Chapter 2: Procedural and Analytical Framework

A. INTRODUCTION

The Proposed Actions would amend the zoning map in the approximately 35-acre Project Area and create the Special Manhattanville Mixed-Use Zoning District. The rezoning would allow Columbia University to develop the Academic Mixed-Use Development on the approximately 17-acre Academic Mixed-Use Area within the Project Area to meet the needs it has identified for long-term growth and modernization and would allow for redevelopment of other areas within the Special Manhattanville Mixed-Use Zoning District.

This chapter describes the process necessary to implement the Proposed Actions and provides an overview of the analytical framework used to guide the technical analyses presented in subsequent chapters of this Environmental Impact Statement (EIS).

B. ENVIRONMENTAL REVIEW PROCESS

Most State, County, and local government agencies in New York, except the State Legislature and the courts, must comply with the State Environmental Quality Review Act (SEQRA). The City has promulgated City Environmental Quality Review (CEQR) procedures to implement SEQRA for actions in the City.

To help the public understand the environmental consequences of the agencies’ decision-making, and to give the public an opportunity to participate in identifying such consequences, all discretionary decisions of an agency to approve, fund, or directly undertake an action, where that agency can exercise discretion over environmental concerns, are subject to review under SEQRA/CEQR. Discretionary decisions involve choices to be made by the decision-makers that determine whether and how an action (as described in Chapter 1, “Project Description”) is to be taken. Discretionary actions by the New York City Planning Commission (CPC), the New York City Council, the New York State Urban Development Corporation (UDC, doing business as the Empire State Development Corporation [ESDC]), the Public Service Commission (PSC), and the New York State Department of Environmental Conservation (DEC) would be required.

PROCESS OVERVIEW

CEQR rules guide environmental review through the following steps:

ESTABLISHING A LEAD AGENCY

Under CEQR, the “lead agency” is the public entity responsible for conducting environmental review. The lead agency is typically the agency with primary responsibility for the proposed action. Because CPC is the agency primarily responsible for zoning actions and map amendments, subject to City Council review, CPC is the lead agency for the SEQRA/CEQR review of the Proposed Actions.
In addition, the City Council, ESDC, PSC, and DEC must make a discretionary decision on one or more of the Proposed Actions and will act as “involved agencies.” The New York City Department of Environmental Protection (DEP) and the New York City Department of Transportation (NYCDOT) have actions not subject to CEQR, and so they are considered “interested agencies.”

**DETERMINATION OF SIGNIFICANCE**

The lead agency’s first decision is to determine whether a proposed action may have a significant adverse impact on the environment. This is based on an Environmental Assessment Statement (EAS), which includes information about the existing environmental setting of the proposed action, as well as a screening analysis to determine its potential to have significant adverse impacts. On reviewing the EAS prepared for the Proposed Actions, CPC, the lead agency, determined that it could have a significant adverse effect on the environment, requiring that an EIS be prepared. CPC issued a Positive Declaration on the Proposed Actions on October 3, 2005.

**SCOPING**

Once the lead agency issues a Positive Declaration, it then issues a Draft Scope of Work of the environmental studies for the EIS. “Scoping” is the process of establishing the type and extent of the environmental impact analyses to be studied in the EIS. CEQR requires all scoping meetings to be public. Comments from interested and involved governmental agencies and the public are addressed in the Final Scope of Work.

For the Proposed Actions, a draft scoping document (the Draft Scope) was issued by CPC on October 3, 2005. A public scoping meeting was held on November 15, 2005, at I.S. 195, located at 625 West 133rd Street, and the public review period for agencies and the public to review and comment on the Draft Scope was open through January 6, 2006. A final scoping document (the Final Scope) was issued on April 25, 2007, and served as the framework for the Draft EIS (DEIS) analyses.

**PREPARATION OF THE DEIS**

In accordance with the Final Scope, a DEIS is prepared. The lead agency reviews all aspects of the document, calling on other City and, if appropriate, State agencies to participate as it deems appropriate. Once the lead agency is satisfied that the DEIS is complete, it issues a Notice of Completion and circulates the DEIS for public review. When a DEIS is required, it must be certified as complete before the formal public review period under the City’s Uniform Land Use Review Procedure (ULURP), which is described below, can proceed.

**PUBLIC REVIEW**

Publication of the DEIS and issuance of the Notice of Completion starts public review, which must include a public hearing and a public comment period that must extend for at least 30 days and must remain open for at least 10 days after the close of the hearing. The lead agency must publish a notice of the hearing at least 14 days before it takes place. All substantive comments become part of the CEQR record and must be summarized and responded to in the Final EIS (FEIS). Because ULURP is required for CPC actions, public review of this EIS will be coordinated with review requirements of the ULURP process (see discussion below). The public hearing for the DEIS prepared for the Proposed Actions was a joint CEQR/ULURP hearing held
on October 3, 2007. Comments were accepted at the hearing for this project and throughout the public comment period, which was held open until October 15, 2007.

**PREPARATION AND COMPLETION OF THE FEIS**

After the close of the public comment period for the DEIS, the lead agency prepares an FEIS. The FEIS must include a summary of and a response to each substantive comment on the DEIS. Once the lead agency determines that the FEIS is completed, it issues a Notice of Completion and circulates the FEIS. The FEIS for the Proposed Actions must be completed before CPC can vote on the application.

**STATEMENT OF FINDINGS**

The lead agency (i.e., CPC) and each involved agency (i.e., City Council, ESDC, PSC, and DEC) must adopt a formal set of written findings, reflecting its respective conclusions about the potential significant adverse environmental impacts of the Proposed Actions, potential alternatives, and mitigation measures. The findings may not be adopted until 10 days after the Notice of Completion has been issued for the FEIS. Once the findings are adopted, the CEQR process is completed.

**COORDINATION WITH OTHER REVIEW AGENCIES**

The CEQR process is integrated and coordinated with other government agencies’ decision-making processes. For the proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development, two key public processes are essential in implementing the project. These are ULURP and General Project Plan (GPP) review and approval. Each is summarized below. The CEQR process for the Proposed Actions will support these other decision-making processes.

*Uniform Land Use Review Procedure (ULURP)*

The zoning map amendments associated with the proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development are subject to the City’s ULURP. Zoning text amendments are not subject to ULURP, but are subject to review by CPC and City Council under Sections 200 and 201 of the New York City Charter, and will be reviewed concurrently with ULURP applications.

ULURP, mandated by Sections 197-c and 197-d of the City Charter, is a process specifically designed to allow public review at four levels: Community Board, Borough President, CPC, and City Council. The procedure sets time limits at each review, with a maximum period of approximately seven months.

The process begins with certification by CPC that the ULURP application is completed. The application is then referred to the Community Board in which the project takes place (for the Proposed Actions, Manhattan Community Board 9, or “CB9”). CB9 has up to 60 days to review the proposal, hold a public hearing, and adopt a resolution regarding the proposal. Next, the Borough President has up to 30 days to perform the same steps. CPC then has up to 60 days to approve, disapprove, or approve with modifications, and during that time, a ULURP public hearing is held. When a DEIS accompanies the ULURP application, as with this proposal, the CEQR public hearing is held jointly with the ULURP hearing. Comments made at the DEIS public hearing are incorporated into an FEIS; the FEIS must be completed at least 10 days before any action by CPC on the ULURP application. In the event of an approval or an approval with
modifications, CPC forwards the application to the City Council, which has 50 days to review it (subject to extension to 65 days in the event the Council were to propose modifications). Following the Council’s vote, the Mayor, at his discretion, may choose to veto the action. The City Council can override that veto.

**General Project Plan (GPP)**

In addition to the rezoning, implementation of the Academic Mixed-Use Development plan would entail the adoption of a General Project Plan (GPP) and subsequent acquisition of certain property within the Academic Mixed-Use Area by the New York State Urban Development Corporation (doing business as the Empire State Development Corporation [ESDC]), either through the discretionary exercise of ESDC’s power of eminent domain or otherwise under the New York State Urban Development Corporation Act (UDC Act) and the subsequent disposition by ESDC of any such property to Columbia for purposes of project development. The GPP would provide for the implementation of features of the Academic Mixed-Use Development plan that may not be mandated through zoning regulations or other mechanisms, such as preservation of specified historic resources, permitted uses in below-grade spaces, minimum and maximum floor area thresholds for all components, and limitations on the allowable uses on proposed development sites. Deed restrictions and other mechanisms enforceable by New York City and/or ESDC would be used to administer and enforce those features.

**Eminent Domain**

The Proposed Actions contemplate that ESDC may acquire property through the use of the eminent domain process. As set forth in the New York State Eminent Domain Procedure Law (EDPL), upon demonstrating a public use, benefit, or purpose and need for acquiring property, and working through a highly regulated process of determining the value of the land to be acquired, the property may be acquired and then transferred to a public agency. This process will also include meeting local and State standards with respect to relocation assistance for affected residents and businesses. The use of eminent domain is discretionary and is therefore subject to SEQRA.

**C. FRAMEWORK FOR ENVIRONMENTAL ANALYSIS**

**SCOPE OF ENVIRONMENTAL ANALYSIS**

As set forth in the Positive Declaration, the lead agency has determined that the Proposed Actions may result in one or more significant adverse environmental impacts and, thus, has required preparation of an EIS. This document applies methodologies and follows the guidelines set forth in the CEQR Technical Manual, where applicable. These are generally considered to be the most appropriate technical analysis methods and guidelines for the environmental impact assessment of projects in the City, and they are consistent with SEQRA.

For each technical analysis in the EIS, the assessment includes a description of existing conditions, an assessment of conditions in the future without the Proposed Actions (“No Build”) for the year that the Proposed Actions would be completed, and an assessment of conditions for the same year with the completion of the action in the future with the Proposed Actions. Identification and evaluation of impacts of the Proposed Actions are based on a comparison between conditions in the future without the Proposed Actions and those in the future with the Proposed Actions.
Chapter 2: Procedural and Analytical Framework

ANALYSIS YEARS

OPERATIONAL ANALYSIS

An EIS analyzes the effects of a proposed action on its environmental setting. Since a proposed action, if approved, would take place in the future, the action’s environmental setting is not the current environment but the environment as it would exist at project completion. Therefore, future conditions must be projected. This prediction is made for a particular year, generally known as the “analysis year” or “build year,” which is the year when the action would be substantially operational.

It may be that the analysis year for a given action is uncertain. This is typically the case in area-wide rezoning actions where the build-out depends on market conditions and other variables. CEQR assessments of large, area-wide zoning proposals not associated with specific development projects are typically based upon a 10-year build period. This is the time frame that can be reasonably predicted without engaging in highly speculative projections. Large-scale projects constructed over a long period, with operation or occupancy of the different elements as they are completed, are assessed when the entire project is completed as well as in an interim build year. The interim build year is the year in which a substantial level of the development allowed under a rezoning would be anticipated.

The Proposed Actions, the subject of this EIS, include an area-wide rezoning with multiple elements. The Academic Mixed-Use Development is intended to accommodate Columbia’s need for long-term growth and would be developed or implemented over a period of 25 years. For purposes of analyzing the potential impacts of the proposed Academic Mixed-Use Development (see Chapter 1), it is assumed that this development would take place incrementally over a 25-year period. The specific long-term development schedule beyond 2015 has not been defined by Columbia at this time, but the Academic Mixed-Use Development is conservatively assumed to be fully built by 2030. The year 2030, therefore, will assume full occupancy of the Proposed Project and, in this way, will capture the longer-term impacts of the Proposed Project without engaging in speculation over conditions in the distant future. Accordingly, two analysis years, 2015 and 2030, have been selected for EIS purposes.

For the purposes of evaluating any development that would occur outside the Academic Mixed-Use Area in Subdistricts B, C, and the Other Areas of the Project Area, it is conservatively assumed that any development would occur by 2015. Conditions in each analysis year “with the Proposed Actions” are evaluated against conditions in the analysis year “without the Proposed Actions.”

CONSTRUCTION ANALYSIS

Several analysis years for construction will be examined to address conditions during construction prior to 2015 (completion of Phase 1), and conditions between 2015 and 2030 (Phase 2). For the purposes of assessing the reasonable worst-case development scenario for the

1 CPC is contemplating certain modifications to Subdistrict B. The proposed modifications would rezone Subdistrict B to a modified M1-2 light manufacturing district to support light manufacturing and retail uses. It is anticipated that this modification would not result in any projected development sites in Subdistrict B. The proposed modifications are more fully described in Chapter 29, “Modifications to the Proposed Actions.” Chapter 29 also analyzes the potential environmental impacts that could result from the proposed modifications.
Proposed Actions, it is anticipated that all of the projected development for Subdistrict B and the Other Areas would be completed by 2015, the year that Phase 1 of development in the Academic Mixed-Use District (Subdistrict A) would be completed. Thus, the Phase 1 construction analysis years would address peak construction in Subdistrict B and the Other Areas, plus construction of Phase 1 in Subdistrict A.

The analysis years for construction between 2015 and 2030 would address conditions likely to have the greatest impact. From 2015 to 2030, construction would proceed northward through the Academic Mixed-Use District, so that the last block of construction would be between West 132nd and West 133rd Streets. Construction would be the most complex on this block, because it would involve the modification or reconstruction of the existing Metropolitan Transportation Authority (MTA) Manhattanville Bus Depot, a feature of the Proposed Actions which is contingent, among other things, upon Columbia entering an agreement with MTA for such purpose, as well as construction of four buildings and an open space (midblock open area) above the bus depot. Also, these construction activities would take place across the street from a school (I.S. 195) and a large residential building (3333 Broadway). In addition, “background” conditions at this time would include traffic and other effects of nearly all of the proposed development for Subdistrict A, and the redevelopment assumed for Subdistrict B and the Other Area east of Broadway. This development is assumed to be completed in 2029.1

The construction analysis years will be selected to address the worst-case impacts for the discrete technical areas being analyzed. In the case of traffic and parking, it is estimated that the worst-case impacts will occur in 2012 and 2027. For the air quality analyses associated with on-site construction activity, worst-case periods were identified for 2008, November 2009 to October 2010, and 2011 for the Phase 1 construction period and mid-2025 to mid-2026 for the Phase 2 construction period. Chapter 21, “Construction,” describes the likely construction schedule and evaluates the Proposed Project’s construction-related impacts.

DEFINITION OF STUDY AREAS

For each technical area in which impacts may occur, a study area is defined for analysis. This is the geographic area likely to be affected by the Proposed Actions for a given technical area, or the area in which impacts of that type could occur. Appropriate study areas differ depending on the type of impact being analyzed. Often it is appropriate to use primary and secondary study areas: the primary study area is closest to the Project Area and, therefore, is most likely to be affected; the secondary study area is farther away and receives less detailed analysis. Generally, the primary study area is most likely to be more directly affected by the Proposed Actions, and those effects can be predicted with relative certainty, while the secondary study area could experience indirect effects, such as changes in trends. It is anticipated that the direct principal effects of the Proposed Actions would occur within the Project Area. The methods and study areas for addressing impacts are discussed in the individual technical analyses sections.

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1 Construction on this block would be delayed if the building at 3291 Broadway on the corner of West 133rd Street and Broadway, which was constructed under federal and City agreements that remain in force until 2015 and 2029, respectively, cannot be demolished until 2029. The description of construction activities would remain the same even if this construction takes place at a later date. If construction takes place on Block 1998 to the south, and/or Site 17 east of Broadway, and 3291 Broadway is still occupied, based on the analyses conducted in Chapter 21, “Construction,” there would be no significant adverse construction impacts affecting those occupants.
DEFINING BASELINE CONDITIONS

EXISTING CONDITIONS

For each technical area assessed in the EIS, the current conditions must first be described. The assessment of existing conditions establishes a baseline—not against which the project is measured, but from which future conditions can be projected. The prediction of future conditions begins with an assessment of existing conditions, because these can be measured and observed. Studies of existing conditions are generally selected for the reasonable worst-case conditions. For example, the time periods when the greatest number of new vehicular, pedestrian, and transit trips to and from a project site would occur are measured for the traffic analysis. The project impacts are then assessed for those same traffic peak periods. CEQR recommends that the analysis year for existing conditions be within one year of DEIS publication. Accordingly, the DEIS existing conditions analysis year is 2006. However, during scoping, some in the community requested that the EIS select an earlier year, before Columbia announced its plans in 2003 and began acquiring properties, to determine whether land use and socioeconomic impacts associated with the project might have already occurred. In response to that request, this EIS contains an analysis of certain land use and socioeconomic trends before 2006, focusing on the years 2000 to the present. This time frame has allowed the analysis to examine the effects of Columbia’s activities on conditions in the study area. The 2000-2006 analysis is contained in Appendix C and summarized in Chapter 3, “Land Use, Zoning, and Public Policy,” and Chapter 4, “Socioeconomic Conditions,” as relevant.

DEFINITION OF FUTURE WITHOUT THE PROPOSED ACTIONS

The future without the Proposed Actions condition provides a baseline condition that is evaluated and compared with the incremental changes due to the Proposed Actions. The future without the Proposed Actions conditions are assessed for the same analysis years as the future with the Proposed Actions—i.e., 2015 and 2030.

The future without the Proposed Actions condition uses existing conditions as a baseline and adds to it changes known or expected to be in place at various times in the future. For many technical areas, the future without the Proposed Actions condition incorporates known development projects that are likely to be built by the analysis years. This includes development currently under construction or development that can be reasonably expected due to the current level of planning and public approvals. The future without the Proposed Actions analyses for some technical areas, such as traffic, use a background growth factor to account for a general increase expected in the future. Such growth factors may also be used in the absence of known development projects. The future without the Proposed Actions analyses must also consider other future changes that will affect the environmental setting. These could include technology changes, such as advances in vehicle pollution control and roadway improvements, and changes to City policies, such as zoning regulations.

Future development projects that have been announced, are in an approval process, or are under construction, and proposals for rezoning and public policy initiatives likely to be built by 2015 without the Proposed Actions, are presented in Table 2-1 and shown in Figure 2-1. Development under a rezoning proposal submitted to New York City Department of City Planning (DCP) by Tuck-It-Away for several sites within the Project Area is included, although it is possible that this proposal would not be approved in the future without the Proposed Actions. Certain Columbia as-of-right development projects are also included.

There are no specific developments proposed or under construction for 2030; however, development of new residential and commercial uses is expected to continue to 2030 and later.
MANHATTANVILLE IN WEST HARLEM REZONING AND ACADEMIC MIXED-USE DEVELOPMENT

Figure 2-1

Future Without the Proposed Actions: Developments Proposed or Under Construction for 2015

Note: There are no specific developments proposed or under construction for 2030

Note: See Table 2-1 for description of each project

MANHATTANVILLE IN WEST HARLEM REZONING AND ACADEMIC MIXED-USE DEVELOPMENT

Figure S-7

Future Without the Proposed Actions: Developments Proposed or Under Construction for 2015

Note: There are no specific developments proposed or under construction for 2030

Note: See Table 2-1 for description of each project

MANHATTANVILLE IN WEST HARLEM REZONING AND ACADEMIC MIXED-USE DEVELOPMENT
Table 2-1
Development Under Construction or Proposed in the Project and Study Areas Expected to Be Completed in the Future Without the Proposed Actions

<table>
<thead>
<tr>
<th>Map No.</th>
<th>Project Name/Address</th>
<th>Development Proposal/Program</th>
<th>Build Year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Science, math, and engineering secondary school (grades 6-12) and Columbia University office space: east side of Broadway and West 132nd Street</td>
<td>90,000 sf; Approximately 650 students and 35 faculty/administrators, 127,296 sf office space for Columbia University</td>
<td>2015</td>
</tr>
<tr>
<td>2</td>
<td>Columbia University, Studebaker Building615 West 131st Street</td>
<td>Conversion to 220,500 sf administration uses</td>
<td>2008</td>
</tr>
<tr>
<td>3</td>
<td>Columbia University, former Warren Nash Service Station building (3280 Broadway)</td>
<td>Conversion to 207,710 sf office space for Columbia University</td>
<td>2015</td>
</tr>
<tr>
<td>4</td>
<td>West Harlem Waterfront park Hudson River between St. Clair Place and West 133rd Street</td>
<td>Creation of waterfront destination with new piers, open space, gateway plaza, multi-purpose building (40,000 sf), landscaped areas (approx. 2.26 acres), and new pedestrian/bicycle way (9,995 sf); relocation of Fairway parking lot to upland location</td>
<td>2008</td>
</tr>
<tr>
<td>5a</td>
<td>655 West 125th Street rezoning from M1-2 to C6-2 (Block 1996, Lot 56)</td>
<td>Existing storage use and building to be demolished, New residential development, 80 residential units, 19,100 sf of retail, 19,100 sf community facility, and 32 parking spaces*</td>
<td>2009</td>
</tr>
<tr>
<td>5b</td>
<td>614 West 131st Street rezoning from M1-2 to C6-2 (Block 1997, Lot 44)</td>
<td>Existing storage use and building to be demolished, New residential development, 42 residential units, 12,000 sf community facility*</td>
<td>2009</td>
</tr>
<tr>
<td>5c</td>
<td>3261 Broadway rezoning from M1-2 to C6-2 (Block 1998, Lot 29)</td>
<td>Existing storage use and building to be demolished, New residential development, 113 residential units, 16,000 sf retail, 16,000 sf community facility, and 100 parking spaces*</td>
<td>2009</td>
</tr>
<tr>
<td>5d</td>
<td>3300 Broadway rezoning from M1-2 to C6-2 (Block 1987, Lot 1)</td>
<td>Existing commercial uses and building to be demolished, New residential development, 125 residential units, 19,600 sf retail, 19,600 sf community facility, and 100 parking spaces*</td>
<td>2009</td>
</tr>
<tr>
<td>5e</td>
<td>3320 Broadway rezoning from M1-2 to C6-2 (Block 1988, Lot 1)</td>
<td>Landmarked portion, Claremont Theater: rehabilitation and floor area transfer. Remainder of building: demolished. New residential development, 103 residential units, 19,800 sf retail, 19,800 sf community facility; 103 parking spaces*</td>
<td>2009</td>
</tr>
<tr>
<td>6</td>
<td>3229 Broadway Rezoning</td>
<td>Conversion of first floor to retail (4,733 sf), conversion of floors 2-6 for residential and additional new floors 7-10 for residential, for total of 18 residential units</td>
<td>2008</td>
</tr>
<tr>
<td></td>
<td>3247 Broadway Rezoning*</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2348 Twelfth Avenue/Hudson River Café</td>
<td>New 2,787-sf restaurant and outdoor seating area</td>
<td>2007</td>
</tr>
<tr>
<td>9</td>
<td>Columbia University, 560 Riverside Drive</td>
<td>Build a new entrance along West 125th Street</td>
<td>2010</td>
</tr>
<tr>
<td>10</td>
<td>Columbia University, new academic building at southwest corner of Broadway and West 125th Street</td>
<td>250,840-sf academic building</td>
<td>2010</td>
</tr>
<tr>
<td>11</td>
<td>Mink Building Amsterdam Avenue between West 126th and West 128th Streets</td>
<td>Conversion of approximately 120,000 sf to office space</td>
<td>2007</td>
</tr>
<tr>
<td>12</td>
<td>Citarella (former Taystee Factory) West 126th Street between Morningside and Amsterdam Avenues</td>
<td>80,000 sf renovation, to include corporate offices, warehouse/storage area, food preparation/packaging/shipping, and some retail</td>
<td>2007</td>
</tr>
<tr>
<td>13</td>
<td>West 127th Street HPD Cornerstone Development</td>
<td>200 residential units, 40,000 sf commercial</td>
<td>2010</td>
</tr>
<tr>
<td>14</td>
<td>Strivers Gardens Frederick Douglass Boulevard between West 134th and West 135th Streets</td>
<td>170 residential units, 37,000 sf commercial space</td>
<td>2006*</td>
</tr>
</tbody>
</table>
Chapter 2: Procedural and Analytical Framework

Table 2-1 (cont’d)

Development Under Construction or Proposed in the Project and Study Areas
Expected to Be Completed in the Future Without the Proposed Actions

<table>
<thead>
<tr>
<th>Map No.</th>
<th>Project Name/Address</th>
<th>Development Proposal/Program</th>
<th>Build Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Columbia University, academic/research building at southeast corner of Broadway and West 120th Street</td>
<td>170,000-sf academic/research building</td>
<td>2010</td>
</tr>
<tr>
<td>16</td>
<td>City College, new dormitory</td>
<td>180,000-sf (600-bed) student residence with housing for up to five faculty members</td>
<td>2006</td>
</tr>
<tr>
<td>17</td>
<td>City College, School of Architecture</td>
<td>Conversion of 65,550 sf of space into a new School of Architecture, Urban Design and Landscape Architecture</td>
<td>2008</td>
</tr>
<tr>
<td>18</td>
<td>City College, new instructional research building on south campus</td>
<td>New 55,000-sf building for the Science Division</td>
<td>2009</td>
</tr>
<tr>
<td>19</td>
<td>City College, new research building on south campus</td>
<td>190,000-sf new CUNY science facility</td>
<td>2010</td>
</tr>
<tr>
<td>20</td>
<td>701 West 135th Street</td>
<td>Renovation of 2,386 sf of commercial space (currently vacant)</td>
<td>2007</td>
</tr>
<tr>
<td>A</td>
<td>125th Street Corridor Rezoning and Related Actions</td>
<td>260 residential units (52 affordable), 71,632 sf retail, 103,958 sf office, 11,890 sf community facility within ½ mile of Project Area (west of Frederick Douglass Boulevard)</td>
<td>2017</td>
</tr>
</tbody>
</table>

Notes:

1. See Figure 2-1.
2. There are no specific developments proposed or under construction for 2030.
3. Residential reasonable worst-case development scenario as identified by that rezoning applicant in EAS documents dated July 2007.
4. Development will be assumed for the 2015 analysis year for this EIS.
5. The rezoning application for 3247 Broadway was included in the DEIS (Site 7 in Table 2-1 of the DEIS). Columbia University has since purchased the property. Although the EAS and rezoning application for this property has not been revised to reflect this new ownership, Columbia does not intend to move forward with this separate rezoning application.
6. The data collection efforts to establish some of the baseline conditions for the Proposed Actions were conducted in 2006. Several of the projects listed above have subsequently been completed since publication of the DEIS. Those projects have been updated in the existing conditions descriptions of various study areas in the technical chapters of the FEIS. For key quantitative technical analyses including traffic and transportation, noise, and air quality, the projects presented in Table 2-1 are not included in the existing conditions framework, but rather included in the 2015 future conditions analyses.

Sources:

New York City Economic Development Corporation, New York City Department of City Planning, Manhattan CB9, New York City Department of Housing Preservation and Development, New York Construction, March 2004; Columbia University; City College; West Harlem Waterfront EAS, August 2005; Zoning Map Amendment 3261 Broadway EAS, July 2007; Zoning Map Amendment 3300-3320 Broadway EAS, July 2007; Zoning Map Amendment 655 West 125th Street EAS, July 2007; Zoning Map Amendment 614 West 131st Street EAS, July 2007; 3229 Broadway Rezoning EAS, July 2007; 125th Street Corridor Rezoning and Related Actions DEIS, October 2007.

The Future Without the Proposed Actions in 2015

For purposes of the most conservative analysis, the future without the Proposed Actions in the Project Area is anticipated to be a continuation of existing conditions with the exception of several known projects. One project, which follows the recommendations made in the 2002 West Harlem Master Plan within the Project Area, is the West Harlem Waterfront park (No. 4 in Figure 2-1). This New York City Economic Development Corporation (EDC) project, which is currently under way, is projected to be completed in 2008. It is therefore included in the 2015 analysis year. This open space, between St. Clair Place and West 133rd Street, will include walking and biking paths, an excursion pier to allow docking for excursion and ferry boats, a
recreation pier, an ecological platform, a small multi-purpose building, and several passive recreation areas, such as lawns and sitting areas. The open space will also include traffic calming measures and streetscape improvements on Marginal Street. In coordination with the master planning effort, the City proposes to improve several intersections in the Project Area along West 125th Street and on Twelfth Avenue, as well as to the streetscape from Old Broadway to Marginal Street. Columbia University plans to convert and renovate the Studebaker Building on West 131st Street for administrative uses for another University project (No. 2 in Figure 2-1).

Columbia University will also partner with the City of New York on the creation of a new public secondary school that will address education in science, math, and engineering (No. 1 in Figure 2-1). Although the details of the proposed school building have not yet been determined, for planning purposes, the school building is expected to be a total of 90,000 gross square feet (gsf) and accommodate 650 students (grades 6–12) and 35 faculty and administrators. The school will be operated by the New York City Department of Education in close collaboration with Columbia. Although the location of the school is not yet final, it is anticipated that the school would be located in the Project Area on the east side of Broadway between West 131st and West 132nd Streets if the Proposed Actions were not approved and the Academic Mixed-Use Development did not go forward.

In the future without the Proposed Actions, Columbia University would also develop approximately 127,300 sf of administration space above the public secondary school. Just north of this site, Columbia would also occupy the former Warren Nash Service Station building on the east side of Broadway between West 132nd and 133rd Streets for University administration space (No. 3 in Figure 2-1).

There are also two sites west of Twelfth Avenue that are currently being redeveloped and renovated for new uses by others (not Columbia University). At the northwest corner of West 133rd Street and Twelfth Avenue, a new restaurant with an outdoor seating area is under construction (No. 8 in Figure 2-1). Just north of the Project Area on the west side of Twelfth Avenue at West 135th Street, a vacant two-story building is being renovated for commercial use (No. 20 in Figure 2-1).

Several rezoning applications have been submitted by Tuck-It-Away Associates, L.P., for parcels they own in the Project Area (Nos. 5a, 5b, 5c, 5d, and 5e in Figure 2-1). These sites are proposed to be rezoned from the existing M1-2 to C6-2. For each site, a residential reasonable worst-case development scenario has been identified by the applicant, as described in EAS documents dated July 2007, in which the existing storage use and building would be demolished and a new residential building would be developed. All sites except for the 3320 Broadway site, which is located in the Other Area east of Broadway (Site 5 in Figure 2-1), are within proposed Subdistrict A. All of the Tuck-It-Away sites are included on the No Build list in Table 2-1. The development scenario for the Tuck-It-Away properties identified by the applicant is assumed in all technical studies except transportation and related air and noise analyses. The 0.5 percent per year growth rate for background traffic is assumed to cover the development that could be generated on the Tuck-It-Away sites. As noted in the following section, the analysis of the future with the Proposed Actions condition does not assume these development scenarios.

A rezoning application and EAS have been submitted for one other site in the Project Area—3229 Broadway, between West 129th and West 130th Streets—by Mid-Atlantic Moving and Storage, aka Hudson North American. This site is also proposed to be rezoned from the existing M1-2 to C6-2. The EAS for this application was submitted in July 2007. A Positive Declaration was issued by CPC determining that an environmental impact statement will be required. A reasonable worst-case development scenario is identified by the applicant in the EAS, in which the existing building would be converted to residential and retail uses and new residential development would be constructed above. Similar to the Tuck-It-Away rezoning applications,
the analysis of the future with the Proposed Actions condition does not assume additional development under this rezoning.

Outside the Project Area, Columbia expects to develop the property in its control south of West 125th Street in accordance with current zoning regulations. Because this development would occur independently of the proposed rezoning and would not require City or State approvals, this as-of-right development has been analyzed in the future without the Proposed Actions condition and is not part of the Academic Mixed-Use Development. The low-rise portion of 560 Riverside Drive along West 125th Street will be renovated to provide a building entrance in this location (No. 9 in Figure 2-1). Columbia also proposes to develop an approximately 250,840-gsf academic building at the southwest corner of Broadway and West 125th Street (No. 10 in Figure 2-1).

DCP is proposing to rezone a two-block-wide corridor centered on 125th Street, from Broadway to Second Avenue, and issued a DEIS for the 125th Street Corridor Rezoning and Related Actions in October 2007. The DEIS identifies 26 projected development sites in the rezoning area assumed to be developed by 2017 that would result in a net increase of 2,632 residential units, 948,319 sf of commercial office space, and 843,923 sf of commercial retail space. Traffic and pedestrian improvements are also proposed. Although this rezoning area is located outside the Project Area, portions of it would overlap with the study areas for several technical analyses in this EIS. Therefore, this EIS will include those projected development sites that fall within the Proposed Actions’ study areas in the 2015 future conditions without the Proposed Actions. The DEIS for the 125th Street rezoning also includes traffic/pedestrian improvements and transportation-related mitigation. This transportation information is also included in the FEIS for the Proposed Actions.

The City is also planning to make streetscape improvements along 125th Street. Although the design has not been finalized, it is anticipated that the streetscape improvements may include widened sidewalks, bicycle lanes, new street lighting and furniture, plantings, and way-findings.

Primarily in response to the Proposed Actions, the Manhattan Borough President has issued a proposal to preserve West Harlem through adoption of a preservation-oriented West Harlem Special District. The objective of this proposal is to create a long-term plan for the growth of West Harlem in a manner consistent with its special character, based on community input. This

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1 The district described in the Borough President’s proposal would cover the area from just north of the 125th Street Corridor to West 145th Street, from the Hudson River to Convent and Bradhurst/Edgecombe Avenues. The zoning would incorporate Community Board 9’s proposed 197-a Plan for a new Amsterdam Special Mixed-Use District generally between Amsterdam Avenue and Covenant Avenue, north of West 125th Street, and would create a Preservation Subdistrict for the remaining area, divided into four subareas (A through D). The proposal does not include any zoning recommendations for the Proposed Actions’ Project Area, which would be part of the proposed Special District but not the Preservation Subdistrict. In all subareas, standard zoning districts would be replaced by contextual districts (e.g., R8 by R8A; R7-2 by R7B), generally with height limits on new construction. In Subarea A of this proposal—west of Broadway between West 133rd and West 145th Streets—the proposed base residential FAR of 4.77 (under R8A) could be increased to 6.02 with an inclusionary housing bonus for a permanent set-aside of 20 percent of floor area for affordable housing. In Subarea D, the Broadway Corridor between West 133rd and West 145th Streets, a similar increase in FAR could be obtained through a “Small Business Incubator Bonus,” for providing affordably priced retail space to local businesses that serve local needs. Additional provisions throughout the proposed Special District would include anti-harassment protections, demolition restrictions, limitations on community facility FAR and location within the neighborhood, and special off-street parking regulations geared to local residents.
Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS

proposals represent a recommendation for the consideration of a zoning change; no specific application has yet been made. DCP, working with the Borough President’s office, will develop a specific rezoning proposal for the area. Based on community comments, the planning process for this area will extend beyond that originally proposed by the Borough President, reaching Community District 9’s northern boundary at 155th Street. DCP anticipates that a West Harlem rezoning proposal will be developed by the end of June 2008.

The Future Without the Proposed Actions in 2030
By 2030, the future without the Proposed Actions in the Project Area is anticipated to be a continuation of the 2015 future without the Proposed Actions condition. As described above, no specific developments have been identified in the study area for completion by the 2030 analysis year.

BACKGROUND CONDITIONS IN THE FUTURE WITH THE PROPOSED ACTIONS
Generally, baseline conditions in the future with the Proposed Actions include all of the No Build projects as background conditions, except those proposed for sites in the Project Area. In the future with the Proposed Actions, however, the public secondary school for science, math, and engineering included in the future without the Proposed Actions would not be built in the Project Area, but likely located on the south side of West 125th Street west of Broadway, on a site controlled by Columbia University. The Columbia building planned for that site in the future without the Proposed Actions would be modified to include the school in its base. In total, the building would contain 90,000 sf for the public school, 154,240 sf for Columbia academic use, and 6,600 sf for local retail, including the existing McDonald’s restaurant.

DEFINING THE ACTION FOR ENVIRONMENTAL ANALYSIS
In considering the potential environmental impacts of the Proposed Actions, it is necessary to examine development scenarios reflecting development under the new zoning and the GPP. The Proposed Actions would change the development potential of sites within the Project Area in a manner consistent with the Special Manhattanville Mixed-Use Zoning District and the GPP, and a range of new development is likely to occur within the Project Area. For analysis purposes, therefore, likely reasonable development scenarios that could result from the proposed land use control changes were first identified. From this range of reasonable development scenarios, the one with the worst environmental effect was chosen for each technical impact analysis—thus creating a “reasonable worst-case development scenario” tailored to each analysis. In this way, an appropriate reasonable worst-case development scenario has been used to assess the range of effects (e.g., on traffic, air quality, and neighborhood character) that might occur as a result of development with the Proposed Actions.

This EIS assesses the development scenarios that could reasonably be constructed over a period of 25 years for each subdistrict of the proposed Special Manhattanville Mixed-Use Zoning District (as defined in Chapter 1). In addition, Appendix A.2 contains a conceptual analysis of the environmental impacts that could occur if one or more authorizations and Special Permits for transfer of development rights within Subdistrict A were to be approved. As described in Chapter 1, the transfer of floor area by authorization and Special Permit would be new transfer mechanisms created by the proposed Special Manhattanville Mixed-Use Zoning District text. As noted in Chapter 1, a Special Permit would only be required if proposed transfers would cause one or more sites to require changes in maximum height, or bulk waivers, or similar relief that would break the design “envelope” examined for the Proposed Actions in the EIS.

The Proposed Actions would result in the direct displacement of existing residential units in Subdistrict A. Since publication of the DEIS, Columbia University has identified and included as
part of the Proposed Actions three sites in West Harlem for the relocation of a church and residents who would be displaced by the Proposed Actions. A description of the replacement housing is provided in Chapter 4 of the FEIS, and an analysis of the potential environmental impacts that could result from the construction and operation of the off-site new residential buildings is provided in Appendix B.2.

The Proposed Actions would result in the temporary relocation of the operations of the MTA Manhattanville Bus Depot, contingent upon Columbia entering into an agreement with MTA for modifying or reconstructing the Manhattanville Bus Depot on the project site. A temporary relocation site for this facility is not known at this time. Appendix O.1 contains a generic analysis of the potential environmental impacts that could result from the temporary relocation of this facility. When a specific temporary bus relocation plan is set forth at a later time, a further review, which would include public participation, would be undertaken.

The Proposed Actions would also result in the relocation of the MTA 131st Street Shop. A relocation site for this facility is not known at this time. Appendix O.2 contains a generic analysis of the potential environmental impacts that could result from relocating this facility.

ACADEMIC MIXED-USE AREA (SUBDISTRICT A)

For many of the technical areas assessed in this EIS (in Chapters 3 through 20), the Phase 1 and Phase 2 Illustrative Plan for the Academic Mixed-Use Development, as described in Chapter 1, would be the reasonable worst-case development scenario for the Academic Mixed-Use Area (Subdistrict A of the proposed Special Manhattanville Mixed-Use Zoning District).

Because of the possibility that the actual development would differ from the Illustrative Plan, several categories of technical analysis have been analyzed assuming maximum and minimum uses of allowable floor areas where such uses would have impacts greater than those that would be created under the Illustrative Plan. The maximum and minimum values described in Chapter 1 frame the outer limits of the program elements that may be built in the future and reflect Columbia’s commitment to build at least, but no more than, a given floor are for each component land use. This commitment is set forth as a requirement in the GPP. Thus, the ranges, presented in Table 2, acknowledge that the Academic Mixed-Use Development could vary from the Illustrative Plan by minimizing particular uses while maximizing others. Although maximum and minimum ranges may be used, the development in the Academic Mixed-Use Area would not, under any circumstances, exceed 6,760,673 gsf. Accordingly, the reasonable worst-case development scenario for any technical area would not exceed the total development of the Illustrative Plan (6,760,673 gsf). The GPP will fix these minimum and maximum floor areas, thereby ensuring that future development would be consistent with the analyses in the EIS.

The reasonable worst-case development scenario would differ from the Illustrative Plan in the following impact categories of the FEIS:

- *Socioeconomic conditions*—Indirect residential and business displacement assumes maximum academic use, maximum academic research use (to the extent possible assuming maximum general academic use), and minimum housing for graduate students, faculty, and other employees. This combination of uses would generate the greatest potential off-site demand for housing and commercial space.

- *Community facilities*—Assumes maximum housing for graduate students, faculty, and other employees. These uses would generate the largest population that could place demands on the area’s community facilities and services.
• **Open space**—Assumes maximum housing for graduate students, faculty, and other employees, maximizes other uses with high employment rates (e.g., academic research), and minimizes recreation uses. These uses would generate the largest demands for open space.

• **Shadows**—Assumes maximum heights and bulks of buildings. This would generate the largest shadows.

• **Urban design/visual resources**—Assumes maximum building heights, which would generate the greatest urban design changes and potential impacts on visual resources.

• **Infrastructure**—Assumes maximum housing for graduate students, faculty, and other employees, and maximizes other high energy or high water users.

• **Traffic and parking**—Assumes minimum housing for graduate students, faculty, and other employees, and maximum academic use, which is the highest transportation trip generator.

• **Transit and pedestrians**—Assumes minimum housing for graduate students, faculty, and other employees, and maximum academic use, which is the highest trip generator.

• **Air quality**—For stationary source analysis, assumes minimum height of the building exhaust and maximum height for the surrounding buildings. Mobile source analysis assumes the reasonable worst-case traffic and parking scenario.

• **Noise**—Assumes reasonable worst-case traffic and parking scenario.

In the future with the Proposed Actions, the analysis assumes the reasonable worst-case development scenarios developed for the Tuck-It-Away rezoning applications would not occur. Instead, the analysis considers that these sites would be rezoned as the Special Manhattanville Mixed-Use District with the Proposed Actions, acquired by Columbia either through an agreed upon purchase or through eminent domain, and redeveloped in accordance with the proposed Academic Mixed-Use Development.

**SUBDISTRICTS B, C, AND THE OTHER AREAS**

In Subdistricts B, C, and the Other Areas of the proposed Special Manhattanville Mixed-Use Zoning District, new uses and uses with greater densities may develop as a result of the proposed rezoning. Therefore, this EIS will also consider a reasonable worst-case development scenario for the sites within Subdistricts B, C, and the Other Areas (see Table 2-2 and Figure 2-2). Although the actual future development for these areas is unknown, its potential characteristics are considered for analysis purposes. Regardless of what is actually developed for Subdistricts B, C, and the Other Areas, the impacts would be no worse than those considered in the EIS for the reasonable worst-case development scenario.

To determine the reasonable worst-case development scenario for sites located outside the Academic Mixed-Use Area, all lots in Subdistricts B, C, and the Other Areas were evaluated to determine if they would likely be redeveloped over time, based on the proposed zoning land use controls. The criteria for identifying specific development sites include the size of the site, its current utilization and land use, and the opportunity for assemblages. Specifically, the criteria include:

• Individual or assembled lots (by the same owner) of at least 4,000 sf or larger;
• Lots that are vacant or contain vacant or partially vacant buildings;
• Lots containing marginal commercial and/or manufacturing uses, including parking lots and auto repair facilities (which are considered “soft,” or likely to be redeveloped). These uses
Figure 2-2

Subdistricts B, C, and the Other Areas: Reasonable Worst-Case Development Scenarios
are located on sites that do not contain substantial investment in buildings or infrastructure and are thus more likely to be assembled or redeveloped; and

- Lots constructed to half or less than half the permitted floor area ratio (FAR) under proposed zoning.

Lots that are planned for development, such as the West Harlem Waterfront park, as well as lots owned by the New York City Department of Parks and Recreation (DPR) (Block 2005, Lots 8 and 27 along Marginal Street under the viaduct, between West 133rd and West 135th Streets in proposed Subdistrict B), were excluded from the evaluation. Sites that met one or more of the criteria were identified as soft for redevelopment and are called “projected development sites” in the DEIS. Table 2-2 presents the eight projected development sites with their existing and proposed uses, FARs, and reasonable worst-case development scenarios. The subdistricts and their likely development scenarios are described in Chapter 1.

**Subdistrict B**

Proposed Subdistrict B would be along the west side of Twelfth Avenue between St. Clair Place and West 135th Street. Development in Subdistrict B would be limited by a height restriction to remain below the height of the Riverside Drive viaduct, except for the southernmost block between St. Clair Place and West 125th Street, Marginal Street, and Twelfth Avenue, which would have a height limitation of 130 feet. The low clearances of both the Henry Hudson Parkway overpass and the Amtrak viaduct do not allow for any development greater than one story in much of this area. Therefore, due to the height limitations and overpass constraints, the projected development sites could only accommodate two stories of development on the east side of the overpass and one story beneath the overpass. It is likely that development would take the form of ground-floor retail with second-floor office space on the east side of the overpass, and ground-floor retail beneath the Henry Hudson Parkway overpass. In total, Subdistrict B could accommodate approximately 179,004 sf of new commercial development (office and retail) on six projected development sites (see Table 2-2 and Figure 2-2).

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1 As described earlier, CPC is contemplating certain modifications to Subdistrict B that would not result in any projected development sites in Subdistrict B. The proposed modifications are more fully described in Chapter 29, “Modifications to the Proposed Actions.”
### Table 2-2

Subdistrict B and the Other Areas: Projected Development Sites

<table>
<thead>
<tr>
<th>Site Ref</th>
<th>Block: Lot(s)</th>
<th>Lot Area</th>
<th>Existing Use</th>
<th>Existing Zoning District</th>
<th>Built FA</th>
<th>Built FAR</th>
<th>Permitted FA</th>
<th>Permitted FAR</th>
<th>Proposed Zoning District</th>
<th>Permitted FAR</th>
<th>Maximum Floor Area by Use (SF)</th>
<th>Floor Area Total (SF)</th>
<th>Incremental Development (SF)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>2004: 12</td>
<td>12,196</td>
<td>Wholesale, auto repair</td>
<td>M1-2</td>
<td>24,392</td>
<td>2.0</td>
<td>24,392</td>
<td>2.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>12,196 office, 12,196 retail</td>
<td>24,392</td>
<td>0.0</td>
<td>Redeveloped as first floor retail, second floor office</td>
</tr>
<tr>
<td>19</td>
<td>2004: 8</td>
<td>18,750</td>
<td>Warehouse, parking</td>
<td>M1-2</td>
<td>563</td>
<td>0.03</td>
<td>37,500</td>
<td>2.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>18,750 retail</td>
<td>18,750</td>
<td>18,188</td>
<td>Only enough clearance under highway overpass for one-story retail</td>
</tr>
<tr>
<td>20</td>
<td>2004: 46, 50, 65, 68, 71, 72, 171</td>
<td>74,800</td>
<td>Commercial, warehouse, and parking</td>
<td>M2-3</td>
<td>26,180</td>
<td>0.35</td>
<td>149,600</td>
<td>2.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>74,500 retail, 35,000 office</td>
<td>109,500</td>
<td>83,320</td>
<td>35,000 sf of lot east of and 39,800 sf under highway overpass. Ground-floor retail and second floor office east of overpass and one-story retail west of overpass</td>
</tr>
<tr>
<td>21</td>
<td>2005: 14</td>
<td>4,312</td>
<td>Auto repair</td>
<td>M1-1</td>
<td>4,312</td>
<td>1.0</td>
<td>4,312</td>
<td>1.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>4,312 retail, 4,312 office</td>
<td>8,624</td>
<td>4,312</td>
<td>Retail ground floor, office above</td>
</tr>
<tr>
<td>22</td>
<td>2005: 9</td>
<td>17,125</td>
<td>Storage, vacant</td>
<td>M1-1</td>
<td>17,960</td>
<td>1.0</td>
<td>17,125</td>
<td>1.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>11,138 retail, 17,960 storage</td>
<td>29,098</td>
<td>11,138</td>
<td>Existing building remains. 1-story retail on vacant area.</td>
</tr>
<tr>
<td>23</td>
<td>2005: 32</td>
<td>15,670</td>
<td>Warehouse with billboard and vacant areas</td>
<td>M1-1</td>
<td>3,000</td>
<td>0.2</td>
<td>15,670</td>
<td>1.0</td>
<td>C6-1</td>
<td>2.0</td>
<td>3,300 retail, 3,300 office</td>
<td>6,600</td>
<td>3,600</td>
<td>Ground floor retail, office above on 3,300 sf portion east of highway overpass. Low headroom and lack of access to develop under highway overpass. Warehouse stays to keep highway billboard.</td>
</tr>
</tbody>
</table>

Subtotal | 76,407 | 248,599 | 196,964 | 120,558 |

Other Area East of Broadway

<table>
<thead>
<tr>
<th>Site Ref</th>
<th>Block: Lot(s)</th>
<th>Lot Area</th>
<th>Existing Use</th>
<th>Existing Zoning District</th>
<th>Built FA</th>
<th>Built FAR</th>
<th>Permitted FA</th>
<th>Permitted FAR</th>
<th>Proposed Zoning District</th>
<th>Permitted FAR</th>
<th>Maximum Floor Area by Use (SF)</th>
<th>Floor Area Total (SF)</th>
<th>Incremental Development (SF)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>1988: 60</td>
<td>9,492</td>
<td>Health center</td>
<td>M1-2</td>
<td>18,829</td>
<td>2.0</td>
<td>18,984</td>
<td>2.0</td>
<td>R8A</td>
<td>6.5 Com. Fac., 6.02 Res</td>
<td>61,698</td>
<td>42,869</td>
<td>Health center could expand to maximum 6.5 FAR</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>1988: 532</td>
<td>15,987</td>
<td>Office</td>
<td>M1-1; R7-2</td>
<td>43,000</td>
<td>2.7</td>
<td>70,982</td>
<td>1.0 (M1-1)</td>
<td>3.44 (R7-2)</td>
<td>R8A /R7-2 (existing)</td>
<td>60.2 (R8); 3.44 (R7-2)</td>
<td>88,819 res.</td>
<td>88,819</td>
<td>45,819</td>
</tr>
</tbody>
</table>

Subtotal | 61,829 | 89,966 | 150,517 | 88,688 |

TOTAL | 138,236 | 338,565 | 347,481 | 209,246 |

Notes:
- FA = floor area
- There are no projected development sites in Subdistrict C.
- Site reference corresponds to Figure 2-2.
- Based on preliminary estimates of lot area from New York City Department of Finance’s Real Property Assessment Database (RPAD) and calculated ZFA.
- Lot is split in two zoning districts. The western portion of the lot is located in the Project Area in an M1-1 district, and the eastern portion is located in an R7-2 district outside of the Project Area. As a result of the Proposed Actions, the western portion of the lot would be rezoned to R8A, and therefore the entire lot could potentially be redeveloped for residential uses.
- Lot could receive 11,912 sf of additional floor area from adjacent lot (Lot 8), which is part of an existing residential building that would be rezoned to R8A.
- Future without the Proposed Actions condition is anticipated to be a continuation of existing conditions.
Subdistrict C

Proposed Subdistrict C would be located to the east of Twelfth Avenue between West 133rd Street and just north of West 134th Street. Subdistrict C does not contain any lots that meet the criteria described above. All lots are overbuilt (built to a higher than permitted FAR) under the current zoning requirements. They would also be built to more than half the maximum proposed FAR (under the proposed zoning requirements) and therefore would not be considered likely development sites.

Other Areas

As discussed earlier, there are two separate Other Areas in the proposed Special Manhattanville Mixed-Use Zoning District: an area located east of Broadway and another area along the waterfront west of Marginal Street.

Two lots in the area east of Broadway between West 134th and West 135th Streets are considered projected development sites for community facility and residential uses (see Figure 2-2). Projected Development Site 24, which currently contains a community health center, could be expanded with additional floor area. Projected Development Site 25 is located in two zoning districts. The eastern portion of the lot is located in an R7-2 district, and the western portion of the lot, in the Project Area, would be rezoned to R8A. As a result of the proposed rezoning, it is possible that the entire lot would be redeveloped for residential purposes. In addition, Projected Development Site 25 could receive additional floor area from adjacent Lot 8, which is not identified as a Projected Development Site. Lot 8 is currently zoned M1-1 but is part of a larger residential building, with the remainder of the building located in an R7-2 zone to the east. The Proposed Actions would rezone Lot 8 to an R8A district, which allows 6.02 FAR for residential uses. With the proposed R8A district, the lot contains floor area below the maximum 6.02 FAR. Therefore, the additional residential floor area could be transferred to the adjacent Projected Development Site 25.

All the lots of the Other Areas of the proposed Special Manhattanville Mixed-Use Zoning District to be designated west of Marginal Street are planned to be developed as the West Harlem Waterfront park, and are therefore not considered projected development sites.

Reasonable Worst-Case Development Scenario: Project Area Summary

As shown in Table 2-3, the reasonable worst-case development scenario assumes that in 2015, there will be approximately 1.74 million gsf of new development in the Project Area, with nearly 1.41 million gsf attributable to the Academic Mixed-Use Development/Subdistrict A, and approximately 0.33 million gsf attributable to Subdistrict B and the Other Areas. By 2030, the reasonable worst-case development scenario assumes that development in Subdistrict A will increase to approximately 6.8 million gsf, for a total of approximately 7.1 million gsf in the overall Project Area (see Table 2-3). For Subdistrict A, the Illustrative Plan is used to array the breakdown of floor area by land use; as noted above (and in the table footnote), this breakdown would not be the same for all technical areas. However, the total floor area for Subdistrict A remains the same for all impact analyses.
Table 2-3

<table>
<thead>
<tr>
<th>Proposed Manhattanville Mixed-Use Zoning Subdistrict</th>
<th>2015 (Gross Square Feet)</th>
<th>2030 (Gross Square Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subdistrict A – Illustrative Plan</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community Facility Uses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic research</td>
<td>351,310</td>
<td>2,596,957</td>
</tr>
<tr>
<td>Academic</td>
<td>743,190</td>
<td>1,360,768</td>
</tr>
<tr>
<td>Housing for graduate students, faculty, and other employees</td>
<td>53,600</td>
<td>403,960</td>
</tr>
<tr>
<td>Recreation</td>
<td>0</td>
<td>250,713</td>
</tr>
<tr>
<td><strong>Commercial Uses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active ground-floor uses</td>
<td>60,449</td>
<td>162,618</td>
</tr>
<tr>
<td><strong>Support Uses (Below Grade)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic research support</td>
<td>58,563</td>
<td>296,201</td>
</tr>
<tr>
<td>Below-grade program</td>
<td>69,830</td>
<td>69,830</td>
</tr>
<tr>
<td>Central energy plant</td>
<td>50,870</td>
<td>70,199</td>
</tr>
<tr>
<td>Ramps, mechanical, freight, egress, switchgear, and loading</td>
<td>94,638</td>
<td>429,163</td>
</tr>
<tr>
<td>Storage</td>
<td>31,294</td>
<td>189,225</td>
</tr>
<tr>
<td>Parking</td>
<td>0</td>
<td>785,608</td>
</tr>
<tr>
<td>Swimming and diving center</td>
<td>0</td>
<td>145,431</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1,408,634</strong></td>
<td><strong>6,760,673</strong></td>
</tr>
<tr>
<td><strong>Subdistrict B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Uses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>124,196</td>
<td>124,196</td>
</tr>
<tr>
<td>Office</td>
<td>54,808</td>
<td>54,808</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>179,004</strong></td>
<td><strong>179,004</strong></td>
</tr>
<tr>
<td><strong>Subdistrict C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>Other Areas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential (99 units)</td>
<td>88,819</td>
<td>88,819</td>
</tr>
<tr>
<td>Community facility</td>
<td>61,698</td>
<td>61,698</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>150,517</strong></td>
<td><strong>150,517</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,738,155</strong></td>
<td><strong>7,090,194</strong></td>
</tr>
</tbody>
</table>

Notes:
1. The Academic Mixed-Use Development Illustrative Plan would be the reasonable worst-case development scenario for many of the technical areas assessed in the EIS, except for those described in the text above (socioeconomic conditions, community facilities, open space, shadows, urban design, infrastructure, traffic and parking, transit and pedestrians, air quality, and noise).
2. There are no projected development sites in Subdistrict C.
3. As described earlier, CPC is contemplating certain modifications to Subdistrict B that would not result in any projected development sites in Subdistrict B. The proposed modifications are more fully described in Chapter 29, “Project Modifications.”

MITIGATION

Mitigation measures for all significant adverse impacts identified in this FEIS are described in Chapter 23, “Mitigation.” CEQR requires that any significant adverse impacts identified in the EIS be minimized or avoided to the fullest extent practicable, given costs and other factors. In the DEIS, options for mitigation were presented for public review and discussion, without the lead agency having selected those for implementation. Where no practicable mitigation is available, the EIS must disclose the potential for unmitigated significant adverse impacts.
Where such impacts have been identified in this FEIS—on socioeconomic conditions (indirect residential displacement), open space (indirect impacts), historic resources, shadows, traffic, parking, subway stations, bus line haul, noise, and construction traffic and noise—specific mitigation measures to minimize or eliminate the significant adverse impacts have been defined and evaluated. The effect of proposed traffic mitigation measures on air quality is also addressed. This FEIS includes commitments on all practicable mitigation measures to be implemented with the Proposed Actions.

As more fully described in Chapter 23, Columbia has committed to develop a new graduate student residence outside the Project Area as partial mitigation for the significant adverse indirect residential displacement impact. An analysis of the potential environmental impacts that could result from the construction and operation of the new University housing building is provided in Appendix P.2. As described in Chapter 23, Columbia proposes to acquire Block 1996, Lot 1, the location of development Site 5 of the Illustrative Plan, to create new publicly accessible open space to be conveyed to the City, as partial mitigation for the significant adverse indirect open space impact. An analysis of the potential environmental impacts of developing Site 5 as new publicly accessible open space is provided in Chapter 23.

**ALTERNATIVES**

Chapter 24, “Alternatives,” assesses several alternatives to the Proposed Actions. CEQR and SEQRA require that a description and evaluation of the range of reasonable alternatives to the action be included in an EIS at a level of detail sufficient to allow a comparative assessment of the alternatives to a proposed action. Alternatives and the rationale behind their selection are important in the disclosure of environmental effects of a proposed action. Alternatives provide options to the proposed action and a framework for comparison of potential impacts and project objectives. If the environmental assessment and consideration of alternatives identify a feasible alternative that eliminates or minimizes adverse impacts while substantially meeting the project goals and objectives, the lead agency considers whether to adopt that alternative as the proposed action. CEQR/SEQRA requires consideration of a “no action alternative,” which evaluates environmental conditions that are likely to occur in the future without the proposed action. In addition to the no action alternative, the analysis considers three alternatives to reduce or avoid significant impacts; two development scenarios: the CB9 197-a Plan Alternative—analyzed pursuant to a request made by Community Board 9, Manhattan—and the Expanded Infill Alternative; and a design alternative (Cogeneration Energy Supply Alternative). The Alternatives chapter also includes a discussion of alternatives eliminated from consideration because they did not meet the goals and objectives of the Proposed Actions. These included construction of new University facilities on top of the existing above-grade bus depot and an Infill Alternative.