which falls partially within the rezoning area, also falls within the New York City Landmarks Preservation Commission (NYCLPC) designated Hamilton Heights/Sugar Hill Historic District. The existing garage building on the Proposed Development Site has been identified as a contributing structure to the S/NR historic district. Other designated historic resources within a 400-foot radius include the western edge of the 155th Street Viaduct, 409 Edgecombe Avenue, and the northernmost area of Jackie Robinson Park (which encompasses the Jackie Robinson Play Center).

Under the No Action Alternative, the Proposed Development Site would not be redeveloped. As the Proposed Development Site is not sensitive for archaeological resources, neither the Proposed Action nor the No Action Alternative would result in significant adverse impacts to archaeological resources.

The Proposed Action would result in the demolition of an existing 2-story garage identified as a contributing structure to the S/NR historic district, which would constitute a significant adverse direct impact to historic architectural resources. Under the No Action Alternative, in the absence of site redevelopment, there would be no potential for significant adverse impacts on architectural resources, as the existing garage structure would not be demolished. Therefore, unlike the Proposed Action, the No Action Alternative would not result in any direct impacts to architectural resources. It should be noted however that under this alternative, there is the potential for the continued and further deterioration of the existing structure.

Similarly, the significant adverse indirect contextual impact that would occur under the Proposed Action would not occur under the No Action Alternative. The demolition of the existing garage building and construction of the Proposed Development would change the context of the surrounding historic district. Although the Proposed Development would relate in height and bulk
to several of the taller apartment buildings in the area, it could alter the context of the northern boundary of the S/NR historic district and would therefore result in a significant adverse indirect contextual impact to historic resources.

Visual Resources

Like the Proposed Action, the No Action Alternative would not result in significant adverse impacts to visual resources. With the No Action Alternative, the Proposed Development Site would not be redeveloped, and the existing visual character of the rezoning area would remain unchanged. The Proposed Development Site would continue to be occupied by a 2-story public parking garage, and would not be redeveloped with a new mixed-use building, nor would the proposed landscaped entry plaza on St. Nicholas Avenue, street plantings and trees, and greater pedestrian activity, be provided. Under the No Action Alternative, urban design conditions and views of visual resources would remain the same, and the changes in building type and bulk that would result from the Proposed Action would not occur.

Neighborhood Character

Under the No Action Alternative, the existing conditions of the Proposed Development Site would remain, and neighborhood character would not be altered. Under the Proposed Action, the Proposed Development Site would be transformed from a low-density, low-activity, garage site to a moderate-density development with a mixed-use building with residential, museum and community facility uses. With the Proposed Action, there would also be significant streetscape improvements, and the Proposed Development would enliven the surrounding streets with street plantings and trees, and greater pedestrian activity as well as a new landscaped pedestrian entry plaza on St. Nicholas Avenue. These improvements would not occur under the No Action Alternative. Neither the Proposed Action nor the No Action Alternative would result in significant, adverse neighborhood character impacts.

Hazardous Materials

Under the No Action Alternative, the existing garage use on the Proposed Development Site would remain, and there would be no potential for new, in-ground construction to result in significant adverse impacts with respect to hazardous materials. Under the No Action Alternative, the measures required under the Proposed Action to avoid significant adverse hazardous materials impacts (namely, a restrictive declaration for the Proposed Development Site) would not be needed.

In contrast to the Proposed Action, the No Action Alternative would not create new residential and community facility uses that would eliminate parking uses. Moreover, under the No Action Alternative, on-site hazardous materials would not be removed from the site. Unlike the Proposed Action, the No Action Alternative does not include a restrictive declaration that would ensure the removal of any above- and below-ground tanks, and demolition of the existing parking structure in accordance with all applicable regulations.
Overall, there would be a lower potential for disturbance of hazardous materials under the No Action Alternative, but unlike conditions with the Proposed Action, there would be no obligation to perform sampling and undertake any subsequent remedial actions deemed necessary by NYCDEP on the Proposed Development Site.

**Air Quality**

No significant adverse mobile source or stationary source impacts are predicted to occur under either the No Action Alternative or the Proposed Action. As no building would be developed on the Proposed Development Site under this alternative, there would be no HVAC emissions generated on the site, nor would there be the potential for impacts from air toxic emissions from nearby existing industrial sources.

**Noise**

As the No Action Alternative would not result in any new uses or development on the Proposed Development Site, noise levels under the No Action Alternative would not be expected to be significantly higher than existing levels, and no significant adverse noise impacts would occur at the noise receptor locations in the study area. There would, however, not be the noise attenuation requirements due to the proposed (E) designation on the Proposed Development Site that would be incorporated as part of the Proposed Action.

**Construction Impacts**

Under the No Action Alternative, no demolition or construction activity would occur on the Proposed Development Site. Thus, there would not be the temporary short-term construction disruptions with respect to hazardous materials, architectural resources, traffic, air quality, and noise. However, under the Proposed Action, all construction would be governed by applicable city, state, and federal regulations regarding construction activities (such as NYCDQB’s TPPN #10/88, which requires, among other things, a monitoring program to reduce the likelihood of construction damage to historic resources within 90 feet), thereby avoiding significant adverse impacts in other areas.

Under the No Action Alternative, there would not be the economic and fiscal benefits of construction employment and the economic and fiscal benefits that would be realized during construction of the Proposed Development. Thus, under this alternative, these benefits, as well as the long-term benefits of the Proposed Action, would not be realized. Overall, the No Action Alternative would result in less construction-related temporary short-term impacts than the Proposed Action, but would not provide the economic benefits associated with the construction and operation of the Proposed Development.

**Conclusion**

The No Action Alternative assumes no discretionary actions would occur and that the Proposed Development would not be constructed. This alternative would avoid the Proposed Action’s
significant adverse impacts relating to historic architectural resources. In all other analysis areas, as with the Proposed Action, the No Action Alternative would not result in significant adverse impacts. However, the benefits expected from the Proposed Action on land use, visual resources, and neighborhood character would not be realized under this alternative. In addition, the No Action Alternative would fall far short of the objectives of the Proposed Action in facilitating opportunities for new affordable housing; and enhancing the public environment, ground-floor uses, and streetscapes to make the surrounding area a more appealing place to live, work, and visit.

C. NO IMPACTS/REDUCED IMPACTS ALTERNATIVE

It is the City’s practice to consider, whenever feasible, a “No Impacts” or “Reduced Impacts” alternative that avoids, without the need for mitigation, or reduces, all significant environmental impacts of the Proposed Action. As presented in chapters 2 through 11, the Proposed Action is anticipated to result in significant adverse impacts in the area of architectural resources, as the Proposed Development facilitated by the Proposed Action would demolish a building identified as a contributing structure to the S/NR historic district (direct impact), and the new building could alter the visual context of the northern boundary of the S/NR-listed historic district (indirect impact).

Direct Significant Adverse Impact

There is partial mitigation to the direct impact to historic resources resulting from the Proposed Action, as discussed in Chapter 12, “Mitigation,” but to completely avoid the impact resulting from demolition, this alternative would require that the existing garage structure on the site be maintained and reused in connection with the Proposed Development.

However, as discussed in Chapter 12, “Mitigation,” a structural assessment of the existing garage building concluded that reuse of the existing garage structure for a high-rise modern building is not economically viable. The assessment indicated that accommodating the existing garage into the Proposed Development was deemed to be infeasible, as it would require demolition of the rear portion of the existing building (to accommodate a 28 foot easement dedicated to NYCDEP at the southern portion of the site), removal of the roof and floor plates, and removal of a large portion of the modified exterior. Therefore, the assessment concluded that there is no logical economical alternative to removing the existing structure in order to provide for the requirements of the proposed 13-story mixed-use building proposed by the applicant.

Indirect Significant Adverse Impact

As noted in Chapter 1, “Project Description,” in designing the Proposed Development, the applicant’s main goal was to design a modern building that would conform to the proposed R8A zoning envelope, and provide innovative interior and exterior features to house the mixed use program of affordable apartments, museum and day care center. Another design goal was to develop a fenestration pattern for all the uses in the building that provided an abundance of natural light and views.
Because the design of the proposed building is still evolving, as noted in Chapter 12, “Mitigation,” one of the measures identified to partially mitigate the significant adverse direct impact on historic architectural resources is for the applicant to consult with the OPRHP regarding the final design of the new building. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. As such, an alternative that would reduce or eliminate this indirect impact cannot be identified at this time. It should be noted that the design of the Proposed Development is ongoing and may be modified to the extent required to conform with State and federal funding requirements. However, given the applicant’s design goals and objectives for the Proposed Development, there is only the potential or likelihood for partial mitigation.

**Conclusion**

Given the above, there is no feasible alternative that would eliminate or reduce the Proposed Action’s impact on architectural resources, except for one that maintains the status quo. This would be identical to the No Action Alternative described above.

This No Impacts Alternative, which in this case would be the same as the No Action Alternative described above, would avoid the Proposed Action’s identified significant adverse impact on historic architectural resources. However, this No Impacts Alternative is not an acceptable alternative to the Proposed Action. By preventing redevelopment of the Proposed Development Site, this alternative would fail to meet the objectives of the Proposed Action, which include: providing quality housing and services to the City’s lower-income families; expanding the supply of affordable housing in the City; and transforming an underutilized garage site into a green model of urban community revitalization that integrates affordable housing, education and cultural resources.

As such, this alternative would not meet the goals and objectives of the Proposed Action. Accordingly, it is not considered for purposes of further analysis.
A. INTRODUCTION

Unavoidable significant adverse impacts occur when a proposed action would: (a) result in significant adverse impacts for which there are no reasonably practicable mitigation measures to eliminate the impact; and (b) for which there are no reasonable alternatives to the Proposed Action that would meet the purpose and need for the action, eliminate the impact, and not cause other or similar significant adverse impacts.

As described in Chapter 12, “Mitigation,” the potential impact to historic architectural resources would not be fully mitigated.

B. HISTORIC (ARCHITECTURAL) RESOURCES

Unavoidable Direct Impact

As described in Chapter 5, “Historic Resources,” the building on the Proposed Development Site is identified as a contributing structure to the Sugar Hill Historic District listed on State and National Registers of Historic Places (S/NRs). Construction of the Proposed Development would necessitate demolition of this structure, which would constitute a significant adverse impact on architectural resources. As described in Chapter 12, “Mitigation,” measures to partially mitigate the impact of the demolition of this historic resource – which include archival photographic documentation and the possible removal of decorative exterior terra cotta elements on the existing building to be incorporated into the design of the Proposed Development or utilized in the interior public spaces of the new building (if feasible) – have been developed in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP). The HABS documentation was prepared and submitted to OPRHP, which accepted and signed off on it in a letter dated July 8, 2010, and the applicant has also agreed to undertake applicable construction-related mitigation measures, consult with OPRHP regarding the design of the new building, and conduct a survey of the decorative exterior terra cotta elements on the existing building. However, despite the measures described here and further outlined in Chapter 12, this impact would not be completely eliminated. Therefore, it would constitute an unavoidable significant adverse direct impact on this historic resource as a result of the Proposed Action.

Unavoidable Indirect Impact

The Proposed Development also has the potential to result in an unavoidable contextual impact to historic resources. As discussed in Chapter 5, “Historic and Cultural Resources,” the Proposed
Development would result in a significant adverse indirect contextual impact to historic resources, as its modern massing, façade materials, and fenestration would differ from the historic rowhouses and apartment buildings prevalent in the historic district. However, as the Proposed Development would not obstruct important views to the Sugar Hill historic district, which would continue to be visible from all streets throughout the study area, nor would the Proposed Action alter the street grid so that the approach to the historic district changes, it would not result in a significant adverse impact to visual resources. As such, the Proposed Development results in a significant adverse indirect contextual impact to historic resources.

Because the design of the proposed building is still evolving, the applicant will continue to consult with the OPRHP regarding the new building’s final design. As part of that process, further measures may be identified to partially mitigate this significant adverse indirect impact, and as a result, some of the building’s treatment or design elements, such as its cantilever, fenestration, and façade materials and color, may be modified. However, if design changes that are feasible or practicable given the applicant’s goals and objectives are not identified to fully mitigate this impact, it would constitute an unmitigable significant adverse impact on this historic resource as a result of the Proposed Action.
As set forth in the *CEQR Technical Manual*, growth-inducing aspects of a proposed action generally refer to "secondary" impacts of a proposed action that trigger further development. Proposals that add substantial new land use, new residents, or new employment could induce additional development of a similar kind or of support uses (e.g., stores to serve new residential uses). Actions that introduce or greatly expand infrastructure capacity (e.g., sewers, central water supply) might also induce growth, although this could be an issue only in limited areas of Staten Island and perhaps Queens, since in most areas of New York City infrastructure is already in place and its improvement or expansion is usually proposed only to serve existing or expected users.

The Proposed Action would facilitate construction of an approximately 169,333 gsf 13-story mixed-use building (140,934 zsf, excluding parking and mechanical deductions) on the Proposed Development Site. The Proposed Development would include: approximately 124 residential units, all of which would be affordable; an approximately 18,036 sf Faith Ringgold Children’s Museum of Art and Storytelling; a 12,196 sf day care facility and early childhood center for approximately 100 children; 2,350 sf of non-profit program and office space; and a 114-space below-grade accessory parking garage.

The Proposed Action would result in more intensive land use on the Proposed Development Site (generating new residents, daily workers, and visitors). However, it is not anticipated that it would have significant spillover or secondary effects resulting in substantial new development in nearby areas. The projected increase in residential population resulting from the Proposed Development may increase the demand for neighborhood services, but given the modest scale of the new development, which would occur on a single site, such increased demand would be minimal. The Proposed Action could also lead to additional growth in the City and State economies, primarily due to employment and fiscal effects during construction on the Proposed Development Site and operation of the Proposed Development after its completion.

While the Proposed Development would contribute to growth in the city and state economies, it would not induce additional notable growth outside the Proposed Development Site. The level of development in the area surrounding the site is controlled by zoning, and as such the proposed project would not actually “induce” new growth in the study area. Rather, the proposed project would reflect and complement current development patterns in this section of Harlem. The proposed project would improve existing infrastructure on and around the development site, including new sidewalks and connections to water, stormwater, and sewer lines. However, the infrastructure in the study area is already well developed, and improvements associated with the proposed project would not induce additional growth.
Resources, both natural and man-made, would be expended in the construction and operation of the Proposed Development facilitated by the Proposed Action. These resources include the building materials used during construction of the Proposed Development; energy in the form of gas and electricity consumed during construction and operation of the building by the various mechanical and processing systems; and the human effort (time and labor) required to develop, construct, and operate various components of the project. These are considered irretrievably committed because their reuse for some other purpose would be highly unlikely.
This chapter summarizes and responds to all substantive comments on the Draft Environmental Impact Statement (DEIS) for the Sugar Hill Rezoning project made during the public review period. The Notice of Completion for the DEIS was issued on June 4, 2010. The New York City Planning Commission (CPC) held a public hearing on the DEIS in Spector Hall at 22 Reade Street in Manhattan, on July 28, 2010. Comments were accepted at that hearing and throughout the public comment period, which remained open until August 9, 2010.

No comments on the DEIS were received during the public review period.
Appendix A

Agency Correspondence

- Environmental Review Letters Received from NYCLPC
  - Review Letters Received from NYS OPRHP
- Letter Submitted by SLCE Architects to NYS OPRHP
  (with Seinuk structural evaluation attached)
  - Review Letter Received from NYCDEP
ENVIRONMENTAL REVIEW


Project number Date received

Project: SUGAR HILL REZONING

Properties with no archaeological significance:

414 WEST 155 STREET, BBL 1020690021
89 ST NICHOLAS PLACE, BBL 1020690020
416 WEST 155 STREET, BBL 1020690026
416 WEST 155 STREET, BBL 1020690026
87 ST NICHOLAS PLACE, BBL 1020690014
89 ST NICHOLAS PLACE, BBL 1020690028

The following properties possess architectural significance:

Comments: AS AMENDED SECOND TIME. The project site is located in block 2069 of the State/National Register listed Sugar Hill Historic District. Lot 20 of the project site is a non-contributing building. Lot 21 of the project site is a contributing building. Lot 28 and the northern portion of lot 26 contain a contributing building. Lot 26, southern portion, is a non-contributing building. Lot 14 north in part, at the edge of the project site, is within LPC and S/NR listed Hamilton Heights/Sugar Hill Northeast HD.

The NR nomination and map for Sugar Hill have been sent separately to the consultant.

In the radius: Hamilton Heights/Sugar Hill Northwest HD, and the Colonial Parkway Apartments, Jackie Robinson Pool and Park, and the 155th St. Viaduct, all LPC and S/NR listed.

4/3/2009

SIGNATURE DATE

Gina Santucci

25672_FSO_GS_04032009.doc
ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/10DCP031M 8/26/2010

Project number Date received

Project: SUGAR HILL REZONING

Comments: The LPC is in receipt of the draft FEIS chapters for Historic Resources, Mitigation, and Appendix A dated 8/26/10. The Historic Resources chapter is acceptable. The Mitigation chapter notes that HABS documentation of the project site has been completed and signed off on in the SHPO letter of 7/9/10. LPC can find no SHPO reference to the HABS documentation in Appendix A. If the HABS documentation has been completed, LPC requests a copy for its files. If the HABS work has not been completed, LPC requests a copy of the HABS scope of work for review and comment.

cc: SHPO

8/30/2010

SIGNATURE DATE

25672_FSO_GS_08302010.doc
Comments: LPC is in receipt of Appendix A and the revised Mitigation chapters of this date. The fourth paragraph on page 12-3 of the Mitigation chapter should have the following added at the end of the paragraph: “Due to the proximity of the new project to the LPC designated Hamilton Heights/Sugar Hill Northeast Historic District, and the potential for indirect contextual effects to the LPC designated district, LPC requests a copy of the signed MOU for its files.” Given this change, the text for both chapters is acceptable.

LPC also requests a copy of the HABS documentation for its files.

Cc: SHPO
New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services • Peabody Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

February 10, 2010

Valerie Campbell
Special Counsel
Kramer Levin Naftalis & Frankel LLP
1177 Avenue of the Americas
New York, NY 10036

Re: Information Request
Sugar Hill Project
404-414 West 155th Street
New York County
09PR0034131

Dear Ms. Campbell,

Thank you for continuing to consult with the New York State Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). In cases where a state agency is involved in an undertaking, it is appropriate for that agency to determine whether consultation should take place under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. In addition, if there is any federal agency involvement, then review would take place in accordance with Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations. In this case we understand that State funding is likely thus, at this time, our review will proceed in accordance with the Section 14.09. These comments are those of the Field Services Bureau and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

We have reviewed the alternatives analysis dated December 17, 2009 from SLCE Architect, LLP and concur that there are no prudent and feasible alternatives to demolition of the 404-414 West 155th Street that will meet the project requirements. In particular, we understand that the existing building cannot carry the loads of a large addition that would be needed to meet the required number of housing units. At this point it is reasonable to begin discussion of a formal Letter of Resolution (LOR) that would identify proper mitigation measure to be incorporated into the work.

On February 2, 2010, we received a draft LOR from you and have reviewed this draft. I’ve e-mailed you a few changes to the draft but otherwise our office would be willing to sign this agreement as long as it is acceptable to the involved State Agency identified for the project. Until such an Agency is identified, we will not be able to sign this document.

If anyone has any questions, or if I can be of any assistance, please call me at (518) 237-8643, ext. 3282.

Sincerely,

[Beth A. Cumming]

Beth A. Cumming
Historic Site Restoration Coordinator
e-mail: beth.cumming@oprhp.state.ny.us

An Equal Opportunity Employer/Affirmative Action Agency
July 8, 2010

Catherine Gavin
Higgins Quasebarth & Partners, LLC
11 Hanover Square
New York, NY 10005

Re: Information Request
Sugar Hill Project
404-414 West 155th Street
New York County
09PR034131

Dear Ms. Gavin,

Thank you for requesting the comments of the New York State Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPHRP) for the Historic American Building Survey (HABS) recording of 414 West 155th Street.

Based upon our review of the submitted HABS documentation we find that it meets our standards for documentation. One copy has been retained in our office and the other has been sent to the New York State Archives. As you know, we have a draft Letter of Resolution (LOR) for this project. At this point, we cannot comment further on the proposed mitigation measures until an involved State agency is identified for the project.

If anyone has any questions, or if I can be of any assistance, please call me at (518) 237-8643, ext. 3282.

Sincerely,

Beth A. Cumming
Historic Site Restoration Coordinator
e-mail: beth.cumming@oprhp.state.ny.us

enc: V. Campbell - Kramer Levin Naftalis & Frankel LLP (via e-mail)
New York State Office of Parks, Recreation and Historic Preservation  
Historic Preservation Field Services • Peebles Island, PO Box 189, Waterford, New York 12188-0189  
518-237-8643  
www.nysparks.com

July 9, 2010

Valerie Campbell  
Special Counsel  
Kramer Levin Naftalis & Frankel LLP  
1177 Avenue of the Americas  
New York, NY 10036

Re: Information Request  
Sugar Hill Project  
404-414 West 155th Street  
New York County  
09PR03413

Dear Ms. Campbell,

Thank you for continuing to consult with the New York State Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). In cases where a state agency is involved in an undertaking, it is appropriate for that agency to determine whether consultation should take place under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. In addition, if there is any federal agency involvement, then review would take place in accordance with Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations. In this case we understand that State funding is likely thus, at this time, our review will proceed in accordance with the Section 14.09. These comments are those of the Field Services Bureau and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

At this time, we have reviewed your memorandum dated July 1, 2010 with additional information regarding the proposed design of the new building. Kathy Howe, our National Register representative for New York City, and I reviewed the additional photos and descriptions with respect to the appropriateness of the proposed new construction. We understand that the proposed project is a 13-story building located where the existing historic garage now sits. Based on our review, we concluded that the scale of the building is not out of context with existing conditions found at the northern end of the Sugar Hill Historic District. As noted, the contributing apartment building at 409 Edgecombe Avenue is of similar height. In accordance with our Guide to Compatible New Construction, we do not agree that the massing or design details of the proposed building are compatible with the historic district. Hopefully, we can have further conversations regarding these details.

If anyone has any questions, or if I can be of any assistance, please call me at (518) 237-8643, ext. 3282.

Sincerely,

Beth A. Cumming  
Historic Site Restoration Coordinator  
e-mail: beth.cumming@oprhp.state.ny.us

cc: R. Dobruskin – NYC (via e-mail)

An Equal Opportunity Employer/Affirmative Action Agency
August 25, 2010

Robert Dobruskin
Environmental Assessment and Review Division
New York City Department of City Planning
22 Reade Street
New York, NY 10007

Re: HUD
Sugar Hill Project
404-414 West 155th Street
New York County
69PR03413

Dear Mr. Dobruskin,

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO) for the proposed new construction at 404-414 West 155th Street. We are currently reviewing the project in accordance with Section 106 of the National Historic Preservation Act because we understand that funds for the project will come from the U.S. Department of Housing and Urban Development (HUD). These comments are those of the SHPO and relate only to the Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We have reviewed the revised draft version of the Sugar Hill Rezoning FEIS, Project Description, Historic Cultural Resources, Visual Resources and Mitigation chapters provided in your e-mail dated August 20, 2010. Based upon our review of these revised chapters, we have no further comments regarding the FEIS.

We look forward to continued consultation under Section 106 of the National Historic Preservation Act of 1966. If anyone has any questions, or if I can be of any assistance, please call me at (518) 237-8643, ext. 3282.

Sincerely,

Beth A. Cumming
Historic Site Restoration Coordinator
e-mail: beth.cumming@oprhsp.state.ny.us
December 17, 2009

Ms. Beth Cummings  
State Historic Preservation Office  
Peebles Island, Field Service Bureau  
Delaware Avenue  
Cohoes, New York 12047

RE: Sugar Hill Development  
414 West 155th Street  
New York, New York

Dear Ms. Cummings:

The proposed development site, located on the South side of West 155th Street between St Nicholas Avenue and St. Nicholas Place, is currently occupied by an existing two story parking garage with cellar. This garage facility was built in 1929 and has been used exclusively as a garage up to today. The structure is a steel frame structure with brick and terra cotta exterior. The exterior has had several modifications to the entries and window bays over the years.

The proposed development program includes the requirement of 124 units of low income housing, a children’s museum, day care center and an accessory parking facility.

To meet the program needs the development program requires a total floor area of 169,333 sq. ft. This program cannot be accommodated within the existing garage which contains only 65,055 sq. ft. of floor area. To meet the need for additional floor area, we have investigated the feasibility of enlarging the existing two story parking garage to accommodate the proposed development program. This scheme would accommodate the required floor area in a new structure above the garage. Our conclusion based on the attached Engineering Report is that the existing structure will not support the new loads that will be imposed by an addition.

The existing garage structure cannot be reused based on the attached structural report by Ysrael A. Seinuk, P.C. Consulting Engineers due to the following:

- Neither the existing garage columns, nor their respective footings can be used to carry a structure above them. If the existing columns are utilized, the safe load carrying capacities of the columns and corresponding footings will be exceeded. They were not designed for the excessive loads coming from a large addition above.
- The new structure would require a distribution of columns that deny the utilization of the parking structure. Preliminary studies indicate that at least 35 columns and 3 shear walls would be needed to support the large addition above.
- Additionally, at the southern portion of the site, the DEP requires a 28ft. easement. The current structure extends to the rear lot line. The required 28 ft. easement dedicated to DEP must carry not only DEP trucks and other vehicular traffic, but also fire engines. The existing structure cannot meet the vehicular loading requirements. This part of the existing structure would have to be removed up to the first column line, which is approximately 45 ft. north of the south property line, and substituted with a bona fide elevated road design.
In conclusion, to accommodate the proposed development, we would need to demolish the rear portion of the existing building, remove the roof and floor plates, remove a large portion of the modified exterior, and remove and replace the existing structure. It is not feasible to incorporate the existing parking garage into the proposed new development. We conclude that the parking garage structure needs to be demolished to allow for the program needs to be met.

Please call me if you need any additional information or you have any questions.

Yours sincerely,

[Signature]

Saky Yakas, AIA
Partner

Encl. Structural Report
Photographs of existing structure

cc: Mary Ann Villari
    Ellen Baxter
    Valerie Campbell
    Elizabeth F. Larsen
    Broadway Housing
    Broadway Housing
    Kramer Levin Naftalis & Frankel
    Kramer Levin Naftalis & Frankel
October 20, 2009

Mr. Saky Yakas
SLCE Architects
841 Broadway Ave
New York, NY 10003

Re: Sugarhill Residential Project
414 West 155th Street, New York, N.Y.

Dear Saky,

A visual inspection was performed by our personnel on the existing parking structure. As can be seen in the attached photographs, portions of the structural slabs of the building are in a state of disrepair. Exposed reinforcement shows different states of deterioration due to rusting. This is not uncommon in structures where water and deicing salts, brought in by the cars penetrate the slabs’ concrete. It was also observed that some exposed portions of the structural steel beams exhibit rusting.

The existing building could not accommodate the above proposed residential and community facility building for the following reasons:

• Neither the existing garage columns, nor their respective footings can be used to carry a structure above them. If existing columns are to be utilized, the safe load carrying capacities of the columns and corresponding footings will be exceeded. They were not designed for the excessive loads coming from a 12-story structure above.

• The new residential structure requires a distribution of columns that deny the utilization of the rest of the parking structure. Preliminary studies indicated at least 35 columns coming from the upper typical floors, with 3 shear walls that are developed around the stairs and elevator shafts.

• At the southern portion of the site, the current structure extends to the rear. The required 28 ft. casement dedicated to DEP must carry not only DEP trucks and other vehicular traffic, but also fire engines. The loading requirement cannot be accommodated by the present structure. This part of the existing structure has to
be removed up to the first column line, which is approximately 45 ft. north of the south property line, and substituted with a bona fide elevated road design.

In summary, we find no logical economical alternative to removing the existing structure in order to provide for the requirements of the proposed 12-story building.

Regards,

[Signature]

Jaime M. Ocampo
Senior Vice President
July 9, 2010

Robert Dobruskin
Director, Environmental Assessment and Review
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York 10017

Re: Sugar Hill Rezoning
Block 2069, Lots 14, 21, 26 and 28
10DCP031M/ 10DEPTECH074M

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the March 2008 Phase I Environmental Site Assessment (Phase I) and the January 2009 Phase II Environmental Site Investigation Work Plan (Workplan) prepared by ATC Associates Inc. on behalf of Broadway Housing Communities (applicant) for the above-referenced project. It is our understanding that the applicant is seeking zoning map amendments from the New York City Department of City Planning (DCP) to change the zoning for Block 2069, Lots 21, 28, and part of lots 14 from a C8-3 and R7-2 zoning to a R8A zoning district in addition to acquisition/disposition of City-owned property. The site is bounded by West 155th Street on the north, St. Nicholas Avenue on the west, St. Nicholas Place on the east, and West 153rd Street on the south in the Hamilton Heights North neighborhood of West Harlem, in Manhattan Community District 9. The proposed actions would facilitate the development of an approximately 169,333 gsf (gross square feet) 13-story mixed-use building with 124 dwelling units on Lot 21. As currently proposed, the building will consist of an approximately 18,036 sf (square feet) Faith Ringgold Children’s Museum of Art and Storytelling, a 12,196 sf day care facility and early childhood center, a 2,350 sf of non-profit program and office space, and a 114-space below-grade accessory parking garage. The project site currently consists of a two-story building with a 300-space cellar public parking garage on an approximately 21,685 sf lot. The existing on-site facility would be demolished to allow construction of the proposed new building. It is our understanding that the proposed action would not result in development on Lots 14 and 28, and improvements to Lot 26 (City-owned) would be limited to landscaping and paving to provide access to the uses on Lot 21.

The March 2009 Phase I revealed that historical on-site land and surrounding area land uses consisted of commercial and industrial uses including auto repair shop and a garage. Petroleum staining was observed on the floor and
the presences of two (2) 275-gallon lube oil tanks were located in the cellar of the on-site structure.

It should be noted that adjacent to the east of the site is a historical gasoline filling and service station with documented soil and groundwater contamination that is reportedly being remediated. The January 2009 Workplan proposes to collect six composite soil samples (from 14 to 16 feet below ground surface) and analyze for volatile organic compounds (VOCs) and methyl tertiary butyl ether (MTBE) using EPA method 8260 (full list), target compounds list (TCL) semi volatile organic compounds, target analyte list (TAL) metals, polychlorinated biphenyls (PCBs) and pesticides. The six soil borings will be converted to monitoring wells, if groundwater is encountered.

Based upon our review of the submitted documentations, we have the following comments/recommendations:

**Proposed Development Site (Block 2069, Lot 21)**

**Workplan**

DEP finds the January 2009 Phase II Workplan for the proposed project acceptable as long as the following information is incorporated into the Workplan:

- Soil and groundwater samples should be collected and analyzed by a New York State Department of Health Environmental Laboratory Approval Program certified (NYSDOH ELAP-certified) laboratory for the presence of Volatile Organic Compounds (VOCs) by U.S. EPA Method 8260, Semi-Volatile Organic Compounds (SVOCs) by Method 8270, Pesticides/Polychlorinated Biphenyl (Pesticides/PCBs) by Method 8081/8082 and Target Analyte List (TAL) metals.

- Upon completion of the investigation activities, the consultant should submit a detailed Phase II report to DEP for review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil and groundwater analytical result (i.e., New York State Depart of Environmental Conservation 6NYCRR Part 375 and NYSDEC Water Quality Regulations), updated site plans depicting sample locations, boring logs, and remedial recommendations.

**Health and Safety Plan**

DCP should instruct the applicant that an Investigation Health and Safety Plan must be submitted to DEP for review and approval prior to any field work.

In order to ensure that the aforementioned comments/recommendations are implemented for Lot 21, a Restrictive Declaration should be recorded to ensure that the potential hazardous materials issues are adequately addressed prior to and during construction activities. This institutional control would bind the property owners and their successors or assigns to address these
recommendations prior to construction activities. The Restrictive Declaration should be drafted and submitted to the DEP for review and approval. Once approved, the Restrictive Declaration should be fully executed to ensure remedial measures are implemented and future construction proceeds in a manner protective of public health.

**Proposed Access Easement Site (Block 2069, Lot 26)**

The Proposed Development Site is bounded on its western side by a roughly triangular, 4,597 square foot paved portion of City-owned property on Lot 26 that has frontage along St. Nicholas Avenue. The applicant would acquire an easement over this area for use as a plaza, which would be paved and landscaped to provide access to the primary entrances for the museum, day care and residential spaces of the Proposed Development; the existing uses (DEP vehicle parking and storage) would be relocated under a Reciprocal Easement Agreement to the southern portion of the Proposed Development Site.

It is our understanding that the applicant commits through the Reciprocal Easement Agreement to prepare and submit to DEP a site specific Health and Safety Plan to protect workers during paving and landscaping activities; this measure will prevent significant adverse hazardous materials impacts for activities on Lot 26.

This letter supersedes our June 14, 2010 correspondence. Future correspondence related to this project should include the following tracking number 10DEPTECH074M. If you have any questions or comments, you may contact me at (718) 595-4473 or Ms. Mahalia Myrie at (718) 595-3212.

Sincerely,

Terrell Estesen
Director, Wastewater Review and Special Projects

c:   G. Heath
     J. Wuthenow
     M. Winter
     M. Myrie
     T. Estesen
     O. Abinader – DCP
     D. Cole – OER
HISTORICAL BACKGROUND REPORT

FEBRUARY 2009

Higgins Quasebarth & Partners, LLC
11 Hanover Square
New York, NY 10005
(212) 274-9468
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction &amp; Summary</td>
<td>1</td>
</tr>
<tr>
<td>Architectural Description &amp; Existing Conditions</td>
<td>3</td>
</tr>
<tr>
<td>Building History &amp; Site Development</td>
<td>5</td>
</tr>
<tr>
<td>Architects: William F. Doyle and Shampan &amp; Shampan</td>
<td>9</td>
</tr>
</tbody>
</table>
Introduction & Summary

This report has been compiled by Higgins Quasebarth & Partners, LLC., for Broadway Housing Communities, to assist in assessing the history, context and physical fabric of 414 West 155th Street as part of a potential historic preservation review by the State Historic Preservation Office (SHPO) in connection with planned new construction on the site. 414 West 155th Street is a two-story parking garage on the south side of West 155th Street between St. Nicolas Avenue and St. Nicolas Place. It is located just within the northern boundary of the Sugar Hill National Register District. The National Register Nomination notes it as a contributing structure to the district and describes it as “a two-story neo-Gothic brick and terra-cotta parking garage with Oxford embellishments that lend dignity to an otherwise utilitarian structure.” The district is primarily characterized by row houses and apartment buildings. It was designated as much for its historical and social significance as the site of the Harlem Renaissance as for the value of the architectural fabric.

The parking garage and adjacent gasoline station were built from 1927 to 1928. There is conflicting information regarding who is responsible for the design of the garage. The National Register Nomination cites William F. Doyle as the architect. However it is more likely that the building was designed by Shampan & Shampan and that William F. Doyle represented the application before the city reviewers.¹

414 West 155th Street extends 154 feet along the south side of West 155th Street and 145 feet along St. Nicolas Place, occupying most of the northern parcel of the block. Due to the steep grade in the site to the west, the garage rises three stories at the northeast corner and is one story at the northwest corner. It is clad in buff brick with tan-colored mortar joints and finished with white glazed terra-cotta details. 414 West 155th Street has been modified over time with alterations to the entries and window bays. The brick and terra cotta are in fair to good condition overall.

¹ William F. Doyle is noted both in the National Register Nomination and the Municipal Archives Docket (NB 467-28) as the architect on the application. The New York Times however, announced the building noting Shampan & Shampan, an architecture firm from Brooklyn, as the designers. See the discussion of the architects for more details.
Architectural Description and Existing Conditions

414 West 155th Street has two street elevations: the north, primary, facade on West 155th Street and the east facade, visible from St. Nicolas Place. They are articulated in a tri-partite composition defined by the terra-cotta details at the parapet. There are thirteen bays on each facade, divided into three sections: a center section of seven bays with flanking sections of three bays. The ground floor of the north elevation is composed of numerous entries. At the second floor, both facades have large window bays divided by brick piers. White glazed terra-cotta tiles clad the center bay of each section and are defined by a raised parapet marked with tile-clad pinnacles at the center and terminus of each bay. The pinnacles are all linked by a terra-cotta crenelated parapet.

The ground floor of the north elevation is marked by openings that step up in height as the grade increases. There are five vehicle entries (Bays 1, 3, 7, 11, and 13) and two doors (Bays 2 and 6). The brick is painted black and white at this level. All of the bays have been altered over time with non-historic infill (concrete and glass block) and non-historic metal windows. The large second-floor window bays have also been altered and are occupied by non-original glass block surrounding non-historic metal windows and louvers. The glass block is in very poor condition. The terra-cotta details begin between the center windows of the three sections and rise up to the parapet. Original rounded terra-cotta pinnacles extend above the crenelated parapet emphasizing these bays.

The east elevation exhibits similar changes over time. The ground floor has a non-original entry and window. Large exposed steel beams, which originally functioned as signage armature, extend from the ground floor to the first floor. The first floor level, which originally was obscured by signage, is clad in common red brick topped by the buff brick of the second floor. The second-floor window bays have the same non-original infill as found on the north elevation. Three of the bays however are clad with the original buff brick.

Historically, 414 West 155th Street had large spans of glazing on the first and second floors. The typical unit consisted of a four-over-four center pivot steel window with four lights above and below. At the first floor this unit was used in the transoms and storefronts. At the second floor, the large bays had two of these units. Non-original infill at the first and second floors has changed the overall transparency and symmetry of the 1920s design. The exposed common red brick and non-original entry on the east elevation have also changed the original character of this facade.

The condition of the buff brick and white glazed terra cotta is fair. The brick shows wear. It is cracked and spalled, notably on the east elevation. The tan-colored joints are eroded. The terra cotta has some surface cracking and spalling. There are also sections of soiling and stains on the terra cotta.

The rolled roof is not original and appears to be in good condition. Eight skylights project from the center of the roof and a bulkhead sits just off center on the rear south elevation.

On the interior, one staircase provides non-vehicular circulation. The concrete of the interior shows typical signs of wear such as cracking and areas of efflorescence on the surface. Building management notes concern for the condition of the concrete structure in the eastern half of the garage based on significant cracking in the floor slab.
Building History and Site Development

414 West 155th Street has continuously been used as a parking garage, but has had numerous tenants over time.

The Sugar Hill National Register Nomination notes that the Speedway Livery Stable was constructed on the site of the garage in 1901 and was owned by Charles A. Peabody. In 1915 the building became a garage. In September of 1928, a two-story brick building was demolished on the site.2

The existing garage at 414 West 155th Street was originally owned by Charles A. Peabody. The New Building Application (NB 467-28) describes a three-story fireproof garage and service station to be erected on the block and lot. The application was approved in July of 1928, work commenced in October, and it was completed by May 1929.

Various owners and tenants have occupied the building over time including the Standard Oil Company of New York and the Municipal Gasoline Station Inc.3 There were relatively few alterations to the building filed at the Department of Buildings. A permit for construction of pits in the first floor (ALT 2556-29) was approved in 1929, but apparently was never executed and expired a year later in 1930. The sole permitted alteration to the exterior was a new exit in the rear brick wall in 1941 (ALT 767-41).

As noted previously, however, changes to the building include: modifications to the ground-floor openings on the West 155th Street elevation, non-original glass block infill at the second-floor windows on both facades, paint on the brick facade, and the removal of historic signage.

The Sugar Hill Historic District4

The Sugar Hill Historic District consists of 414 contributing buildings, which are primarily late nineteenth and early twentieth century row houses and apartment buildings. It is bound to the south by West 145th Street and to the north by West 155th Street. It runs irregularly along the side streets west of Convent Avenue and in some cases as far west as Amsterdam Avenue. The hilly topography, parks, and numerous trees create vistas that juxtapose the natural and urban environments.

The district is recognized by the National Register as significant under Criteria A, B, and C for evaluation of historic properties. Criterion A identifies the buildings of the district as important due to their association with events that have made a significant contribution to the broad patterns of history. The importance of the built fabric in the district is repeatedly linked to broader transpiration developments. Criterion B recognizes buildings in the Sugar Hill Historic District for their association with lives of significant individuals, notably central figures in the cultural history of Harlem. Criterion C focuses on the diverse architectural character of the buildings in the Sugar Hill Historic District and recognizes it as representative or embodying distinctive characteristics of various styles that resulted from distinct periods of growth and development.

2 New York City Department of Buildings Demolition Permit 274, 1928.
3 New York City Department of Building applications for alterations and signage begin quickly after the construction of the garage and gas station. Photographs from 1929 and circa 1930 show that the tenant changed in that brief period of time.
4 This description of the Sugar Hill Historic District is taken almost in its entirety from the Sugar Hill Historic District National Register Nomination listed in 2002.
The Sugar Hill Historic District is recognized as significant for its association with events that have made an important contribution to the broad patterns of our history in the areas of community planning and development, ethnic heritage, and social history. The period of significance, circa 1856 to circa 1956, incorporates the complex historical and architectural development of the neighborhood.

The Sugar Hill Historic District evolved from its rural beginnings to its subsequent urban form as a result of infrastructure and transportation initiatives. The creation of the Hudson River Railroad in the 1830s and the completion of the Croton Water Aqueduct were important factors in the initial period of development largely characterized by farmsteads and estates. Later periods of expansion from 1876 to 1906 grew as a result of transportation improvements including the Eighth Avenue elevated (1879), the Amsterdam Avenue Cable Car (ca. 1880), and the West 155th Street Viaduct (ca. 1890).

Early development was characterized by freestanding villas and mansions designed by distinguished architects. The completion of the IRT subway (ca. 1904), however, allowed easier access to the area for broader demographics. Sugar Hill became increasingly attractive to middle class families, which created the impetus for the construction of row houses and apartment buildings from 1906 to 1926.

The late 19th and early 20th Century residential architecture of the historic district remains intact. The long rows of well-preserved speculatively built row houses give the district a distinct sense of place. The private residences display remarkable neo-Grec, Romanesque and Renaissance Revival style details of high quality materials. Many of the apartment buildings in the district reflect the Beaux-Arts and “City Beautiful” movements. Other popular styles include the Renaissance Revival, French Renaissance Revival, and Colonial Revival. These buildings were designed by New York architects specializing in residential construction, such as A.B. Jennings, Neri Fouchaux, Frederick P. Dinkelberg, Neville & Bagge and Schwartz & Gross, among others.

The National Register Nomination emphasizes the district’s importance as a symbol of the African-American community and culture with particular focus on the role of the neighborhood during the Harlem Renaissance. The period of significance encompasses ca. 1926 to 1958. The mid-1920s saw many noted and affluent African-Americans arrive on Sugar Hill, including professionals active in law, business, literature, music, and art. This phenomenon was facilitated by the new rapid transit: St. Nicolas Avenue’s express A train (ca. 1930). It was during this period that the area historically known as Harlem Heights and (lower) Hamilton Heights became known as Sugar Hill. For African Americans living on the Harlem plain, this elevated residential area to the west became increasingly desirable.

Sugar Hill takes its name from the “cream and sugar” of African-American society who lived in the neighborhood. The individuals who played important roles in local and national history included such illustrious figures as future Supreme Court Justice Thurgood Marshall, sociologist and civil rights activist W.E.B. DuBois, painter Aaron Douglas, jazz musician Edward Kennedy Ellington (Duke Ellington), significant community figures such as Adam Clayton Powell, Sr., and writers Ralph Ellison and Langston Hughes.

Construction in Sugar Hill following the 1930s was minimal and as a result, there are very few buildings that represent the later decades of the period of social and historical significance. The last building to represent the end of this era is York and Sawyer’s Bowery Savings Bank apartments erected in 1956. This was the first major building project in Harlem following the 1930s and it housed the first bank to open in Harlem in 48 years. The National Register Nomination notes that, although by the
late 1950s Sugar Hill had deteriorated, the neighborhood has remained a prominent cultural symbol of the African-American community.

414 West 155th Street was built just prior to the end of speculative construction in the Sugar Hill Historic District. Its materials and style are comparable to construction during that period. It reflects a later revival style and represents the rise of the automobile as an important mode of transportation during the 1920s.

**Architects: William F. Doyle and Shampan & Shampan**

There is conflicting information regarding who actually designed 414 West 155th Street. The National Register Nomination cites William F. Doyle as the architect, probably because the DOB records note him as the architect. Although it is not conclusive, closer research suggests that the building’s design may have been executed by the architectural firm Shampan & Shampan. The project was announced in the New York Times in 1928. The Times identifies Shampan & Shampan as the designers for a “$400,000 three-story fireproof garage planned for the southwest corner of West 155th Street and St. Nicolas Place measuring 154 feet by 144 feet.”

Shampan & Shampan, a Brooklyn, developer/design firm had established a sound reputation by the mid-1920s working on garages and apartment buildings. Additional Times coverage in the early 1930s details allegations of corruption in state and federal investigations focused on Doyle’s role presenting applications for the construction to the Board of Standards and Appeals. During the investigations, it was noted that Doyle was not an architect.

A former Fire Department veterinarian and Chief of the Bureau of Fire Prevention, William F. Doyle began a second career as a consultant representing building applications for the construction of garages and gasoline stations following his retirement from city service in 1922. Doyle was a renowned expert for acquiring approvals from the Board of Standards Appeals. Through his lucrative services he earned over $1,000,000.00, primarily in cash, from 1922 to 1930. In 1927 alone, the year that work began on 414 West 155th Street, he made $270,000. Doyle regularly charged $10,000 for minor applications and up to $40,000 in more serious applications for zoning variances.

He later became the center of state and federal investigations into the City’s corruption. Extensive newspaper coverage of the trials centered on fee discrepancies began in May 1930 and lasted over a year. Before the end of the ongoing court battle, William E. Walsh, Chairman of the Board of Standards and Appeals, resigned due to allegations of fee sharing with Doyle. Walsh was subsequently acquitted and Doyle continued to present applications to the Board of Standards and Appeals.

Additional inquiries into Doyle’s deals and associations, however, began again six months after the final days of the first trials. He was tried on charges of perjury and tax evasion. Doyle was sentenced to 30 days in jail for his refusal to share information.

---

5 “$400,000 Garage Is Planned” New York Times, August 14, 1928 (p.28).
7 “Crain orders inquiry into permits grants by Standards Boards” New York Times, May 10, 1930 (pg. 1).
8 “Dr. Doyle to face Grand Jury on Monday” New York Times, May 31, 1930 (pg. 8).
9 “$850,000 in Deposits by Doyle since 1926 Revealed by Tuttle” New York Times, June 1, 1930 (pg. 1).
10 Doyle, no stranger to the courtroom, was indicted by the NY County Grand Jury on charges of bribery and conspiracy in connection with an alleged moving picture theatre graft in 1919. He was head of the Fire Prevention Bureau of the Fire Department at that time and the charges were dismissed.
His trials occurred just prior to and in conjunction with the larger investigations into the corruption of city politics. These investigations ultimately resulted in the election of reformist Mayor LaGuardia and led to the downfall of Tammany Hall.

In 1933 Doyle was still presenting cases successfully to the Board of Standards and Appeals.

The style of 414 West 155th Street, Doyle's background and the New York Times announcement of the building as the design of Shampan & Shampan do not definitively answer the question who designed the building. However it is most likely that the building was designed by Shampan & Shampan.

Shampan & Shampan

The architectural firm of Shampan & Shampan was founded in Brooklyn in 1907 by brothers Joseph Shampan (c.1886-1961) and Louis Shampan. The architecture and development firm designed apartment houses and taxpayers (one- to two-story buildings, usually transient structures, meant to generate taxes on expensive lots) throughout the city as well as numerous commercial buildings in the garment district of Manhattan. As real estate investors, they developed many building themselves and then retained them as income producing properties. They were the architects for the Thrift Hall (1916) on the Pratt Institute Campus, which was a savings bank for students founded by Charles Pratt, Sr., in 1889. They also designed the Veterans Temple of Peace at the 1939-40 New York World’s Fair. Examples of the firm’s work are found in the Lower East Side of Manhattan, Brooklyn Heights, Cobble Hill, and Clinton Hill Historic Districts. The firm remained in practice through the 1960s.